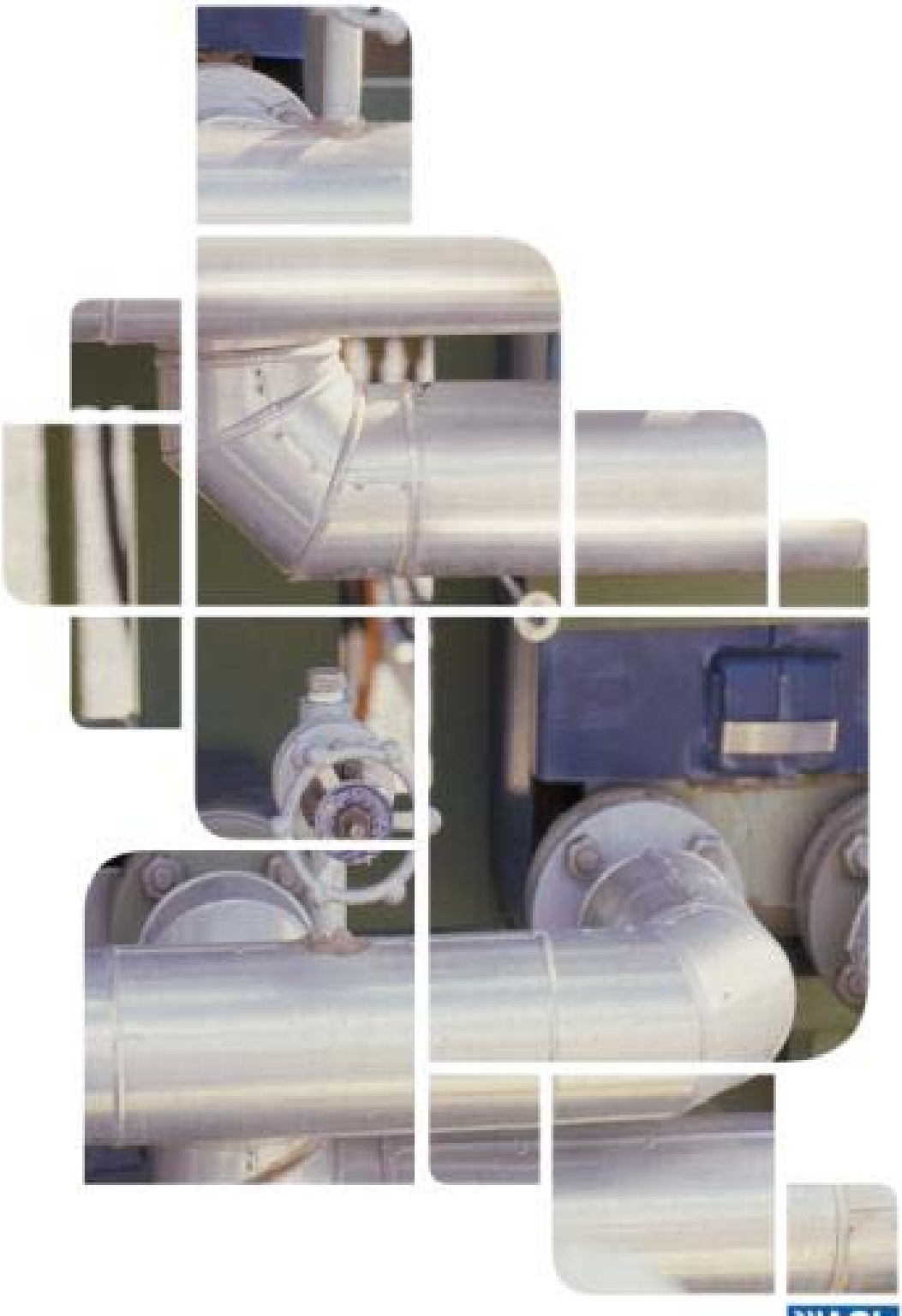

Compliance Tracking Programme

Newcastle Gas Storage Facility

Document Number: NGSF-AGL-NAS-PM-PLN-0016

Compliance Tracking Programme

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Newcastle Gas Storage Facility

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Document Revision History

Date	Version	Author	Review	Comment
23/05/12	A	Brian Adams		Arianna Henty to review.
23/06/12	B	Brian Adams	Arianna Henty Aaron Clifton	Independent Environmental Representative to review.
23/06/12	C	Brian Adams	Megan McLachlan	
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22/08/12	1	Brian Adams	Megan McLachlan	Updated re CoA B26

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Appendices

1. Introduction

1.1. Project Description

AGL Energy Limited (AGL) is developing the Newcastle Gas Storage Facility Project (the Project) in Tomago and Hexham, New South Wales. The Project is required to meet AGL's peak gas market requirements over winter and to provide additional security of gas supply during supply disruption events. New South Wales currently has no reliable gas storage capacity.

Key components of construction of the approved Newcastle Gas Storage Facility include:

- Gas storage plant
- Access road and utility corridor
- Gas pipeline access corridor
- Pipeline corridors
- Hexham receiving station
- Gas pipeline connection to the existing Jemena Gate Station at Hexham

1.2. Purpose and Scope

The key objective of this Compliance Tracking Program (CTP) is to track compliance with the requirements of the Minister's Conditions of Approval (CoA) during the construction and operations phase of the Project.

AGL and the Construction Contractors are all responsible for compliance with the requirements of the CoA, however AGL will be responsible for maintaining the CTP for the Project and for the preparation of the periodic compliance tracking reports. The Construction Contractors will provide input to AGL, as required, to enable AGL to complete these reports.

1.3. Relevant Documentation

Documentation relevant to the CTP includes:

- Newcastle Gas Storage Facility Project: Environmental Assessment (Volumes 1 to 5), Coffey Natural Systems Pty Ltd, May 2011
- Minister's Conditions of Approval: Application No MP10_0133 dated 10 May 2012
- AGL's Construction Environmental Management Plan – Minimum Requirements (CEMP – Minimum Requirements)
- Construction Contractor's CEMP

› Annual Reports of Stormwater Systems Performance supplied to Hunter Water Corporation (HWC)

The CTP is separate to the CEMPs, but is part of the environmental management suite of documents prepared for the Project.

2. Program Requirements

The NSW Government Department of Planning and Infrastructure has approved the application for the project subject to certain conditions. Condition of Approval (CoA) B54 is as follows.

Condition of Approval B54

Prior to the commencement construction, the Proponent shall develop and implement a ***Compliance Tracking Programme****, to track compliance with the requirements of this approval during the construction and operation of the project and shall include, but not necessarily be limited to:*

a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project and within two years of operation commencement;

b) a programme for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;

c) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;

d) mechanisms for recording environmental incidents and actions taken in response to those incidents;

e) provisions for reporting environmental incidents to the Director-General during construction and operation; and

f) provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.

In addition to the above, Condition of Approval B26 requires peer review reports of the stormwater systems to be incorporated into the Compliance Tracking Programme and shall include, but not necessarily be limited to: annual reports of Stormwater Systems Performance supplied to HWC. The remainder of Condition of Approval (CoA) B26 is as follows.

Condition of Approval B26

Prior to the commencement of construction, the Proponent shall engage an independent and suitably qualified expert to the satisfaction of HWC, to

undertake peer reviews of the design, construction and on-going maintenance of the stormwater management system. The reviews shall:

(a) provide HWC with a peer review of the detailed design of the stormwater management system;

(b) investigate the constructability, effectiveness and durability of the stormwater management system;

(c) be undertaken to ensure that the system is constructed as designed to the schedule agreed between the Proponent and HWC; and

(d) provide HWC with inspection reports on the adequacy of the stormwater management system in accordance with the inspections identified in the schedule referred to in (c).

This Compliance Tracking Programme document addresses the above requirements, which are mostly covered by Appendix A: Construction Environmental Management Plan – Minimum Requirements.

Whilst the Construction Environmental Management Plan – Minimum Requirements (CEMP – Minimum Requirements) is Construction phase oriented, similar provisions would apply to the Operation phase.

The CEMP – Minimum Requirements refers to the Contractor and Principal. There are currently anticipated to be 3 different prime contractors on the project for the construction works as follows.

1. Gas Storage Plant
2. High Pressure Gas Pipeline Connection
3. HV Electricity Connection

For the purpose of this document, AGL is considered the Principal during the construction phase, and the Operator during the Operation phase.

2.1. Compliance Status Periodic Review

Compliance status of the project will be reported to the Director-General in accordance with Project Approval condition B54(a) at the following stages:

- Prior to the start of construction
- Every six months during the construction phase of the Project
- Prior to commencement of operation
- Within 2 years of operation commencement

AGL shall provide the compliance status to the Director-General in the form of a compliance tracking report. AGL shall retain responsibility for preparing this report for the duration of the Project. The Construction Contractors will provide input to enable AGL to complete the compliance tracking reports as required.

AGL will ensure that compliance tracking reports include the following information:

- Scope of the activities undertaken during the reporting period;
- Performance of environmental controls that have been implemented;
- Evaluation of compliance against the CoA and Statement of Commitments (SoCs) in tabular format. These tables establish a format for recording compliance and include:
  - Description of the environmental obligation
  - Timing (project stage)
  - Responsibility
  - Compliance status (with reference to evidence as appropriate)
  - Evidence of compliance
- Non-compliances during the reporting period
- Outcomes of monitoring undertaken over the reporting period and review of compliance against relevant criteria
- Significant outcomes of audits and inspections undertaken during the reporting period
- Substantiated environmental complaints received; AGL's response and current status

2.2. Independent Environmental Auditing

In accordance with Project Approval condition B54(b), a programme of independent environmental auditing will be carried-out in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing.

This audit will be undertaken by the Environmental Representative at 3 monthly intervals. The audit will be focussed on compliance with CoA and SoC's.

Further details on environmental auditing are described in Section 7.1 of Appendix A.

2.3. Corrective Action Procedure for Non-Compliance

In accordance with Project Approval condition B54(c), Section 6.5 and 7.2 of Appendix A describes the procedures for rectifying any non-compliance identified during environmental auditing or ,review of compliance, or associated with an environmental incident.

The Principal may give the Contractor Corrective Action Requests (CARs) and Non-Conformance Reports (NCRs) in relation to the Contractor's non-compliances with environmental requirements set out in this agreement or imposed by Legislative Requirements, including any identified during audits or inspections.

The Principal may discuss CARs and NCRs directly with the Contractor before or after issuing them, including during monthly Works Progress Meetings.

The Contractor must promptly and properly address all CARs and NCRs raised by the Principal.

The Contractor must capture all actions from inspections, audits or hazard reports in a Corrective Action Register. Open corrective actions are to be reviewed during the monthly Works Progress Meetings to ensure that they are promptly and properly closed.

The Contractor must implement corrective and preventive actions as necessary to address any environmental incident. The Contractor must review corrective actions and monitor their effectiveness.

The conditions of the Project Approval are expected to require AGL to meet the reasonable requirements of the Director-General to address the cause or impact of any incident, as it relates to the conditions, within such reasonable period as the Director-General may require. The Contractor must provide such information and assistance to the Principal as is required by the Principal to comply with this requirement, including within the time required to comply.

The Contractor must maintain a log of corrective and preventative actions for all incidents. The Contractor must provide incident logs to the Principal at the weekly EPC progress meetings and monitored to ensure their effectiveness and timely close out.

Incident logs are to contain the following minimum information:

- Date of incident;
- Description of environmental impact;
- Incident classification;
- Actual and maximum reasonable consequence classes;
- Brief description of incident cause;
- Brief description of injury, damage or loss;
- Description of proposed and implemented corrective and preventative actions;
- Names of team members responsible for implementation; and
- Dates of planned and actual close out of corrective action.

The Principal may track the implementation and effectiveness of corrective actions.

2.4. Recording of Environmental Incidents and Actions

In accordance with Project Approval condition B54(d), Section 6 of Appendix A describes the mechanisms for recording environmental incidents and actions taken in response to those incidents.

The Contractor must develop and implement a system of incident reporting, recording and investigation of all incidents and potential incidents that occur on the Site. At a minimum, this system must comply with the requirements of:

- the Protection of the Environment Operations Act 1997 (NSW) (**POEO Act**) as amended from time to time;
- the environmental protection licence (if the incident occurs within the licensed premises);
- the conditions of the Project Approval; and
- this agreement, including this document.

The Contractor must strictly apply the incident reporting system. The Contractor must not interpret, implement or adapt the system to give the appearance of better performance against the targets than is actually the case.

Assessment for Material Harm

Any environmental incident must be immediately assessed by the Contractor's HSE Manager and Project Manager to determine whether it poses material harm to the environment (defined in the POEO Act as *'actual or potential harm to health or safety of humans or ecosystems that is not trivial or actual or potential loss or property damage greater than $10,000'*).

The Principal may also independently assess all environmental incidents reported to it by the Contractor for whether the POEO Act materiality threshold is breached.

If an incident poses material environmental harm then the Contractor must notify Government Agencies in accordance with the requirements of the POEO Act and notify the Principal.

Additionally, the Project Approval and the Environmental Protection Licence applying to the Works contain separate duties to report incidents. The Contractor must report incidents arising out of or relating to the Works as required by the Project Approval and Environmental Protection Licence.

Notification to AGL

The Contractor must notify the Principal of any incident that:

- is required by Legislative Requirements to be notified to any Governmental Agency; or
- causes or threatens any actual or potential injury, property or environmental damage.

All such incidents are to be verbally and formally reported by the Contractor to the Principal's Representative within the timeframes designated in Annexure A of Appendix A.

In addition, the EPC Contract provides (clause 7.14(f) to (i)):

'(f) The Contractor must immediately (and in any event, within 24 hours) notify the Principal of any act, event or circumstance which occurs in connection with the performance of the Works that:

(1) is required by the Workplace Health and Safety Requirements to be notified to a Government Agency;

(2) results in injury to a person (including the administration of any first aid), or damage to property or the Environment, of a serious nature; or

(3) had the potential to result in injury to a person, or damage to property or the Environment, of a serious nature (commonly referred to as a 'near miss').

(g) The Contractor must, within 48 hours after giving notice under clause 7.14(f) (or such longer period of time as is agreed by the parties in writing), give the Principal a written report setting out complete details of the act, event or circumstance, including the results of investigations into its cause and any recommendations or strategies to prevent a recurrence.

(h) The Contractor must, do all things necessary to assist, and refrain from doing anything that impedes, the Principal or the Principal Related Entities discharging their obligations under the Workplace Health and Safety Requirements in relation to the Facility, the Site or the Works.

(i) The Contractor must operate an appropriate work permit system for the Site.'

Classification for HSE Reporting Purposes

Incident classifications are to be initially determined by the Contractor's Project Manager and HSE Manager, using its own environmental incident classification system, after consideration of information obtained through an initial incident report.

Investigation

The Contractor must co-ordinate the recording of all factual details of the incident as soon as possible after the event. The Contractor must prepare a written incident report and submit it to the Principal's Representative within the timeframes specified in Annexure A of Appendix A based on the actual or potential consequence, whichever is the higher.

For the purposes of this document the following descriptors will be defined as set out below:

- Minor – incident potential or actual impact rated as Low using AGL FIRM methodology;
- Moderate – incident potential or actual impact rated as moderate using AGL FIRM methodology; and
- Significant – incident potential or actual impact rated as either High, Very High or Extreme using AGL FIRM methodology.

The Contractor must investigate all incidents and take appropriate corrective and preventative actions as follows:

Minor Incidents

Investigation of a minor incident is to:

- be conducted by the Supervisor for the activity or area in which the incident occurred;
- involve other team members to ensure that all causal factors have been identified;
- identify essential and contributory causes;
- ensure that controllable causes are corrected to prevent any recurrence; and
- communicate lessons learnt from the incident.

Moderate Incidents

Investigation of a moderate incident is to:

- be conducted by a team member trained in the Mini ICAM (Incident Cause Analysis Method);
- involve the Supervisor for the activity or area in which the incident occurred;
- identify essential and contributory causes using a sequence of events chart and a '5 why' analysis; and
- ensure all causes have an action plan to prevent any recurrence.

Significant Incidents – High, Very High & Extreme

All significant incidents are to be comprehensively investigated in accordance with the Incident Cause Analysis Method (ICAM). A team member trained in ICAM is to lead all significant incident investigations.

The investigation is to:

- be conducted by a team member trained in the ICAM;
- involve the Contractor's Project Manager and the Principal's Representative and AGL HSE Manager as well as the Supervisor and team working on the activity or area in which the incident occurred;
- identify root cause and contributory causes using a sequence of events chart and a '5 why' analysis; and
- ensure all causes have an action plan to prevent any recurrence.

Copies of Mini ICAM and ICAM reports will be forwarded to the Principal's Representative and AGL H&S and/or Environment Manager (as appropriate) on completion of the investigation.

2.5. Reporting of Environmental Incidents to Director General

In accordance with Project Approval condition B54(e), AGL will report all environmental incidents which constitutes a breach of the CoA or a breach of legislation to the Director General-. Verbal advice will be provided as soon as practicable after AGL becomes aware of the incident and written advice will be provided within seven (7) working days. Details of the incident will be included on the Environmental Incident Report Form. This form will also be provided to any other relevant agencies.

Incidents of a minor nature not requiring immediate notification to the Director-General will be summarised and reported through the periodic six monthly compliance reporting process (Section 2.1).

The ER will also be notified immediately of all incidents requiring reporting to any agencies or the Director-General and will be made of aware of minor incidents through regular site and compliance inspections.

2.6. Dissemination of Compliance Requirements

In accordance with Project Approval condition B55(f), the provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities are covered by a Project Requirements Register Doc No. NGSF-WPPM-NAS-PM-REG-0004 specifically developed for the project. A sample page is included in Appendix B.

This is a regularly reviewed/updated spreadsheet containing, by way of example, the following fields.

Table 1: Example of spreadsheet fields in Project Requirements Register

Item No.	70
Stakeholder	DP&I
Source	Part 3A Conditions of Consent
Short description	Compliance Tracking Programme
Ref No.	B54
Requirement	Prior to commencement of construction…
Action	HT
Responsible for meeting condition	AGL - establish processes/procedures to ensure compliance CBI - to provide information as required implement corrective actions as required
Stages	Prior to commencement of construction
Status	Open
Compliance notes	This Register
Modification in PPR	---

Notes	---
Staging matrix	Stage 1 – Site preparation

2.7. Stormwater Management

In accordance with Project Approval condition B26, AGL has engaged SMEC as the independent peer reviewer. Confirmation was received from Axel Hanson of HWC on 2 May 2012 approving SMEC.

SMEC shall provide Stormwater Systems Performance Review Reports which include the design, construction and on-going maintenance of the stormwater management system. These reviews shall:

(a) provide HWC with a peer review of the detailed design of the stormwater management system;

(b) investigate the constructability, effectiveness and durability of the stormwater management system;

(c) be undertaken to ensure that the system is constructed as designed; and

(d) provide HWC with annual inspection reports on the adequacy of the stormwater management system in accordance with the inspections identified in the schedule agreed between the AGL and HWC.

The review reports shall be provided to HWC within one month of receipt from SMEC.

The current status of the peer review is that meetings and discussions have been held with SMEC to agree the design and constructability of the storm water management system such that they fulfil the requirements of HWC.

Appendix A: Construction Environmental Management Plan – Minimum Requirements

Newcastle Gas Storage Facility

CBI Constructors Pty. Ltd. **AGL Energy Limited**

Document Title: **Construction Environmental Management Plan**

Document No: **170596-EN-PL-00001**

Revision: **0**

Issue Date: **24 August 2012**

CBI Contract No: **170596**

AGL Document No. **NGSF-CBI-ISBL-EN-PLN-0001**

Revision Descriptions	Rev	Date	Originator	Checker	Approver	Comment
Issue for Construction	0	24/08/2012	CR	JR	PG	

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Document Title:	Document No:	Rev:
Construction Environmental Management Plan	170596-EN-PL-00001	0

Distribution of Copies

All requests for changes to the Distribution List will be addressed to the CBI Project Manager. Only registered copies will be updated.

The following table presents the distribution schedule for the CEMP.

Copy No.	Section(s) Issued	Rev	Issued to	Date
Master 01	All	0	CBI Project Document Control	24/08/2012
02	All	0	CBI Project Manager	24/08/2012
03	All	0	CBI Environmental Manager	24/08/2012
04	All	0	CBI Construction Manager	24/08/2012
05	All	0	CBI General Superintendent	24/08/2012
06	All	0	CBI Project HS Advisor(s)	24/08/2012
07	All	0	CBI Corporate HSE Manager	24/08/2012
08	All	0	CBI Corporate Environmental Manager	24/08/2012
09	All	0	CBI Corporate Document Control	24/08/2012
10	All	0	AGL Project Management Team	24/08/2012
11	All	0	Department of Planning and Infrastructure	24/08/2012
12	CEMP	0	AGL Website	24/08/2012

Glossary

AGL	AGL Energy Limited
APZ	Asset Protection Zone
AQMP	Air Quality Management Sub Plan
ASSMP	Acid Sulphate Soil Management Sub Plan
BMP	Bush Fire Management Plan
CBI	Principal Contractor
CEMP	Construction Environmental Management Plan
CHMP	Aboriginal and European Cultural Heritage Management Sub Plan
CEP	Community Engagement Plan
CoA	Approved Application No 11/08788, Ministers Conditions of Approval 10 May 2012
DGHMMP	Dangerous Goods and Hazardous Materials Management Sub Plan
EM	Environmental Manager
EMP	Environment Management Plan
EP&A Act	Environmental Planning & Assessment Act 1979
EPA	Environment Protection Authority
EPBC Act	Environmental Protection & Biodiversity Conservation Act 1999
EPC	Engineer Procure and Construct
EPL	Environment Protection Licence
ER	Environmental Representative
ERG	Environmental Review Group (consists of EM, EV, and relevant workers)
EV	Environmental Advisor
EWMS	Environmental Work Method Statement
FERP	Flood Emergency Response Sub Plan
FFMP	Flora and Fauna Management Sub Plan
GDE	Groundwater Dependant Ecosystem
GMP	Groundwater Monitoring Program
GWMP	Groundwater Management Sub Plan
HWC	Hunter Water Corporation
NGSF	Newcastle Gas Storage Facility
NOW	NSW Office of Water
NVMP	Noise and Vibration Management Sub Plan
OEH	NSW Office of Environmental and Heritage
PMT	AGL Project Management Team (Project Steering Team, PMSP & OE)
PPA	Primary Project Area
Project	Construction of the gas storage facility, main access road and pipeline access corridor. Also referred to as the Primary Project Area and gas plant site in the EA
Proponent	AGL Energy Limited and its successors and assigns
PSC	Port Stephens Council
SMP	Soil Management Sub Plan
SoC	Revised Statement of Commitments as referenced in the Preferred Project and Response to Submissions Report, Newcastle Gas Storage Facility Project - Major Project Application Number 10-0133, Sept 2011, (Revised Statement of Commitments)
SWMP	Surface Water Management Sub Plan
TEC	Threatened Ecological Community
TMP	Traffic Management Sub Plan
TSC Act	Threatened Species Conservation Act 1995
VRWMP	Vegetation Rehabilitation and Weed Management Sub Plan
WMP	Waste Management Sub Plan

1.0 PROJECT DESCRIPTION

AGL Energy Limited (AGL) is developing the Newcastle Gas Storage Facility in Tomago New South Wales to meet AGL's peak gas market requirements over winter and to provide additional security of gas supply during supply disruption events. New South Wales currently has no reliable gas storage capacity.

Construction of the Newcastle Gas Storage Facility by CBI includes the gas storage facility site, access road and utility corridor and gas pipeline access corridor (the Project). Additional works by others include construction upgrade and gas pipeline connection to the existing Jemena Gate Station at Hexham and lying of the pipeline to connect to the gas storage facility.

1.1 Project Delivery

AGL has engaged CBI Constructors Pty Ltd in an engineering, procurement and construction (EPC) contract for the construction of the gas storage facility. The design and construction of pipeline, power distribution substation and Hexham receiving station upgrade infrastructure are excluded from the CBI scope of work.

2.0 INTRODUCTION

2.1 Purpose and Scope of the CEMP

CBI has developed this Construction Environmental Management Plan (CEMP) to describe the Environmental Management System (EMS) for CBI's portion of the works for the Newcastle Gas Storage Facility (CBI's portion of the works is referred to in the CEMP and associated documentation as 'The Project').

The CEMP is required by the Minister's Condition of Approval (CoA) B56 (refer to Section 3.3 for details) and will provide the systems and processes to ensure that CBI establishes and maintains appropriate controls to manage environmental impacts during construction.

The CEMP describes how CBI proposes to identify and manage the environmental aspects and potential impacts of the Project during construction in accordance with applicable legislative requirements as well as those of the Minister for Planning and AGL as described further in Section 03. The CEMP will be applicable to all CBI activities during the construction of the Project.

2.2 Project Setting

The Project is located in the Hunter Region of New South Wales approximately 13 kilometres northwest of the city of Newcastle, 8km south of Raymond Terrace, 4km east of the Hexham industrial area (Figure 2-1 and Figure 2-2) and is within the southern part of Port Stephens Council local government area (LGA). In the southern part of the LGA are the rural communities of Bobs Farm, Fern Bay, Fullerton Cove, Salt Ash, Tomago and Williamtown. Tomago supports both rural and industrial communities while Williamtown is the location for a Royal Australian Air Force base that shares its airfield with Newcastle Airport.

Local industries comprise largely manufacturing companies. The biggest industrial facility is the Tomago Aluminium Smelter (owned by Tomago Aluminium Company (TAC), located within the same land plot and 500 m south of the Project.

The majority of land in the immediate vicinity of the Project is privately owned and not accessible to the public. However, the Hunter Region Botanic Gardens is the only publically accessible site and is located approximately 460m northwest of the gas storage facility site at its closest point.

The conceptual layout of the gas storage facility at completion is shown in Figure 2-3.

Figure 2-1: Regional Setting

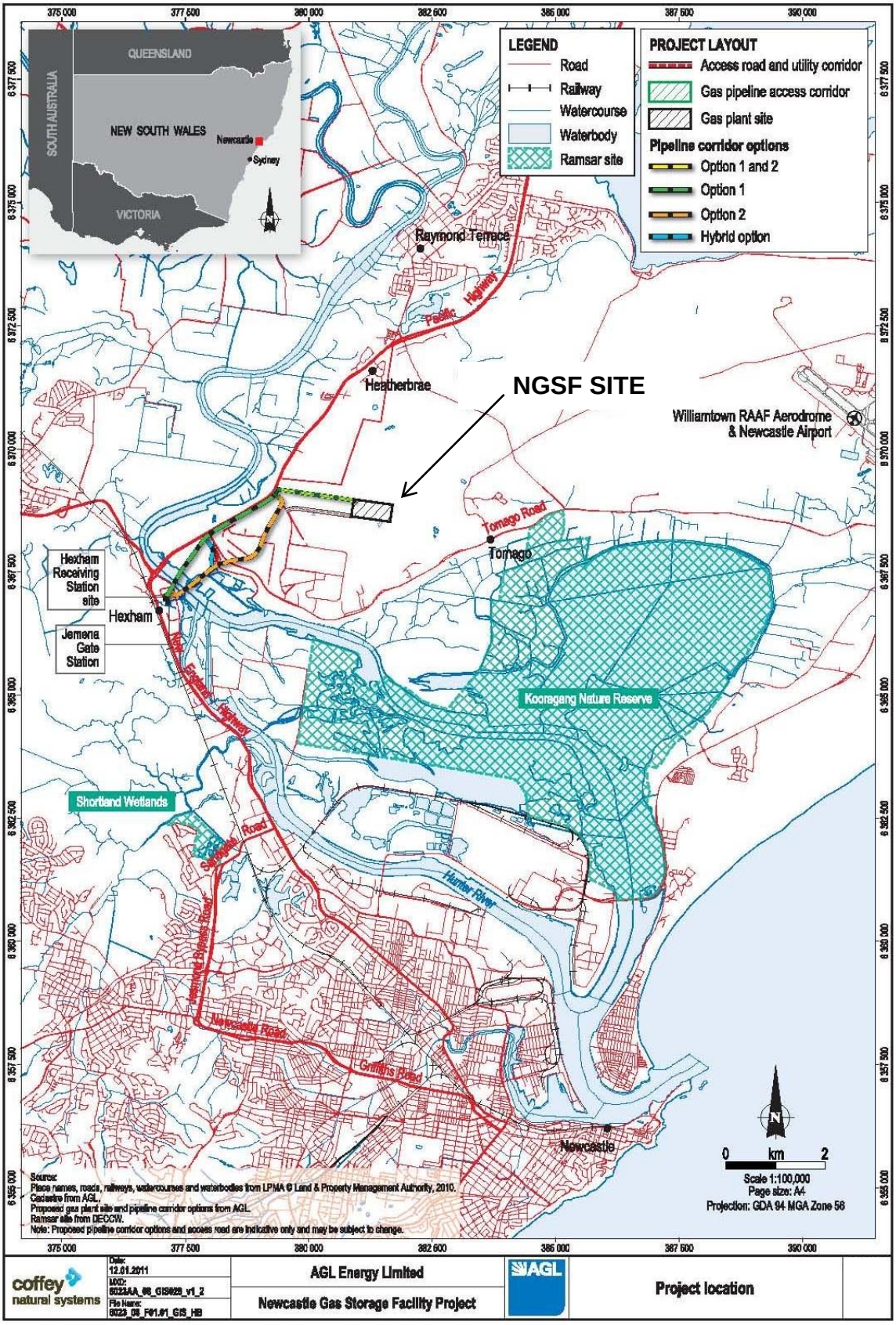


Figure 2-2: Development Area

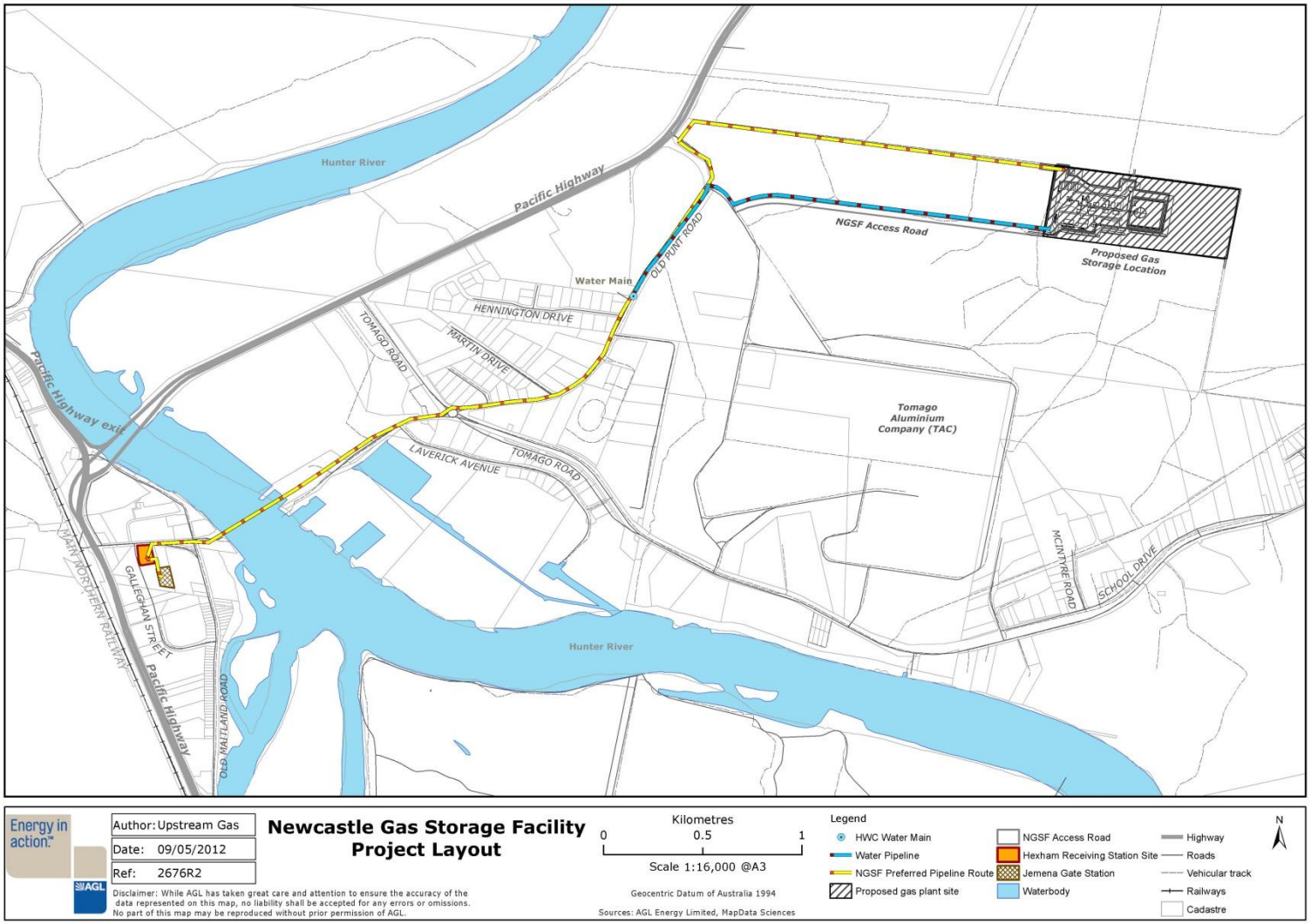
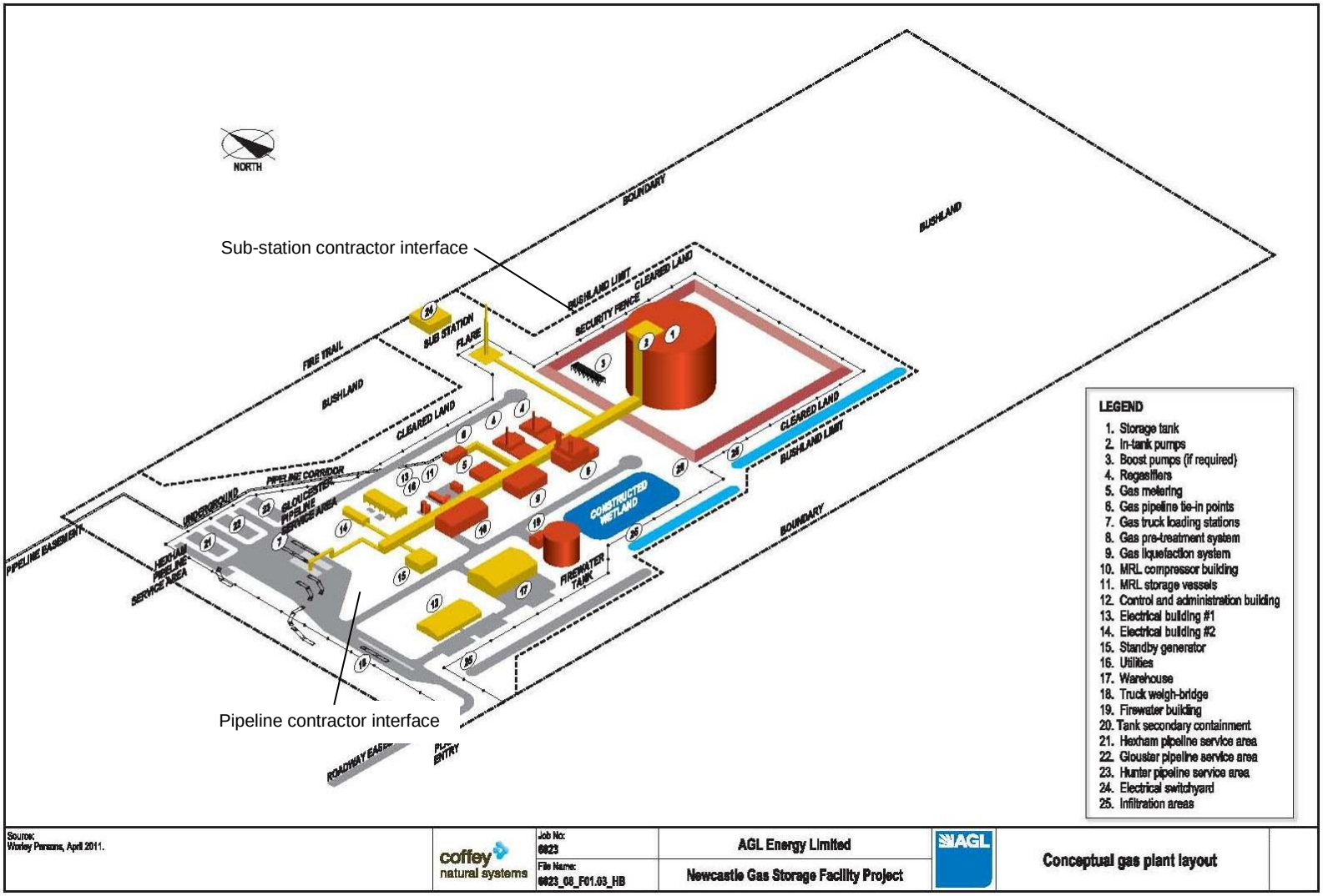


Figure 2-3: Conceptual Layout of gas storage facility at completion



2.3 Project Background

The Project is a transitional Part 3A project under schedule 6A of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act). Accordingly, Part 3A of the EP&A Act continues to apply to the Project despite its repeal.

The Project was confirmed as being a Part 3A project by the Department of Planning (now known as the Department of Planning and Infrastructure (DoP) on 9 August 2010.

An application for Part 3A project approval and a Preliminary Environmental Assessment (PEA) was submitted to DoP. DoP subsequently issued the Director-General's environmental assessment requirements (EARs) for the Project on 13 October, 2010.

On 28 October 2010, the then Minister for Planning declared the Project to be a 'critical infrastructure' project under Part 3A as being essential for the State for economic, environmental or social reasons.

2.4 Environmental Assessment

AGL completed an EA of the proposed Newcastle Gas Storage Facility in May 2011. The EA addressed the Director-General's requirements of the key environmental issues to be assessed. These included flora and fauna, surface water and groundwater impacts, indigenous and non-indigenous heritage, noise impacts, air quality, greenhouse gasses, hazards and risks impacts, visual amenity impacts, and traffic impacts.

In addition to the key issues, other environmental issues were also assessed to ensure that the EA adequately addressed all potential environmental impacts related to the construction of gas storage facility.

The EA was publicly exhibited in April 2011 for a period of 30 days. Following public exhibition, submissions from stakeholders were received and addressed by AGL in the Response to Submissions and Preferred Project Report which was lodged with DoP in September 2011.

2.5 Project Approval

After consideration of the EA and Submissions Report, the Planning and Assessment Commission granted project approval (11/08788) to the Project on 10 May 2012 subject to the conditions recommended in the DG's Report.

2.6 Interface with the Pipeline Construction Contract

As discussed in Section 1.1, construction of the pipeline will be through a separate contract with a Pipeline Construction Contractor. Following construction of the gas storage facility and access corridors CBI will hand over portions of the site which are required for the connection of the pipeline and mains power to the gas storage facility.

2.6.1 Pipeline Connection

A Pipeline Construction Contractor will be given possession of the gas pipeline access corridor and will be responsible for that portion of the site, and will be required to develop a separate CEMP consistent with this CEMP and the provisions of the Project Approval. The interface point will be 1 meter on the other side of the security fence on the western side as shown in Figure 2-3, where the pipeline will be connected to pipes installed by CBI.

2.6.2 Mains Power Connection

A power distribution sub-station will be required to be installed by others on the northern side of the site. Access though the CBI site may be required for installation of this facility. However, the sub-station will be located outside the boundaries of the CBI construction site as shown in Figure 2-3.

2.7 Project Schedule

The Project is expected to take approximately three years to construct, with the targeted commissioning date scheduled for Second Quarter 2015. Since determination in August 2010, a number of preconstruction activities have been undertaken including, but not limited to, property acquisition,

subdivision of land, survey, and flora and fauna investigations. An indicative project schedule is presented in Table 2-1 below.

Table 2-1: Project Schedule

Stage	Timeframe
Stage 1 - Site Preparation	July 2012 to January 2012
Stage 2 – Storage Tank Preparation	November 2012 to June 2013
Stage 3 – Connection of Utilities	November 2012 to December 2012
Stage 4 – Plant Construction	June 2013 to April 2015
Stage 5 – Pipeline Construction	July 2013 to September 2014
Stage 6 – HV Electrical Construction	May 2013 to July 2014
Stage 7 – LP Pipeline Construction	November 2013 to September 2014
Stage 8 – Wetlands	May 2015 to July 2015
Stage 9 – Commissioning	April 2015 to July 2015
Stage 10 – Clean-up and Revegetation	February 2015 to May 2015

Stage 1 – Site Preparation

Planned timeframe: July 2012 to January 2013

This first stage is to prepare the site and access ways so that construction works can commence within the Site.

The site preparation and civil works include:

- Clearing and removing vegetation from the gas access track.
- Constructing the gas access track.
- Clearing and removing vegetation from the main site area and main access road
- Levelling, grading, compaction and preparing the site ready for starting construction of the facilities.
- Constructing the main access road.
- Additional geotechnical and seismic tests will be undertaken to confirm ground conditions for the design of major equipment foundations.
- Constructing surface water management infrastructure including:
    - Grading and sloping of construction areas to the south-west of the site.
    - Prepare the holding pond will be the primary separation area for surface run off.
    - Ponds will cater for sediment control as well as disposal of surface water.

At the start of construction, the secondary access road may be the first prepared in order to allow access to the site for generating the fill for the primary access road.

There is no available sewer in the Tomago area, therefore sewage, waste (contaminated) water, and trade waste will be trucked off-site during the construction phase of the project.

Stage 2 – Storage Tank Preparation

Planned timeframe: November 2012 to June 2013

The construction of the LNG storage tank is the time critical item for this project. Hence as early as possible in the Site Preparation works, the area for the tank will be readied for work to commence.

The ground under the tank location will need to be compacted to obtain the required stability to achieve sustainability of the tank under a severe earthquake event. When compaction is completed then the building of the concrete foundations for the tank would begin.

A large concrete foundation will be built to support the storage tank.

The perimeter fence is to be installed as early as possible to provide site security during construction.

During this stage, the Main Access Road will be completed and handed over to AGL. The main road will be required for heavy vehicle traffic.

Stage 3 – Connection of Utilities

Planned timeframe: November 2012 to December 2012

During construction of the Main Access Road, utilities will be laid along the northern side of the road. These will include:

- Potable water main
- Conduits for control cables from plant to the gate
- Conduit for telecommunications
- Sewer pipe for discharge of stormwater

The supply of utilities will be completed by works in public areas and with terminations at the entrance to the site.

Connecting to the HWC water main at Old Punt Road to provide potable water to the plant site for process water and amenities.

- The existing water main can be extended to the top of Old Punt Road (750 m) and then to the north side of the TAC Northern Access Road and then along the northern side of the main access road.
- The water pipe will be DN150 and will include dead end tees at changes of direction (to cater for future expansion).
- A take-off is provided at the site boundary for supply to the plant. Metering is provided at the boundary.
- HWC approved contractors will be appointed to construct the water main.

Connecting to the Telstra system at Pacific Highway and running along the northern side of Old Punt Road near the junction with the TAC Northern Access Road and providing telecommunications links to the main site.

- High speed internet and telephone connection is required on site. The service will be brought through a conduit laid from Pacific Highway along the TAC road and along the northern side of the main access road. The conduit will terminate inside the AGL boundary.
- The conduit will be installed with the building of the main road and then communications cable can be pulled through the conduit. Pulling pits will be provided at 100 m intervals or at changes of direction.

Sewer pipe for the stormwater drain (225 mm) running along the northern side of the main access road, cross and run along Old Punt Road (300 m) to terminate at an existing culvert that discharges towards the Pacific Highway.

Power supply will be provided for street lighting at the new intersection of the main access road and the TAC Northern Access Road and also to supply power to the permanent gate to the east of the AusGrid easement along the Main Access Road

- Connecting to the AusGrid 11kV lines at Old Punt Road

- The power will be run overhead on poles to the TAC Northern Access Road, underground below the road, brought above ground to a pole within the access road easement and then down to a 11 kV/440V transformer.
- A 440 V distribution board will provide power to electric street lighting at the road entrance and power for the security gate facilities. [Note: as the lighting is on the TAC private road, the power to the lighting is from private supply.]
- AusGrid approved contractors will be appointed to construct the electrical connection.

Stage 4 – Plant Construction

Planned timeframe: June 2013 to April 2015

A works camp will be established within the site for the management and control of personnel on the site and for personnel comfort.

Temporary construction facilities will consist of any buildings, fencing, roads, parking, communication, power and water that may be required for construction effort.

The car park, general laydown and tank laydown areas, providing a total of 25,000 m2 of laydown area are adequate for CBI's onsite needs.

Site drainage and underground fire water piping will also commence at this time.

Site roads will be formed but left unsealed until construction is nearing completion.

Construction of the LNG tank will commence with construction of the Outer Tank.

The annular plates and bottom plates for the Outer tank will be placed and welded on the tank foundation and construction will commence on the Outer Tank shell.

After completion of the LNG tank foundation, work will commence on the balance of foundation work for the project.

Concurrently with the Outer Tank shell erection, the construction of the Steel Dome Roof and Aluminium suspended deck will be completed on the inside of the Outer Tank shell.

After the Outer Tank roof has been air raised and completed, construction of the Inner Tank erection will commence.

Complete the work on the buildings.

Mechanical equipment installation work peaks in this period with equipment installation

Above ground piping installation commences with piping on the Pipe Rack and in the Liquefaction Area.

Electrical and instrumentation work commences

Tank internal piping is completed and the LNG pumps are installed

NDT and quality testing

Pre-comm and testing

Construction on site is completed with the final grading and sealing of roads and the final grading of other areas within the facility and dressing with gravel where required.

Stage 5 – HP Pipeline Construction

Planned timeframe: July 2013 to September 2014

The construction of the HP pipeline will be undertaken in three primary areas:

- Hexham site
- Pipeline route

- Tomago site

The construction of the HP pipeline construction will be by a separate contract.

Stage 6 - HV Electrical Construction

Planned timeframe: May 2013 to July 2014

The connection of main power to the site consists of three parts:

- Connection to the overhead power cables near the site and the routing of cables to the site
- Building a switching station for AusGrid
- Building a substation to transform the voltage from 33 kV to 6.6 kV

The HV electrical works will be let as a separate contract for all the works.

Stage 7 - LP Pipeline Construction

Planned timeframe: November 2013 to September 2014

Subject to approval by the DoP of a proposed modification, a pipeline will be constructed between the NGSF and the Tomago Aluminium site to the south.

The pipeline will be buried along the south side of the Main Access Road to the TAC Northern Access Road and then buried along the side of the TAC Northern Access Road to the southern entrance to TAC. The pipeline will be connected into the existing gas feed pipeline to TAC from the Jemena network.

All construction work will be carried out on private land.

Stage 8 - Wetlands

Planned timeframe: May 2015 to July 2015

As construction activities on the NGSF are nearing completion, one of the Holding Ponds being used for sediment control, will be planted up to become a wetlands. This will allow time for the plants to grow and establish the wetlands before operations commence.

Stage 9 - Commissioning

Planned timeframe: April 2015 to July 2015

In order to commence commissioning activities, the HV electrical construction will be complete and tested; HP pipeline construction will be complete and integrity testing of the pipeline completed; NGSF construction will be complete and pre-commissioning activities completed; and stormwater management system completed.

Gas can now be imported from Hexham via the pipeline and liquefaction commenced; tank cool down and filling commences.

Operations commence with functional and warranty testing.

Note that the LNG Storage Tank will take 5 months to fill.

Stage 10 – Clean-up and Re-vegetation

Planned timeframe: February 2015 to May 2015

This stage includes the removal of temporary facilities used during the construction phase and the re-vegetation of the cleared site areas.

It is probable that the two access routes to the gas plant will be re-vegetated during an earlier Stage.

In general, native grasses will be planted along the Main Access Road, the Gas Track and the construction areas. The areas within the operating site will paved or gravelled.

A clear space will be maintained around the outside of the security fences to prevent bushfire impact onto the site.

Details of post construction vegetation rehabilitation measures are provided in Appendix B4 to the CEMP – Vegetation Rehabilitation and Weed Management Sub Plan.

3.0 LEGISLATIVE AND OTHER REQUIREMENTS

The key legal, approval and other requirements that apply, or may relate to the Project, have been determined to arise from the following sources:

- Legislative Requirements – Sections 3.1 and 3.2 describe the primary pieces of environmental legislation applicable to the Project and any associated licensing requirements;
- CoA - issued to the proponent (AGL). CBI will carry out the project in accordance with the CoA (refer to Section 3.3);
- Revised Statement of Commitments (SoC) as described in the EA Submissions Report and detailed in Section 3.4;
- AGL requirements - In the delivery of the Project, AGL requires that CBI complies with QA specifications for the development of Environmental Management Plans, as well as AS/NZS ISO 14001:2004. Sections 3.5 and 3.6 detail where CBI has, or will, address the specific AGL Environmental requirements; and
- Other requirements including Standards and agency guidelines as detailed in Section 3.7.

3.1 Legislation

The following table describes the NSW and Commonwealth legislation relevant to the Project.

Table 3-1: Legislation Relevant to the Project

Legislation / Policy	Legislation Summary	Relevance
COMMONWEALTH		
Commonwealth Environment Protection and Biodiversity Conservation Act, 1999 (EPBC Act) (DEWHA)	Applicable to environmental impacts on Commonwealth land and impacts on matters of national environmental significance.	On 23 December 2010, DSEWPC advised that the Project was to be assessed under the EPBC Act by accredited assessment using the assessment conducted under the EP&A Act. The EA addresses the relevant impacts of the Project on the Hunter Estuary wetlands, listed threatened species and communities and listed migratory species. Potential impacts to threatened species and mitigation measures are presented in Appendix B5 to this CEMP.
National Greenhouse and Energy Reporting Act 2007	An Act to provide for the reporting and dissemination of information related to greenhouse gas emissions, greenhouse gas projects, energy production and energy consumption, and for other purposes.	The Project will emit greenhouse gases that will contribute to anthropogenic climate change. Direct and indirect greenhouse gas emissions will vary over the life of the Project. During construction, emissions will result from the consumption of diesel fuel and the emissions associated with land clearing.
STATE		
Environmental Planning and Assessment Act 1979 (DoP)	The EP&A Act details the appropriate approval processes for development in NSW.	The Project has been approved under Part 3A of the EP&A Act subject to CoA CBI must comply with all CoA. Any changes not consistent with the Project Approval would require additional assessment and approval from the Minister.
Protection of the Environment Operations	The POEO Act details offences and penalties for a range of environmental issues including water,	CBI must:

Legislation / Policy	Legislation Summary	Relevance
Act 1997 (POEO Act) (EPA)	noise, air and land pollution and sets out the duty to notify EPA of any actual or potential environmental harm. The Act also details scheduled activities that require an Environment Protection Licence (EPL). S143 of the Act specifies that waste may only be deposited at an appropriate EPA-licensed waste disposal facility or other premised where waste can be legally disposed.	- Prevent pollution - Obtain an EPL - Ensure compliance with license conditions - Notify EPA of actual or potential environmental harm CBI must also ensure that waste is deposited at an appropriate license waste disposal facility
NSW Heritage Act, 1977 (Heritage Act) (Heritage Council)	The Heritage Act details requirements for the protection of non-Aboriginal heritage items.	No European heritage items and no Aboriginal sites listed on the State Heritage Register were recorded in the site surveys. Therefore, no permit under the Heritage Act will be required. Appendix B3 addresses mitigation measures regarding heritage.
Threatened Species Conservation Act, 1995 (TSC Act) (EPA)	The TSC Act provides for the conservation of threatened species, populations and ecological communities of animals and plants.	No license or permit under the TSC Act is required if project approval is granted for the Project under Part 3A of the EP&A Act. CBI will, undertake the Project consistent with the aims of the Act and consult with the ecologist where required, regarding impacts on any threatened species or communities.
Native Vegetation Act, 2003 (NV Act) (EPA)	The Native Vegetation Act 2003 (NSW) (Native Vegetation Act) regulates the clearing of native vegetation on all land in NSW, except for excluded land listed in Schedule 1 of the Act. The Act outlines what landowners can and cannot do in clearing native vegetation and requires an authorisation to be obtained for the clearing of native vegetation.	Under section 75U(1)(e) of the EP&A Act, if the Project is granted project approval under Part 3A of the EP&A Act, then an authorisation under the Native Vegetation Act will not be required to clear native vegetation. The impact of the Project on native vegetation and the mitigation measures proposed by CBI are presented in the sub plans to this CEMP.
National Parks and Wildlife Act, 1974 (NPW Act)	The National Parks and Wildlife Act 1995 (NSW) (NPW Act) aims to conserve nature and objects, places or features of cultural value within the landscape and contain specific provisions protecting Aboriginal objects and Aboriginal places.	The impact of the Project on indigenous heritage and the mitigation measures are presented in Appendix B3 to the CEMP. Site surveys involving the Worimi and Awabakal local area land councils (LALCs) occurred in late November and early December 2010 and consultation with the relevant LALCs has been ongoing. Under section 75U(1)(d) of the EP&A Act, if the Project is granted project approval under Part 3A of the EP&A Act then a permit under section 90 of the NPW Act will not be required. Appendix B3 to this CEMP addresses mitigation measures to do with heritage.
Roads Act 1993	The Roads Act 1993 (NSW) (Roads Act) covers access along public roads, the rights of neighbouring landowners and the regulation of various activities on public roads. The council of a LGA is the roads authority for all public roads except any road for which some other public authority is declared to be the roads authority	Approval is required under section 138 of the Roads Act for work in, on or over public roads or may disturb the surface of a public road. However, section 138(5) of the Roads Act states that section 138 does not apply to anything done under the provisions of the Pipelines Act. Sections of Old Punt Road may be disturbed as a result of the construction of the pipeline but any such works will not commence unless and until a pipeline license has been obtained. Accordingly, these works will not require consent under the Roads Act.

Legislation / Policy	Legislation Summary	Relevance
Water Management Act, 2000 (WM Act) (EPA, NOW)	The Water Management Act 2000 (NSW) (WM Act) aims to ensure the sustainable management of water resources in NSW for present and future generations, primarily through the issue of licenses and approvals for the extraction and use of water from rivers and groundwater aquifers. The WM Act applies to parts of NSW that are subject to Water Sharing Plans (WSPs). Those areas of NSW not covered by such plans are managed in accordance with the Water Act 1912 (NSW).	Section 75U of the EP&A Act exempts projects approved under Part 3A from the need to obtain water use approvals, water management works approvals and controlled activity approvals under the WM Act. If the Project is approved under Part 3A, these approvals will not be required for the Project.
Contaminated Land Management Act, 1997 (CLM Act) (EPA)	The CLM Act establishes a process for investigation and (where appropriate) remediation of land where contamination presents a significant risk of harm to human health, or some other aspect of the environment.	CBI is required to identify report and manage any identified land contamination in accordance with the CLM Act. Mitigation measures are presented in Appendices B6 and B11
Work Health and Safety Act and Regulation 2011 OHS Act and WorkCover	The OHS Act aims to protect the health and safety of all workers in NSW and includes licensing requirements for the storage and transport of prescribed quantities of dangerous goods.	CBI will obtain licenses where licensable quantities of dangerous goods exceed WorkCover specifications as set out in the CBI Safety Plan.
NSW Fisheries Management Act 1994	The Act aims conserve, develop and share the fishery resources of the State for the benefit of present and future generations.	A review of matters listed under the NSW Fisheries Management Act 1994 showed there were no records of vulnerable species within the Port Stephens LGA.
Noxious Weeds Act 1993	The objects of this Act are as follows: (a) to reduce the negative impact of weeds on the economy, community and environment of this State by establishing control mechanisms to: (i) prevent the establishment in this State of significant new weeds, and (ii) prevent, eliminate or restrict the spread in this State of particular significant weeds, and (iii) effectively manage widespread significant weeds in this State, (b) to provide for the monitoring of and reporting on the effectiveness of the management of weeds in this State.	Seven declared noxious weeds were recorded on the study area: lacy ragweed (Ambrosia tenuifolia), bitou bush (Chrysanthemoides monilifera subsp. rotundata), pampas grass (Cortaderia selloana), African lovegrass (Eragrostis curvula), coastal morning glory (Ipomoea cairica), lantana (Lantana camara) and fireweed (Senecio madagascariensis).
Protection of the Environment Operations (Waste) Regulation 2005	The Regulation also sets out provisions covering the way waste is managed in terms of storage and transportation as well as reporting and record keeping requirements for waste facilities. It provides for contributions to be paid by the occupiers of licensed waste facilities for each tonne of waste received at the facility or generated in a particular area; exempts certain occupiers or types of waste from these contributions; and allows deductions to be claimed in relation to certain types of waste. The Regulation also makes special requirements relating to asbestos and clinical waste	CBI is required to track all waste leaving the site
LOCAL		
SEPP 44 Koala Habitat Protection	SEPP 44 encourages the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline.	The aim of this SEPP is to, as far as possible, preserve Koala habitat in the state of NSW. The study area and development footprint contains suitable feed tree species for the Koala. As such, this SEPP must be considered.

Legislation / Policy	Legislation Summary	Relevance
Port Stephens Comprehensive Koala Plan of Management (CKPoM 2002)	The Port Stephens Comprehensive Koala Plan of Management (CKPoM) applies to all development applications on land within the Port Stephens LGA. It aims to ensure the long-term sustainability of any local Koala populations.	Within the Port Stephens Local Government Area (LGA), fulfilment of requirements of the Port Stephens Comprehensive Koala Plan of Management (CKPoM) satisfies the requirements of SEPP 44 as it applies to all development applications on land within the Port Stephens LGA.
Hunter Water Regulation 2010	The Hunter Water Regulation 2010 (NSW) makes provision for the regulation of certain activities within areas declared to be special areas under the *Hunter Water Act 1991*. The Tomago Sandbeds Catchment area is a special area within this act and the proposed gas plant site is located in the south western corner of the Tomago Sandbeds Catchment area.	The regulation states that certain specified activities cannot be undertaken without approval in the special areas that, include the Tomago Sandbeds catchment. The restrictions on the use of the land and development include extractive industries and activities that pollute waters. No extractive industry is proposed as part of the Project. The regulation also regulates plumbing and drainage work and requires a permit for such work. Appendix B1 and B2 to this CEMP addresses mitigation measure for groundwater and surface water.
Rural Fires Act 1997	Under the NSW Rural Fires Act 1997, (Rural Fires Act) the owner or occupier of the land is obligated to take precautions to prevent the start or spread of bush fires on their land.	The gas storage facility is located within bush fire prone-land under the Port Stephens LEP. Under section 75U(1)(g) of the EP&A Act, if the Project is granted project approval under Part 3A of the EP&A Act then a bush fire safety authority under s 100B of the Rural Fires Act will not be required. A bush fire impact assessment has been undertaken for the Project and the mitigation measures are presented in Appendix B13..

3.2 Licences and Permits

The Project has been approved under Part 3A of the EP&A Act. Section 75U of this Act removes the requirement for CBI to obtain certain environmental licences and permits. Section 75U does not however provide an exemption for obtaining an Environment Protection Licence (EPL) under the POEO Act.

An EPL has been granted from Environment Protection Authority for “Scheduled Development Work” relating to the Scheduled Activities “Petroleum and Fuel Production” and "Chemical Storage (petroleum products storage)" which will be carried out at the facility during construction under EPL license number EPL 20130. As required under the new POEO Act, a Pollution Incident Response Management Plan has been prepared.

Other licences, permits or approvals not identified in this CEMP and deemed to be required through further consultation or legislative changes will be progressively obtained by the Environmental Manager (EM) during the course of the Project. The specific conditions of any additional approvals will be incorporated into the CEMP and sub plans as required. Copies of all relevant environmental licences and permits will be kept on-site.

3.3 Minister’s Conditions of Approval

The Minister for Planning, upon issuing Project Approval, issued CoA for the Project under file number 11/08788 on 10 May 2012. Conditions include the requirement to construct facilities in accordance with the Project Application, EA, Preferred Project Report and Response to Submissions Report, and the Minister’s Conditions of Approval and develops various environmental management documents and includes monitoring requirements to assess ongoing compliance with the conditions.

The CoA that relate directly to this CEMP and the relevant section of the CEMP are detailed in the following table. CoA relevant to each sub plan are detailed within the sub plans.

Table 3-2: CoA Relevant to CEMP Development

CoA	Condition	CEMP Reference
	TERMS OF APPROVAL	
A1	A1 The Proponent shall carry out the project generally in accordance with the: (a) Environmental Assessment; (b) Preferred Project Report; (c) Statement of Commitments; and (d) Conditions of Approval.	This Plan and Sub Plans
	CEMP	
B56	B56 The Proponent shall prepare and implement a Construction Environmental Management Plan (CEMP) to outline environmental management practices and procedures to be followed during construction of the project. The Plan shall be shall be consistent with the Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004 or its latest revision). The Plan shall be prepared in consultation with Councils, NOW and HWC and include, but not necessarily be limited to:	This Plan Section 5.2.1 Consultation for CEMP
B56 (a)	(a) a description of all relevant activities to be undertaken on the site during construction including an indication of stages of construction, where relevant;	Section 2.7 Project Schedule
B56 (b)	(b) identification of the potential for cumulative impacts with other construction activities occurring in the vicinity and how such impacts would be managed;	Section 5.4 Monitoring and Review
B56 (c)	(c) details of any construction sites and mitigation, monitoring, management and rehabilitation measures specific to the site compound(s) that would be implemented;	Section 5.4 Monitoring and Review Section 5.5 Incident Management
B56 (d)	(d) statutory and other obligations that the Proponent is required to fulfil during construction including all relevant approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;	Section 3 Legislative and Other Requirements
B56 (e)	(e) evidence of consultation with relevant public authorities required under this condition and how issues raised by the agencies have been addressed in the plan;	Section 5.2.1 Consultation for CEMP
B56 (f)	(f) a description of the roles and responsibilities for all relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that all employees, contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of approval;	Section 4.6 Roles and Responsibilities
B56 (g)	(g) details of how the environmental performance of construction would be monitored, and what actions would be taken to address identified potential adverse environmental impacts;	Section 5.4 Monitoring and Review Section 5.5 Incident Management
B56 (h)	(h) specific consideration of relevant measures to address any requirements identified in the documents referred to under condition A1 of this approval;	This Plan and sub plans
B56 (i)	(i) a complaints handling procedure during construction as identified in conditions B51 to B53; and	Section 5.2.3 Consultation with Stakeholders
B56 (j)	(j) a matrix of construction work method statements (or similar) to be prepared and the anticipated level of risk associated with each to be determined.	Section 4.3.4 EWMS
B56	The Construction Environmental Management Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of relevant construction works associated with the project, or within such lesser period otherwise agreed by the Director-General. Construction works shall not commence until written approval of the CEMP has been received from the Director-General.	

CoA	Condition	CEMP Reference
	INFRASTRUCTURE, SERVICES AND ANCILLARY FACILITIES	
B46	B46 The Proponent shall undertake all necessary alterations to existing public utility installations to meet the reasonable requirements of, and at no expense to, the relevant public utility authority.	Section 5.1.5 Ancillary facilities
B47	B47 The Proponent shall ensure that road surfaces – and any other road-related infrastructure including drainage, street lighting, street furniture or underground facilities – disturbed or damaged during construction, are restored to meet the reasonable requirements of, and at no expense to, the relevant road authority.	
B48	B48 The Proponent shall design and provide on-site car parking, driveways, parking bays, vehicular turning areas, letterboxes, landscaping and drainage in consultation with and to meet the reasonable requirements of the relevant local council.	

3.4 Statement of Commitments

The Director-General's requirements for the development of the EA required that AGL include a Statement of Commitments (SoCs) for the Project. Revised SoCs were included in the Preferred Project Report and Response to Submissions Report and detail AGL commitments to ensure adequate environmental controls are designed and implemented to mitigate environmental risk during project delivery. The revised SoCs have been considered during the development of this CEMP and sub plans. SoC relevant to each sub plan are detailed with the sub plans.

3.5 AGL Requirements

CBI has developed the CEMP to include AGLs specifications from the following documents listed below.

Table 3-3: CEMP Compliance with AGL Specifications

AGL Document	CEMP Reference
Construction Environmental Management Plan – Minimum Requirements Newcastle Gas Storage Facility Document Number: NGSF-AGL-ISBL-EN-PLN-0001	This Plan
AGL Project Environment Management Plan for Newcastle Gas Storage Facility Document Number: AGL-PLN-000012	Section 5.5 Incident Management
Community Engagement Plan Newcastle Gas Storage Facility Document Number: NGSF-AGL-NAS-PM-PLN-0002	Section 5.2 Consultation and Communication
Aconex Project Instruction for Newcastle Gas Storage Facility Document Number: NGSF-AGL-NAS-PM-PLN-0004	Section 4.5 Document Control and Record Management

AGL has a number of other relevant specifications, procedures, guidelines and policies. The requirements of the following AGL documents have been considered either in this CEMP or related sub plans:

- LG-HSE-CG-19 – Environmental Aspects and Impacts
- LG-HSE-CG-70 – Air Pollution and Odours Compliance Guide
- LG-HSECG-019 - Environmental Impacts
- LG-HSE-CG-075 - Environmental Impacts Compliance Guide
- LG-HSE-CG-069 – Environmental Noise Compliance Guides
- LG-HSE-CG-092 - Control of Workplace Noise Compliance Guide
- LG-HSE-CG-049 - Road-Vehicles Safety Compliance Guides
- LG-HSE-CG-055 - Transport Operations Compliance Guides

- LG-HSE-CG-68 – Land Remediation

3.6 Relationship of the CEMP to ISO 14001:2004

CBI is working toward maintaining an EMS that meets the requirements of ISO 14001:2004 – Environmental Management Systems. ISO 14001 that details environmental management methodology based around planning, undertaking and checking works and acting on the relevant outcomes. As detailed previously, this CEMP and the associated documentation form the basis of the Project EMS. The relationship between the CEMP and ISO 14001 is outlined below.

Table 3-4: Relationship to ISO 14001:2004

ISO 14001 Clause			CEMP Reference
4.1	**General**		Section 02 Introduction Section 3.6 Relationship to ISO 14001: 2004
4.2	**Environmental Policy**		Section 4.2 Policy Appendix A1 CBI Environmental Policy
4.3	**Planning**		
	4.3.1	Environmental Aspects	Section 5.1.3 Identify and Assess Environmental Risks
	4.3.2	Legal and other requirements	Section 03 Legislative and Other Requirements
	4.3.3	Objectives and targets	Section 5.1.4 Environmental Objectives and Targets
4.4	**Implementation and Operation**		
	4.4.1	Resources, roles, responsibilities and authority	Section 4.6 Roles and Responsibilities
	4.4.2	Competence, training and awareness	Section 5.2.4 Environmental Training Section 5.2.5 Internal Environmental Communication
	4.4.3	Communications	Section 5.2 Consultation and Communication
	4.4.4	Documentation	Section 4.3 Environmental Management Document Structure
	4.4.5	Control of documents	Section 4.5 Document Control and Records Management
	4.4.6	Operation control	Section 5.3 Implementation of Controls
	4.4.7	Emergency planning and response	Section 5.5 Incident Management
4.5	**Checking**		
	4.5.1	Monitoring and measurement	Section 5.4.2 Environmental Monitoring and Measurement
	4.5.2	Evaluation of compliance	Section 5.4 Monitoring and Review
	4.5.3	Nonconformity, corrective action and preventive action	Section 5.5 Incident Management
	4.5.4	Control of records	Section 4.5 Document Control and Records Management
	4.5.5	Internal Audit	Section 5.4.3 Environmental Auditing
4.6	**Management Review**		
	4.6.2	Review of EMS	Section 5.4.3 Environmental Auditing
	4.6.2	Continual Improvement	Section 5.4.4 Improving Environmental Performance

3.7 Other Requirements

In addition to the requirements discussed above, this CEMP is being developed in accordance with the Guideline for Preparation of Environmental Management Plans (DIPNR, 2004). Other environmental standards, guidelines and documentation will be referenced by CBI during the delivery of the Project. These will be addressed in the relevant CBI sub plans, which are included as appendices to the CEMP.

4.0 ENVIRONMENTAL MANAGEMENT FRAMEWORK

4.1 CBI Project Management System

CBI's overall management strategy for the Project is documented in the Project Management Plan (PMP). Further, the specifics of the individual management processes are documented within a suite of integrated management plans including the Safety Plan, Quality Plan and this CEMP which, combined with the PMP, aim to ensure a seamless approach to management systems, eliminate interface conflicts, and establish clear lines of responsibility, accountability and sign off.

These plans, and the policies, procedures, processes, systems and methodologies employed by CBI are described in the PMP.

4.2 Policy

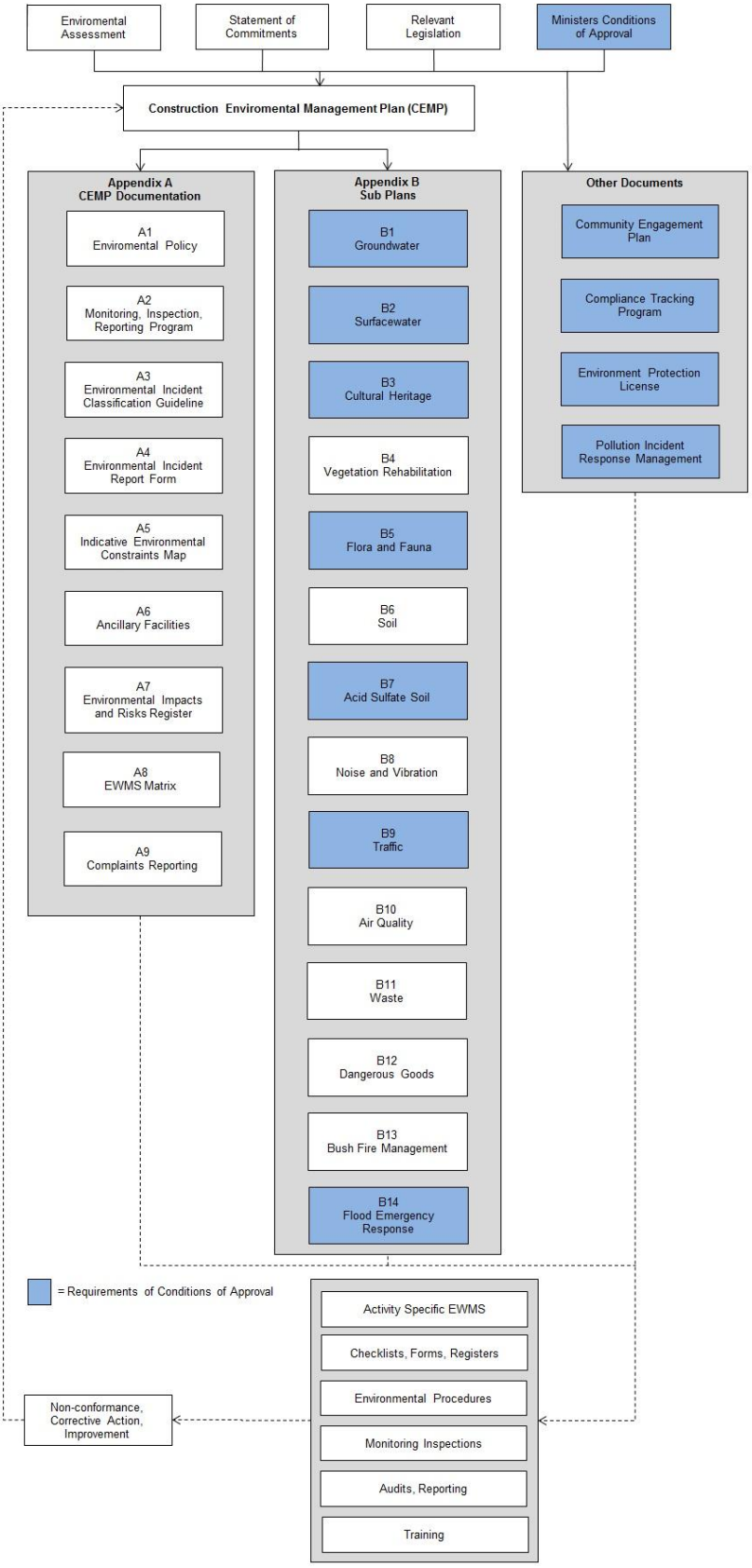
Policies aim to provide a clear corporate commitment to identifying and managing risks, improving and maintaining performance and complying with legislative and other requirements. The CBI Environmental Policy (located in Appendix A1) is supported by this CEMP through the processes and activities described in this Plan and the associated sub plans. This policy will be displayed in prominent locations throughout the project facilities. All project personnel, including contractor employees, will be made aware of these policies through the induction process.

4.3 Environmental Management Document Structure

170596-EN-R01-Environmental Document Register lists the environmental management documents that sit under the CEMP, as well as other related environmental documentation. All documents will be reviewed and updated in accordance with Section 4.4 and Section 4.5 of this CEMP.

The relationship between the CEMP, CoA and legislative requirements is summarised in Figure 4-1 and described further in the sections following.

Figure 4-1: CBI Environmental Management Document Structure



4.3.1 Construction Environmental Management Plan (CEMP)

The CEMP is the principal CBI environmental management document and describes the systems for minimising and managing environmental risks associated with delivery of the Project. The CEMP has been prepared in accordance with the principles of ISO 14001:2004, as described in Section 3.6. The purpose and scope of the CEMP are described in Section 2.

There are two main components to the CEMP. These components include:

Part A – Comprising introductory information including purpose and scope, background, legislation, document control and other Project information; and

Part B – Detailing the specifics of the document and including the following generic headings:

- Identification and Assessment;
- Consultation and Communication
- Implementation of Controls
- Monitoring and Review
- Incident Management

4.3.2 Sub Plans

Sub plans have been prepared to document the management approach to significant risks or aspects of the Project. These sub plans have been prepared to meet the requirements of the CoA, SoCs and to ensure best practice environmental management measures are identified and implemented throughout the Project.

The sub plans identify and assess the potential impacts of each significant risk/ aspect as it relates to the Project, and outline the management and mitigation measures, responsibilities and monitoring requirements to be implemented to prevent or minimise potential environmental impacts.

4.3.3 Environmental Procedures

A set of environmental procedures has been prepared to provide further guidance for managing specific environmental tasks and to ensure consistency in approach and quality of outcome. Examples of environmental procedures prepared include spill management, discovery of heritage items, management of acid sulphate soil, waste classification, rehabilitation of cleared areas, erosion and sediment control. Environmental procedures are linked to the CEMP, sub plans and/or EWMSs as relevant.

4.3.4 EWMS

Environmental Work Method Statements (EWMS) are the main site documents used by CBI to identify and manage environmental risks associated with all construction activities. EWMS are required for every significant action undertaken by project personnel on-site and are developed prior to any activities taking place as per CoA B56 (j). EWMSs will be approved by environmental and construction representatives prior to works being undertaken. Consultation for EWMS is discussed further in Section 5.2.2. The process for revisions to EWMS is discussed further in Section 4.4 and an indication of which EWMSs will be required is presented in Appendix A8.

All CBI personnel and sub-contractors undertaking a task governed by an EWMS must have signed that they have participated in training on the EWMS, and that they have read and understood their obligations prior to commencing work.

Regular monitoring, inspecting and auditing against compliance with the EWMS will be undertaken by CBI management and environmental personnel to ensure that all controls are being followed and those non-conformances are recorded and actioned. This process is referred to as Task Observation and is explained further in Section 5.4.3.

4.3.5 Erosion and Sediment Control Plans (ESCPs)

Site specific Erosion and Sediment Control Plans (ESCPs) will be developed progressively to include the management strategies and controls for all Project activities with the potential to impact on sediment loss and erosion. Refer to the Soil Management Sub Plan for further information on ESCPs.

4.3.6 Checklists, Forms and Registers

A number of checklists, forms and registers have been developed to assist in the implementation of processes described in the CEMP, sub plans and procedures. These types of documents will be developed to ensure consistency in approach and quality of outcome.

4.4 Revisions to Environmental Management Documentation

Minor revisions to environmental management documentation will be reviewed and approved by the Environmental Manager (EM). Where revisions to environmental management documentation are determined by the EM to be significant, these will be reviewed by AGL as discussed in Section 5.2. Significant revisions to documents will be reviewed and approved by the ER.

4.5 Document Control and Records Management

Environmental documents and records will be maintained during the Project through CBI's document management system iDocs and AGLs online document management system Aconex to remain legible, identifiable and traceable. This section discusses the document control and records management for environmental documents.

iDocs

The CEMP, on approval, will be available in iDocs, and will be subject to update and revision in accordance with the process described in the CBI Quality Management Plan. Publishing new or revised content in the iDocs is controlled by a process called Content Change Management, where content consists of 'processes', 'tools' and 'knowledge resources'. Content Change Management ensures that content is published only after it has been reviewed and thoroughly checked. To ensure any content that is being added or modified within iDocs adheres to required standards; checklists are followed respectively for Content Editor, Content Approver and the Integrity Approver to achieve this purpose.

For all environmental documentation, Content Editor's rights are only provided to the Environment Team and other approved system and management personnel, as identified. Where 'processes' included in environmental documentation directly link or relate to other areas including Safety and Community, then each relevant 'process' will require the Safety Manager or Community Relations Manager's approval prior to issue. The Content Approver's rights for all environmental documentation are held by the Environmental Manager or nominated authority with the final Integrity Approver's role carried out by the Systems Manager and / or Quality Manager.

If the body of the CEMP is required to be updated, a revised copy will be issued to relevant stakeholders. The controlled copy will always however remain in the iDocs management system.

If any attached Appendices are required to be updated at any stage of the Project, a revised copy of the relevant Appendix only will be forwarded to all stakeholders and agencies with a consultation or approval role.

Aconex

The approved CEMP will be uploaded on Aconex with a document number and a revision number. At any given time the latest version can be viewed with the ability to view the historical versions. All environmental records will be maintained electronically on Aconex. Environmental records are kept as a means of assessing the effectiveness of the Project in managing environmental issues and risks, and to demonstrate compliance with obligations and ISO 14001:2004 requirements. Records that must be retained as evidence of environmental management implementation and effectiveness include:

- CEMP and sub plans;

- Environmental procedures, forms, checklists;
- Environmental Impacts and Risk Assessment Register;
- Environmental Constraints Maps;
- Compliance Tracking Program and Reports;
- Licences and permits (e.g. EPA);
- Environmental risk assessments;
- Records of environmental training;
- Results from environmental audits;
- Details of non-conformance/ preventative / corrective actions;
- Monitoring data/results (dust, water, noise etc.);
- Regulator and stakeholder correspondence; and
- Other related documentation.

Update of documents not in iDocs

For the update of a procedure, form, checklist or other associated environmental document that is not managed in iDocs, the following process will be followed.

- The document will be updated using track changes, re-numbered showing the next revision number and the previous document will be superseded.
- The Environmental Document Register will also be updated to include the current revision number of the revised document. The revised document will thereafter be uploaded into iDocs in accordance with requirements of the CBI Quality Management Plan and all relevant personnel notified of the update.

Consultation Manager Database

The Consultation Manager database will assist in tracking issues, identifying trends and providing an early indication of concerns before they develop into misunderstandings or conflict. It also provides a framework for monitoring enquiries and evaluating the effectiveness of engagement and communication. It is a web-based database that allows instant generation of issues/responses for reporting requirements as well as flexibility in terms of access for the project team. Information from the construction site will be forwarded by CBI to AGL for inclusion into this database. A record of Complaints form used for recording on site complaints is presented in Appendix A9.

Information entered into Consultation Manager will include;

- date, time;
- name, address, phone, mobile, email, postal (if different to residential);
- nature of the matter/issue(s);
- method complaint was received, by phone, email, letter, contact form; and
- action taken, time frames for responding to action, stages included in responding to action (eg investigation ,respond, further consultation), if the matter cannot be resolved explanation as to why, who from the project team was involved in resolving the matter, eventual resolution and close out.

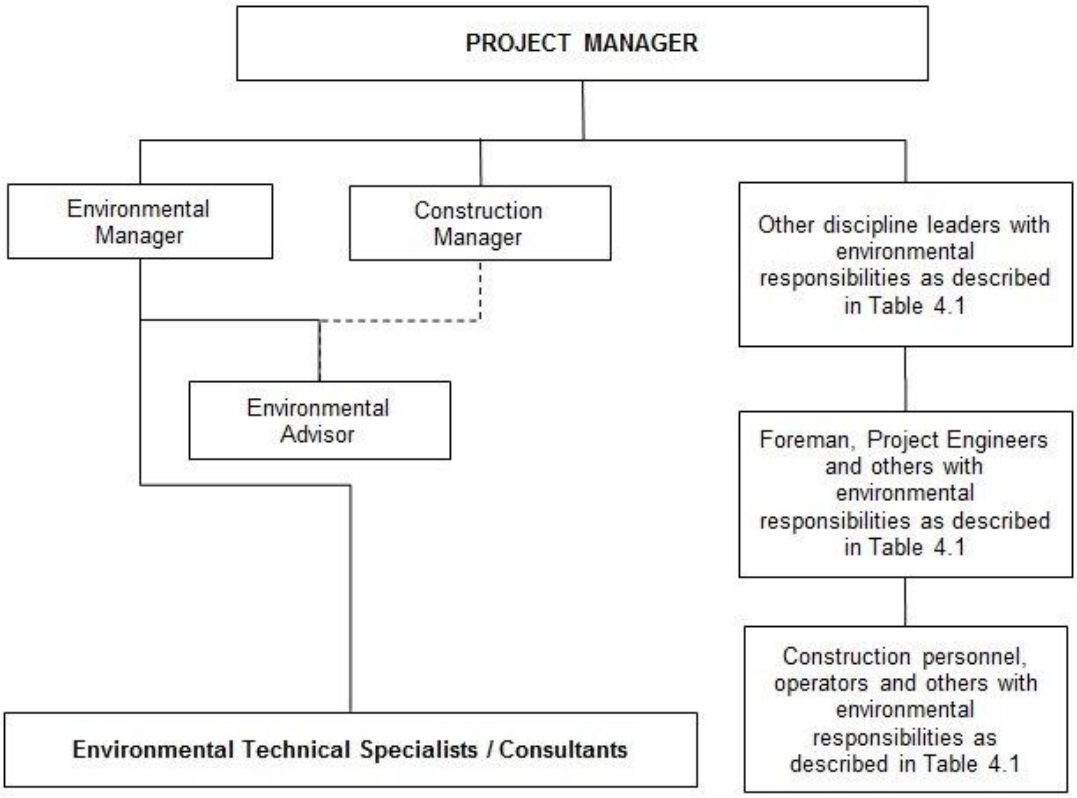
4.6 Roles and Responsibilities

All project personnel are responsible for protecting the environment by ensuring that environmental protection measures identified in the CEMP are planned for, resourced, communicated, installed, maintained and reviewed.

The Environmental Team during the construction phase of the Project will consist of an Environmental Manager (EM) and Environmental Advisors (EVs). Other environment personnel may be added to the team as needed.

An overview of the CBI Environmental Management Structure is shown in Figure 4-2: CBI Environmental Management Structure.

Figure 4-2: CBI Environmental Management Structure



The key environmental responsibilities and authorities of project personnel are detailed in Table 4-1. Responsibilities will be communicated to relevant personnel through their project position descriptions, inductions and / or toolbox talks.

Table 4-1: CBI Personnel Environmental Responsibilities

Title	Responsibilities	Authority	Accountability
Project Manager	• Responsible for ensuring resources are made available to enable project works to comply with CoA, SoC and other statutory requirements in all aspects of project delivery; and • Liaison with ER and approval authorities as appropriate.	Stop work if environmental incident or significant non-compliance with CoA or licence requirements.	AGL
Construction Manager	• Plan construction works in a manner that avoids or minimises impact to environment; • Ensure construction personnel manage construction works in accordance with statutory and approval requirements; • Ensure environmental management procedures and protection measures are implemented; • Ensure all project personnel attend an induction prior to commencing works; and • Liaison with ER and approval authorities as appropriate.	Stop work if environmental incident or significant non-compliance with CoA or licence requirements. Direct the implementation of environmental protection measures at all sites.	Project Manager
General Superintendent	• Plan and direct construction works in a manner that avoids or minimises impact to environment; • Ensure construction personnel manage construction works in accordance with statutory and approval requirements; • Undertake actions in response to complaints in consultation with the Community Relations Manager and Environmental Manager; • Ensure environmental management procedures and protection measures are implemented; and • Undertake regular Task Observations to check compliance with EWMS.	Stop work if environmental incident or significant non-compliance with CoA or licence requirements. Direct implementation of environmental protection measures at all sites.	Construction Manager
Environmental Manager (EM)	• Overall responsibility for the implementation of environmental matters on the Project; • Development, implementation, monitoring and updating of the CEMP and sub plans in accordance with ISO14001; • Report to Project Manager and other senior managers on the performance and implementation of the CEMP; • Ensure environmental risks of the Project are identified and appropriate mitigation measures implemented; • Ensure environmental protocols are in place and managed; • Influence to ensure environmental compliance; • Obtain and update all environmental licences, approvals and permits as required; • Lead liaison with ER and approval authorities; • Manage environmental document control, reporting, inductions and training; • Manage environmental reporting within CBI and to the AGL and regulatory bodies;	Stop work if environmental incident or significant non-compliance with CoA or licence requirements. Direct implementation of environmental protection measures at all sites.	Project Manager

Title	Responsibilities	Authority	Accountability
	• Oversee site monitoring, inspections and audits; • Manage all subcontractors and consultants with regards to environmental matters, including assessing their environmental capabilities and overseeing the submission of their environmental documents; • Prepare and/or distribute environment alerts; • Develop training programs regarding environmental requirements and deliver where required; • Ensure Task Observations are undertaken to check compliance with EWMS • Notify relevant agencies through AGL in the event of an environmental incident and manage close-out of these; and • Assist the Community Relations Manager to resolve environment-related complaints		
Environmental Advisor (EV)	• Undertake daily site inspections, environmental audits and environmental monitoring; • Manage the day to day environmental elements of construction; • Ensure appropriate environmental mitigation measures are implemented and maintained; • Provide advice and assistance to the discipline managers, Project Engineers, Foremen and site personnel in meeting environmental obligations; • Include relevant environmental mitigation measures in EWMS and approve as necessary; • Undertake environmental monitoring and record keeping as delegated by the EM; • Report environmental issues to the EM; • Assist in developing training programs regarding environmental requirements and deliver where required, including delivery of the environmental component of toolbox talks; • Undertake any other environmental related duties as delegated by the EM; and • Undertake regular Task Observations to check compliance with EWMS.	Advise EM and general superintendent of need to stop work in the event of potential or actual environmental damage.	Environmental Manager
Safety Manager	• Maintain register of attendees and topics covered in the inductions and toolbox talks.	Stop work if environmental incident or significant non-compliance with CoA or licence requirements.	Project Manager
Project Engineers (includes Senior Project Engineers, Project Engineers and Site Engineers)	• Plan and direct construction activities at relevant sites to minimise environmental impacts and comply with environmental management procedures, EWMS and licence and approval requirements; • Undertake regular Task Observations to check compliance with EWMS; • Liaise with EM or EV to ensure environmental mitigation measures are implemented; and • Act on stop work instructions from EM, Construction Manager or Project Manager.	To direct work on-site to ensure compliance with environmental requirements. Stop work if environmental incident or significant non-compliance with CoA or licence requirements.	Area Managers

Document Title:	Document No:	Rev:
Construction Environmental Management Plan	170596-EN-PL-00001	0

Title	Responsibilities	Authority	Accountability
Foreman	• Control field works and implement/maintain effective environmental controls; • Ensure site activities comply with EWMS and relevant records are kept; • Ensure all site workers are site inducted prior to commencement of works; • Notify EM, EV and/or superintendent immediately in the event of an environmental incident; • Implement remedial actions immediately after any environmental incident under direction of EM and/or EV; and • Undertake regular Task Observations to check compliance with EWMS.	Within their scope of works, ensure work complies with environmental procedures and requirements identified in EWMS	General Superintendent
Community Relations Manager (AGL)	• Receive and co-ordinate, with EM and other relevant construction personnel, the resolution of complaints relating to environmental management (e.g. dust); and • Communicate with landowners and residents on environmental matters.	No specific environmental authority	Project Manager
HR / Training Manager	• Develop and maintain training matrix; and • Facilitate external training and deliver internal training	No specific environmental authority	Project Manager
Construction Personnel / Operators	• Comply with all environmental requirements provided in inductions, EWMS and other provided documents; • Implement works as directed in accordance with relevant EWMS; • Notify Foreman or EV immediately in the event of an environmental issue; and • Adequately rectify any environmental issue independently or at the direction of EV or Foreman.	Within their scope of works, ensure work complies with environmental procedures and requirements identified in EWMS	Foreman
Subcontractors / Consultants / General	• Comply with all environmental requirements provided in the CEMP, sub plans, inductions, EWMS and other supplied documents; • Implement works as directed in accordance with relevant EWMS; • Nominate a senior Construction Team representative to liaise with the EM, ER and/or approval authorities where appropriate and as directed by the EM or EV; • Provide adequate equipment/facilities on-site to protect the environment during the works, or at the request of EM; • Stop work at the direction of any CBI representative, or if any non-conforming environmental impact or activity has occurred or is likely to occur; • Notify Foreman or EV immediately in the event of an environmental issue; and • Adequately rectify any environmental issue independently or at the direction of EV or Foreman.		Project Engineer, Foreman

AGL will provide CBI with the services of a number of technical specialists / consultants to provide advice, undertake monitoring and direct site works as required. A description of the types of consultants that may be engaged for the Project is detailed in Table 4-2.

Table 4-2: Project Environmental Consultant Services

Consultant Type	Services Provided
Ecological	Expert advice on ecological issues; Ecological surveys, reports and monitoring, where required; and Other ecological services as required in sub plans.
Heritage	Expert advice on Aboriginal and non-Aboriginal heritage issues; Site inspections / advice when required for unexpected finds or impact to known heritage items; Manage salvage operations on-site; Consultation / Liaison with Aboriginal stakeholders; and Other Aboriginal and non-Aboriginal heritage services as detailed in sub plans.
Arborist	Tree health reports; Arboreal and tree health advice during construction; and Other arboreal services as detailed in sub plans.
Groundwater/ Surface Water Management	Undertake groundwater and surface water monitoring as detailed in sub plans
Weed Management	Identify, map and treat weeds in the Project area; and Weed disposal, where appropriate.

Environmental Representative (ER)

The ER is engaged by AGL to fulfil the role defined in CoA B55 including:

- (a) monitor the implementation of all environmental management plans and monitoring programmes required by the CoA;
- (b) monitor the outcome of all environmental management plans and advise AGL upon the achievement of all project environmental outcomes;
- (c) have responsibility for considering and advising AGL on matters specified in the conditions of this approval, and all other licences and approvals related to the environmental performance and impacts of the project;
- (d) ensure that environmental auditing is undertaken in accordance with the requirements of condition B54 and the project Environmental Management System(s);
- (e) be consulted in responding to the community concerning the environmental performance of the project; and
- (f) have the authority and independence to recommend to AGL the reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts, and, failing the effectiveness of such steps, to recommend to AGL that relevant activities are to be ceased as soon as reasonably practicable if there is a significant risk that an adverse impact on the environment will be likely to occur, until reasonable steps are implemented to avoid such impact.

4.7 Environmental Resources

Resources will be made available by CBI to establish, implement, maintain and improve the CEMP and to ensure compliance with approval and legislative requirements throughout the Project.

Environmental resources will include but not be limited to:

- Environmental personnel;

- Plant and equipment including vehicles, IT resources and monitoring equipment;
- Erosion and sediment control structures; and
- Financial resources including funds for the payment of licence fees.

5.0 ENVIRONMENT

This section describes the environment management processes which will be employed for the duration of the project including:

- Identification and Assessment (Section 5.1) – Identifying sensitive receivers, environmental constraints, assessing environmental risks, setting environmental objectives and targets and ancillary facilities;
- Consultation and Communication (Section 5.2) – CEMP consultation, general stakeholder consultation, environmental training, internal environmental communication and formation of an environmental committee;
- Implementation of Controls (Section 5.3) – Implementation of environmental controls to manage identified risks;
- Monitoring and Review (Section 5.4) – Environmental inspections, environmental monitoring and measurement, environmental auditing, and improving environmental performance; and
- Incident Management (Section 5.5) – Non-conformances and corrective and preventative actions and incident and emergency response planning.

5.1 Identification and Assessment

5.1.1 Identification of Sensitive Receivers

Description

The identification of sensitive receivers is an important step in determining potential impacts and designing measures to minimise such impacts. This topic describes how sensitive receivers have been identified for the Project and their locations in relation to the Project.

Roles

Environmental Manager, Community Relations Manager

Process

Sensitive receivers for the Project were identified during the development of the EA. They include existing residential, commercial and rural/industrial premises. The locations of the identified sensitive receivers to the Project are detailed in the relevant sub plans.

The potential impacts on sensitive receivers from the construction of the Project will include, noise, dust, and others that may adversely impact the local amenity. Each type of potential impact, and proposed mitigation measures to limit impacts, is detailed further in relevant sub plans, attached as appendices to this CEMP.

Tools

Environmental Constraints Maps

5.1.2 Identification of Environmental Constraints

Description

The identification of the location and nature of environmental constraints, or environmentally sensitive areas, including ecological and heritage constraints, is an important step in determining potential impacts and designing measures to minimise such impacts. This topic describes how environmental constraints have been identified for this Project and their locations in relation to the Project.

Roles

Environmental Manager

Process

Environmental constraints for the Project were identified during the development of the EA and include sensitive ecological areas, acid sulphate soils and groundwater. There is potential that Aboriginal archaeological sites and non-Aboriginal heritage areas may be discovered.

The identified areas have been included on Environmental Constraints Maps developed for the Project. Indicative Environmental Constraints Maps are provided in Appendix A6.

Specific sub plans attached as appendices to this CEMP identify locations and assess potential impacts from construction activities on all identified environmentally sensitive areas.

Tools

EA

Sub plans

Environmental Constraints Map

5.1.3 Identification and Assessment of Environmental Risks

Description

The identification and assessment of environmental risks is a key component of the CEMP and general management of environmental impacts. This topic describes the environmental risk identification and assessment process undertaken and the process of ongoing identification and assessment of risks throughout construction.

Roles

Environmental Manager, Environmental Advisor, all CBI Personnel

Process

Environmental Risk Assessment Undertaken

The EA identified environmental risks for the Project. Following on from the risks identified and assessed in the EA, CBI undertook a detailed environmental risk assessment and ranking process. This involved identifying specific construction activities, the resulting predicted or potential impact, measures to prevent or minimise the impacts and finally ranking the level of risk both before and after the implementation of mitigation measures.

The outcome of this risk assessment was **170596-EN-R02-Environmental Impacts and Risk Assessment Register**, located in Appendix A7. This register provides a list of potential environmental impacts and risks resulting from construction.

Ongoing Environmental Risk Assessment

New environmental risks may be identified and assessed during construction through the development of EWMS or as a result of inspections and audits. Where required, newly identified environmental risks and appropriate control measures will be included in EWMS, sub plans and communicated to relevant personnel.

Tools

Environmental Impacts and Risk Assessment Register

EWMS

Sub plans

5.1.4 Environmental Objectives and Targets

Description

Objectives and targets enable projects to meet defined levels of performance against identified criteria. Objectives are statements of intent, while targets define the specific performance requirements that need to be met in order to achieve the objectives. This topic describes the process CBI has followed in setting, communicating and reviewing environmental objectives and targets and details the objectives and targets set for the Project.

Roles

Environmental Manager, Project Manager

Process

Setting objectives and targets

Objectives and targets have been set to be specific, measurable, achievable and realistic. The EM is responsible for setting and achieving environmental objectives and targets.

In setting objectives and targets AGL has identified potentially significant risks impacting the Project, identified opportunities for improvement, set an achievement goal (objective) for each selected significant risk and set at least one detailed performance requirement (target) for each objective that is measurable by some means.

The overall project environmental objective is to undertake all aspects of the project in an environmentally responsible manner and effectively manage risks which may lead to an impact on the environment and our surrounding communities.

AGL has also set more specific and measurable objectives and targets which will assist in achieving the overall environmental objective. These are shown in Table 5-1.

Table 5-1: Project environmental objectives and targets

Area	Objective	Targets	Relevant Documentation
Environmental Complaints	Minimise environmental complaints and adequately address any environmental complaints in a timely manner	- Provide a response to all complaints within the designated timeframes (refer to Section 5.1.5 for applicable timeframes). - Address and close out environmental complaints within the designated timeframe.	- Six monthly compliance tracking reports
Incidents and non-conformance	Minimise and appropriately manage all environmental non-conformances	- Rectify and investigate incidents and non-conformance in a timely manner - Complete corrective actions within the designated timeframes. - Report environmental incidents within the designated timeframes	- Environmental Action Register - Environmental Incident Register - Six monthly compliance tracking reports
Legal compliance	Compliance with all legal requirements	- No government agency notices - No regulatory infringements - No formal regulatory warnings	- Six monthly compliance tracking reports - EPL Annual Returns - Monthly reports to AGL
Audit and inspection	Undertake audits and inspections in a timely manner	- Complete audits and inspections as per CBI's Monitoring, Inspection and Auditing Program	- Monthly Environmental Reports - Six monthly compliance

Area	Objective	Targets	Relevant Documentation
		(Appendix A2)	tracking reports
Environmental awareness, training and competence	All staff to be aware and trained in their environmental obligations and to be competent in relation to their environmental responsibilities	- Project inductions to be delivered to all CBI personnel - Toolboxes to be delivered regularly - Daily pre-start meetings to be conducted before commencement of work each day - Staff requiring specific training to complete this training	- Induction register - Toolbox and pre-start attendance registers
Environmental approvals compliance	Compliance with all environmental requirements	- No incidents - No complaints - No formal regulatory warnings	- Six monthly compliance tracking reports - Monthly reports to AGL

Monitoring and reviewing objectives and targets

Performance against objectives and targets will be monitored through the completion of audits, management reporting and management reviews as described further in Section 5.4. Objectives and targets will be reviewed annually or as a result of a major non-conformance or incident.

Tools

Sub plans

5.1.5 Ancillary Facilities

Description

Ancillary facilities are temporary facilities required for construction purposes. The Project will require a number of ancillary facilities such as site compounds, material storage areas and stockpile areas.

This topic describes how the locations of ancillary facilities will be identified and assessed to ensure their location and use minimise environmental impact.

Roles

Environmental Manager, Superintendent, Foreman, Construction Manager

Process

The list presented below defines the criteria against which the locations of ancillary facilities are to be assessed:

- be located in areas which are not flood prone;
- be sited on relatively flat land;
- be situated away from drainage channels;
- not require vegetation clearing beyond that already required for the project;
- located within or directly adjacent to the project;
- be accessible from the road network where practicable;
- not impact on heritage sites; and
- not affect the land use of adjacent properties.

The EM will ensure that relevant construction personnel are aware of the above criteria and that locations are chosen only in areas that are fully compliant with the above criteria or where it can be demonstrated

that the facility will have no adverse impact. The proposed locations of ancillary facilities and an assessment against the above criteria are specified in Appendix A8.

Where additional ancillary facilities are required during the course of construction, they will be assessed against the above criteria and where they do not comply, CBI will demonstrate to AGL that there will be no adverse impact. Once this has occurred they will be included in Appendix A8 as a revision to the CEMP (refer to Section 4.4 for the CEMP revision process).

Location of Stockpiles

Stockpiles will be placed generally along the gas pipeline access corridor. Specific measures to control stockpiles include:

- Soils shall not be stockpiled within 40m of drainage channels/water courses unless the drainage channel/water course is more than 20m wide;
- Water runoff will be controlled in accordance with the SWMP;
- ASS leachate containment will be in accordance with the ASSMP;
- Stockpiles containing ASS will be placed above flood levels; and
- Stockpiles containing viable seed banks will have a height limit of 1m in accordance with the SMP.

Any additional ancillary facilities required during the course of construction will be included in revisions of Appendix A8.

Tools

EA

Sub plans

5.2 Consultation and Communication

5.2.1 Consultation for CEMP

Description

A range of consultation has been undertaken as part of the CEMP preparation and will continue during subsequent revisions involving significant modifications.

Roles

Community Relations Manager

Process

Consultation Process

The CoA require that consultation with certain stakeholders be undertaken prior to the submission and approval of the CEMP by the Director-General. This consultation which has taken place by AGL includes:

- CEMP – to be prepared in consultation with NOW and HWC and Port Stephens Shire Council;
- Flora and Fauna Management Plan – to be prepared in consultation with Port Stephens Shire Council and EPA;
- Heritage Management Plan – to be prepared in consultation with local Aboriginal stakeholders;
- Groundwater Management Plan – to be prepared in consultation with NOW and HWC;
- Surface Water Management Plan – to be prepared in consultation with NOW, HWC and Port Stephens Council;
- Flood Emergency Response Plan – to be prepared in consultation with Port Stephens Shire Council;

- Acid Sulphate Soil Management Plan – to be prepared in consultation with DPI (Aquatic Habitat Protection Unit) and NOW;

Whilst not specifically required by the CoA, consultation with relevant Government agencies and Port Stephens Shire Council may be undertaken, where appropriate, for the following sub plans:

- Vegetation Rehabilitation and Weed Management Plan;
- Traffic Management Plan;
- Dangerous Goods and Hazardous Materials Management Plan
- Bush Fire Management Plan;
- Noise and Vibration Management Plan;
- Air Quality Management Plan; and
- Waste Management Plan.

Should revisions to the CEMP be required determined by the EM to be significant, consultation with relevant Government agencies in conjunction with AGL will be undertaken as relevant.

Record of Consultation, Communication and Approvals

External consultation via email will be undertaken using the Aconex email system, which automatically records all email correspondence. The uploading and management of documents using Aconex is discussed further in Section 4.5 – Document Control and Records. In addition, any records of consultation including letters, review comments or the issue of approvals will be saved in the CBI Environmental folder on the Project server.

Verbal consultation with stakeholders will be recorded using diary notes or file notes saved in the relevant folder in the CBI Environmental folder on the Project server.

Tools

Community Engagement Plan

5.2.2 Consultation for EWMS

Description

A range of consultation will be undertaken as part of EWMS preparation and will continue during subsequent revisions involving significant modifications.

Roles

Environmental Manager

Process

Consultation Process

As discussed in Section 4.3.4, EWMSs will be prepared by persons carrying out the work and reviewed by the Environmental Management Team..

Record of Consultation, Communication and Approvals

Verbal consultation with stakeholders will be recorded using diary notes or file notes saved in the relevant folder in the CBI Environmental folder on the Project server.

Tools

Diary notes

5.2.3 Consultation with Stakeholders

Description

Communication with stakeholders is an important element of any project to ensure all potentially affected stakeholders are made aware of predicted or potential impacts and that an avenue for stakeholder input is made available. This topic describes the types of environmental communication proposed during the construction of the Project, and the relationship with the Community Engagement Plan (CEP).

Roles

Environmental Manager, Community Liaison Coordinator

Process

Stakeholders

Appropriate communication and notification with the key stakeholders is an essential element in establishing constructive communication channels to ensure the impact of potential or actual issues and incidents are prevented / minimised or dealt with efficiently and amicably.

Stakeholders have been identified as part of the CEP and include residences nearby to the Project, Government departments, authorities, organisations and Local Government including, but not limited to:

Local community

- Affected landowners
- Botanic Gardens
- Local Aboriginal Land Councils including Awabakal LALC.

Local environment groups

- Native Animal Trust
- Port Stephens Koala Steering Committee
- Hunter Koala Preservation Society
- Others as they emerge

Local industry

- Tomago Aluminium Company
- Others as they emerge

Local Councils

- Port Stephens Council

Government Agencies and Authorities

- Office of Environment and Heritage
- Hunter Water Corporation
- NSW Fire Brigade
- NSW Ambulance
- NSW Police
- Roads and Maritime Services (former RTA)
- NSW Office of Water
- Hunter Business Chamber
- Civil Aviation Safety Authority
- Department of Defence

The stakeholder engagement program takes into account that the stakeholders may change from time to time as the interests of the stakeholders vary during the course of the construction and commissioning period.

Community Engagement Plan

The CEP is applicable to the Project as a whole, and closely interacts with the functions of the CEMP and other project management plans. The CEP defines the policies, processes and procedures for managing communications with the local community and other stakeholders during the Project. The responsibility for development and maintenance of the CEP lies primarily with the Community Relations Manager, although it is the responsibility of all project personnel (including subcontractors) to fulfil their individual duties with relation to community contacts, complaints and provision of information regarding the Project. The CEP has been prepared by AGL to meet all the requirements of CoA B49 and CoA B50.

The CEP describes a range of consultation and communication tools that are used to inform the community of project issues and receive comments and complaints. Key elements include:

- 24-Hour Project Construction Response Toll-free number – established and communicated to community and stakeholders for registering a comment / complaint, triggering the appropriate response procedure from within AGL and CBI;
- Letterbox drops – regular publications providing project information or targeted letter drops for specific issues (e.g. traffic changes);
- Project Website.

The key areas in which the CEMP and CEP interact relate to the process of consulting with the community about activities that may have an impact on surrounding communities (e.g. noise intensive activities etc.).

Complaints Handling Procedures

The Community Relations Team will be responsible for managing all enquiries and complaints. Project personnel who become aware of an enquiry or complaint will advise the Community Relations Team of the enquiry or complaint as soon as possible. Contact may be via:

- Telephone contact with the community relations office based in North Sydney (by use of the AGL toll free telephone number 1 300 473 660)
- Email (via website or direct) gsf@agl.com.au
- By post (Locked Bag 1837 St Leonards NSW 2065)
- In person to a contractor on site/in the community

In responding to enquiries or complaints CBI will:

- Record details of every complaint received and how it was managed and closed out and enter the information into the Consultation Manager database (see description under Section 4.5).
- Investigate the complaint researching any previous issues, checking whether any requirement has been breached, what corrective action, if appropriate, will be undertaken, a time frame for this action and the appropriate feedback/response to the complainant.
- Provide at least a verbal response to the complainant regarding what action is proposed as soon as possible and within a maximum of 4 hours from the time of the complaint where the complaint has been received via the AGL toll-free telephone number (unless the complainant requests otherwise).
- Where written correspondence is received, the submission will be acknowledged within five working days and a written response will be provided within 15 working days.
- Where correspondence is received by email or fax, the submission will be acknowledged with 24 hours.

- Forward details of any complaint, the action taken and any outstanding issues or remediation requirements to the Community Relations Manager and appropriate functional and construction managers daily.

The Community Relations Manager will immediately advise CBI of any complaints that have the potential to be escalated to government representatives and/or the media.

Communication feedback will be evaluated monthly as part of the reporting process in order to assess and adjust communication methods if required.

For further information on complaints handling refer to the Community Engagement Plan (CEP).

CBI Contacts for Stakeholders

In accordance with best practice, CBI has nominated two persons to be available to liaise with EPA and other authorities if required, on a 24 hour basis. The nominated persons must have authority to take immediate action as required by EPA.

The two nominated persons from CBI are:

- the Project Manager (Ali Ashtiani 0414 722 796); and
- the Environmental Manager (Craig Rivera 0437 002 168).

Tools

Community Engagement Plan

5.2.4 Environmental Training

Description

The successful training of project personnel in their environmental requirements is a key factor in ensuring compliance with the objectives of this CEMP. Training can be both verbal and written and includes induction, meetings and specific training. This topic describes the processes for communicating relevant environmental requirements to all project personnel prior to and during construction.

Roles

Environmental Manager, Safety Manager, General Superintendent, Foremen, Environmental Advisor, Heritage Consultant, Ecologist, Arbourist

Process

CBI Induction

All personnel working for CBI will be required to attend a project induction. The induction will be developed by the CBI Safety Manager, and environmental staff where required. The induction will cover safety, quality, environment and other requirements and will provide each inductee with the required knowledge of the CBI processes to enable them to conduct their work in accordance with relevant policies, plans and procedures.

The environmental content of the inductions is governed partly by the requirements of AGL and also by the training commitments in the CEMP and sub plans. This may include, but not be limited to:

- The purpose and objectives of this CEMP;
- The requirements for due diligence and duty of care;
- Environmental personnel and contacts;
- Relevant conditions of licences and approvals including the CoA, SoCs and the EPL;
- Flora and fauna requirements;
- Heritage requirements;

- Implementing environmental controls;
- Environmental exclusion zones;
- Reporting environmental incidents; and
- Environmental emergency plans.

Records of induction attendance will be kept, managed and recorded through processes described in the CBI Safety Plan.

Toolbox Talks

CBI site management will implement a program of toolbox talks for all personnel for the duration of the Project. Toolbox talks will be scheduled on a regular basis, but no less than once per fortnight for each work section or group, will be of adequate duration to cover relevant information and structured to encourage full participation by all personnel. Senior management may also call additional toolbox meetings at any time to discuss or highlight any aspect relating to safety, environment and quality.

The Safety Manager will be responsible for preparing and conducting toolbox talks which will be focused on issues relating primarily to safety, quality and the environment.

Topics to be covered in toolbox talks will be focused on issues relevant to upcoming works, works in or near sensitive receivers or environmentally sensitive areas or incidents that have occurred. Environmental topics will be determined by the EM and Superintendent and will include, but not be limited to:

- Minimising vegetation clearance;
- Exclusion areas including heritage and protected vegetation;
- Water management, water quality and sediment controls;
- Noisy works inside normal working hours;
- Environment incidents;
- Changes to previously communicated environmental mitigation measures;
- Environmental procedures; and
- Environment alerts.

Toolbox talk topics, dates delivered and a register of attendees will be recorded and managed in accordance with the processes described in the CBI Safety Plan.

Daily Pre-Start Meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

The Foreman will conduct a daily pre-start meeting with the site workforce before the commencement of work each day (or shift) or where changes occur during a shift. Daily pre-start meetings are generally succinct in nature and take approximately 10-15 minutes. The environmental component of pre-starts will be determined by relevant foreman and environmental personnel and will include any environmental issues that could potentially be impacted by, or impact on, the day's activities. All attendees will be required to sign on to the pre-start sheet and acknowledge their understanding of the issues explained. Pre-start topics, dates delivered and a register of attendees will be recorded and managed in accordance with the processes described in the CBI Safety Plan.

Competency based training

The Project Manager, in consultation with the EM, will:

- Identify environmental training needs/skills gaps;

- Develop and / or source appropriate training programs (either internal or external);
- Identify who will deliver the training;
- Coordinate delivery of training programs; and
- Maintain records of training attendance.

Specific environmental training may include erosion and sediment controls, spill response, water discharge, heritage identification, etc. and will be progressively identified throughout the Project.

Tools

Project induction

CBI Training Matrix

5.2.5 Internal Environmental Communication

Description

The ongoing communication of environmental requirements and progress to project personnel is a key element in ensuring compliance with the objectives of this CEMP. Communication can be both verbal and written and can include meetings and notifications. This topic describes the processes and forums for communicating relevant environmental requirements to project personnel (in addition to training discussed in Section 5.2.4) and identifying aspects that may result in environmental impact during construction.

Roles

Environmental Manager, Project Team

Process

Meetings

A program of internal communication networks and regular meetings will be established for project personnel. Regular meetings to review and coordinate project management and progress will be established as described below, and scheduled on a project meetings schedule in accordance with the PMP.

Regularly scheduled meetings where environmental issues are discussed include the following:

- Construction meetings – held weekly and attended by key construction personnel to discuss completed and upcoming construction activities. To be attended by a representative from the Environment Team; and

Action items from the above meetings will tabled and actioned as required.

Environment Alerts

Environment alerts (**170596-EN-F01-Environmental Alert)** are a tool to highlight significant environmental issues. Environment alerts will be issued when a significant environmental issue / risk / legislative change arises either on CBI or on another construction project and is brought to the attention of CBI personnel.

The EM will develop and / or issue environment alerts which may cover a range of subjects including:

- Environment incidents;
- Changes in legislation;
- Major changes in procedures, work methods and materials; and
- Stop work orders.

Relevant environmental alerts from AGL will also be issued where deemed necessary. All environmental alerts will be issued through Aconex and posted on noticeboards and other places deemed appropriate.

Tools

Action items template

Environmental alert template

Tools

N/A

5.3 Implementation of Controls

Description

The successful implementation of environmental controls to manage identified risks is a key outcome of any EMS. This topic describes how CBI proposes to document and implement environmental control measures to manage potential environmental impacts.

Roles

Environmental Manager, Environmental Advisor

Process

As described in Section 5.1.3, environmental risks were identified throughout the EA process, expanded on in the CBI environmental risk assessment and further assessed in the sub plans.

Control measures for these risks were then developed in the sub plans and will be communicated through various means to relevant personnel for implementation on-site. The environmental documents used to control environmental risks are described in Section 4.3.

Tools

Sub plans

EWMS

Erosion and Sediment Control Plans (ESCPs)

Procedures

5.4 Monitoring and Review

5.4.1 Environmental Inspections

Description

Regular site inspections are an important part of maintaining an environmental presence and observing construction activities to ensure compliance with controls described in the CEMP, sub plans, procedures and EWMS. This topic describes the types and frequencies of environmental inspections to be undertaken throughout the construction of the Project.

Roles

Environmental Manager, Environmental Advisor, Environmental Representative, Superintendent/ Foreman

Process

Daily Site Inspections

Typically, daily environmental inspections will be performed by the EV during site attendance and will focus on the protection of environmentally sensitive areas, impact on sensitive receivers and compliance with all applicable environmental documentation and conditions.

Daily site inspections provide a forum for environment personnel to liaise directly with construction personnel to ensure satisfactory environmental outcomes during works.

The EV will document any relevant or notable outcomes of site inspections in three ways:

- Diary notes, which will be kept of work locations, activities, times, conversations or other relevant information that may be of environmental interest, both positive and negative;

- Photographs, which will be taken of environmental mitigation measures, construction activities or other areas of interest both positive and negative; and
- An Environmental Action Register will be maintained by the EV to record any minor non-conformances and associated actions required to be undertaken by construction personnel.

Any required actions determined by the EV to form a non-conformance with a EWMS, procedure or other management document will also be recorded and managed as described in Section 5.5.

Weekly Environmental Inspection

In addition to undertaking daily site inspections, the EV will undertake documented weekly site inspections that will focus on the items listed in the weekly environmental checklist. The EV will be responsible for completing the weekly environmental checklist and forwarding it to the EM for review.

As with the regular site inspections, any items identified on the weekly site inspection checklist as requiring action, will be entered into the Environmental Action Register.

Environmental Review Group Inspections

The site will also be regularly inspected by the Environmental Review Group (ERG). The ERG will be made up of CBI environmental staff and relevant construction personnel and may include the ER.

The outcomes and actions required will be recorded using the Environmental Inspection Report form and the actions from this inspection will be entered into the Environmental Action Register.

Tools

Site Diary

Environmental Action Register

Weekly Environmental Checklist

5.4.2 Environmental Monitoring and Measurement

Description

Environmental monitoring is important in ensuring that construction activities are not adversely affecting the environment or sensitive receivers and that control measures are working effectively. This topic describes the types, schedule and locations of environmental monitoring to be undertaken for the Project.

Roles

Environmental Manager, Environmental Advisor, Specialist Consultants

Process

Sources of Monitoring Requirements

Project monitoring requirements can arise from the following key sources:

- Approvals, licences, permits and other legislative requirements including CoA, SoCs and the Project EPL: and
- Commitments from this CEMP and associated sub plans.

Baseline Monitoring

Baseline or background monitoring provides the opportunity for CBI and AGL to measure and document existing environmental conditions in order to more accurately assess future impacts during and following construction. Baseline monitoring prior to construction will include but not be limited to the following:

- Water quality; and
- Noise levels

Consultants may be engaged to perform this baseline monitoring and provide technical advice. Locations will be selected by AGL for water and CBI for noise, in consultation with consultants where necessary and based on proximity to sensitive receivers and predicted areas of impact. Locations may be subject to landholder agreement.

Construction Environmental Monitoring

The requirements for environmental monitoring throughout the construction period are detailed in the relevant CBI sub plans. Sufficient detail on responsibilities and how and where monitoring will be undertaken is provided in the sub plans and included as a separate procedure where further information is required.

A summary of these monitoring requirements and timeframes is included as Appendix A2 to this CEMP – Environmental Inspection, Monitoring and Reporting Program, for reference by environmental personnel.

Results of environmental monitoring will be used for:

- The evaluation of performance relative to legal, regulatory, contract, permit, licence and other commitments;
- The prompt identification of actions, non-conformance or incidents; and
- Providing the basis of internal and external reporting.

Recording and Analysis

Project environmental monitoring forms, checklists and registers have been designed to allow for effective and comprehensive data collection, recording and review. Registers will be maintained by environmental personnel for all environmental monitoring results on an ongoing basis to enable review of trends or exceedance of criteria and to simplify compliance or other reporting. Positive or negative trends and criteria exceedance will be discussed at environmental team meetings and where required CBI Team meetings.

The types of environmental monitoring registers to be kept for the Project are detailed in the Environmental Document Register and include noise, dust and water quality. Monitoring data will be uploaded and maintained on iDocs on an ongoing basis.

Reporting

The EV will regularly report monitoring results to the EM. The EM will report:

- To the CBI construction management team (through monthly reports);
- To EPA (through EPL annual returns);
- To AGL as required (as a result of any incidents or non-conformances); and
- To other regulatory authorities, as required.

Tools

Environmental Monitoring, Inspection and Reporting Program

Monitoring result registers – various

Environmental Document Register

5.4.3 Environmental Auditing

Description

Regular and scheduled auditing of compliance against approvals and management documents including the CoA, SoC, CEMP, sub plans, procedures and EWMS is an important part of the EMS review process. This topic describes the types, frequencies and scope of environmentally related, documented audits.

Roles

Environmental Manager, Environmental Advisor, Environment Representative

Process

Task Observations

EWMS will be the main site tool used to document and train personnel on environmental control measures required for all construction activities. To ensure that both the safety and environmental requirements of the EWMS are being adequately implemented, CBI personnel will perform documented task observations.

Task observations will be undertaken on a weekly basis by nominated management, environmental or other CBI personnel.

The task observation form will include a prompt to ensure that all the required environmental tasks, as documented in the EWMS being audited, have been or are being undertaken appropriately. If any environmental tasks detailed in the EWMS are not being implemented to the satisfaction of the auditor then the employee or contractor will be made aware of the issue, a record made on the task observation form, the EV informed of non-conformance or required action.

A record of task observations undertaken will be retained on-site by the Environment Team.

Internal Auditing

Internal auditing will be undertaken by the Environmental Manager Asia Pacific Australia (APA) on a quarterly basis, with the initial audit to occur within three months of the commencement of construction. These internal audits will be timed to incorporate the six monthly compliance tracking (as part of the Compliance Tracking Program), so that the results can be used in the compliance tracking reporting to DoP. The Compliance Tracking Program will be developed as a separate document outside the framework of the CEMP to track compliance with the CoA and SoCs.

The scope of the internal audits will be as follows:

- Check compliance with the CoA and SoCs;
- Check compliance with the mitigation measures in the CEMP and sub plans;
- Review the CEMP, sub plans and all other environmental documentation to ensure relevance to current activities and recommend changes or improvements;
- Review results of monitoring against criteria;
- Review environmental incidents to determine trends or additional controls required;
- Review non-conformance and CAR information to determine trends or additional controls required; and
- Review Environment Action Register/s to ensure timely and adequate close-out of actions.

The results of all internal environmental audits will be provided to CBI senior management for review and action if necessary.

The outcomes of the internal audit may trigger the requirement to update the CEMP and/or any associated environmental documents. Document revision will be done in accordance with Section 4.4 and Section 4.5 of this CEMP and in accordance with the requirements of the Quality Plan.

External Auditing

External auditing will be undertaken by the ER on a three monthly basis with the initial audit to occur within three months of project commencement. The external audit will be undertaken in accordance with ISO 19011:2003 as prescribed by the in CoA B54 (b) Compliance Tracking Program. The scope of the external audit will essentially be the same as the six monthly internal audits which will focus on compliance with the CoA, SoCs, CEMP, EPL and other approval or management documents.

Tools

N/A

5.4.4 Improving Environmental Performance

Description

Continual improvement is an important element of any EMS. This topic summarises the processes to be implemented by CBI to ensure that areas of potential or required environmental improvement are actioned.

Roles

Environmental Manager, Environmental Advisor, Environmental Representative

Process

As described throughout Section 5.4, the review and monitor processes that will be implemented during the Project may identify a variety of improvements that must or should be made to ensure continual improvement.

Required actions (Non-conformances or CARs) will be identified through a variety of forums and will be managed as described in Section 5.5. Provided all required actions are implemented in a suitable timeframe and managed to prevent reoccurrence, CBI will be demonstrating a commitment to continual improvement.

In addition to the above, six monthly internal audits will assess trends in the types and frequency of environmental incidents as recorded in the Environmental Incident Register. This assessment may also identify opportunity for improvement in areas such as documentation (CEMP, sub plans, procedures, checklists etc.) and resourcing (number and experience of environmental or other personnel).

Through the above processes, any potential environmental improvements will therefore be identified, recorded and actioned by the EM or higher where required.

Tools

N/A

5.5 Incident Management

5.5.1 Environmental Non-Conformances and Corrective and Preventative Actions

Description

CBI will identify environmental non-conformances (including environmental incidents) during construction and will undertake the required corrective actions to address the non-conformance and implement preventative actions were required.

As a note, environmental non-conformances are addressed in this section, not project non-conformances, which typically relate to quality defects in terms of plant or materials.

Environmental non-conformance will be detected through verification processes such as monitoring, inspections, audits and receipt of complaints. Tracking of environmental non-conformances and associated corrective actions will be the responsibility of the EM.

This section is a summary of the process for managing environmental non-conformances identified during the course of the Project.

Roles

Environmental Manager, Environmental Advisor, Construction Manager

Process

Managing Environmental Non-conformances

Where a non-conformance is identified, which is not classified as an environmental incident (refer to Managing Environmental Incidents following) the following process will be followed:

- When an environmental non-conformance is detected, corrective actions will be identified and entered into the **170596-EN-R04-Environmental Action Register**. The Environmental Action Register will detail the non-conformance, the corrective and preventative actions proposed, the responsibilities and timing for completion of the actions.
- Where the environmental non-conformance is associated with an inspection, audit or monitoring event, the actions will be linked to the record of that event.
- Once an action is completed, the register will be updated to close the action including input of comments and completion date.
- The Environmental Action Register will be reviewed weekly by the EM, and audited monthly to ensure actions are being completed on time.

Managing Environmental Incidents

An environmental incident may be defined as a discrete (one-off) occurrence that may result in an adverse impact (or impacts) on the environment or a breach of legislation.

Response to environmental incidents will be in accordance with **170596-EN-P01-Environmental Incident Response Procedure**. The EM will report environmental incidents (including recording and notification) in accordance with **170596-EN-P02-Environmental Incident Reporting Procedure** which is supported by the following documents:

- **170596-EN-R03-Environmental Incident Register**
- Environmental Incident Classification Guideline (Appendix A3)
- **170596-EN-F02-Environmental Incident Report Form** (Appendix A4)

Incidents of a minor nature not requiring immediate notification to the Director-General will be summarised and reported through the periodic six monthly construction compliance reporting. The ER will be made aware of minor incidents through regular site and compliance inspections.

Investigating Environmental Incident

Following the control and notification of all incidents, an investigation will be conducted. As part of this investigation, if appropriate, a site team meeting will be held to identify why the incident occurred, identify any system failures and identify any improvements that could be made. Where lessons are learnt from the investigation, or current documentation, processes or resources are identified as being ineffective, measures will be implemented by the EM to rectify the situation, as detailed in Section 5.4.4. Corrective actions will also be implemented to minimise the likelihood of re-occurrence. A record of incident investigation will be kept by the Environmental Manager.

Preventative Actions – Environmental Non-conformances and Incidents

Preventative actions will be managed as follows:

- The EM will review the Environmental Action Register and Environmental Incident Register as part of the quarterly internal compliance audit program, to identify recurring non-conformances (including incidents) that are indicative of the need to take preventative action.
- Reviews of environmental performance will be undertaken through consideration of key performance indicators, objectives and targets, and benchmark performance.
- Where assessed by the EM as necessary, a preventative action will be raised and action undertaken as a Corrective Action. Preventative actions may include changes to specific procedures or the EWMS, training requirements, or other management areas.

Tools

Monthly Project Environment Report

Environmental Incident Response Procedure

Environmental Incident Reporting Procedure

Environmental Incident Report

Environmental Incident Register

Weekly Environmental Inspection Checklist

Environmental Action Register

Incident Classification Guidelines

Environmental Incident Report Form

Environmental Alert

5.5.2 Incident Response Planning

Description

Environmental incidents may occur during the construction of the Project although management measures will be planned and implemented to minimise the risk of occurrence. In addition, incident response for potential environmental emergencies will be planned to provide the best opportunity to minimise impact.

This topic describes potential environmental incidents, resulting impacts and how CBI plans to manage any emergency situations.

Roles

Environmental Manager, Environmental Advisor, General Superintendent, Foreman, Safety Manager

Process

Examples of situations which have the potential to lead to serious environmental incidents/emergencies are listed in Table 5-2.

Table 5-2: Examples of situations leading to serious environmental incidents

Potential environmental incident/ emergency	Potential impact	Planned contingency measure	Responsibility
Unauthorised sediment discharge	Dirty water discharge to local waterways (potentially resulting in fish kills), environmental harm. Possible prosecution	Detailed further in SWMP including - stop all pumping in the vicinity; - containing discharge where possible; - notify in accordance with Environmental Incident Response Procedure; and - clean up if possible.	Environmental Advisor, Environmental Manager, Foreman, Superintendent
Fuel, oil, chemical spill contained onsite	Contamination of sediment basin water, contamination of soil and groundwater. Possible prosecution.	Detailed further in SWMP including: - stop affected works; - stop source of spill if safe to do so; - contain spill; - notify in accordance with Incident Response Procedure; and - clean up / dispose of contaminated water / soil.	Environmental Advisor, Environmental Manager, Foreman, Superintendent
Fuel, oil, chemical spill leaving site	Impact to local waterways (potentially resulting in fish kills), environmental harm, contamination of soil and groundwater. Possible prosecution.	Detailed further in SWMP including: - stop affected works; - stop source of spill if safe to do so; - contain spill; - notify in accordance with Environmental Incident Response Procedure; and - clean up / dispose of contaminated water / soil.	Environmental Advisor, Environmental Manager, Foreman, Superintendent

Ecological Impact	Clearing beyond approved area	Detailed further in FFMP including: - stop work in area; - notify in accordance with Environmental Incident Response Procedure; and - check and re-install if necessary exclusion fencing in area and throughout project.	Environmental Advisor, Environmental Manager, Foreman, Superintendent
Heritage Impact	Unforseen impact to identified heritage items, chance find of heritage item	Detailed further in CHMP including: - stopping works in the immediate vicinity; - install exclusion fencing, if necessary, to protect objects. - notify in accordance with relevant incident response procedures; and - manage/ mitigate as required.	Environmental Advisor, Environmental Manager, Foreman, Superintendent
Explosion	Explosion (chemical, fuel or equipment) onsite resulting in: - fire and discharge of gases, fumes and chemicals to the environment; - environmental harm or death / injury to workers and stakeholders.	Stop work and evacuate the area; - contact emergency services “000’ for fire brigade, police or other relevant authority to attend the site; - implement environmental clean-up procedures relevant to the scale and nature of the any spilt product; and - notify in accordance with Environmental Incident Response Procedure.	Environmental Advisor, Environmental Manager, Foreman, Superintendent
Fire and bush fire	Placing human life and property at risk. Death or injury to flora and fauna.	- stop work, remove any flammable / combustible materials from near the fire; - contact emergency services “000’ for fire brigade to attend the site; and - notify in accordance with Environmental Incident Response Procedure.	Environmental Advisor, Environmental Manager, Foreman, Superintendent
Excessive noise	Excessive construction noise impacting sensitive receivers.	Detailed further in NVMP including: - stop or review work in the vicinity, identify plant or equipment responsible for emitting excessive noise; and - implement Complaint Handling Procedure, including monitoring, implement mitigation measures and - notification of relevant parties / authorities (i.e. EPA).	Environmental Manager, Environmental Advisor, Foreman, Superintendent

Protocol for industry notification of pollution incidents

Recent changes to Part 5.7 of the Protection of the Environment Operations Act 1997 (POEO Act) specify new requirements relating to the notification of pollution incidents.

The changes take effect from 6 February 2012 and require the occupier of premises, the employer or any person carrying on the activity which causes a pollution incident to immediately notify each relevant authority (identified below) when material harm to the environment is caused or threatened. The following information and procedures may assist those responsible for reporting a pollution incident.

Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:

- the appropriate regulatory authority (ARA) for the activity under the POEO Act (usually the EPA or local authority) – the local authority is a local council of an area under the Local Government Act

1993), the Lord Howe Island Board for Lord Howe Island, or the Western Lands Commissioner for the Western Division (except any part of the Western Division within the area of a local council)

- the EPA, if it is not the ARA – phone Environment Line on 131 555
- the Ministry of Health via the local Public Health Unit – see www.health.nsw.gov.au/publichealth/infectious/phus.asp
- the WorkCover Authority – phone 13 10 50
- the local authority if this is not the ARA
- Fire and Rescue NSW – phone 000.

Table 5-3 presents the relevant list of emergency contacts for the Project.

Table 5-3: Environmental emergency contact details

Emergency Contact Organisation	Contact Details
Police	000
Ambulance	000
NSW Rural Fire Service	000
EPA	131 555
Department of Planning Director General	02 9228 6111
WorkCover Authority	131 050
Environmental Manager – Craig Rivera	0437 002 168
Project Manager – Ali Ashtiani	0414 722 796
AGL Community Relations Office	1 300 473 660

Tools

Environmental Incident Response Procedure

6.0 APPENDIX A1 ENVIRONMENTAL POLICY

Protection of the environment is one of the fundamental policies of CBI Constructors Pty Ltd. Each employee of CBI is expected to comply with applicable environmental laws of the country, and locality where business is conducted. CBI's policy with respect to compliance with applicable environmental laws applies to all aspects of the operations of each business unit, including but not limited to plant operations, jobsite activities, and transportation of gases and other materials. Just as with laws governing safety, violations of environmental laws can result in large liabilities for CBI and serious civil and criminal penalties for both CBI and the responsible individual, including fines, possible imprisonment, or both. Responsibility for compliance with this policy rests with the manager of each business unit within CBI. It is the responsibility of each manager of a CBI business unit to:

a) Identify and understand the requirements of the environmental laws and regulations that apply to the operation of such business unit;

b) Regularly assess the current level of compliance of such business unit with respect to applicable environmental laws and regulations;

c) Ensure that the operations of such business unit are performed within the applicable laws and regulations and that such business unit has obtained all required permits and licenses to conduct such operations;

d) Develop procedures and systems, and where needed, hire responsible personnel or engage third party services to respond to any environmental emergency or incident and to both monitor and ensure compliance with the environmental laws and regulations;

e) Respond to any spill or emission incident which may violate any law or regulation;

f) Notify, as required by law or regulation, the designated governmental authorities; and,

g) Advise senior management personnel of any problems associated with the compliance of such business unit with CBI's policy with respect to this area.

There are potentially significant health and safety risks to CBI employees and to the public, as well as potential enormous cleanup costs, which may result from improper use, storage, handling, transportation, or disposal of hazardous and non-hazardous substances which result in any pollution of the land, air or water. CBI requires its employees not only to obey environmental laws to prevent pollution, but also to demand and ensure compliance from others with whom CBI does business, such as subcontractors or waste haulers, whose violations could result in liability to CBI. Equally, it is the legal and ethical responsibility of CBI to prevent its own violations which could lead to the impositions of liability on the customers of CBI. CBI expects every employee, regardless of the employee's position within CBI, to maintain a sensitivity to environmental issues as they affect the work place for which the employee may be responsible or where the employee's position is located and to act to minimize adverse effects in this critical area affecting CBI's business. CBI Constructors Pty Ltd will review this policy at least every two years from date of issue for continuing suitability as part of the Management Review process, and to ensure it continues to meet the needs of all stakeholders.

7.0 APPENDIX A2 MONITORING, INSPECTION AND REPORTING PROGRAM

CBI Environmental Monitoring, Inspection and Reporting Program

Table 1: Environmental Monitoring and Inspection Program

Activity	Area	Resources	Responsibility	Frequency	Reported to
ROUTINE MONITORING					
Groundwater					
Monitoring of groundwater wells	As per GWMP	Monitoring devices and laboratory analysis	AGL	As per GWMP	Environmental Manager
Surface Water					
Monitoring of surface water sediment basins and discharge points	As per SWMP	Monitoring devices and laboratory analysis	Environmental Manager/ Environmental Advisor/ Project Engineer	As per SWMP	Environmental Manager
Vegetation Rehabilitation and Weed Management					
Monitoring of weed infestation	All	Weekly Environmental Inspection Checklist	Environmental Advisor/ Ecologist	Weekly/ as required	Environmental Manager
Flora and Fauna					
Monitoring of flora and fauna management issues	All	Weekly Environmental Inspection Checklist	Environmental Advisor/ Ecologist	Daily/ weekly/ as required As per FFMP	Environmental Manager
Soil					
Monitoring of sediment controls	All	Weekly Environmental Inspection Checklist	Environmental Advisor	Weekly/ as required	Environmental Manager
Acid Sulphate Soils					
Monitoring of disturbed soil for ASS	Field pH, 30% peroxide, chromium suite if required.	ASS test procedure	Environmental Advisor/ other nominated trained personnel	As required as areas suspected of ASS are excavated	Environmental Manager
Noise and Vibration					
Ongoing noise monitoring	Nominated sensitive receivers	Noise logger	Environmental Advisor	Where required	Environmental Manager
Plant and Equipment Monitoring	Noise	Noise logger	Health and Safety Manager / Health and Safety Officer	Where required	Environmental Manager/ Construction Manager
Vibration Monitoring	Where vibratory intensive activities occur within the identified zone of influence or approx. 50m of buildings	Vibration logger	Environmental Advisor/ Acoustics Consultant	As required	Environmental Manager
Complaint Monitoring	All complaints/ all areas	Complaints Management System	Community Relations Manager	Daily	Environmental Manager/ Construction Manager
Air Quality					
Complaint Monitoring	All complaints/ all areas	Complaints Management System	Community Relations Manager	Daily	Environmental Manager/ Construction

Activity	Area	Resources	Responsibility	Frequency	Reported to
					Manager
ROUTINE INSPECTIONS					
Surface Water					
Erosion and sediment controls	All	ESC checklist Water quality checklist	Environmental Advisor	Weekly or following heavy rainfall	Environmental Manager
Flora and Fauna					
Pre clearing	Vegetation clearance areas	Pre Clearing Checklist	Ecologist	As required by FFMP	Environmental Manager
Post clearing	Vegetation clearance areas	Post Clearing Checklist	Ecologist	As required by FFMP	Environmental Manager
Soil					
Erosion and sediment controls	All	ESC checklist Water quality checklist	Environmental Advisor	Weekly or following heavy rainfall	Environmental Manager
General					
Daily Environmental Inspection	All	Environmental Action Register	Environmental Advisor/ Foreman	Daily	Environmental Advisor
Weekly Environmental Inspection	All	Weekly Environmental Inspection Checklist	Environmental Advisor	Weekly	Environmental Manager
ER Inspections	All	ER Environmental Inspection Form	Environmental Manager/ Environmental Advisor	Fortnightly	ER
Quarterly Internal Audits	All	Internal Audit Report	Environmental Manager APA	Quarterly	Corporate Environmental Manager
Quarterly External Audits	All	External Audit Checklist	Environmental Representative	Quarterly	DoP, Director General
AGL Audits	All	External Audit Checklist	AGL	As required	CBI/ AGL

Table 2: Reporting Program

Report	Reporting Requirements	Timing	Responsibility	Recipient
Six Monthly Compliance Tracking Report	Compliance Tracking Program	Six Monthly	Environmental Manager	DoP / ER
Monthly Project Environment Report	For incorporation in Project Monthly Reports including environmental statistics (i.e. incidents, regulatory action, complaints on environmental issues), regulatory and authority considerations, monitoring program performance and key environmental issues	Monthly	Environmental Manager	Project Manager CBI Project File
Quarterly Internal Audit Reports	Audit for compliance against the CoA, relevant licences and approvals	Quarterly	Environmental Manager APA	Corporate Environmental Manager CBI Project File
Quarterly External Audits	Independent audits of compliance against the CoA and SoCs	Quarterly	Environmental Representative	DoP, Director General
EPL Annual Return	Annual Return reported to EPA	Annually within	Environmental	EPA

		60 days	Manager	
Monitoring Results / Data	Potential exceedances against criteria reported by Environmental Advisor, filed electronically and in hard copy	As required	Environmental Advisor	CBI Project File, Six Monthly Compliance Tracking Report
Environmental Risk Assessment	Conducted for each construction stage, Project changes and significant issue	As required	Environmental Manager / Construction Manager	CBI Project File
Environmental Incident Reports	Reports to AGL / DoP relating to significant environmental incidents and the actions taken in response to those incidents	As required	Environmental Manager	AGL CBI Project File
Corrective Action, Stop Work, Non-Conformance Report	Notice form completed as a preventative measure or at time of incident by environment team, EM or EV. Notices registered by Environment Team	As required	Environmental Advisor	CBI Project File
Complaints Report	Monthly summary report to EM, environment team, filed electronically. A weekly summary will be made available to the ER if required.	Daily/ Weekly	Community Relations Manager	AGL, ER, CBI, Project Files

8.0 APPENDIX A3 ENVIRONMENTAL INCIDENT CLASSIFICATION

Document Title:	Document No:	Rev:
Appendix A3 – Environmental Incident Classification	170596-EN-PL-00001	0

ENVIRONMENTAL INCIDENT CLASSIFICATION

Environmental incident classification is required to satisfy both internal management and corporate reporting requirements. Recording the severity of an environmental incident allows the company to better understand the impact of that incident and put strategies in place to manage environmental risk. Environmental damage/harm is difficult to define for all locations. It is context based and influenced by community/stakeholder interpretation and attitudes. This influence can be reflected in the legislative and regulatory framework for specific jurisdictions, and by those required to monitor compliance, e.g. statutory authorities such as the Environmental Protection Agency (EPA). To assist in classifying the extent of environmental damage/harm caused by an incident, the following matrix is provided. The incident response matrix relevant to this incident classification is presented at the end of this Appendix.

	Type of Impact	Level 3 (Low Severity)	Level 2 (Medium Severity)	Level 1(High Severity)
A	**General environmental and social effects - (to be used where other categories do not apply)**	Pollution or degradation which has short-term (less than one month) and reversible detrimental effects on the environment and/or community.	Pollution or degradation which has persistent (greater than three months) but reversible detrimental effects on the environment and/or community.	Pollution or degradation which has or may have irreversible detrimental effects on the environment and/or community.
B	**Controlled & uncontrolled discharges to water**	Minor pollutant discharge to water. No impact on water resources e.g. - discharge from sedimentation basin above allowable limits - uncontrolled discharge of site drainage runoff water. - placement of material in a location where it could potentially result in pollution.	Major or persistent discharge to water. Short term impact on water resources e.g. - oil spill escapes into storm water or watercourse - operations cause minor pollution of groundwater in localised area(s) - uncontrolled discharge from sedimentation basin via emergency spillway above allowable limits.	Major and persistent discharge of pollutant to water outside site or workplace. Major long term impact on water resources e.g. - acid drainage run-off from mining operations tailings dam failure - extensive contamination / pollution of groundwater or water catchment areas.
C	**Contamination of land**	Minor spill of hydrocarbons or chemicals: - no residual contamination of land. - spill contained to defined area(s) within site or workplace. - no significant cleanup required other than removal of contaminated material to land farm or nominated / approved waste area. - spill less than 1000 litres.	Significant spill of hydrocarbons or chemicals: - some residual contamination of land. - spill contained to defined area(s) within site or workplace. - significant cleanup required over and above removal of contaminated material to land farm or nominated / approved waste area. - spill greater than 1,000 litres.	Major spill or escape of hydrocarbons or chemicals: - persistent contamination of land. - spill may or may not be contained to defined area(s) within site or workplace. - extensive cleanup required. - spill greater than 5000 litres from operations or storage into ground.
D	**Controlled & uncontrolled emissions to atmosphere**	Minor discharge of pollutant to atmosphere outside site or workplace e.g. - overfill of cement silo, cement dust release - no risk to human health.	Major or persistent release of pollutant to atmosphere outside site or workplace: - some contained risk to human health.	Major or persistent discharge of hazardous pollutant to atmosphere outside site or workplace e.g. - explosion or leak of hazardous gas - possible or actual evacuation of local vicinity

	Type of Impact	Level 3 (Low Severity)	Level 2 (Medium Severity)	Level 1(High Severity)
				- risk to human health or the environment.
E	**Noise, dust, vibration & odour**	Generation of dust, noise, vibration or odour causing periodic inconvenience or disruption to community and the environment, e.g. - occasional breach of noise restrictions outside approved hours e.g. concrete pour takes longer than planned.	Generation of dust, noise, vibration or odour causing sustained periods of inconvenience or disruption to community and the environment, e.g. - sustained generation of dust with inadequate dust suppression, causing nuisance or local hazard.	Generation of dust, noise, vibration or odour causing damage to property outside site or workplace, the environment or human health, e.g. - noise generated causes damage to hearing and human health - non-contained hazardous dust generation, e.g. asbestos dust with potential long term damage to human health - vibration causes damage to property.
F	**Solids & other wastes**	Unapproved storage, transport, treatment or disposal of a minor quantity (205 lt, 200 Kg or 0.2 M^3) of non-hazardous waste (solid or other), easily removed to an appropriate location.	Unapproved storage, transport, treatment or disposal of a significant quantity (10,000 lt, 10 tonnes or 10.0 M3) of non-hazardous waste or minor quantity (205 lt, 200 Kg or 0.2 M^3) of hazardous waste (solid or other), easily removed to an appropriate location.	Unapproved storage, transport, treatment or disposal of a significant quantity (10,000 lt, 10 tonnes or 10.0 M^3) of hazardous waste (solid or other) not easily removed to an appropriate location.
G	**Effects on the natural environment**	Minor loss or impact on land or water based flora, fauna & habitat, but no negative effect on the ecosystem. Limited damage to an area of land of no ecological significance e.g. - death of a native animal or species, that is not identified as abundant or a pest - accidental felling of a tree - over clearing of an area that is not native - bush	Medium impact on land or water based flora, fauna and habitat. Short-term impact on ecosystem. Damage that can be remediated e.g. - partial destruction of native habitat leading to impact on local species numbers or disruption to breeding cycles - short-term disruption of protected fauna breeding cycle.	Major loss or impact on land or water based flora or fauna. Destruction of ecologically significant habitat. Endangering viability of species, habitat or ecosystem. Damage that cannot be remediated without risk of longterm loss e.g. - destruction of habitat in a national park - death of an animal or species that is in danger of extinction. - disruption of protected fauna-breeding cycle for an entire season
H	**Archaeological, heritage or cultural issues**	Minor repairable damage to commonplace structures, or minor infringement of cultural values.	Damage to structures / items of cultural / heritage significance, or significant infringement of cultural values / sacred locations.	Destruction or irreparable damage to highly valued structures / items / locations of cultural or heritage significance or value.
I	**Use of land, water, fuels & energy, and other natural resources**	Operations cause temporary unplanned disruption to the availability of resources to the community or the environment. Minor impact on other energy / natural resource users outside site or workplace e.g. - short-term loss of water or power supply.	Operations cause substantial unplanned disruption to the availability of resources to the community or the environment. Significant impact on other energy / natural resource users outside site or workplace e.g. - water usage / de-watering by operations	Operations cause persistent unplanned disruption to the availability of resources to the community or the environment. Exhaustion or serious degradation of natural resources for future use e.g.

	Type of Impact	Level 3 (Low Severity)	Level 2 (Medium Severity)	Level 1(High Severity)
			causes loss of pressure or flow to local / adjacent water bores	- mining activities cause acid drainage runoff - & subsequent deforestation of surrounding land - operations cause loss of flow in natural watercourses - operations cause water-table to rise increasing salinity problem e.g. unusable grazing pasture.
J	**Legal**	- minor license non-compliance or nonconformance	- possible or potential serious breach of regulation or license conditions with on-the spot fine and/or Regulatory Authority notification with possible prosecution.	- major breach of regulation identified and / or serious incident notification - investigation by Regulatory Authority with actual or potential prosecution and/or - significant financial penalties against company and/or individuals.
K	**Public/ Media**	- public concern restricted to repeated local complaints.	- may attract attention from local media and/or heightened concern by local community - negative attitudes towards company – calls for action by Regulatory Authorities.	- probable public or media attention with national or international coverage - significant actual or potential damage to reputation - lobbying of State and/or Federal Governments for action against company.
L	**Total Cost ($) - fines, \ remedial action, lost time, legal costs, liabilities etc.**	< $10,000	> $10,000 - < $50,000	> $50,000

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Appendix A3 – Environmental Incident Classification	170596-EN-PL-00001	0

Incident Notification & Investigation Matrix

Actual / Potential	Notification Verbal followed by written			Incident Investigation				Review and Close Out	
Category	**When**	**Gives Notification**	**Receives Notification**	**When**	**Responsibility**	**Team**		**Review**	**Action Close-Out**
Extreme	Immediate	CBI Project Manager	AGL Project Manager	Preliminary - 4 hours Status - 12 hours Completed - 48 hours	CBI Project Manager	FULL ICAM	CBI Project & Construction Manager CBI Environmental Manager CBI / Sub Contractor personnel AGL Construction Project Manager AGL Environment Manager Expert content team members	CBI Project Manager CBI Environmental Manager AGL Construction Project Manager AGL Environment Manager	CBI Project Manager AGL Construction Project Manager AGL Environment Manager
		AGL Project Manager	AGL Environment Manager						
Very High		AGL Environment Manager	AGL Head of HSEGM Upstream Gas						
High									
Moderate	Within 4 hours	CBI Environmental Manager	AGL Project Manager	48 hours	CBI Construction Manager	MINI ICAM	CBI Environmental Manager CBI / Sub Contractor personnel Expert content team members	CBI Construction Manager AGL Construction Project Manager AGL Environment Manager	CBI Construction Manager AGL Construction Project Manager
		AGL Project Manager	AGL Environment Manager						
		AGL Environment Manager	AGL Head of HSE GM Upstream Gas						
Low	Within 24 hours	CBI Environmental Manager	AGL Project Manager	76 hours	CBI Environmental Manager	REPORT	CBI / Sub Contractor personnel	CBI Environmental Manager AGL Construction Project Manager AGL Environment Manager	CBI Environmental Manager AGL Construction Project Manager
		AGL Project Manager	AGL Environment Manager						

9.0 APPENDIX A4 ENVIRONMENTAL INCIDENT REPORT FORM

Document Title:	Document No:	Rev:
Appendix A4 – Environmental Incident Report Form	170596-EN-PL-00001	0

ENVIRONMENTAL INCIDENT REPORT

Date of Incident	Time of Incident		
TYPE OF INCIDENT			
☐ Fuel spill	☐ Chemical spill	☐ Water release (muddy, contaminated)	☐ Breach of license conditions
☐ Uncontrolled air emission	☐ Management of Wastes	☐ Fire explosion	☐ Excessive vegetation clearance
☐ Damage to cultural heritage items/ area	☐ Excessive noise	☐ Protected vegetation damage	☐ Fauna injury
☐ Near miss			
Notify CBI Management	Yes No		
Notify AGL	Yes No		
Notify external authorities	Yes No		
TYPE OF IMPACT			
☐ General environmental and social effects (to be used where other categories do not apply)			
☐ Controlled and uncontrolled discharges to water			
☐ Contamination of land			
☐ Controlled and uncontrolled emissions to atmosphere			
☐ Noise, dust, vibration and odour			
☐ Solids and other wastes			
☐ Effects on the natural environment			
☐ Archaeological, heritage or cultural Issues			
☐ Use of land, water, fuels and energy, and other natural resources			
☐ Legal			
☐ Public/ media			
☐ Total Cost ($) – fines, remedial action, lost time, legal costs, liabilities, etc			
NUMBER OF PEOPLE AFFECTED BY THE INCIDENT			
CBI Employees:		General Public:	
Subcontractors:		Adjacent Property Owners:	
Trespassers:		Others:	
DETAILS OF INCIDENT			
How it occurred:			
Containment:			

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Appendix A4 – Environmental Incident Report Form	170596-EN-PL-00001	0

Cleanup information:			
Other details:			
Were the Police or Emergency Services Involved?	Yes	No	
If yes, give details:			
CLASSIFICATION OF INCIDENT			
Level 1 – High Severity	Level 2 – Medium Severity	Level 3 – Low Severity	
Work Improvement Notice Issued?	Yes	No	
Rectification/ Rehabilitation required?	Yes	No	
Training/ Re-training required?	Yes	No	
COST OF INCIDENT			
Investigation costs	$		
Monitoring costs	$		
Remediation costs	$		
Lost time	$		
Legal costs	$		
Fines	$		
Disposal costs	$		
Training costs	$		
Other liabilities	$		
Liaison with Authorities	$		
Total	$		
INCIDENT INVESTIGATION DETAILS			
Incident investigation undertaken?	Yes	No	
Witness names and contact details provided?	Yes	No	
Details of preventative action taken:			
COMPLETED BY			
Name	Signature	Position	Date

10.0 APPENDIX A5 ENVIRONMENTAL CONSTRAINTS MAP

Document Title:	Document No:	Rev:
Appendix A5 – Environmental Constraints Map	170596-EN-PL-00001	0

Figure 10-1: Indicative Environmental Constraints Map

11.0 APPENDIX A6 ANCILLARY FACILITIES

Figure 11-1: Site compound layout during early civil works

Figure 11-2: Site compound layout during construction works

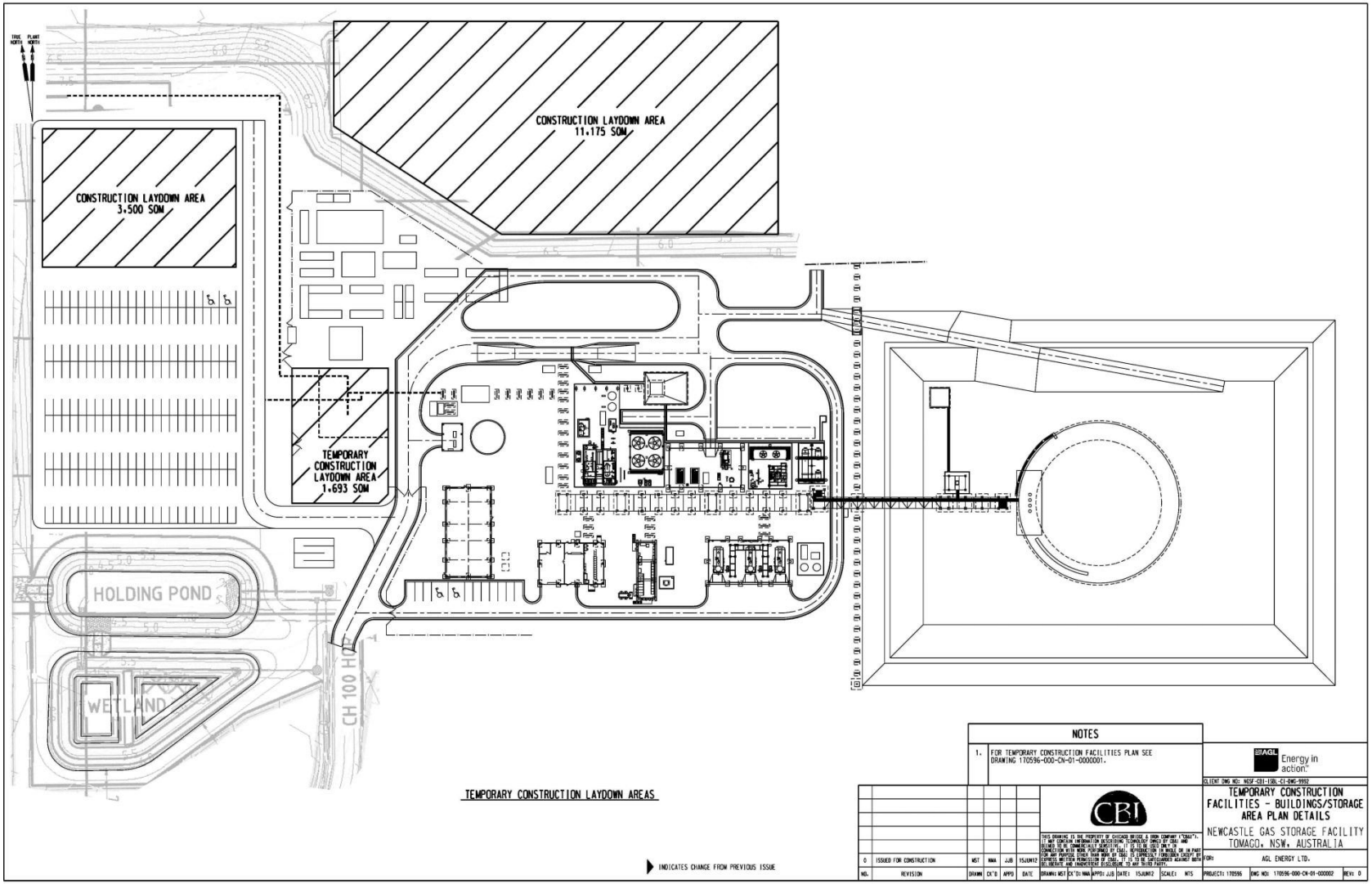

Figure 11-3: Stockpiles

12.0 APPENDIX A7 ENVIRONMENTAL IMPACTS AND RISK REGISTER

This Environmental Impacts and Risk Assessment Register has been provided to supplement the Environmental Risk Analysis conducted as part of the Environmental Assessment (EA).

The identification of significant construction activities and impacts that could eventuate during construction of the Project is central to the selection of appropriate environmental safeguards.

The risk management process involved an assessment of all specific project activities in or near environmentally sensitive areas and resulted in the development of a list of environmental risks (effects and impacts) and a corresponding risk mitigation strategy and risk ranking. Each environmental risk was categorised, based on the following:

- The environmental aspect
- Relative scale of the potential impact
- Type of potential impact
- Likelihood of occurrence

The identification of risks included a review of the proposed works, the CoA, SoC, and review of the environmental risks identified by the EA and subsequent Submissions Report.

Table 12-1: Groundwater Risk Register

GROUNDWATER						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training**
• Maintenance of plant and equipment including refuelling and servicing • Storage of fuel and chemicals • Excavation dewatering	Fuel spillage/ leakage	A (high)	C (low)	• Spill kits • Ensure plant is well maintained • Ensure containers are sealed • Provide maintain bunded areas to capture spill and leaks	Groundwater Management Sub Plan Spill response plan Groundwater extraction license (as required)	Induction Incident notification process
	Land disturbance	A (high)	A (high)	• Excavate approved areas only • Use sediment controls		
	Degradation of groundwater quality	A (moderate)	C (low)	• Build bunded area to contain concrete truck wash water • Neutralise alkalinity of concrete truck wash water in bunded area before discharge • Control stormwater runoff from construction sites • Collect and store wastewater before transporting offsite for treatment or disposal • Groundwater quality monitoring • Prevent surface water contamination • Separation of clean water (i.e., runoff from undisturbed areas), and potentially contaminated water at the construction sites • Follow measures for bore decommissioning		
	Lowering of groundwater level	C (low)	C (low)	• Minimise groundwater use • Monitor groundwater levels • Reintroduce groundwater pumped from trenches and excavations as close to source as possible		
	Increased erosion	High	Low	• Provide sedimentation treatment for all surface runoff from disturbed areas		

Table 12-2: Surface Water Risk Register

SURFACE WATER						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training**
• Vegetation clearing • Excavation • Construction traffic • Maintenance of plant and equipment including refuelling and servicing • Cleanout of concrete trucks after concrete pour • Storage of hazardous chemicals • Storage and handling of liquid construction waste • Storage and handling of wastewater and sewerage • Discharge of hydrostatic test water	Fuel spillage/ leakage	High	Low	• Spill kits • Ensure plant is well maintained • Ensure containers are sealed • Provide maintain bunded areas to capture spill and leaks	Surface Water Management Sub Plan Blue Book for Urban Stormwater Management Water sampling Spill response plan EWMS	Induction Incident notification process
	Land disturbance	High	High	• Excavate approved areas only • Use sediment controls		
	Degradation of surface water quality	Moderate	Low	• Wash out concrete trucks in designated bunded area • Remove concrete truck wash water from bunded area by tanker • Control storm water runoff from construction sites • Collect and store wastewater before transporting offsite for treatment or disposal • Separation of clean water (i.e., runoff from undisturbed areas), and potentially contaminated water at the construction sites • Reintroduce groundwater pumped from trenches • Hydrostatic test water to be removed from site to if not suitable for discharge to storm water system		
	Increased erosion and runoff of sediment filled surface water during storm event	High	Low	• Provide sedimentation treatment for all surface runoff from disturbed areas		

Table 12-3: Cultural Heritage Risk Register

CULTURAL HERITAGE						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training**
• Early works including non-substantial construction activities • Initial clearing and/or grubbing of vegetation • Initial removal of topsoil • Construction of site compounds and spoil /mulch and / or equipment stockpile areas • Temporary access roads during construction	Disturbance to unknown heritage site	High	Low	• Investigate areas before clearing • Survey work areas after vegetation clearing • Stop work if suspected discovery has made • Follow procedure in CHMP	Cultural Heritage Management Sub Plan EWMS Checklist	Heritage consultant to train relevant workers in cultural heritage
	Finding/ disturbing burials or human remains	Low	Low			

Table 12-4: Vegetation Rehabilitation Risk Register

VEGETATION REHABILITATION AND WEED MANAGEMENT						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training**
• Clearing vegetation infested by weeds during early civil works • Rehabilitation excavated areas of cut to fill once design levels are reached	Spreading of weeds	Moderate	Low	• Kill weeds and remove from site before clearing commences • Stockpile weed infested soil separately • Signpost weed stockpiles • Implement ongoing weeding and weed monitoring programs to remove noxious weeds	Vegetation Rehabilitation and Weed Management Sub Plan Soil Management Sub Plan Blue Book Checklist EWMS Vegetation clearing procedure	Induction
	Soil erosion	Moderate	Low	• Use silt controls • Create diversion drains • Stabilise cleared areas as soon as practicable		

Table 12-5: Flora and Fauna Risk Register

FLORA AND FAUNA						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Clearing and grubbing • Construction traffic	Loss of threatened vegetation species and habitat listed in the EPBC and TSC Act	High	High	• Prior to construction – identify and fence all significant flora and fauna habitat areas required to be protected • Induct personnel on flora and fauna issues and safeguards • Prior to construction – identify and fence all significant flora and fauna habitat areas required to be protected • Minimise clearing of all vegetation • Works to be supervised by the Project Ecologist • Retain habitat trees where possible • Engage arbourist to provide advice on habitat tree health and provide ongoing advice	Flora and Fauna Management Sub Plan Ecology Action Plan ESWMS	Induction by ecologist to relevant personnel
	Disturbance of threatened species of fauna listed in the EPBC and TSC Acts	High	High			
	Degradation of koala habitat	High	High			
	Degradation to wildlife corridor	High	High			
	Disturbance of migratory species listed in the EPBC Ac	Moderate	Moderate			

Table 12-6: Soil Risk Register

SOIL						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Clearing and grubbing • Stockpiling • Earthworks generally	Increased erosion and runoff of sediment filled surface water during storm event	High	Low	• Provide sedimentation treatment for all surface runoff from disturbed areas • Locate stockpiles away from natural drainage areas	Soil Management Sub Plan Erosion and sediment control plan ESWMS	Induction
	Increase potential for localised flooding	Moderate	Low			

Table 12-7: Acid Sulfate Soil Risk Register

ACID SULFATE SOIL						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Earthworks generally	Acid drainage to surface water areas	Low	Low	• Spot test for ASS from time to time • Place PASS in bunded areas	Acid Sulfate Soil Management Sub Plan Erosion and sediment control plan ESWMS	Induction

Table 12-8: Noise and Vibration Risk Register

NOISE AND VIBRATION						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Site compound establishment • Paving • Tank construction	Noise impacts on sensitive receivers during construction	Low	Low	• Establish noise logger at sensitive receiver location • Trucks to avoid compression breaking • Adherence to working hours • Maintain equipment in good working order • Manage vehicle speeds • Respite periods for noisy activities (where applicable and in accordance with regulatory guidelines)	Noise and Vibration Management Sub Plan ESWMS Community Engagement Plan Complaints procedure	Induction
	Vibration impacts on sensitive receivers during construction	Nil	Nil			

Table 12-9: Traffic Risk Register

TRAFFIC						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Haulage of material • Import of material / plant / equipment • Travel to / from site	Accidents and delays	Moderate	Low	• Develop and update Traffic Management Plans for all stages of work • Identify and assess roads likely to be affected by Project construction and develop methods to minimise traffic increases • Undertake before and after dilapidation surveys on local roads • Traffic controllers and / or signage for both egress and ingress off the road work sites. • All vehicles carrying materials to be adequately covered (using a tarpaulin) to prevent any loss of material, which may cause driver safety issues.	Traffic Management Sub Plan EWMS	Induction

Table 12-10: Air Quality Risk Register

AIR QUALITY						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• General earthworks • Vegetation clearing • Open excavation works • Spoil handling • Vehicular movements on unsealed roads • Material haulage • Vehicle emissions	Complaints from neighbours, including loss of amenity, excessive dust in environment	Low	Low	• Induct personnel on air quality issues and safeguards. • Use water carts on unsealed surfaces and stockpiles. • Modify or cease operations during high winds. • All trucks on public roads to cover loads. • Vehicles, equipment, machinery used and all facilities – designed, operated and maintained to control the emission of smoke, dust and fumes. • All disturbed areas stabilised, revegetated and/or	Air Quality Management Sub Plan Complaints procedure	Induction
	Potential adverse health effects and humans and fauna	Low	Low			

AIR QUALITY						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
				landscaped as soon as practicable. • Minimise tracked mud/dust on public roads. • No burning or incineration of any material at any time.		

Table 12-11: Waste Risk Register

WASTE						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Generation of waste during construction Activities including Building materials, excess unsuitable spoil material, vegetation material	Excessive waste being directed to landfill	Moderate	Low	• Apply waste hierarchy principles – avoid-reduce-reuse-recycle. • Waste materials contained in waste bins or other suitable containers, and collected for recycling, reuse or disposal by the licensed waste contractor. • Separate, contain, manage and dispose contaminated waste to prevent migration and further contamination whilst maintaining compliance with EPA requirements. • Label and store all liquid waste containers in a bunded area prior to removal off-site. • Undertake inspections of the worksite and waste storage areas to ensure litter / debris is regularly cleaned up and contained on site. • Establish recycling system early on in Project	Waste Management Sub Plan Waste Tracking Register EWMS	Induction
	Contaminated waste not correctly disposed of	Moderate	Low			

Table 12-12: Dangerous Goods Risk Register

DANGEROUS GOODS AND HAZARDOUS MATERIALS						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Storage of • Fuels; • Oils; • Paints; • Corrosives; and • Gas cylinders containing oxygen and acetylene for welding.	Environmental harm	Moderate	Low	• Spill kits • Dangerous goods and hazardous materials to be stored in secure areas • Combustible liquids stored and handled in packages separately from other dangerous goods. • Storage in accordance with MSDS • No smoking outside of designated smoking areas and times • Provide spill containment • Minimise volumes stored	Dangerous Goods and Hazardous Materials Management Sub Plan Spill response plan	Induction
	Harm or injury to personnel	Low	Low			

Table 12-13: Emergency Response Risk Register

EMERGENCY RESPONSE						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Clearing and grubbing • Construction • Access and egress	Bushfire	Moderate	Low	• Provide basic medical facilities • Consultation with local emergency service providers to ensure preparedness in the event of an emergency • Keep emergency access road clear at all times unless works taking place • Emergency access road will include a radius turning circle at the entry area of the gas plant site to enable adequate turning space for large vehicles. • Reduce storage of combustible waste materials by	Emergency Response Sub Plan Spill response plan	Induction
	Spill	Moderate	Low			

EMERGENCY RESPONSE						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
				removing them from site regularly • Implement system of hot work permits • Appoint emergency coordinators • Establish evacuation routes • Ensure there is adequate spill response equipment onsite • Establish emergency alarm method		

Table 12-14: Flood Emergency Risk Register

FLOOD EMERGENCY RESPONSE						
Construction Activities	**Potential Impacts**	**Risk Level Prior to Mitigation**	**Risk Level Following Mitigation**	**Mitigation Measures**	**Management Documents**	**Training Required**
• Clearing and grubbing • Construction	Restriction to flow paths causing localised flooding	Moderate	Low	• Design drainage structures to cope with design flood events • Locate compounds / plant / storage above flood level events • Design and build temporary crossings to be stabilised and minimise scour / erosion during flood events • Look at predicting flood events from gauges or rainfall predictions • Design and construct project in accordance with CoA, SoC.	Flood Emergency Response Sub Plan	Induction
	Stormwater inflow to site – clean stormwater getting mixed with dirty site water	High	Moderate			
	Flood damage to plant / equipment and other compounds	Moderate	Low			
	Erosion of haul road during large flood events	High	High			

13.0 APPENDIX A8 ENVIRONMENTAL WORK METHOD STATEMENTS MATRIX

Environmental Work Method Statements Matrix

ID	EWMS Name	Risk	Applicable Sub Plan*
1	Site Compound Establishment	Low	B9
2	Plant Delivery, Transport and Maintenance	Low	B9
3	Clearing and Grubbing	High	All
4	Weed and Vegetation Management	Low	B4, B5
5	Topsoil Stripping and Stockpiling	Low	B6
6	General Earthworks	Moderate	B1 to B11
7	Trenching	Moderate	B6, B7
8	Sediment Basin Construction	Low	B1, B2, B6, B7
9	Sediment Basin Decommissioning	Low	B1, B2, B6, B7
10	Constructing Access Roads	Low	All
11	Stormwater Systems Construction	Moderate	B1, B2, B6, B7, B9, B10, B11, B13
12	Rehabilitation of Cleared Areas	Low	B4
13	Heritage Investigations	Moderate	B3
14	Bore Decommissioning	Low	B1
15	Geotechnical Investigations	Low	B6, B11
16	Establish and Operate Concrete Washout Area	Moderate	B1, B2, B11
17	Storage Tank Construction	Low	B1, B2, B6, B7, B8, B9, B10, B11, B12, B13, B14
18	Processing Facilities Construction	Low	B1, B2, B6, B7, B8, B9, B10, B11, B12, B13, B14

***Cross Reference of Sub Plans to be Enacted in Undertaking the Task**

Appendix B1 - Groundwater Management Sub Plan
Appendix B2 - Surface Water Management Sub Plan
Appendix B3 - Aboriginal And European Cultural Heritage Management Sub Plan
Appendix B4 - Vegetation Rehabilitation And Weed Management Sub Plan
Appendix B5 - Flora And Fauna Management Sub Plan
Appendix B6 - Soil Management Sub Plan
Appendix B7 - Acid Sulphate Soil Management Sub Plan
Appendix B8 - Noise And Vibration Management Sub Plan
Appendix B9 - Traffic Management Sub Plan
Appendix B10 - Air Quality Management Sub Plan
Appendix B11 - Waste Management Sub Plan
Appendix B12 - Dangerous Goods And Hazardous Materials Management Sub Plan
Appendix B13 - Emergency Response Management Sub Plan
Appendix B14 – Flood Emergency Response Plan

14.0 APPENDIX A9: COMPLAINTS REPORTING

Record of Contact Form

Project: AGL Newcastle Gas Storage Facility		
Date of call		**Time of call**
Taken by		
Type of call	**Complaint/Enquiry/Comment/Other** *(circle appropriate)*	
Details of call		
Caller's name		
Contact details	**Address**	**Phone**
Follow up action required		
Action taken		
By whom	**Organisation**	
When	**Date**	**Time**
Action completed	**Date**	**Signature**

The above form must be completed or information entered directly in Consultation Manager, for each call or discussion had with a community member/stakeholder when enquiring, commenting or complaining about the project. It should then be emailed to the AGL Community Engagement Manager to take action and recorded for reporting.

Appendix B: Project Requirements Register – Sample Page

Newcastle Gas Storage Facility

Project Requirements Register

Req. Item No.	Stakeholder	Source	Short Description	Ref No.	Requirement	Actions	Responsible for Meeting Condition	Stages	Status	Compliance notes	Modification in PPR	Notes	PLANNING	CONSTRUCTION										OPERATIONS
														Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Stage 8	Stage 9	Stage 10	
														Site Preparation	Storage Tank Preparation	Connection of Utilities	Plant Construction	MP Pipeline Construction	HV Electrical Connection	LP Pipeline Construction	Wetlands	Commissioning	Clean-up and Re-vegetation	
1	DP&I	Part 3A Conditions of Consent	Terms of Approval	A1	The Proponent shall carry out the project generally in accordance with the: (a) Environmental Assessment; (b) Preferred Project Report; (c) Statement of Commitments; and (d) conditions of this approval. Note: the general layout of the project is shown in Appendix 1		Refer to Table of Commitments Responsibility Matrix for allocation of actions.	Administrative Conditions	Noted				Applicable throughout Project											
2	DP&I	Part 3A Conditions of Consent	Terms of Approval	A2	If there is any inconsistency between the documents in condition A1, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency with the documents listed under condition A1.		Refer to Table of Commitments Responsibility Matrix for allocation of actions.	Administrative Conditions	Noted				Applicable throughout Project											
3	DP&I	Part 3A Conditions of Consent	Terms of Approval	A3	The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of: (a) any reports, strategies, plans, programmes, reviews, audits or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these documents.		Refer to Table of Commitments Responsibility Matrix for allocation of actions.	Administrative Conditions	Noted				Applicable throughout Project											
4	DP&I	Part 3A Conditions of Consent	Limits on Approval	A4	This project approval shall lapse five years after the date on which it is granted, unless any works the subject of this approval have physically commenced before that time.	AH	AGL to advise DP&I of substantial commencement??	Administrative Conditions	Open					X										
5	DP&I	Part 3A Conditions of Consent	Limits on Approval	A5	The gas pipeline component for the project shall follow corridor option 2 as shown in Figure 1.2 – Conceptual Project Layout in the EA. To avoid any doubt, other corridor options shown in that figure are not approved.		AGL	Administrative Conditions	Closed	Option 2 has been adopted.			X											
6	DP&I	Part 3A Conditions of Consent	Staging	A6	Construction of the project may be undertaken in discrete work packages or stages. Where that occurs, these conditions of approval need only be complied with to the extent that they are relevant to that discrete work package or stage. Prior to the commencement of relevant construction or operation activities, the Proponent shall submit a Staging Report to the Director -General which: (a) describes the stages; and (b) identifies the relevant conditions of approval for each stage and how these will be addressed across and between the stages of the project.	BA	AGL	Prior to commencement of construction or operation activities	Closed	Refer to Staging Plan (Document No: NGSF-WPOE-NAS-PM-PLN-0001)		BA to liaise with the PCA to complete the section on certification. To be submitted as package 1 on 8-June	X											
7	DP&I	Part 3A Conditions of Consent	Staging	A7	With the approval of the Director-General, the Proponent may submit any strategy, plan or programme required by this approval on a progressive basis for discrete work packages or stages.	AH direct WP to include in the Project Plan.	AGL & CBI to submit strategies, plans and programs as required by relevant conditions.	Administrative Conditions	Open				X											
8	DP&I	Part 3A Conditions of Consent	Statutory Requirements	A8	The Proponent shall ensure that all necessary licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation of the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.		AGL & CBI to ensure respective licences/approvals obtained CBI - to hold Construction Environment Protection licence for construction of Gas Storage Facility AGL - to obtain licences per Schedule 8 of EPC Contract.	Administrative Conditions	Open				Applicable throughout Project											
9	DP&I	Part 3A Conditions of Consent	Compliance	A9	The Proponent shall ensure that employees, contractors and sub-contractors, and visitors are aware of, and comply with, the conditions of this approval relevant to their respective activities.		CBI - to ensure site induction covers off adequately on consent conditions, and monitor this AGL - assign responsibilities to contractors for compliance with consent conditions, audit compliance with consent conditions over time	Administrative Conditions	Open				Applicable throughout Project											
10	DP&I	Part 3A Conditions of Consent	Publicly Available Information	A10	Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.		AGL/ CBI to provide for reports/documents that the relevant party has authored/produced	Administrative Conditions	Open				Applicable throughout Project											
11	DP&I	Part 3A Conditions of Consent	Structural Adequacy	A11	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. For the purpose of section 75S(2)(b) of the Act, the relevant provisions, as defined in section 75S(1A) of the Act apply to this approval.	AH - Section 75S(2)(b) requires private certifier to sign off on buildings/ structures.	CBI Refer to Schedule 3, Basis of Design, Appendix C.	Administrative Conditions	Open								X	X	X					
12	DP&I	Part 3A Conditions of Consent	Subdivision	A12	In undertaking the subdivision approved under this approval, the Proponent must comply with the requirements of the Environmental Planning and Assessment Act 1979 relating to the issue of a Subdivision Certificate (the relevant provisions referred to under section 75S(2)(b) of the Act, which continues to apply to the project).		AGL	Administrative Conditions	Closed	Refer to the attached files: * 201-1173564_Subdivision of Lot 201 AGL land * 202-1173564_Subdivision of Lot 202 TAC land * Admin Sheet to Plan of Subdivision DP1173564 20120618 * DP1173564			X										
13	DP&I	Part 3A Conditions of Consent	Subdivision	A13	The Proponent shall consult with and address all reasonable requirements of Port Stephens Council in preparing its application for a Subdivision Certificate for the project.		AGL	Administrative Conditions	Closed	Refer to the attached files: * 201-1173564_Subdivision of Lot 201 AGL land * 202-1173564_Subdivision of Lot 202 TAC land * Admin Sheet to Plan of Subdivision DP1173564 20120618 * DP1173564			X										
14	DP&I	Part 3A Conditions of Consent	Obligation to minimise harm to the environment	A14	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.		AGL - for operation and rehabilitation phases. CBI - constructionphase.	Administrative Conditions	Open				Applicable throughout Project											
15	DP&I	Part 3A Conditions of Consent	Incident Reporting	A15	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within seven days of becoming aware of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.		CBI - Under the POEO Act CBI has an obligation to report material incidents to relevant agencies as soon as practiable after becoming aware (impending changes to POEO tighten the requirement to 'immediate notification' and broadens the list of agencies to be notified) and should as its first priority satisfy these legal obligations. CBI also has a contractual obligation to notify AGL immediately after having notified government agencies. CBI to prepare Pollution Incident Response Mgt Plan in its CEMP. AGL - will then notify relevant agencies and in most instances lead ongoing communications with those agencies regarding the incident.	Administrative Conditions	Open				Applicable throughout Project											
16	DP&I	Part 3A Conditions of Consent	Incident Reporting	A16	The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition A15 of this approval, within such period as the Director-General may require.		CBI - responsible for day-today implementation of remedial actions. AGL - responsible for providing active governance over corrective actions taken by CBI.	Administrative Conditions	Open				Applicable throughout Project											
17	DP&I	Part 3A Conditions of Consent	Biodiversity	B1	The Proponent shall employ a suitably-qualified ecologist to attend site clearing and vegetation removal works, and any activities with the potential to directly or indirectly impact on the biodiversity of the project site or surrounding land during construction. The ecologist shall be employed for the purpose of identifying and advising on potential ecological impacts, including appropriate mitigation and management, as required under these conditions of approval.		AGL to engage ecologist to satisfy this condition. CBI to notify AGL of timing of works and ensure work is completed in accordance with direction given by ecologist.	Prior to and during Construction	Open					X										