Newcastle Gas Storage Facility

6 Monthly Construction Compliance Report: 28 August 2012 to 27 February 2013

For AGL

April 2013

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FINAL REPORT

AGL

Newcastle Gas Storage Facility

6 Monthly Construction Compliance Report
28 August 2012 to 27 February 2013

April 2013

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Newcastle Gas Storage Facility

6 Monthly Compliance Report

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AGL Energy Limited

April 2013

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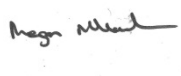
Signed:	
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1 INTRODUCTION

1.1 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 Chicago Bridge and Iron (CBI) includes the gas storage facility site, access road and utility corridor and gas pipeline access corridor (the Project). Additional works by other contractors include construction of the gas pipeline to connect the existing Jemena Gate Station at Hexham with the gas storage facility and construction of the main power supply.

1.2 PROJECT APPROVAL

The Minister for Planning approved the Project (11/08788), on 10 May 2012 subject to the conditions recommended in the Director General's report. On 5 February 2013 a modification of the Conditions of Approval (CoA) was issued under Part 75W of the Environment Planning &Assessment Act (EP&A Act), 1979.

1.3 PURPOSE AND SCOPE OF THIS COMPLIANCE REPORT

The key objective of this Compliance Tracking Program (CTP) is to track compliance with the requirements of the Minister's 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. Refer to *Table 1.1* regarding information required to satisfy CoA B54.

Table 1.1 Compliance Tracking Program Commitments

AGL Commitment	Section of Compliance Report
At six monthly intervals throughout construction, subsequent to reviewing the compliance status of the project as discussed in *Section 2*, AGL will provide the compliance status to the Director-General in the form of a compliance tracking report. AGL will 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:	This report
• Scope of the activities undertaken during the reporting period;	Section 2
• Performance of environmental controls that have been implemented;	Section 3
• Evaluation of compliance against the CoA and Statement of Commitments (SoCs) in tabular format. These tables establish a format for recording compliance and include:	Section 7 and Annex A
• Non-compliances during the reporting period	Section 8
• Outcomes of monitoring undertaken over the reporting period and review of compliance against relevant criteria	Section 4
• Significant outcomes of audits and inspections undertaken during the reporting period	Section 5
• Substantiated environmental complaints received; AGL's response and current status	Section 6

2 SCOPE OF CONSTRUCTION ACTIVITIES UNDERTAKEN

A summary of the major construction activities undertaken during the reporting period is provided in *Table 2.1* below.

Table 2.1 Construction Activities undertaken during Reporting Period

Month	CBI
August 2012	• Establishment of the site compound on the Tomago Aluminium Co Pty Ltd access road • Under scrubbing and clearing activities commenced
September 2012	• Clearing activities continue • Mulching of vegetation cleared vegetation • Topsoil removal and stockpiling
October 2012	• Clearing and grubbing completed • Mulching of cleared vegetation • Topsoil removal and stockpiling • Weed mulch removed from site • Bulk earthworks commenced
November 2012	• Subsoil removal and stockpiling • Removal of logs off site • Load out surplus mulch to AusStar Colliery rehabilitation Cessnock, NSW • Sediment and erosion controls installed • Gas access track sealed with gravel • Trial completed for screening of unsuitable material to assess suitability for reuse on site
December 2012	• Removal of surplus mulch and logs complete • Revegetation topsoil stockpile placed on north side of Gas Access Track • Vibro compaction of main gas storage area commenced • Screening of unsuitable material for reuse on site
January 2013	• Commenced construction of temporary site compound on Main Site • Commenced trenching on south side of Main Access Road • Vibro compaction at fire water tank foundation area complete • Screening of unsuitable material for reuse on site • Security fence erected along western end of Gas Access Track • Road works for main access road continuing

Month	CBI
February 2013	Main Access Road • Box culvert construction • Services trenching Gas Access Track • Works complete, handover inspections ongoing Main Site • Daracon mobilised to site to start foundation works • Temporary site compound establishment complete • LNG tank foundation excavation commenced AusGrid Easement • Glider poles delivered to fauna corridor

3 ENVIRONMENTAL CONTROLS

3.1 SUMMARY OF ENVIRONMENTAL CONTROLS

The environmental controls implemented during the reporting period and their effectiveness are listed in *Table 3.1*.

Table 3.1 CBI Environmental Controls Implemented

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls
General	• Construction Environment Management Plan (CEMP) implemented and complied with • All approvals and licences obtained and/maintained • Works undertaken in accordance with licence requirements • Environmental awareness, inductions and CEMP requirement training undertaken • Incidents managed in accordance with management procedures • Works conducted in a manner so as to not cause community complaints • Qualified and experienced Environmental personnel on-site full-time	• Water extraction licence obtained from the NSW Office of Water (NOW) for groundwater interference works • Checks against implementation of CEMP completed during Environmental Representative (ER) inspections with minor issues noted and closed out within a week • Environmental awareness training in the form of inductions, toolboxes and specific issue training carried out during the reporting period • Incidents managed in accordance with procedures including notification to AGL, Department of Planning and Infrastructure (DP&I), Hunter Water Corporation, Port Stephens Council, ER and EPA as required • One full time staff member on site as the environmental advisor. CBI have also appointed an Environment Manager for support to the site personnel
Groundwater Monitoring	• Appropriate vehicle maintenance checks and spill containment equipment adopted to mitigate potential risks of groundwater contamination. • suitable protection of AGL groundwater monitoring bores ensured during construction. Included marking of the locations and construction of barrier fences if required (depending on proximity of construction work). • All amenities wastewater collected and stored before transporting off-site for treatment or disposal. • Construction water supplies sourced from an authorised and reliable supply. • Installation of a groundwater monitoring piezometer downstream of the holding tank for wastewater and regularly sampled for pathogens and nutrients.	• Vehicles checked before entering site for leaks, appropriate maintenance. • Daily prestart checks completed on all vehicles which includes check for leaks • Amenities wastewater collected by licensed contractor and disposed to HWC sewage treatment plant • Groundwater bores flagged to prevent accidental damage in field • Existing groundwater monitoring piezometer to monitor for pathogens and nutrients in groundwater down gradient of the wastewater holding tank as part of the newly installed temporary construction office in the primary project area

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls
Surface Water	• Construction employees, including contractors required to attend an induction prior to commencing work • Maintenance of dedicated refuelling and chemical storage areas. • Prevention of the movement of sediment away from stockpiles and construction areas by installation of temporary erosion and sediment control structures. • Regular inspections of erosion control structures and bunded areas. • Water sourced from a reliable off site location until onsite water is available. • Ensuring access roads are passable by surfacing with aggregate or other material to make them usable by construction traffic.	• Inductions completed for all staff before commencing work • Refuelling of trucks is done by a mobile refueller, no storage of major quantities of chemicals on site • Daily and weekly inspection of sediment controls completed by environment advisor • Water sourced from Hunter Water Corporation Standpipe on Old Punt Rd • Gravel lining of access roads commenced • Spill kits are carried on all vehicles
Cultural Heritage	• Identified Aboriginal or Heritage sites labelled on EWMS constraints maps with relevant protection measures detailed on the EWMS. • Identified sites signposted as No-Go zones • Identified sites cordoned off with temporary paraweb fencing • Unexpected find procedures followed for sites not identified on EWMS or constraints maps. • Site personnel made aware of heritage issues during toolbox talks and inductions • Protective fencing and signage erected and maintained around heritage sites	• All heritage items were marked on worksite plans, fenced and signposted on-site where required. • Unexpected Heritage Find Procedure implemented for use • One unexpected find was discovered with protocols followed
Vegetation Rehabilitation	• Any fencing installed designed so that it is not harmful to wildlife. Fence design considers materials used (non-barbed wire), height of strands and permeability to ensure they are wildlife friendly. • Stripped material or stockpiles formed into small windrows adjacent to the disturbance areas in preparation for replacement during the post	• Fencing installed is rural fence style with plain strands of wire • Topsoil stockpiles windrowed along gas access track at no higher than 1m • Mulched material stockpiled along gas access track for use in rehabilitation. Stockpiles are no higher than 2 metres. • Logs suitable for use as habitat refuges have been identified by Ecobiological

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls
	development stage • Cleared vegetation stockpiled separately for subsequent respreading during site rehabilitation. • Mulched vegetation separated from topsoil spoils so that it can be placed above re-spread topsoil in rehabilitation areas in a controlled manner. • Where possible, hollow logs and dead timber stockpiled for future use. A project Ecologist determined the suitability of logs to be retained. • Mulched vegetation stockpiled in a windrow fashion for the length of the construction corridor. • Windrows of mulch kept as low as possible over a large surface area, to maximise the retention of a living seed bank and any associated microbes. • Weed control achieved by a combination of slashing, mowing and herbicide application. • Pre-construction control of weeds (4 weeks prior to construction commencing) involved appropriate application of herbicide and the slashing/ removal of woody weeds such as *Lantana camara* and the mowing of grasses such as *Andropogon virginicus* and *Eragrostis curvula*. • Stockpiles have been inspected for the presence of weed species which may require herbicide application to prevent the contamination of top soil which could increase the risk of weed infestation following topsoil re-spreading.	and stored along the main access road for use in rehabilitation works • Weeds were sprayed prior to construction and checks for weed outbreaks completed weekly by the environment advisor • Ecologist on site during clearing works. Ecologist identified logs suitable for use in rehabilitation works

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls
Flora and Fauna	• Pre-clearing surveys undertaken by Ecobiological ecologist • Habitat trees identified and marked by Ecobiological Ecologist • Limits of clearing clearly marked • Retention of vegetation where possible • Fencing of trees to be retained • Habitat trees cleared following two stage process in presence of Project Ecologist • Site induction to include flora and fauna management • Regular inspections of control measures	• Ecobiological ecologist on site whilst clearing activities being undertaken and pre-clearing checklists completed • Pre clearing trapping for New Holland Mouse completed • More than 500 hollow bearing trees removed in accordance with the clearing two stage procedure. • Approximately 57 animals have been recovered from hollows and nests since the commencement of clearing. • Very few (only incidental) fauna deaths have occurred on the project. • No evidence of koalas was identified during the clearing operation. • No emerging fauna was detected during clearing.

Soil Management	• Stockpiles of topsoil (which are likely to contain a viable seedbank) have a maximum height of 1 m
	• Silt fences are:
	  • Silfence2000 or equivalent;
	  • no more than 0.6m high;
	  • securely attached (i.e. by staples or plastic or wire ties) to support stakes (i.e. wooden stakes or star pickets) placed no more than 3m apart, driven into the ground or until firmly embedded;
	  • extend 0.15m below ground surface via excavation of a narrow trench which is backfilled after placement of the filter fabric;
	  • comprise a continuous roll where practicable. When joins are necessary, the filter fabric is spliced, or connected with plastic or wire ties or clips, with a minimum 0.15m overlap and securely fastened at both ends to posts; and
	• Access is restricted to formed roads/tracks, either via existing roads/tracks where possible, or new roads/tracks to be constructed.
		• Topsoil stockpiles less than 1m high
		• Silt fences installed as per specification around site boundary
		• Access to sites is restricted to main access road and gas access track
		• No contaminated material has been encountered during the reporting period
		• Receipts have been kept for all material imported to site with origin confirmed
		• Unsuitable soils have been treated by screening out tree roots and other vegetation to enable reuse on site

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls

	• during the works, material encountered which appears to be potentially contaminated and/or appears to be different from the soils described in previous reports, has followed the unexpected find procedure
	• soils imported to the site are either:
	  • Virgin Excavated natural Material (VENM) as described in NSW DECCW (2009) Waste Classification Guidelines, or
	  • A material that complies with a General Exemption under Part 6, Clause 51 and 51A of the Protection of the Environment Operations (Waste) Regulation 2005 relevant to the site use (i.e. Excavated Natural Material suitable for use on most sites, Rail Ballast suitable for use under roads etc)
	• Material from the site was used in one of two ways:
	  • Beneficial re-use on another site not associated with the Project;
	  • Disposed to landfill.	

Noise and Vibration	• Construction works associated with the Project were only be undertaken during the following hours:
	  • 7:00 am to 6:00 pm, Mondays to Fridays, inclusive;
	  • 8:00 am to 1:00 pm on Saturdays; and
	  • at no time on Sundays or public holidays.
	• All plant was well maintained and turned off when not in use.
	• Community was notified of upcoming activities with potential noise impacts.
	• Complaints handled in accordance with the CEMP.
		• Plant is regularly maintained
		• Nil complaints have been received during the reporting period
		• The Project website is regularly updated with upcoming activities
		• Background noise monitoring was completed at the boundary to the nearest sensitive receptor
		• Hours of works have been within approved times

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls
Air Quality	• Complaints handled in accordance with CEMP. • Discussion on dust sources, impacts and mitigation measures incorporated into Project Induction and ongoing Toolbox Talks. • Construction works undertaken in a manner that minimises dust emissions associated with construction works, including wind-blown and traffic-generated dust • Water sprays and/or water carts used as required for dampening stockpiles, cleared areas and other exposed surfaces to control dust generation • No burning or incineration of any wastes was permitted at any time on any construction worksite • Disturbed areas stabilised as soon as practicable after completion of construction works • Construction speed limits established and enforced to ensure dust generation from vehicle movements are minimised • Loads covered on public roads • Construction plant, vehicles and machinery maintained to minimise exhaust emissions. Records of maintenance will be kept for all plant, vehicles and machinery used on the project	• No complaints have been received for the reporting period • Dust carts regularly used on site • Speed limits strictly enforced on site • Project inductions and toolbox talks include dust mitigation measures • All wastes removed off site
Waste Management	• Concrete mixers and pump trucks washed at the site in the designated concrete washout area • Licensed waste contractors used to collect, transport and dispose of hazardous materials such as waste solvents, paints, mercury absorption medium and hydrocarbons to a licensed off-site facility in accordance with EPA guidelines. • Inductions to construction personnel outlined measures on how to deal	• All site staff are inducted into the need for waste segregation and appropriate waste management practices • Toolbox talks regularly conducted outlining waste management practices • Waste is segregated and disposed of appropriately via licensed contractors or directly to licensed landfills • Measures implemented to reduce waste appear to be effective • Waste register is maintained for all wastes generated by the Project

Potential Environmental Impact	Controls Implemented	Effectiveness of Controls
	with suspected contaminated soil • Waste stored in a protected area away from vermin and inclement weather. • Non-recyclable plastic and domestic waste placed into skip bins for collection by a waste contractor • Recyclable plastics placed into a recycling skip bin for collection by a recycling contractor • Cardboard boxes placed in a paper recycling skip bin for collection by a recycling contractor. • Waste materials tracked so that the appropriate management of waste could be demonstrated • A waste register was maintained • If the material appeared to contain asbestos or other potentially hazardous materials, it was covered and access to the material was restricted • The construction site was fenced and locked to prevent access by others	• Asbestos found on site quarantined until removed by a licensed asbestos removal contractor • Access to site fenced off and locked after hours

3.2 ENVIRONMENTAL INITIATIVES

3.3 TRAINING

During the reporting period, CBI has implemented numerous environmental initiatives and innovations. A summary of the key initiatives are discussed below.

3.3.1 Treatment and Reuse of Unsuitable Material

Approximately 33,405m^3 of subsoil was removed from the primary project area which was classed as unsuitable for use on the site. A trial was completed to screen the vegetation and roots to enable reuse on the site to prevent disposal to landfill.

3.3.2 Recycling of Excess Vegetation and Mulch

Excess mulch material and logs generated during clearing works was transported to AusStar Colliery rehabilitation project in Cessnock, NSW.

3.4 TRAINING

The CBI induction covers environment, safety and quality information. Attendance is compulsory prior to working on-site. The induction concentrates on the high risk environmental issues that are described in the CEMP and relate to the works being undertaken by the inductees.

Since the commencement of the project, the total number of inductees is 449.

3.4.1 Toolbox Talks

Toolbox talks allow for regular communication of relevant environmental issues to the construction staff. The topics of these regular communications are provided in *Table 3.2*. In addition to the toolbox talks Environmental Work Method Statements are regularly communicated with construction teams prior to the commencement of a new activity. This allows construction staff to understand their responsibilities and the industry standard environmental work method for completing the specific activity.

During the reporting period, the CBI environment team undertook a review of EWMS's on site. These included the EWMS for the clearing and topsoil removal works.

Table 3.2 Environmental Tool Box Talks during the reporting period

September 2012
• Spill kits in plant and equipment • Dust control awareness • Habitat trees and high wind • Snake awareness • Feral dog sightings • Injured animal awareness • Rescue and relocation of fauna
October 2012
• Dust control and more frequent use of water carts • Effluent release from toilet facility
November 2012
• Spill response procedures on two occasions.
December 2012
• Bushfire awareness • Animals crossing access roads • Spill response
January 2013
• Timely notification and clean-up of spills • Danger of fragile and old standing trees in strong wind conditions (some have fallen) • Be mindful of injured animals and other animals crossing access roads • The need to ensure all rubbish is placed into the correct bins
February 2013
• Caution around perimeter trees following high wind and rain events • Bunding for portable generators- flex drive motor units etc. • Storage of chemicals • Spill response

In conjunction with toolbox talks, the environmental staff participates in daily prestart meetings to discuss the environmental issues relevant to the days planned work activities. Environmental issues discussed include but are not limited to dust, noise, spill response, waste management and feedback from any incidents or near misses reported.

3.4.2 Other Training

Prior to clearing works commencing a Heritage and Ecology Preclearance Workshop was conducted on 21/08/2012. This workshop included awareness training by Ecobiological and procedures to be followed if heritage items or human remains are found. This workshop was attended by AGL, Ecobiological, RPS (Heritage Consultants), representatives from three local Aboriginal groups, CBI, Wards Civil and Newcastle Earthmoving.

4 ENVIRONMENTAL MONITORING

4.1 SUMMARY OF ENVIRONMENTAL MONITORING

Environmental monitoring results from the reporting period are provided in *Table 4.1* and *Annex B*.

Table 4.1 Environmental Monitoring undertaken during the Reporting Period

Date	Number of Locations	Outcome	Action Taken
Noise			
	1	Background levels at Hunter River Botanical Gardens Determined	On-going monitoring can be compared to background noise levels.
Groundwater			
September 2012	Gas Storage Facility – 7	Concentrations of analytes did not exceed the adopted threshold criteria except for nitrate in MW1.	Nitrate concentrations will be checked in subsequent rounds to assess if this is an anomaly. Monitoring is on-going.
	Hunter River Area – 6	Concentrations of analytes did not exceed adopted threshold criteria other than iron in MW9 and arsenic in MW12	Exceedances may be due to natural variation or potential offsite sources such as diffuse stormwater runoff. Monitoring is on-going.
October 2012	Gas Storage Facility – 7	Concentrations of analytes did not exceed adopted threshold criteria other than Total Kjeldahl Nitrogen (TKN) and total nitrogen for MW2	Increase nitrogen levels could be a result of clearing activities. Monitoring is on-going.
	Hunter River Area – 6	Concentrations of analytes did not exceed adopted threshold criteria other than TPH C15-C28 in MW8, MW9, MW12 and MW13. Also TPH C29-C36 in MW13. Further exceedances included PAH compounds, phenanthrene, fluoranthene, pyrene, chrysene, benzo(b&k)fluoranthene and benzo(a)pyrene in samples from MW11 and MW13.	These exceedances may be attributed to surrounding industrial land uses. It is noted that the data currently being collected will form part of the baseline data set once construction in the Hunter River area commences. A TPH silica gel clean-up test carried out in November showed concentrations of TPH below the adopted thresholds, which indicates that the TPH identified is derived from organic sources. Monitoring is on-going.
November 2012	Gas Storage Facility – 7	Concentrations of analytes did not exceed adopted threshold criteria other than TKN and total nitrogen for MW2	Increase nitrogen levels could be a result of clearing activities. Monitoring is on-going.

Date	Number of Locations	Outcome	Action Taken
	Hunter River Area – 6	Concentrations of analytes did not exceed adopted threshold criteria other than TPH C10-C14, TPH C15-C28, and TPH C29-C36 in MW13. Exceedances of TPH C15-C28 also in MW11 and MW12	These exceedances may be attributed to surrounding industrial land uses. It is noted that the data currently being collected will form part of the baseline data set once construction in the Hunter River area commences. A TPH silica gel clean-up test carried out in November showed concentrations of TPH below the adopted thresholds, which indicates that the TPH identified is derived from organic sources. Monitoring is on-going.
December 2012	Gas Storage Facility – 7	Concentrations of analytes did not exceed adopted threshold criteria other than TKN and total nitrogen for MW2 and MW3A. Total Dissolved Solids (TDS) for MW3A, MW4, and MW6 also exceeded criteria.	Increase nitrogen levels could be a result of clearing activities. Monitoring is on-going.
	Hunter River Area – 6	Concentrations of analytes did not exceed adopted threshold criteria other than TPH C10-C14, TPH C15-C28 and TPH C29-C36 in MW13. Exceedances also included TPH C29-C36 in MW11 and MW12.	These exceedances may be attributed to surrounding industrial land uses. It is noted that the data currently being collected will form part of the baseline data set once construction in the Hunter River area commences. A TPH silica gel clean-up test carried out in November showed concentrations of TPH below the adopted thresholds, which indicates that the TPH identified is derived from organic sources. Monitoring is on-going.
Surface Water			
September 2012	Four	Measured concentrations of analytes in surface water did not exceed the adopted threshold criteria.	-
October 2012	Four	Measured concentrations of analytes in surface water did not exceed the adopted threshold criteria except for	-
November 2012	Four	Measured concentrations of analytes in surface water did not exceed the adopted threshold criteria except for fluoride and TPH C15-C28 at SW2. TPH C15-C28 and C29-C36 was also in exceedance at SW1.	Cause of raised fluoride level is unknown. A TPH silica gel clean-up test carried out in November showed concentrations of TPH below the adopted thresholds, which indicates that the TPH identified is derived from organic sources. Monitoring is on-going.

Date	Number of Locations	Outcome	Action Taken
December 2012	Four	Measured concentrations of analytes in surface water did not exceed the adopted threshold criteria except for Nitrate, total oxidised nitrogen, TKN, TDS, TPH C15-C28 and C29-C36 at SW1.	Raised nitrogen concentrations may be due to vegetation clearing on the site. Increased TDS concentration could be due to low rainfall and evaporation. A TPH silica gel clean-up test carried out in November showed concentrations of TPH below the adopted thresholds, which indicates that the TPH identified is derived from organic sources. Monitoring is on-going.

4.2 *DETAILS AND ANALYSIS OF RESULTS*

4.2.1 *Noise Monitoring*

A seven day background noise assessment was undertaken, from 20-27 November 2013 inclusive, at the project sites nearest receptor, the Hunter River Botanic Gardens (HRBG), Heatherbrae.

The logger was installed adjacent to the veranda of the HRBG building closest to the construction site. The results provide the baseline noise climate at the nearest receptor to the construction site and may be used as the benchmark against which future performance may be measured.

Provided future noise measurements are carried out in a similar way to those in this report, and in a similar location, the noise impact of the CB&I construction may be assessed as it progresses.

Based on the results from this monitoring, the background noise climate for the HRBG are provided in *Table 4.2*.

Table 4.2 Background Noise Climate for Hunter Regional Botanic Gardens (nearest sensitive receptor)

Time Period	LAeq	L90
Day	50	41
Evening	53	41
Night	53	38

4.2.2 *Blasting*

No blasting was undertaken during the reporting period.

4.2.3 *Air Quality*

No air quality monitoring was undertaken during the reporting period.

4.2.4 Groundwater and Surface Water Monitoring

Groundwater and surface water monitoring is undertaken monthly at the 'Gas Storage Site', including the access road and the utility and pipeline corridor. Groundwater samples are also collected from the 'Hunter River Area', an area comprising the construction of the gas pipeline, and the crossing of the Hunter River. All water sampling at the two locations is completed by Coffey Geotechnics.

There are six groundwater monitoring bores at the Hunter River Area, and seven groundwater monitoring bores and four surface water monitoring sites at the Gas Storage Site. The locations of the sampling sites are shown in Figures in *Annex B*.

At times, sampling of surface water sampling was impossible as the sampling sites were dry.

MW5 of the Gas Storage Site was not sampled during October and November due to the inability to use the high flow pump as a result of the well being damaged. MW3A was not sampled in September 2012.

MW13 of the Hunter River Area could not be located in September and thus was not sampled.

The results of the laboratory analysis are provided in *Annex B*.

The concentrations of water quality parameters at the Gas Storage Site in September 2012 were within the adopted threshold criteria (AGL, 2012), with the exception of nitrate in one location (MW1).

The concentrations of water quality parameters at the Gas Storage Site in October to December 2012 were within the adopted threshold criteria (AGL, 2012), with the exception of TKN and TDS in four monitoring bores, and nitrogen, TDS, fluoride and TPH in three surface water locations. The sources of these analytes are not clear. Potential sources for nitrogen and TPH could be vegetation clearing. The increase in TDS and fluoride could be due to low rainfall, causing concentration of these analytes. This will be monitored in subsequent rounds.

Based on the results of the groundwater monitoring event, it can be concluded that the concentrations of water quality parameters in the Hunter River area during September 2012 were within the adopted threshold criteria (AGL, 2012), with the exception of a slightly higher dissolved arsenic concentration at monitoring bore MW12 and higher dissolved iron concentration at MW9. These exceedances may be attributed to natural variation of these analytes or potential off site sources of arsenic and iron such as diffuse stormwater runoff.

Water quality parameters in the Hunter River area during October to December 2012 were within the adopted threshold criteria (AGL, 2012), with the exception of TPH fractions C10-C36. These exceedances may be attributed to surrounding industrial land uses. It is noted that the data currently being collected will form part of the baseline data set once construction in the Hunter River area commences.

4.2.5 Erosion and Sediment Control

The high level of soil disturbance and exposure of soil surfaces during the clearing phase of works has meant that erosion and sediment controls have been a key area of focus. Erosion and Sediment Control Plans (ESCPs) have been implemented and reviewed/adjusted to ensure they are adequate given the current, dynamic nature of the site.

Erosion and sediment controls are inspected weekly and following rainfall events by site environment officers, engineers and foremen.

Refer to *Figure 4.1* for an example of sediment fencing and parawebbing installed along the boundary of the Project Area.

Figure 4.1 Silt fencing and parawebbing installed along Site Boundary

At present no sediment basins have been completed.

4.2.6 Heritage

Aboriginal Heritage

Heritage site inspections and a cultural heritage salvage program are undertaken by RPS. The inspection programme was undertaken over five visits, to identify whether aboriginal objects or places were present on the ground surface or were likely to be present below ground level. Each visit was at different stages during the site clearing and ground disturbance process. The dates of the site visits were:

- Thursday 30 August 2012;
- Friday 7 September 2012;
- Monday 24 September 2012;
- Monday 15 October 2012; and
- Wednesday 24 October 2012.

A total of six Aboriginal artefacts were recovered from the site inspections at the topsoil stripping stage. The artefacts were predominately flake/angular fragments of tuff or silcrete. The artefacts are being held on-site in the temporary administration office and once the NGSF works are completed will be managed in accordance with a Care and Control agreement developed between the Aboriginal community stakeholder groups and AGL.

A suspected heritage item found on 16 January 2013 in an area where previous scattered artefacts have been found (north eastern corner of gas storage tank location). The item was been relocated to the agreed keeping place and the area marked. The area was not an active work area at the time of the discovery, however all works were suspended in the area until the area could be inspected by the heritage groups. RPS and the heritage groups were contacted the same day with visit completed 23 January 2013. A further 60 heritage items were salvaged.

Non-Aboriginal Heritage

No areas of non-Aboriginal heritage are within the project area.

4.2.7 Flora and Fauna

Activities undertaken by Ecobiological during the reporting period included:

- small mammal trapping at selected locations within clearing footprint aimed at capturing New Holland Mouse;
- supervision of vegetation clearing;

- maintenance of markers on permitted clearing boundary;
- fauna rescue and relocation;
- monitoring of fauna activity within the clearing footprint

Pre-clearing Surveys

New Holland Mouse

Four transects each comprising 25 Elliott 'A' type traps were set within the clearing footprint, two within the main facility area, one along the gas pipeline easement and one along the access road easement. Each traps was open for a period of four consecutive nights between the 25 August and 3 September 2012, totalling 100 trap nights per transect.

Only one fauna species, Brown Antechinus (*Antechinus stuartii*) was captured at all four transects during small mammal trapping. The target species, New Holland Mouse (*Pseudomys novaehollandiae*) was not captured at any trapping transects.

Koala

Pre-clearance surveys were conducted throughout the clearing footprint and surrounding areas for the presence of Koalas or their signs.

Random meanders were also undertaken throughout both areas looking for pockets of suitable habitat or signs of Koalas. Surveys were undertaken each morning prior to clearing works in zones targeted for clearing that day and opportunistically during nest box installation. Nocturnal searches were also undertaken to detect Koalas. Male Koala calls were broadcast over a megaphone on 20 different nights in areas ear-marked for clearing in the next few days. No koalas were observed on the clearing footprint.

Vegetation Clearing

Ecologists were on site to supervise vegetation clearing for a total of 36 days over a period of 8 weeks from 27 August to 17 October 2012. Most days there were two ecologists present; however there were 3 days where only one was required. The ecologists worked closely with the clearing contractor Newcastle Earthmoving, to ensure that the following controls were observed:

- clearing was limited to within permitted boundaries;
- material from areas infested with weeds were stockpiled separately and not spread throughout the site;

- hollow-bearing trees were left standing for a minimum of 2 nights following removal of surrounding vegetation; and

- rescue and relocation of fauna within the clearing zone to safe areas.

Vegetation clearing generally progressed in 3 stages. Initially bulk clearing occurred removing the understorey and non-hollow-bearing trees. A bulldozer was the most common machine used for bulk clearing, although an excavator with a grabbing attachment or tractor-mulcher was also used in places. After a minimum of 2 nights standing, hollow-bearing trees were felled either by a bulldozer or excavator. Finally an excavator was used to do precision removal of trees along the boundary.

Fauna rescue and relocation

During the clearing, ecologists supervised the removal of more than 500 hollow-bearing trees. Fauna found in hollow trees or encountered within the clearing zone were captured where possible and inspected for signs of injury. Healthy animals were released into native vegetation adjoining the clearing footprint. Nocturnal animals captured during the day were held in cloth bags in cages in the shade until nightfall. Fifty-seven animals have been rescued from the clearing zone to date consisting of three species of arboreal mammal, two species of snake, three lizard species, and one species of frog.

Four dead animals have been found by Ecologists with three of the deaths able to be attributed to vegetation clearing. Non-fatal injuries were recorded for two Sugar Gliders. One suffered a possible crush injury when its tail became caught between fallen logs. It fled when it was released before the severity of its injuries was able to be assessed. The second injured Sugar Glider was taken to Motto Farm Veterinary Hospital where it was observed for two nights, declared healthy and then released on the third night.

Nocturnal Fauna Monitoring

Two Ecologists spent approximately 1-2 hours each night between 6:00pm and 8:00pm, Monday to Friday, monitoring animal activity within the clearing footprint. Monitoring methods involved, watching dead stags at dusk for emerging fauna, spotlighting both on foot and from a vehicle, and playing animal calls. A total of 13 fauna species were identified during nocturnal surveys across 20 nights.

Two species listed as vulnerable under the NSW TSC Act 1995 were recorded, including the Powerful Owl (*Ninox strenua*), and the Grey-headed Flying Fox (*Pteropus poliocephalus*).

5 ENVIRONMENTAL AUDITS AND INSPECTIONS

5.1 AUDITS

Two external audits and one internal audit were conducted on the project during the reporting period. The details of the audits are outlined in *Table 5.1*.

Table 5.1 Audits during the Reporting Period

Type	Date	Undertaken by	Description	Comment
External	Pre-construction (27/08/2012)	ER	The preconstruction compliance audit aimed to investigate compliance with the relevant MCoA and DSEWPaC conditions and make recommendations to address any non-compliances and improvements to the Construction Environment Management Plan (CEMP) and associated sub plans. The audit included a desktop review of documents including the CEMP.	Compliance against the requirements of the MCoA and DSEWPaC Approval conditions were achieved with all requirements' met at the preconstruction phase of the Project. Improvement opportunities were identified.
Internal	19/09/2012	CBI	CBI audit on the implementation of the CEMP and sub plans	Waste permits and certificates required to be reviewed - Wards could not verify that their sewerage removal contractor was taking sewerage waste to a licensed facility. Wards did not have adequate dust suppression at the time of the audit. This was later corrected as more water trucks became available in late October 2012.
Internal	27/09/2012	AGL	The purpose of this audit was to assess CBI and their sub-contractors during vegetation clearing works on the pipeline access track, main plant site and main access road, and evaluate compliance with the Construction Environmental Management Plan (CEMP). The audit was not intended to assess performance against the entire CEMP and all Management Sub Plans, but instead provide a snapshot against key aspects of the CEMP and Management Sub Plans that were most relevant to the works occurring on-site on the day of the audit.	Non-compliances: • CBI to ensure that topsoil stockpiles are reduced to a maximum of 1m high to comply with the requirements of the Soil Management Sub Plan. • CBI to ensure water cart is available for onsite use to mitigate dust and comply with Air Quality Management Sub Plan. • CBI to finalise Environmental Document Register (170596-EN-R01) as required by the CEMP. • CBI Environment team to review all existing and future sub-contractor SWMS and approve against corresponding

Type	Date	Undertaken by	Description	Comment
				EWMS Matrix to fulfil the requirements of the CEMP. • CBI to ensure that a minimum of 1 environment focussed Toolbox Talk is delivered per fortnight as required by the CEMP. • CBI to prepare and implement Environmental Action Register (170596-EN-R04), Environmental Incident Register (170596-EN-R03), Environmental Response Procedure (170596-EN-R01), and Environmental Incident Reporting Procedure(170596-EN-R02) as required by the CEMP.
External	27/11/2012	ER	The audit was of activities undertaken during the first quarter. Including: • establishment of site compounds and ancillary facilities • clearing and grubbing works; and • earthmoving and sub soil removal. The audit objectives were to: • confirm implementation of CEMP and sub-plans; • determine compliance with the relevant MCoA and Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) conditions; and • identify the areas for potential improvement for environmental management.	A copy of the CEMP is included on the website - not all plans required under the MCoA have been loaded onto website. Plans not uploaded include the FFMSP, CHMSP, SWMSP, FERMSP, NMSP, ASSMSP and TMSP. Website indicates these are available on request. CB&I's Pollution Incident Response Management Plan (PIRMP) or Emergency Response Plan (ERP) does not currently refer to Occupational Health and Safety Regulations 2001 (NSW), the DP&I guidance note HIPAP 1, Emergency Planning or Emergency Vehicle Access Policy No. 4, therefore it is unclear if this plan is consistent with these documents. Consider including discussion in PIRMP or ERP on the compliance/non-compliance with these documents. CB&I's PIRMP or ERP does not currently refer to this requirement - consider review and assessment of emergency traffic arrangements including requirement into CB&I's PIRMP or ERP.

Type	Date	Undertaken by	Description	Comment
Internal	14/12/2012	CBI	CBI audit on the implementation of the CEMP and sub plans	Waste permits and certificates required to be reviewed - CBI received verification from the sewerage contractor to confirm that they are disposing to a licensed facility (Jan 2013).
Internal	22/02/2013	CBI	CBI audit on the implementation of the CEMP and sub plans	Three minor improvement opportunities including the following: • Display Current Environmental policy inside site office • Improve dust suppression with increased intervention • Spill kits to be sealed and replenished

5.2 *ENVIRONMENTAL INSPECTIONS*

Regular inspections undertaken by the ER generate actions that are communicated to CBI environmental personnel for completion. These inspections are usually completed with CBI and AGL staff. A report is issued at the end of the inspection with an environmental status for the site and list of actions to be addressed. A total of 19 inspections were completed during the reporting period, with the dates of the environmental inspections provided in *Table 5.2*.

Table 5.2 Environmental Inspections during the Reporting Period

2012 Inspections	2013 Inspections
Thursday 30 August	Thursday 10 January
Thursday 6 September	Wednesday 16 January
Friday 14 September	Wednesday 23 January
Wednesday 19 September	Wednesday 6 February
Thursday 27 September	Wednesday 20 February
Thursday 4 October	
Tuesday 16 October	
Friday 26 October	
Thursday 8 November	
Wednesday 21 November	
Thursday 6 December	
Tuesday 18 December	

6 ENVIRONMENTAL COMPLAINTS

No complaints have been received during the reporting period. No complaints relating to the project were made to the EPA Pollution Hotline

7 *COMPLIANCE STATUS*

Monitoring of compliance is required in accordance with CoA B54a. The tracking of compliance occurs throughout the reporting period through internal audits as described in the CEMP.

CBI have recorded zero non – compliances against the project EPL during the applicable reporting period.

Compliance tracking tables are maintained to monitor compliance with the following:

- Ministers Conditions of Approval MP10_0133 issued 10 May 2012; and
- Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011

These tables are attached as *Annex A* to this Compliance Report.

8 SUMMARY OF NON-COMPLIANCES

8.1 NON CONFORMANCES AND CORRECTIVE ACTIONS

Table 7.1 provides a summary of the non-conformances and the response undertaken by CBI to close-out the actions

Table 8.1 Summary of Non-compliances Received During the Reporting Period

Audit Details	NC Description	Response
AGL	Topsoil stockpiles observed to be greater than 1m high on north west corner of main plant site.	Topsoil stockpiles lowered to below 1m
AGL	No dust suppression equipment was available onsite at the time of audit.	Two dust suppression trucks have since been brought onto site with noted use during subsequent inspections
AGL	CBI advised that the Environmental Document Register (170596-EN-R01) has been started, but is not complete as required by CEMP	CBI has since finalised this register to include all documents
AGL	CBI advised that there have been no EWMS prepared by CBI to date.	EWMS completed for trenching and other works as relevant to the stage of construction
AGL	CBI advised that Toolbox Talks are completed as part of the pre start meetings. CEMP commits to 1 toolbox talk per fortnight	CBI to implement
ER	A copy of the CEMP is included on the website - not all plans required under the MCoA have been loaded onto website. Plans not uploaded include the FFMSP, CHMSP, SWMSP, FERMSP, NMSP, ASSMSP and TMSP. Website indicates these are available on request.	Copies of the required plans will be uploaded to the website as required
ER	CB&I's Pollution Incident Response Management Plan (PIRMP) or Emergency Response Plan (ERP) does not currently refer to clause 174ZC of the Occupational Health and Safety Regulations 2001 (NSW) and the DP&I guidance note HIPAP 1, Emergency Planning therefore it is unclear if this plan is consistent with these guidelines and procedures. Consider including discussion in PIRMP or ERP on the compliance/non-compliance with these documents	CBI to review and amend as appropriate

Audit Details	NC Description	Response
ER	CB&I's PIRMP or ERP does not currently refer to the Emergency Vehicle Access Policy No. 4.- consider review and assessment of emergency traffic arrangements including requirement into CB&I's PIRMP or ERP	CBI to review and amend as appropriate

8.2 *ENVIRONMENTAL INCIDENTS*

During the reporting period, three environmental incidents were reported to external parties. In addition there was a further 41 hazards reported which primarily included spills under 20 litres. Spills and leaks continue to be raised extensively in daily prestart meetings and weekly tool box talks. Daily equipment and vehicle checks are also completed.

Table 8.2 Summary of Environmental Incidents

Date	Description	Outcome	Reported to external Agencies
28/08/2012	Minor diesel leak – 1L	Briefly discussed with HWC at meeting on 04.10.12. HWC do not require notification of incidents <20L	Yes - HWC
09/10/2012	Loose coupling on the transmission filter resulted in a transmission oil leak from dozer with approximately 20 litres spilt onto the ground.	Spill was cleaned immediately and the machine was tracked off site for repair. Replaced o-ring and refitted bolts.	Yes – EPA, DoPI, NOW, HWC
15/10/2012	Effluent release from female toilet facility saw over 100 litres of untreated effluent released into nearby stormwater drain potentially affecting wetlands.	Facility closed until high level alarm and auto shut off installed. Sample results of water collected from stormwater drain show e coli below detection limit of 1,000 CFUs. EPA notified and satisfied with result.	Yes – EPA, DoPI, HWC, NOW

9 *REFERENCES*

Banksia EOHS (2012) **Baseline Environmental Noise Assessment, Hunter Region Botanic Gardens, December, 2012**.

Coffey Geotechnics (2012) **Groundwater and Surface Water Monitoring Report September 2012 Gas Storage Facility Project – Construction Phase**.

Coffey Geotechnics (2012) **Groundwater and Surface Water Monitoring Report October to December 2012 Gas Storage Facility Project – Construction Phase**.

Coffey Geotechnics (2012) **Groundwater Monitoring Report September 2012 Hunter River Area Newcastle Gas Storage Facility Project**

Coffey Geotechnics (2012) **Groundwater Monitoring Report October to December 2012 Hunter River Area Newcastle Gas Storage Facility Project – Pre-construction Phase.**

Kleinfelder Ecobiological (2012) **Vegetation Clearing for Newcastle Gas Storage Facility**

RPS (2012) **Aboriginal Cultural Heritage Site Inspection Programme for the Newcastle Gas Storage Facility, Tomago, NSW**.

Annex A

Compliance Tracking Tables

Table A1.1 Compliance with Ministers Conditions of Approval MP10_0133 (dated 10 May 2012)

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
TERMS OF APPROVAL					
PART A – ADMINISTRATIVE CONDITIONS					
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	All	AGL CBI	Open	Noted
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.	All	AGL CBI	Open	Noted
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	All	AGL CBI	Open	Noted

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
LIMITS OF 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.	All	AGL	Open	Project approval date 10 May 2012
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.	Design	AGL	Compliance Closed	Option 2 has been adopted
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.	Pre-construction Construction	AGL	Compliance Closed	Staging Plan (Document No: NGSF-WPOE-NAS-PM-PLN-0001). Correspondence to DG submitting report a) 10 stages described (Section 3) b) Appendix 1 includes spread sheet which identifies which approvals apply to each stage
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.	Pre-construction Construction	AGL & CBI	Open	Noted – update on submissions to be obtained from AGL as they occur.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
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.	All	AGL & CBI	Compliance Open	EPBC Approval obtained (2010-5752) 18 July 2012 EPL20130 issued to CBI for chemical storage and petroleum and fuel production 10 July 2012 Construction Certificate received Friday 29th September 2012. Copies of EPL and MCoA in site office (Wards and CBI).
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.	All	CBI	Compliance Open	General induction attended 15 August includes some aspects of approval – refer CEMP and Sub-Plan Induction and Training commitments for further details. Review of Daily prestarts 28/9/2012 to 10/11/2012 SWMS Excavation and Trenching, Dewatering and Surface Water Management. Toolbox Register 17/8/2012 to 06/11/2012 SWMS, JSA and tool box talks also discuss issues relevant to tasks to be performed

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
PUBLICLY AVAILABLE INFORMATION					
A10	Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request	Pre-construction Construction	AGL/CBI	Compliance Open	Plans approved by DoPI – some loaded onto website with access to further plans available upon request – refer to Condition 49.
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.	Pre-construction Construction	CBI	Compliance Open	Schedule 3, Basis of Design, Appendix C Section 75S(2)(b) requires private certifier to sign off on buildings/structures. AGL has engaged the services of Barker Ryan Stewart a Newcastle-based multidisciplinary town planning, engineering and private certification consultancy to assist AGL in satisfying the certification requirements for the project. Barker Ryan Stewart has in turn engaged the local firm NewCert as the Principal Certifying Authority. At this point in time, the certification requirements for Stage 1 – Site Preparation have been identified and are in progress. The requirements for the subsequent Stages will be developed progressively.
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).	Pre-construction	AGL	Compliance Closed	Survey Plan – Subdivision of Lot 105 DP 1125747 and easement over Lot 4 DP 1043561 – survey dated 27 March 2012

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
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.	Pre-construction	AGL	Compliance Closed	Email to PSC 29 Dec 2012 with subdivision plan and s88B instrument attached. PSC reply from Amanda Gale 6 January 2012 stating 88B instrument and Linen Plan provide an easement which legally satisfies the concern made by Council.
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.	All	AGL – operation and rehabilitation stage CBI – construction stage	Noted Open	Noted – all management plans with implementation to be monitored during activities
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.	All	CBI to notify immediately as per POEO Act requirements AGL to liaise with agencies after initial notification	IO Open	1 incident reported to DoPI 15/10.2012 (overflow from toilets). Notification email sent 16/10/2012 which also formed detailed written report to DoPI. Notification on pollution hotline completed immediately and email sent through 15/10/2012 which satisfied reporting requirements of EPL. PSC notified via email 16/10/2012. WorkCover notified via phone call 16/10/2012. 1 additional incident reported to EPA for 20litre hydraulic hose leak on 18/09/2012 as per commitment in Groundwater Management Sub Plan. Incident will be reported in 6 monthly compliance report to DoPI. IO:-

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
					– always notify DoPI immediately if any other agencies notified. Addition of column to incident register with name of agency notified and date will assist with tracking notification compliance
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.	All	CBI – implementation AGL – active governance over corrective actions taken by CBI	IO Open	Corrective actions proposed for 15/10/2012 incident have been completed. All incident and corrective actions tracked through an Action Register (170596-EN-R04). IO – addition of priority levels and dates for completion may assist further with focussing attention on higher risk issues and actions.
PART B – PRIO R TO AND DURING CONSTRUCTION					
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.	Pre-construction Construction	AGL	Compliance Closed – CBI	Shawn Capararo from EcoBiological appointed FFMSP – Appendix B, Table 8-1 (general Construction), Table 8-6 (Pre-clearing Protocol) and Table 8-9 (Vegetation Clearing Protocol)

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Management of Impacts on Flora					
B2	The Proponent shall take reasonable and feasible steps to minimise the area of native vegetation clearing required for the project. Areas of vegetation to be cleared as part of the project shall be clearly demarcated prior to the commencement of clearing activities. Procedures for the minimisation and management of vegetation clearing shall be detailed in the Flora and Fauna Management Plan required under condition B57.	Pre clearing	AGL to engage ecologist CBI	Compliance Closed – CBI	AGL received letter from ecoBiological on 14-May-12 outlining steps taken to comply with the condition. The Flora & Fauna Management Sub Plan contains details on clearing. The CCFMP has been submitted to the Director-General as part of the CEMP and approved Site inspections over period indicate site boundaries marked with pink tape and/or parawebbing to prevent further clearing. Clearing limited to marked areas.
B3	The Proponent shall construct the project in a manner that avoids direct and indirect impacts to those areas mapped as "(4) – Freshwater Wetland Complex" and "(7) – Phragmites Rushland" in Figure 7 – Vegetation Communities in Ecological Assessment: Newcastle Gas Storage Facility Project (ecoBiological, May 2011), included as Appendix 7 to the EA. The suitably-qualified ecologist required under condition B1 shall be engaged for the purpose of advising on measures to avoid potential direct or indirect impacts.	Pre-construction – Stage 2 Construction	AGL CBI	NA Open	Vegetation communities map included as Figure 1 in FFMSP The areas referred to in this condition are relevant to the pipeline construction and crossing over the Hunter River which is part of Stage 2 therefore will be include in the management phase for this phase of the works.
B4	Prior to the commencement of construction, appropriately timed and targeted surveys should be undertaken to determine the absence/presence of the following taxa for which general baseline vegetation surveys are not considered appropriate: (a) Tall Knot-weed (Persicaria elatior); (b) Small Water-ribbons (Maundia triglochinoides); and	Pre-construction	AGL	Compliance Closed – CBI	Letter from ecoBiological on 14-February-12 confirming the survey work undertaken and compliance with this condition

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(c) Horned Pondweed (Zannichellia palustris). Any impacts on these taxa must be included the Biodiversity Offset Strategy under condition B13 and Biodiversity Offset Package under condition C2.				
B5	Prior to the commencement of vegetation clearing works, the site shall be subject to further confirmatory survey work to determine the number of Earp's Gum individuals to be removed. The number, quality and extent of these individuals shall be used to inform the Biodiversity Offset Strategy under condition B13 and Biodiversity Offset Package under condition C2.	Pre-clearing	AGL	Compliance Closed – CBI	Letter from ecoBiological on 14-May-12 confirming the survey work undertaken and compliance with this condition.
B6	Prior to the commencement of vegetation clearing works, the site shall be subject to further confirmatory survey work to determine the hollow-bearing trees to be removed. The number and quality of these tree hollows shall be used to inform the Biodiversity Offset Strategy under condition B13 and Biodiversity Offset Package under condition C2.	Pre-clearing	AGL	Compliance Closed – CBI	Letter from ecoBiological on 14-May-12 confirming the survey work undertaken and compliance with this condition.
B7	With the exception of clearing necessary for the gas pipeline access corridor, and access road and utility corridor, on the site, the Proponent shall ensure that vegetation mapped as "Preferred Koala Habitat" in Figure 12 – Revised Koala Habitat Mapping in Ecological Assessment: Newcastle Gas Storage Facility Project (ecoBiological, May 2011), included as Appendix 7 to the EA, is not directly or indirectly affected in the carrying out of the project.	Pre-construction Construction	AGL CBI	Compliance Closed – CBI	CEMP – Appendix A6 includes environmental constraints map. Appendix B Tables 8-9 & 8-12 FFMSP – Appendix B Site inspections confirm construction area delineated with temporary fencing. Clearing works now completed for Stage 1 with all clearing within Project Footprint

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Riparian Areas					
B8	Prior to the commencement of works with the potential to directly or indirectly affect riparian areas, the Proponent shall engage a suitably-qualified ecologist (required under condition B1) to survey and record the condition of those potentially-affected areas.	Pre-clearing – Stage 2	AGL	Compliance Closed – CBI	Primarily refers to Stage 2 of the Project. There is one culvert crossing for this stage therefore reference to this condition is required. Shawn Capararo from Ecobiological engaged for all pre construction works including riparian works. Letter from Ecobiological on 14-May-12 confirming the survey work undertaken and compliance with this condition.
B9	Within six months of the conclusion of construction activities directly or indirectly affecting riparian areas, the Proponent shall implement a programme to rehabilitate those areas to a standard of equal or better condition than surveyed under condition B8, unless otherwise agreed by the Director-General. Riparian rehabilitation works shall be undertaken in consultation with NOW and DPI (Fisheries).	Pre-construction Construction	AGL	NA Open	VRMSP includes requirement in Table 8-5 Nil riparian areas cleared as at time of audit as works yet to commence
B10	Unless otherwise agreed by the Director-General, the Proponent shall monitor and maintain the condition of rehabilitated riparian areas until such time as those areas have been verified by a suitably-qualified ecologist (required under condition B1) as being well-established, in good health and self-sustaining.	Pre-construction Construction	AGL	NA Open	VRMSP includes requirement in Table 8-5 Nil riparian areas cleared as at time of audit as works yet to commence

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Management of Impacts on Fauna					
B11	Prior to the commencement of vegetation clearing works in the site, the site shall be subject to survey work to identify the presence of Koala (Phascolarctos cinereus) individuals. All Koala individuals identified on the site shall be allowed to self-translocate in the first instance prior to any other translocation methods being considered. If self-translocation proves impracticable, human-assisted translocation will be conducted and the Koalas located on the gas storage facility site shall be translocated to an appropriate, safe location off-site. Survey and translocation of Koala individuals shall be conducted in accordance with the Port Stephens Comprehensive Koala Plan of Management and to meet the requirements of the OEH. If human-assisted translocation is conducted, it shall be undertaken by a suitably qualified and experienced ecologist in Koala management and in accordance with Policy for the Translocation of Threatened Fauna in NSW (NPWS, 2001).	Pre-clearing	AGL CBI	Compliance Closed – CBI	FFMSP – Appendix B Table 8-12 No koalas reported to be encountered during clearing works (Report: Vegetation Clearing for Newcastle Gas Storage Facility, Ecobiological (November 2012)). Clearing activities completed for Stage 1
B12	Prior to the commencement of vegetation clearing and construction works, the Proponent shall demonstrate that it has undertaken a programme of trapping on the gas storage facility site with the aim of collecting any New Holland Mouse (Pseudomys novaehollandiae) individuals. All New Holland Mouse individuals shall be translocated to an appropriate, safe location off-site. Trapping, collection and translocation of New Holland Mouse individuals shall meet the requirements of any guidelines issued by DSEWPaC.	Pre-clearing	AGL CBI	Compliance Closed – CBI	Trapping program outlined in the FFMSP Appendix B Table 8-11 Trapping completed prior to clearing works at four locations covering three different periods. No New Holland Mouse individuals were trapped (Report: Vegetation Clearing for Newcastle Gas Storage Facility, Ecobiological (November 2012)).

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Biodiversity Offsets					
B13	Prior to the commencement of vegetation clearing or construction works, the Proponent shall prepare a Biodiversity Offset Strategy in consultation with the OEH and Port Stephens Council, and for the approval of the Director-General. The purpose of the Strategy shall be to provide high-level direction to guide the development of the Biodiversity Offset Package required under condition C2. The Biodiversity Offset Strategy shall be prepared by a suitably-qualified ecologist consistent with the Biobanking Methodology under the Biobanking and Offsets Scheme outlined in Biobanking Assessment Methodology and Credit Calculator Operational Manual (DECC, 2009), and shall include: (a) consideration of all native vegetation losses and the adequacy of the proposed offset; (b) an offset area for the Earp's Gum commensurate with the area occupied by the Earp's Gum individuals to be removed from the site, and including successful planting of Eucalyptus parramattensis subsp. decadens trees at a ratio of at least 3:1 and the maintaining of these trees until established. (c) an offset ratio for tree hollows of no less than 1:1, to be delivered through nest boxes or other measures agreed with the OEH;	Pre-clearing Pre-construction	AGL	Compliance Closed	Offset Strategy report prepared by ecoBiological dated May 2012 Medowie Conservation Area Offset Monitoring Protocol prepared by ecoBiological dated May 2012 Draft Conservation Agreement for Lot 20 at 3 Old Swan Bay Road, Medowie Draft Conservation Agreement for Lot 16 at 218 Old Swan Bay Road, Medowie. Offset Strategy Report: a) Refer Section 3.1 and 3.3 b) Refer Chapter 4. Four Earp's gums to be replaced. Target of 60 plants established with OEH. Hunter Region Botanic Gardens have identified areas suitable for planting c) As agreed by OEH two large offset areas identified have adequate hollow bearing trees available to mitigate need for nest boxes d) Koala – 11.8ha offset area provided to offset loss of 0.7ha. New Holland Mouse - 25 ha preferred habitat and 80ha sub optimal habitat to replace 12ha sub optimal habitat e) Refer Chapter 5 – improvement of biodiversity values in offset areas

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(d) habitat offset measures for Koalas (Phascolarctos cinereus) and New Holland Mouse (Pseudomys novaehollandiae); (e) demonstration of how the offset would 'improve or maintain' biodiversity values; (f) the proposed offset ratios and connectivity improvements; (g) proposed management actions; (h) demonstration of how the strategy was prepared in accordance with the OEH's Principles for the Use of Biodiversity Offsets in NSW; and (i) measures to ensure in-perpetuity the conservation commitment.				f) Refer Chapter 3 g) Contained within Voluntary Conservation Agreements h) 13 principles addressed in Chapter 5 i) Refer Chapter 3 and Chapter 5 Correspondence from DoPI accepting Strategy AGL submitted Strategy to PSC via email on 01.06.12, and PSC emailed DoPI on 13.6.12 indicating that they had been consulted, and provided comments. OEH emailed DoPI on 01.06.12 advising that they had been consulted.
HAZARDS AND RISKS					
B14	The Proponent shall establish and maintain Asset Protection Zones around the project, being no less than 25 metres around the gas plant site and no less than 31 metres around the processing plant and storage tank. The Earp's Gum individuals are to be retained within the asset protection zones where appropriate canopy distances exist. The understory in the vicinity of retained Earp's Gum individuals is to be appropriately managed to minimise fire risk. Details shall be incorporated into the Fire Safety Study required under B16(a).	Pre-construction Construction	CBI – design AGL - review	Compliance Open	Included in FFMSP Appendix B Table 8-5 Bush Fire

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B15	During construction, the Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:(a) all relevant Australian Standards; and(b) DECC's Environment Protection Manual Technical Bulletin -- Bunding and Spill Management. In the event of an inconsistency between the requirements listed from (a) to (b) above, the most stringent requirement shall prevail to the extent of the inconsistency.	Construction	CBI	IO Open	Dangerous Goods and Hazardous Materials Handling Management Sub-Plan Section 1.5.2 Minor amounts of fuel and oils currently kept on site. Site inspections indicate small fuel cans are stored on self-contained bunds. Refuelling done primarily by licensed refuelling truck. Spill kits noted on all vehicles inspected. Form completed prior to any chemicals coming onto sight with approval by CBI Environment Manager and Safety Manager required. IO – consider a register for chemicals approved for use on site to track quantities and compliance
B16	At least one month prior to the commencement of construction of the project, except for construction of those preliminary works that are outside the scope of the hazard studies (including such works as vegetation clearing and site preparation which would not influence or pre-empt the outcomes of the hazards studies), or within such further period as the Director-General may agree, the Proponent shall prepare and submit for the approval of the Director-General the following studies: (a) A **Fire Safety Study** prepared in accordance with and covering the relevant aspects in Hazardous Industry Planning Advisory Paper No. 2 – Fire Safety Study Guidelines (DoP, 2011) and Best Practice Guidelines for Contaminated Water Retention and Treatment Systems	Pre-construction	a) AGL b) CBI c) AGL	Compliance Open	Letter to DoPI dated 19 June 2012 requesting approval to stage Fire Safety Study (FSS), Hazard and Operability Study (HAZOP), Final Hazard Analysis (FHA). Stage 1 – HAZOP, FSS and FHA August 2012 based on final design Stage 2 – update based on final designs – January 2013 Letter from DoPI dated 6 August 2012 approving staged approach with following requirements: 1. The HAZOP for the second stage should cover the interaction with already installed equipment;

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(NSW Government, 1994). The study shall also be submitted for approval to Fire and Rescue NSW and to the Rural Fire Service; (b) A **Hazard and Operability Study** for the project, chaired by a qualified person, independent of the project, approved by the Director-General prior to the commencement of the study. The study shall be consistent with the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 8 – HAZOP Guidelines (DoP, 2011). The study report shall be accompanied by a programme for the implementation of all recommendations made in the report. If the Proponent intends to defer the implementation of a recommendation, reasons must be documented and justified; and (c) A **Final Hazard Analysis** of the project, consistent with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011). The FHA shall report on the implementations of the recommendations of the Preliminary Hazard Analysis. Construction, other than of preliminary works (including such works as vegetation clearing and site preparation which would not influence or pre-empt the outcomes of the hazards studies), shall not commence until approval under this condition has been given by the Director-General and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW and the Rural Fire Service.				2. The FSS for the second stage should be an update on the FSS for the first stage. (The site must have a single FSS covering the whole site.) 3. The FHA for the second stage should be an update of the FHA for the first stage. (As with the FSS, a single document must cover the whole site.) Meeting with RFS to discuss FSS scheduled 4 September 2012 Letter dated 19-June requesting for approval of a staged approach to the HAZOP Study, Fire Safety Study and Final Hazard Analysis Process 6-Aug-12: Approval received from Director General for the proposed staged submission approach. 28-Nov-12: Submission of Phase 1 Fire Safety Study and Hazop Report to DoPI. 10-Dec-12: Submission of Phase 1 Final Hazard Analysis to DoPI 19-Dec-12: Phase 1 Fire Safety Study approved by Rural Fire Service. 17-Jan-13: Phase 1 submission approved by DoPI. 5-Feb-13: Phase 1 Fire Safety Study approval by Fire & Rescue NSW

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B17	Prior to the commencement of the detailed design of the project, the Proponent shall consult with WorkCover with regard to complying with the regulations applicable to Major Hazard Facilities and shall obtain requirements for the preparation of the Site Risk Assessment and the Safety Case. The Proponent shall comply with all requirements issued by WorkCover.	Pre-detailed design	AGL CBI to assist	Compliance Open	Meeting held with WorkCover on 18-April-2012. Refer to minutes of meeting. Requirements to be checked if included in Site Risk Assessment and Safety Case six months prior to commissioning of project
B18	The Safety Case shall be prepared by the Proponent under the Major Hazard Facilities legislation and shall be submitted to WorkCover no later than six months prior to the commissioning of the project, or as otherwise agreed by WorkCover.	Construction Pre commissioning	AGL CBI to assist	NA Open	Safety Case to be prepared six months prior to commissioning
DESIGN PRINCIPLES					
B19	Buildings and car parking associated with the proposed development should be designed with consideration to the general principles and objectives of Crime Prevention through Environmental Design (Australian Institute of Criminology, 1989).	Design	CBI	Compliance Closed	Final design includes following: • Security fence (with barbed wire) around the facility complying with AS 1725.1-2010 (drawing NGSF-CBI-ISBL-CI-DWG-5001) • CCTV cameras strategically positioned around the security fence and at the plant entry gate (drawing NGSF-CBI-ISBL-IC-DWG-9010) all communicating with the CCTV viewing station in the control building. All cameras are continuously recorded for up to 30 days.

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					• Intrusion detection located all the way around the security fence (drawing NGSF-CBI-ISBL-IC-DWG-9020) communicating with the control room. The intrusion system is divided into zones approximately 100 meters in length that can signal the cameras to focus on the active zone • Card operated sliding security gates at the plant entry on the main access road as well as at the main entrance gate with CCTV cameras monitoring all of these entry points. • Besides the vehicle entry sliding gates, there is only 1 personnel point of access into the admin building and this requires a key card to get beyond the reception area. • Car park is within sight from the admin/control building. • High pressure sodium roadway lighting will be provided for perimeter roads. High pressure sodium floodlights will be provided for the plant boundaries near the LNG tank. Both the roadway and floodlighting layouts will be designed to maintain an average illumination level of 2 lux at ground for the entire security fence line.
SOILS, WATER AND HYDROLOGY					

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B20	Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997 during construction of the project.	Pre-construction Construction	CBI	Compliance Open	Refer Surface Water Management Sub Plan and Soil Management Sub Plan. Included in EPL as Condition L1 One incident potentially polluting waters (overflow from toilets) which has been reported and investigated as per incident reporting protocol (refer Condition A15). Testing of surface water during incident indicate coliforms and e coli were below ANZECC (2000) Microbiological Guidelines
B21	Erosion and Sediment controls consistent with Managing Urban Stormwater: Soils and Construction Manual (Landcom, 2004, or its latest version) shall be installed prior to the commencement of soil disturbing works and shall be maintained until such time as the disturbed areas have been rehabilitated.	Pre-construction Construction	CBI	Compliance Open	Refer Section 9 of the Soil Management Plan Sub Plan Site specific Erosion and Sediment Control Plans will be developed progressively. Site inspections indicate silt fences installed around site boundaries after clearing works. Soil is loose sand and site is relatively flat therefore runoff risk considered low.
B22	The Proponent shall carry out rehabilitation of disturbed areas progressively, and as soon as reasonably practicable following disturbance.	Pre-construction Construction	AGL CBI to advise when works completed and ready for rehabilitation	NA Open	Refer to Vegetation Rehabilitation Management Sub Plan Appendix B – Table 8-5 Rehabilitation works have not commenced at time of audit. Logs for rehabilitation placed along cleared tracks, mulch retained and topsoil stored along gas access track.

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Construction Method					
B23	The Proponent shall apply the gas pipeline corridor construction methods generally in accordance with Table 2.2 of the PPR, at the locations specified.	Pre-construction Construction	AGL	NA Open	Gas pipeline installation yet to commence
Flooding					
B24	The Proponent shall ensure that all structures to be constructed below known flood planning levels are constructed of materials and with finishes that are resistant to floodwaters/ tides. Construction of the project shall be undertaken in accordance with the NSW Flood Plain Development Manual (DIPNR, 2005).	Pre-construction Construction	AGL	Compliance Open	Gas Storage Facility Design above 1 in 100 year flood levels. Roads and structures as constructed drawings to confirm final levels once works finished.
Groundwater Monitoring Program					
B25	Prior to the commencement of construction, the Proponent shall develop a Groundwater Monitoring Programme in consultation with NOW and HWC and to the satisfaction of the Director-General. The programme shall detail the monitoring strategy that would be implemented to monitor the water quality impacts of the project on beneficial aquifers (including associated groundwater users, surface waters and groundwater dependent ecosystems). The programme shall:	Pre-construction	AGL	Compliance Closed – CBI	Groundwater Management Sub Plan – sent in email to DoPI dated 11 July 2012 Groundwater Monitoring Program – letter from DoPI dated 10/08/2012 accepting GMP. Correspondence from HWC dated 3 August 2012 and NOW dated 9 August 2012 supporting consultation requirement. Email from HWC 31 October 2011 indicating satisfaction with GMSP. Email to DoPI 9 August 2012 with correspondence attached endorsing GMSP from NOW

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(a) identify surface and groundwater monitoring locations demonstrating their appropriateness for obtaining representative water quality and water level data on construction and operational impacts in relation to beneficial aquifers, groundwater users and surface waters (b) provide details of the monitoring points (including location, depth of monitoring, duration and frequency of monitoring and parameters to be monitored); (c) identify performance criteria, including monitoring criteria to detect early indicators of drawdown impacts or water quality impacts to beneficial aquifers; (d) identify the frequency of reporting on monitoring results; (e) identify procedures for contingency or remedial action where adverse impacts are identified, such that the adverse impacts are remediated prior to any impact to other groundwater users, and/ or rehabilitation measures applied where the project is identified as adversely affecting any groundwater dependent ecosystems/ communities; and (f) identify mechanisms for the regular review and update of the programme in consultation with NOW and HWC as required.				a) GMSP - Groundwater monitoring bore locations – Figure 3. Also refer to Table 2-1. One background and 5 downstream locations (towards Tomago aquifer extraction site) 4 internal locations to obtain background for site. Surface water monitoring locations include in surface water management plan GMP – Section 4 b) GMSP - Appendix C includes baseline water quality, depth. Duration and frequency of monitoring include in Table 5-2 Groundwater Monitoring Requirements GMP – Section 4 c) GMSP - Performance criteria included in Section 5.1.1 for water quality and changes in water levels (using CUMSUM) GMP – Section 4.2 and Appendix A d) GMSP - Frequency of reporting include in Table 5-1 GMP - Section 4.1 e) GMSP - Contingency Plan Flowchart Figure 5 and Appendix E for spills GMP - Section 4.3 f) GMSP - Section 3 and Section 5 g) GMP – Section 4.4

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	In submitting the programme for the Director General's approval, the Proponent shall provide written evidence of consultation with NOW and HWC on the robustness and acceptability of the monitoring programme, including issues raised by these agencies and how these have been addressed. The programme shall be reviewed and updated at the conclusion of construction activities.				
Stormwater Management					
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 Open 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).	Pre-construction	AGL	Compliance Open	Confirmation email by Axel Hanson from Hunter Water Corporation dated 2-May-12 approving SMEC as the independent peer reviewer. Review of design completed with email received from HWXC 2 May 2012 with recommendations. Meeting held with HWC 20 July 2012 to discuss review and recommendations. Submitted to DoPI on 8 June 2012

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	The review reports shall be incorporated into the compliance tracking programme required under condition B54 and shall include, but not necessarily be limited to: annual reports of Stormwater systems Performance supplied to HWC. Any faults identified as a result of the inspection reports identified in (d) shall be rectified and re-inspected at the Proponent's expense.				
NOISE					
Construction Hours					
B27	Subject to conditions B28 and B29, construction works (other than horizontal directional drilling (HDD)) that would generate audible noise at any sensitive receiver shall only be undertaken during the following hours: (a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive; (b) 8:00 am to 1:00 pm on Saturdays; and (c) at no time on Sundays or public holidays. This condition does not apply in the event of a direction from police or other relevant authority for safety reasons or emergency work to avoid the loss of lives, property and/or to prevent environmental harm.	Pre-construction Construction	CBI	Compliance Open	Noted - hours included in NVMSP. NVMSP sent to DoPI as part of CEMP EPL hours align with MCoA. No reported out of hours work completed to date

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B28	Any work generating high noise that has impulsive, intermittent, low frequency or tonal characteristics, including jack hammering, pile driving, rock hammering, rock breaking, saw cutting, sheet piling or vibratory rolling, shall only be undertaken: (a) between the hours of 8.00 am and 6.00 pm Monday to Friday; (b) between the hours of 8.00 am and 1.00 pm Saturday; and (c) in continuous blocks of no more than three hours, with at least one hour respite between each block of work generating high noise impact, where the location of the work is likely to impact the same receivers; except as otherwise approved by the Director-General. For the purposes of this condition "continuous" includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.	Pre-construction Construction	CBI	IO Open	No works outside of standard construction hours – hours of operation in NVMSP Appendix B – Table 8-2 Vibratory rolling and vibro compaction activities observed during site inspections indicate impacts dissipate within 100m – 250m of activity. Nearest receptors is Hunter Region Botanical Gardens. IO – ensure later start time to normal working hours requirement is communicated and adhered to during vibratory activities.
B29	Construction outside of the hours specified under condition B27 or B28 may be varied for works as approved through the out-of-hours work protocol required as part of the Construction Noise Management Plan under condition B57 of this approval. Any request to alter the hours of construction shall:	Pre-construction Construction	a) CBI b) CBI c) CBI to notify AGL >72 hrs prior to enable AGL to update	Compliance Open	NVMSP – Appendix B Table 8-2 Refer to MCoA B57(f) – OOHW protocol being developed to include requirements.

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	(a) be considered on a case-by-case basis; (b) be accompanied by details of the nature and need for activities to be conducted during the varied construction hours and any other information necessary to reasonably determine that activities undertaken during the varied construction hours will not adversely impact on the acoustic amenity of receptors in the vicinity of the site; and (c) require that affected residential receivers are informed of the timing and duration of any construction activities approved under this condition at least 48 hours before that work commences.		website		
Construction Noise Criteria					
B30	The Proponent shall implement all reasonable and feasible noise mitigation measures to minimise noise generated by construction of the project, consistent with the requirements of the Interim Construction Noise Guidelines (DECC, July 2009).	Pre-construction Construction	CBI	Compliance Open	NVMSP – Appendix B (all tables) Noise levels are monitored by CBI environment staff and any issues noted in daily diary notes or the weekly report. ER site inspections note noise levels reasonable
B31	Prior to the commencement of construction, the Proponent shall undertake a noise assessment to identify all sensitive receivers where the construction noise management goals, exceed the ICNG construction noise goals for that receiver. The results shall be included in the Construction Noise Management Plan required under condition B57 of this approval.	Pre-construction	AGL	Compliance Closed – CBI	NVMSP – Table 2-1 Sensitive Receivers. Predicted noise impacts included in Section 2.3 Noise and Vibration Assessment – NGSF, Atkins Acoustics and Associates Pty Ltd, May 2011 indicated nil exceedances of ICNG construction noise management goals for the works at any receivers.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
TRAFFIC AND TRANSPORT					
B32	Prior to the commencement of construction of the project, the Proponent shall commission a suitably qualified road infrastructure specialist to assess the condition of all public roads proposed to be traversed by construction traffic associated with the project (including over-mass or over-dimensional vehicles) in consultation with Council and the RMS, and to identify any upgrade requirements to accommodate project traffic for the duration of construction (including culvert, bridge and drainage design; intersection treatments; vehicle turning requirements; and site access), having regard to peak traffic volumes. The Pre-Construction Road Inspection Report shall be submitted to the Director-General prior to the commencement of construction works, clearly identifying recommendations made by the Council and the RMS and how these have been addressed. The Proponent shall ensure that all upgrade measures identified in the report are implemented to meet the reasonable requirements of Council and the RMS, prior to the commencement of construction.	Pre-construction	CBI AGL – submission of report	IO Open – CBI	Refer letter report from Better Transport Futures 6 July 2012 indicating the current road network in the vicinity of the subject site can accommodate the volume and size of the vehicles associated with the construction phase of the Gas Storage Facility and no road upgrades are required. RMS not contacted for Old Punt Rd component as Council Road. TAC Northern Access Road private therefore liaison with RMS or PSC not required. Submitted to DoPI 11 July 2012 PSC correspondence outstanding to close item

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B33	A commercial-type vehicular crossing shall be constructed across the public footway at the proposed driveway entrance/ exit to the Hexham receiving station site at the expense of the Proponent. The crossing shall be designed and constructed in accordance with Newcastle City Council's A017 Series (Concrete Vehicular Crossings) design specifications.	Pre-construction – Stage 2 Construction	AGL	NA Open	To be included in Traffic Management Sub-Plan for relevant stage of works
B34	Redundant existing vehicular crossings at the Hexham receiving station site shall be removed at the expense of the Proponent and the public footway and kerb shall be restored to be consistent with existing infrastructure.	Pre-construction – Stage 2 Construction	AGL	NA Open	To be included in Traffic Management Sub-Plan for relevant stage of works
AIR QUALITY					
Odour					
B35	During construction, the Proponent shall ensure no offensive odour as defined under the Protection of the Environment Operations Act 1997 is emitted from the project site.	Pre-construction Construction	CBI	Compliance Open	Noted – Project Air Quality Management Sub Plan includes best practise mitigation measures to minimise odour. AQMSP submitted to DoPI for approval with CEMP. Nil odour generating activities noted during ER site inspections to date.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Dust					
B36	The Proponent shall employ reasonable and feasible measures to ensure that construction activities associated the project are undertaken in a manner that minimises or prevents the emission of dust.	Pre-construction Construction	CBI	Compliance Open	Noted – Project AQMSP includes best practise mitigation measures to minimise odour. AQMSP submitted to DoPI for approval with CEMP. Site inspections during bulk earthworks indicate dust levels required mitigation – two water carts employed on site to suppress dust.
METEOROLOGY					
B37	Prior to the commencement of construction works, the Proponent shall establish a meteorological monitoring station on the site, or at a representative location off-site, for the purpose of continuously monitoring meteorological conditions on the site for the life of the project. The meteorological monitoring station shall be located, operated and maintained to meet the requirements of the OEH. The Proponent may satisfy this condition by demonstrating to the satisfaction of the OEH that it has access to data from an existing meteorological monitoring station, representative of conditions on this site, and operated by a third party.	Pre-construction	AGL	Compliance Open	Refer to letter from TAC on 21-Mar-12 granting access to meteorological monitoring station. AGL to gain OEH approval for use of TAC met station

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
HERITAGE					
B38	The Proponent shall employ a suitably-qualified archaeologist to attend site clearing and vegetation removal works within the gas storage facility site and within riparian areas of the Hunter River, and any activities with the potential to directly or indirectly impact on subsurface heritage items. The archaeologist shall be employed for the purpose of identifying and advising on potential Aboriginal heritage impacts, including appropriate mitigation and management, as required under these conditions of approval. Items of heritage significance that may be uncovered during construction of the project shall be managed in accordance with the approved Cultural Heritage Management Plan under condition B57.	Pre-clearing	AGL	Compliance Open	RPS appointed archaeologists. Refer to MCoA B57 Report issued by RPS 21 November 2012 detailing site inspections and finds. Six cultural heritage items were recorded with GPS coordinates taken and photographed. They are being held onsite in the temporary administration office and once the NGSF works are completed will be managed in accordance with a Care and Control agreement developed between the Aboriginal community stakeholder groups and AGL (refer Section 5 CBI CHMP 2012). The monitoring report includes a record of the monitoring units, documentation of Aboriginal sites, as well as assessment of significance. Finds will be registered with AIHMS/EPA once items are placed in final location which fulfils legislative requirements (verbal advice RPS, January 2013).
B39	Registered Aboriginal stakeholders shall be invited to attend site clearing and soil disturbance work to assist in the identification of heritage items, including potential mitigation and management measures.	During clearing	AGL	Compliance Closed – CBI	Cultural Heritage Management Sub Plan – Section 5.3.1 Heritage inspections completed 30/08/2012, 07/09/2012, 24/09/2012, 15/10/2012 and 24/10/2012.

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B40	Where reasonable and feasible, the Proponent shall remove vegetation from the site with the aim of avoiding or minimising the need to disturb the underlying soil.	Pre-construction Construction	CBI	Compliance Closed – CBI	Requirement is detailed in following documents: • EWMS – Clearing and Grubbing • EWMS – Topsoil stripping and stockpiling • FFMSP – Appendix B Table 8-9 point 14 Site inspection during heritage scan after clearing commenced on 30/08/2012 indicates vegetation was removed with minimal disturbance to allow for heritage inspections to occur prior to land disturbance.
WASTE MANAGEMENT					
B41	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site during construction, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.	Pre-construction Construction	CBI	Compliance Open	Refer Waste Management Sub Plan (WMSP) – Section 2.1.3 and Appendix A. Site does not accept waste. Gravel material used for onsite roads (pipeline track and main access road) sourced from Hanson's Brandy Hill Quarry – spot check of delivery dockets completed.
B42	The Proponent shall maximise the reuse and/or recycling of construction waste materials generated on site, to minimise the need for treatment or disposal of those materials outside the site.	Pre-construction Construction	CBI	Compliance Open	Refer Waste Management Sub Plan (WMSP) – all and Appendix A. A material tracked off site entered in waste register. Subsoil deemed unsuitable for reuse on-site has been screened to enable reuse.

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					Bulk of mulch went to Austar mine for use in rehabilitation works. Extra mulch to Lake Macquarie Council. Excess logs to Newcastle Earthmoving for future use.
B43	The Proponent shall ensure that all liquid and/or non-liquid construction waste generated by the project is assessed and classified in accordance with the Waste Classification Guidelines (DECC 2008, or any future guideline that may supersede that document) and where removed from the site is only directed to a waste location lawfully permitted to accept those materials.	Pre-construction Construction	CBI	IO Open	Refer Waste Management Sub Plan (WMSP) – Section 2.1.2 and Appendix A. Waste Register maintained recording all movements. Waste generated primarily dry waste. Soil contaminated from oil spills tracked under the regulated waste system and disposed to authorised waste facility. IO – consider adding the regulated waste tracking certificate number to the waste register to assist with confirming compliance with waste tracking requirements.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
VISUAL AMENITY					
B44	The Proponent shall: (a) take all reasonable and feasible measures to mitigate off-site lighting impacts from the construction of the project; and (b) ensure that all external lighting associated with construction of the project complies with Australian Standard AS4282 – 1997 – Control of the Obtrusive Effects of Outdoor Lighting. This condition does not apply to lighting required for aviation safety.	Pre-construction Construction	CBI	Compliance Open	CEMP has been updated to refer to use of directional lighting. Refer Table 12-5 Flora and Fauna External lighting installed on site office – check indicates directional towards ground.
AIR SAFETY					
B45	At least one month prior to the commencement of construction, the Proponent shall notify the RAAF Aeronautical Information Service of the location and heights of tall structures that are 30 metres or more above ground level within 30 kilometres of an aerodrome, or 45 metres of more above ground level elsewhere.	Pre-construction	AGL	Compliance Closed	Notification letter sent to RAAF on 11 May 2012. Construction planned to commence 27 August 2012
INFRASTRUCTURE, SERVICES AND ANCILLARY FACILITIES					
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.	Pre-construction Construction	CBI AGL	NA Open	Commitment is included in CEMP (p 37) Nil alterations to existing public utility installations have been completed to date

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
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.	Pre-construction Construction	CBI AGL	NA Open	Commitment is included in CEMP (p 37) No existing road surfaces disturbed during current works to date
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.	Pre-construction Construction	CBI AGL	Compliance Open	Commitment is included in CEMP (p 37) Final design to be checked for compliance with PSC requirements
COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT					
Provision of Electronic Information					
B49	Prior to the commencement of construction, the Proponent shall establish a dedicated website or maintain dedicated pages within its existing website for the provision of electronic information associated with the project. The Proponent shall publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to: (a) the status of the project; (b) a copy of this approval and any future modification to this approval; (c) a copy of each relevant environmental approval, licence	Pre-construction	AGL – update CBI - content	NC-2 Open	http://agk.com.au/newcastle/index.php/the-project/ a) background for approvals and current status include on project page. Last newsletter issued Spring 2012 which is loaded onto the News, Publication and other Media webpage. b) Link to copy of approval included under Environment page c) copy of relevant approval includes link to DoPI website

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	or permit required and obtained in relation to the project; (d) a copy of each plan, report, or monitoring programme required by this approval; and (e) details of the outcomes of compliance reviews and audits of the project.				d) A copy of the CEMP is included on the website - not all plans required under the MCoA have been loaded onto website. NC-2 Plans not uploaded include the FFMSP, CHMSP, SWMSP, FERMSP, NMSP, ASSMSP and TMSP. Website does indicate these are available on request. e) Pre-construction compliance audit loaded onto website
Community Information Plan					
B50	Prior to the commencement of construction, the Proponent shall prepare and implement a Community Information Plan which sets out the community communication and consultation processes to be implemented during construction and operation of the project. The Plan shall include, but not be limited to: (a) procedures to inform the local community of planned investigations and construction activities, including blasting works (if any); (b) procedures to inform the relevant community of construction traffic routes and any potential disruptions to traffic flows and amenity impacts;	Pre-construction	AGL to develop plan CBI to implement	Compliance Closed	Provided in the Community Engagement Plan (Document no: NGSF-AGL-NAS-PM-PLN-0002) - Section 2 a) Section 6.1 b) Section 6.1 c) Section 6.1 d) Section 6.1

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(c) procedures to inform the community where work outside the construction hours specified in condition 0, in particular noisy activities, has been approved; and (d) procedures to inform and consult with affected landowners to rehabilitate impacted land.				
Complaints Procedure					
B51	Prior to the commencement of construction, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation) or as otherwise agreed by the Director-General: (a) a 24-hour telephone number on which complaints about construction and operational activities at the site may be registered; (b) a postal address to which written complaints may be sent; and (c) an email address to which electronic complaints may be transmitted. The telephone number, postal address and email address shall be advertised in a newspaper circulating in the area of the project, on at least one occasion prior to the commencement of construction; and at six-monthly intervals during construction and for a period of two years following commencement of operation of the project.	Pre-construction	AGL - to publicise availability of these communication channels to local community. CBI - to erect signage that is clearly visible to the public	Compliance Open	Provided in the Community Engagement Plan (Document no: NGSF-AGL-NAS-PM-PLN-0002) Project signboards have been erected on site at Hexham and Tomago with contact details a, b, c advertised on project website – details also included in Newspaper advertisement published in: • Port Stephens Examiner – 21 June 2012 and 20 December 2012 • Newcastle Herald – 21 June 2012 and 20 December 2012

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	These details shall also be provided on the Proponent's internet site required by condition B49. The telephone number, the postal address and the email address shall be displayed on a sign near the entrance to the construction site(s), in a position that is clearly visible to the public.				
B52	The Proponent shall record details of all complaints received through the means listed in condition B51 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to: (a) the date and time of the complaint; (b) the means by which the complaint was made (telephone, mail or email); (c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect; (d) the nature of the complaint; (e) any action(s) taken by the Proponent in relation to the complaint, including timeframes for implementing the action; and (f) if no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken. The Complaints Register shall be made available for inspection by the Director-General upon request.	Pre-construction Construction	AGL - to record complaints using Consultation Manager. CBI - details (a) - (d) of any complaints received directly by CBI. Need to be recorded and passed on to AGL within 4 hours. CBI to close out actions resulting from complaints in timely fashion.	IO Open	Requirements include in CEMP Section 5.2.3 Complaints Handling which was submitted to DoPI for approval Community Engagement Plan refers to Section 6.5.5 for complaint protocol CEMP refers to Section 5.2.3 Protocol is for CBI to complete Complaints form and forward to AGL for inclusion in Complaints Database. Screen shots of complaints database confirm all requirements are recorded in the case of a complaint. IO – CBI record of contact form to be modified to include means by which contact was made and provision to comment if no action to be made in relation to a complaint. Nil complaints received to date for the Project

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B53	The Proponent shall provide an initial response to any complaints made in relation to the project during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition B52. Any subsequent detailed response or action is to be provided within two weeks, or as otherwise agreed by the complainant/ Director-General.	Pre-construction Construction	AGL - to respond CBI - to provide assistance/information in preparing responses to complaints	Compliance Open	Section 5.2.3 Complaints Handling of CEMP indicates all complaints to be responded within 48 hours: • telephone complaints: verbal response is made within 4 hours; • written correspondence: acknowledged within 48 hours and a written response within 5 days; • Email or fax: submission acknowledged within 24 hours Nil complaints received to date for the Project
COMPLIANCE TRACKING PROGRAM					
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;	Pre-construction	AGL - establish processes/procedures to ensure compliance CBI - to provide information as required, implement corrective actions as required.	Compliance Open	Compliance Tracking Program (Document No: NGSF-AGL-NAS-PM-PLN-0016) Compliance Tracking Register (Document No: NGSF-WPPM-NAS-PM-REG-0004-XLS) The relevant section of the CTP which addresses the requirements are as follows: a) Section 2.1 – reporting to be completed every six months (first report to cover period 28 August 2012 to 28 February 2013) b) Section 2.2 – programme includes 3 monthly audits by ER. First audit due to be completed November 2012 (actual date 27th November 2012)

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(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.				c) Section 2.3 – Refers to Section 6.5 and 7.2 of Appendix A. Environment Action Register includes all actions arising from site inspections, audits. d) Section 2.4 – Refers to Section 6 of Appendix A. Includes need to report to AGL within 24 hours verbally and within 48hours a written report. Sewage overflow was reported verbally and in email form within specified timeframes to AGL. e) Section 2.5 - 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. Written notification of the sewage overflow which occurred on 15 October 2012 was reported via email to DoPI on 16 October 2012. The ER is notified immediately of all incidents requiring reporting to any agencies or the Director-General and is made of aware of minor incidents through regular site and compliance inspections. e) Section 2.6 - Project Requirements Register Doc No. NGSF-WPPM-NAS-PM-REG-0004 – lists requirements and stakeholder responsible

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
COSTRUCTION ENVIRONMENTAL MANAGEMENT					
Environmental Representative					
B55	Prior to the commencement of pre-construction or construction activities, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environmental Representative(s) who is independent of the design, construction and operation personnel. The Proponent shall engage the Environmental Representative(s) prior to construction until at least six months after commencement of operation, or as otherwise agreed by the Director-General.	Pre-construction	AGL	Compliance Closed	The Environmental Representative (Megan McLachlan) has been approved by the Director-General on 25/06/2012. The alternate ER (Hamish Campbell) has been approved by the Director-General on 31/07/2012. Alternate ER Hamish Campbell replaced by Will Ellis and approved by DoPI in correspondence dated 29/11/2012. Construction activities commenced 27 August 2012
Construction Environment Management Plan					
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:	Pre-construction	CBI (a-c and f-j) (d) – CBI/AGL as per Schedule 8 of Agreement	Compliance Closed – CBI	Constriction Environment Management Plan sent to DoPI electronically on 23 July 2012 with hard copies sent via mail with letter dated 31 July 2012 Emails to Port Stephens Council dated 8 August 2012. CEMP sent to PSC 24 July 2012, to NOW 24 July 2012 a) Section 2.7 Project Schedule b) Section 5.4 Monitoring and Review c) Section 5.4 Monitoring and Review and Section 5.5 Incident Management

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(a) a description of all relevant activities to be undertaken on the site during construction including an indication of stages of construction, where relevant; (b) identification of the potential for cumulative impacts with other construction activities occurring in the vicinity and how such impacts would be managed; (c) details of any construction sites and mitigation, monitoring, management and rehabilitation measures specific to the site compound(s) that would be implemented; (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; (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; (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;				d) Section 3: Legislative and Other Requirements e) Section 5.2.1: Consultation for CEMP f) Section 4.4: Roles and Responsibilities g) Section 5.4 Monitoring and Review and Section 5.5 Incident Management h) The CEMP and associated sub plans, environmental work method statements i) Section 5.2.3 Consultation with Stakeholders and Community Engagement Plan j) Section 4.3.4 EWMS and Appendix A8: EWMS Matrix

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(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; (h) specific consideration of relevant measures to address any requirements identified in the documents referred to under condition A1 of this approval; (i) a complaints handling procedure during construction as identified in conditions B51 to B53; and (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. 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.				

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B57a	As part of the Construction Environmental Management Plan required under condition B56 of this approval, the Proponent shall prepare and implement the following: (a) a Flora and Fauna Management Plan, prepared in consultation with the relevant Council and with reference to the OEH requirements, to outline measures to protect and minimise loss of native vegetation and native fauna habitat as a result of construction of the project. The Plan shall include, but not necessarily be limited to: (i) plans showing terrestrial vegetation communities; important flora and fauna habitat areas; locations where EECs, native grasses are to be cleared. The plans shall also identify vegetation adjoining the site where this contains important habitat areas and/or threatened species, populations or ecological communities; (ii) methods to manage impacts on flora and fauna species and their habitat which may be directly or indirectly affected by the project, such as location of fencing, procedures for vegetation clearing or soil removal/stockpiling and procedures for locating hollows or installing nesting boxes and managing weeds; (iii) procedures to accurately determine the total area, type and condition of vegetation community to be cleared; and (iv) a procedure to review management methods where they are found to be inadequate	Pre-construction	CBI	Compliance Closed – CBI	Flora and Fauna Management Sub Plan a) Email date 8 August 2012 to Port Stephens Council re Fauna Hollow Management. Meeting 2 August discussing all environmental commitments. Email 31 July 2012 with FFMSP attached to PSC. Offset strategy also sent through to PSC i. Figure 1 includes ecological communities, Figure 2 species locations for project area and surrounds ii. Section 3.2, Section 4.1 Appendix B iii. Section 2.0 iv. CEMP Section 4.0

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B57b	(b) a Cultural Heritage Management Plan, developed in consultation with registered local Aboriginal stakeholders, to outline mitigation and management strategies for items of heritage significance that may be uncovered during construction of the project;	Pre-construction	CBI	Compliance Closed – CBI	Cultural Heritage Management Sub Plan Correspondence received from Nur Run Gee 12 September 2011 confirming review of draft report with nil comments Correspondence received form Mur-Roo-Ma 8 September 2011 acknowledging review of draft report. Correspondence received form ATOAC (Awabakal) 20 September 2011 acknowledging receipt of draft report. Recommended that groups attained site when current dense vegetation layer removed as well as a few minor edits which are now included in plan. CHMSP includes protocol to be followed during clearing and also if unexpected find encountered after clearing works.
B57c	(c) a Groundwater Management Plan prepared in consultation with NOW and HWC to detail how impacts to groundwater will be avoided and mitigated during the construction and operation of the project. The Plan shall integrate data from groundwater monitoring undertaken as required by condition B25 to set baseline and to establish targets and thresholds for the duration of the project. A contingency plan shall be developed as part of the Groundwater Management Plan in the event that groundwater is compromised during construction, such as through drawdown from horizontal directional drilling;	Pre-construction	CBI	Compliance Closed – CBI	Groundwater Management Sub Plan – sent in email to DoPI dated 11 July 2012 Email from HWC 31 October 2011 indicating satisfaction with plan. Email to DoPI 9 August 2012 with correspondence attached endorsing GMSP from NOW Refer Condition B25

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B57d	(d) a Surface Water Management Plan prepared in consultation with NOW, HWC and the Port Stephens Council (particularly in regard to stormwater being conveyed from the gas storage facility site to Old Punt Road), to detail how surface water and stormwater will be managed on the site during construction and operation of the project. The plan shall include detailed design of all watercourse crossings, culverts and in-stream works, a programme to monitor and manage, and notification and mitigation of identified impacts of watercourse crossings, culverts and instream crossings. In particular, the design for the horizontal directional drilling under the Hunter River shall be provided, including an assessment of the depth of scour for the Hunter River, and demonstration that the HDD will be undertaken below this depth. The plan shall also include use of appropriately sized stormwater controls, in accordance with Managing Urban Stormwater: Soils and Construction (Landcom, 2004). The plan shall include specific measures to avoid sediment-laden stormwater from entering the Hunter River, a monitoring programme for stormwater leaving the site (including the requirements for inspection reports required under condition B26) details of how hydrostatic test water would be disposed, and measures to mitigate contamination of soils and water	Pre-construction Construction	CBI Other	Compliance Closed – CBI	Surface Water Management Sub Plan – sent in email to DoPI dated 11 July 2012 Email from HWC 31 October 2011 indicating satisfaction with plan. Email to DoPI 9 August 2012 with correspondence attached endorsing GMSP from NOW Additional SWMSP to be developed for pipeline works which will include river crossing.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B57e	(e) a Flood Emergency Response Plan prepared in consultation with and to meet the reasonable requirements of Newcastle City Council and Port Stephens Shire Council;	Pre-construction	CBI	Compliance Closed – CBI	Flood Emergency Response Management Sub Plan sent to DoPI 24 July 2012 Correspondence with PSC dated 26 July 2012, Email indicating plan sent through 27 July 2012. Email dated 16 August 2012 chasing up if any comments
B57f	(f) a Noise Management Plan to manage noise impacts during construction and to identify all feasible and reasonable noise mitigation measures. The Plan shall include, but not necessarily be limited to: (i) details of construction activities and an indicative schedule for construction works; (ii) identification of construction activities that have the potential to generate noise impacts on surrounding land uses, particularly residential areas; (iii) details of the requirements for Noise Impact Statement(s) for discrete work areas, including construction site compounds; (iv) identify all sensitive receivers where construction noise goals are predicted to be exceeded; (v) detail what reasonable and feasible actions and measures would be implemented to minimise noise impacts; (vi) consultation with the owner/occupiers of sensitive receivers (including receivers R4 (Tomago Village Caravan Park) and R5 (217 Maitland Road), where construction noise goals are expected to be exceeded, with the aim of identifying and implementing reasonable and feasible noise	Pre-construction	CBI (i-iv)& AGL (v) & (vi)	Compliance Open	Noise and Vibration Management Sub Plan i. Table 2-3 – Schedule currently aligns with actual works ii. Section 2.0, Table 2-6 lists main construction activities and predicted noise levels at various distances from site. iii. Section 2, Table 2-6. As nil activities are predicted to impact the sensitive receptors the requirements for Noise Impact Statements is not considered necessary for the Project. Spot checks will be conducted during construction to confirm predicted levels. iv. Section 2.0, Table 2-1. Nil sensitive receivers are predicted to be impacted by the Project v. Appendix B – all tables vi. Section 3.0, Appendix B. R4 and R5 are not affected by the current stage of works. vii. Appendix B Table 8-1 viii. Appendix B – Table 8-2. Additional procedures under development describing out

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	mitigation and management measures, including where necessary, the consideration of respite periods and alternative accommodation arrangements; (vii) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity, as well as procedures for dealing with and responding to noise complaints; (viii) an out-of-hours work (OOHW) protocol for the assessment, management and approval of works outside of standard construction hours as defined under this approval, including a risk assessment process under which the Environmental Representative may approve out-of-hour construction activities deemed to be of low environmental risk and refer high risk works for the Director-General's approval. The OOHW protocol shall detail standard assessment, mitigation and notification requirements for high and low risk out-of-hour works, and detail a standard protocol for referring applications to the Director-General; and (ix) a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported; and, if any exceedance is detected, how any non-compliance would be rectified;				of hours protocol. Noise Management Plan to be resubmitted to DoPI for approval and OOHW protocol to be sent to EPA for approval (EPL) ix. Noise monitoring frequency, locations and results recording and reporting included in Section 5.2 of the NMSP. Management of any exceedances are discussed in Section 5.4. Baseline measurements taken at nearest receptor (Hunter Region Botanical Gardens) during period 20-27 November 2012. Spot checks will be completed throughout construction as detailed in plan.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
B57g	(g) a detailed Acid Sulphate Soil Management Plan prepared in consultation with DPI(Aquatic Habitat Protection Unit), and NOW prior to any construction activity in areas mapped as Potential Acid Sulphate Soils or Actual Acid Sulphate Soils. The plan shall include reference to the water quality monitoring programme contained in the Groundwater and Surface Water Management Plans. The plan shall be prepared in accordance with the Acid Sulphate Soils Manual (ASSMC, 1998). As part of the plan, a Contingency Plan to deal with the unexpected discovery of actual or potential acid sulphate soils shall be prepared in consultation with NOW;	Pre-construction	AGL	Compliance Closed – CBI	Received confirmation email from Scott Carter (Senior Conservation Manager - Central Region, Aquatic Habitat Protection Unit, NSW DPI) on 28-Mar-12 accepting adequacy of ASS Management Plan Email with ASSMSP attached sent to DPI 22 March 2012, response received form DPI 28 March 2012 ASSMSP Table 5-2 refers to additional monitoring GW and SW. Contingency states to stockpile material separately and advice sought. Section 4 and 5 details what to do if ASS or PASS found
B57h	h) a Traffic Management Plan to manage traffic conflicts that may be generated during construction. The Plan shall address the requirements of the relevant road authority and shall include, but not necessarily be limited to: (i) details of how construction of the project will be managed in proximity to local and regional roads; (ii) details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads; (iii) measures to minimise and manage traffic noise; (iv) an assessment of sufficient access for emergency vehicles to ensure the proposed traffic arrangements meet the requirements detailed in Guidelines for Emergency Vehicle Access Policy No 4 (NSW Fire Brigades, 2010);	Pre-construction	CBI	Compliance Closed – CBI	Traffic Management Sub Plan i. Section 2.8 ii. Appendix A iii. Table 9-4 iv. Appendix C Table 9-3 v. Section 1.6, Section 2.0 vi. Appendix B vii. Section 3.0 viii. Appendix C Table 9-2 ix. Appendix C Table 9-2 x. Section 3.2

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(v) demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with; (vi) details of measures to minimise interactions between the project and other users of the roads such as the use of fencing, lights, barriers, traffic diversions etc.; (vii) procedures for informing the public where any road access will be restricted as a result of the project; (viii) procedures to manage construction traffic to ensure the safety of livestock and to minimise disruption to livestock; (ix) speed limits to be observed along routes to and from the site and within the site; and (x) details of the expected behavioural requirements for vehicle drivers travelling to and from the site and within the site.				

Table A1.2 Compliance Assessment – Statement of Commitments

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.1 Soils					
7.1.1 Soil Contamination					
1	Include a spill response plan in the emergency response plan and ensure that there is adequate spill response equipment stored onsite. Personnel will be trained on the emergency response plan and correct use of the spill response equipment.	Preconstruction	CBI	Compliance Open	Refer Appendix C of the Pollution Incident Response Management Plan All vehicles to carry spill kits with spot checks completed by CBI staff and ER during site inspections. Spill response training included in Tool box talk 13/10/2012 and 06/11/2012 SMSP – Table 8-12
2	Ensure concrete mixers and pump trucks are not washed on-site.	Construction	CBI	Compliance Open	27.02.12 - AGL requested change to this (via DoPI) to enable onsite washouts with appropriate controls to be implemented by CBI. Approved by DoPI 8 February 2013 Concrete washout procedures included in Appendix B of the Waste Management Sub-Plan. Updated Procedure sent to AGL 23/11/2012. HWC and NOW consultation – approved 23/11/2012. Letter from HWC to DoPI dated 22/08/20/12 endorsing procedure. Email from EPA sent 22/11/2012 responding to updated procedure which will allow washing on -site

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
3	Store PASS capable of producing leachate within lined bunds.	Construction	CBI	Compliance Open	ASSMP – refer Table 4-1 SMSP – refer Table 8-6 and Table 8-8 Nil PASS encountered to date.
4	Contain excess construction materials, drill fluids and cuttings using appropriate methods such as plastic-lined pits, skips or holding tanks for appropriate reuse or off-site disposal. HDD fluids will be contained within the bunded HDD work area.	Construction – Stage 2	CBI	NA Open	Not currently applicable
5	Provide workforce inductions and training to ensure personnel have knowledge of the correct use of refuelling systems and chemical handling procedures.	Construction	CBI	Compliance Open	SMSP – Section 3.2 Refuelling included in induction. All refuelling done on site using mobile refuelling trucks. SWMS for refuelling checked. Refuelling also include in Ward's SWMS for Clearing and Grubbing, Bulk Earthworks, Vibro compaction works with refuelling and associated controls discussed. Site inspections indicate any pumps containing fuel contained within impervious container.
6	Restrict vehicle movements to sealed or dedicated areas and roadways, as far as practical.	Construction	CBI	Compliance Open	SMSP – Table 5-2 and Table 8-8 Site boundaries delineated with parawebbing. Road construction underway along main access road, gas track road completed.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7	Ensure drainage around vehicle and equipment servicing areas, workshops and chemical storage areas is directed to sumps.	Construction	CBI	NA Open	SMSP – Table 8-2 Nil vehicle and equipment servicing areas, workshops and chemical storage areas currently on site
8	Use licensed contractors to collect, transport and dispose of hazardous materials such as waste solvents, paints, mercury absorption medium and hydrocarbons to a licensed off-site facility in accordance with EPA guidelines.	Construction	CBI	Compliance Open	WMSP – Appendix A DG&HMMSP – Section 1.6.2 Regulated wastes tracked with certificates issued – includes licence number of contractor.
9	Remove wastewater and sewage from site by an EPA licensed operator for treatment at an EPA-approved wastewater treatment facility.	Construction	CBI	Compliance Open	WMSP – Section 2.1.3 and Appendix A. Sewage collected by Affordable Sanitation Service – dockets received and documented in Waste Register. Final disposal location not tracked.
10	Regularly inspect hazardous material containment facilities to ensure their integrity.	Construction	CBI	NA Open	SMSP – Table 5-2 DG&HMMSP – Appendix E (weekly checklist) Nil hazardous material containment facilities currently on site
11	Ensure potential contaminants at the Hexham receiving station are stored within flood-protected facilities.	Construction – Stage 2	Other	NA Open	Stage 2 CEMP - SMSP

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
12	Perform an assessment (in accordance with the SEPP 55 and NEPM 1999) to confirm the contaminant type, concentrations and extent of contamination in the event of unearthing historically contaminated soil. Action will then be undertaken in accordance with relevant EPA requirements and land use criteria to either remediate the impacted area or remove the contaminants.	Preconstruction	CBI	IO Open	SMSP – Table 5-2 and Table 4-1 AGL to pay for any costs associated with contamination (if found) - CBI must have appropriate management processes in place. Two finds of asbestos during bulk earthworks – removed by licensed contractor. Nil other contamination issues to date IO – include removed asbestos waste details in waste register
13	Investigate the current status of the existing sewage management system at the western boundary of the Hexham receiving station site.	Preconstruction – Stage 2	Other	NA Open	Stage 2 CEMP - SMSP
14	Include inductions to construction personnel that outline measures on how to deal with suspected contaminated soil.	Construction	CBI	Compliance Open	SMSP – Section 3.2 Unexpected find procedure developed which includes contaminated soil. Unexpected soil contamination management included in induction

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.1.2 Soil Erosion					
15	A construction surface water management plan that describes erosion and sediment control will be prepared in accordance with NSW DECC Managing Urban Stormwater: Soils and Construction – Volume 2A Installation of Services 2008 (DECC, 2008) and Managing Urban Stormwater: Soils and Construction (The Blue Book) (Landcom, 2004). All erosion control and drainage works will be designed in accordance with Urban and Sediment Control Guidelines (DLWC, 1992).	Preconstruction	AGL	Compliance Open	Surface Water Mgt Sub Plan (SWMSP) and Soil Management Sub Plan (SMSP) Silt fence installed around boundary of project works as per Figure 10-2 in the SMSP (Primary Project Area). Diversion and swale drains to still be installed as per Figure 10-3 in the SMSP (Access Road and Corridor)
7.1.3 Acid Sulfate Soils					
16	Conduct a detailed ASS assessment at the Hexham receiving station site prior to construction at this site to determine the natural buffering capacity of the soil and ascertain that site works meet the requirements of clause 25 of the Newcastle Local Environmental Plan 2003 (Newcastle LEP 2003).	Preconstruction – Stage 2	Other	NA Open	Stage 2 CEMP – ASSMSP
17	Minimise disturbance and exposure of ASS.	Preconstruction	CBI	Compliance Open	ASSMSP – Table 4-1 AGL studies to date indicate probability is low of encountering ASS on areas CBI will be working, but that if found, ASS will be dealt with in same manner as for pipeline route where ASS are anticipated. Nil ASS encountered to date

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
18	Store excavated ASS in conditions that simulate its natural state, or treat and store away from waterbodies and drainage lines.	Preconstruction	CBI	NA Open	ASSMSP – Table 4-1 Nil ASS encountered to date
19	Treat excavated ASS using agricultural lime with machinery sufficient to perform adequate mixing, where practicable.	Preconstruction	CBI	NA Open	ASSMSP – Table 4-1 Nil ASS encountered to date
20	Bund areas where ASS are exposed, including at the HDD entry and exit points for the pipeline beneath the Hunter River, to prevent leachate entering the wider environment.	Preconstruction	CBI	NA Open	ASSMSP – Table 4-1 Nil ASS encountered to date
21	Undertake any potential ASS remediation works in accordance with clause 25 of the Newcastle LEP 2003, and the Acid Sulfate Soils Manual (ASSMAC, 1998).	Preconstruction	Other	NA Open	ASSMSP – Table 4-1 Nil ASS encountered to date
22	Undertake any potential ASS remediation works in accordance with, the Port Stephens Council Local Environmental Plan 2003, the Port Stephens Council Acid Sulfate Soils Policy, 2004 and the Acid Sulfate Soils Manual (ASSMAC, 1998).	Preconstruction	CBI	NA Open	ASSMSP – Table 4-1 Nil ASS encountered to date
7.1.4 Monitoring					
23	Inspecting and monitoring hazardous material containment facilities to ensure their integrity.	Preconstruction	CBI	Compliance Open	DG&HMMSP – Appendix E (weekly checklist) SMSP – Table 5-2 and Table 8-1
24	Inspecting and maintaining erosion and sedimentation control structures.	Preconstruction	CBI	Compliance Open	SMSP – Table 5-2 Weekly checklists

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
25	Inspecting and monitoring of all works to ensure soil erosion or contamination is not occurring.	Preconstruction	CBI	Compliance Open	SMSP – Table 5-2 Weekly checklists
26	Monitoring soil quality around Project works prior to and during construction to ascertain the presence of contaminated soil or ASS.	Preconstruction	CBI	NA Open	ASSMSP – Table 5-2 Not applicable as yet as nil excavations on site. Spot checks to be completed once excavations commence below groundwater.
7.1.5 Modifications to Management and Mitigation Measures for Soils					
27	Conduct an ASS assessment of the Hexham Receiving Station site prior to construction at the site to check the natural buffering capacity of the soil and to satisfy the requirements under clause 25 of the Newcastle Local Environmental Plan 2003.	Preconstruction – Stage 2	AGL	NA Open	Stage 2, ASSMSP
28	A hazardous material survey is carried out prior to demolition of the existing building at the Hexham receiving station site.	Preconstruction – Stage 2	AGL	NA Open	Stage 2, ASSMSP
29	A CEMP is prepared that includes procedures for the management and disposal of fill material, procedures for unexpected finds and an ASS management plan, if required.	Preconstruction	AGL	Compliance Closed – CBI	SMSP – Table 5-2 ASSMSP – Table 5-1 Unexpected finds procedure developed which includes contaminated soil and ASS etc.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
30	Ensure that the banks of watercourses are not disturbed during construction.	Preconstruction	AGL	NA Open	Include in Table 4-1 of ASSMSP Nil works within watercourses during audit period
7.2 Surface Water					
31	A construction surface water management plan (SWMSP) is being prepared and implemented prior to construction commencing on site. The SWMSP will be prepared in consultation with HWC, NOW, OEH and PSC. The plan will describe best practice surface water control measures to reduce the risk of contamination of surface water and shallow groundwater, or the alteration of surface water flows. The plan will be supported by a surface water monitoring network as described in section 9.2.3 of the EA Main Report.	Preconstruction	AGL	Compliance Closed – CBI	Surface Water Management Sub Plan – sent in email to DoPI dated 11 July 2012 Email from HWC 31 October 2011 indicating satisfaction with plan. Email to DoPI 9 August 2012 with correspondence attached endorsing GMSP from NOW Additional SWMSP to be developed for pipeline works which will include river crossing.
32	The surface water management plan will be prepared and implemented as part of the CEMP and OEMP.	Preconstruction	CBI Others	Compliance Open	SWMSP for CBI completed Implementation checked during site inspections – internal and external. Refer individual reports and 6 monthly compliance tracking report for implementation

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Water Supply and Disposal					
33	Minimise water use.	Construction	CBI	IO Open	SWMSP – Table 8-1 IO – include this SoC number in SWMSP SoC Table 1-3. Would also assist if SoC were placed in chronological order. Refer also SoC91 Bulk of water used for dust suppression.
34	Source water from existing water supply infrastructure. Until the permanent water supply is available, it is currently proposed that this will be supplied to construction sites by either water tankers or from a standpipe such as a HWC metered standpipe along Old Punt Road.	Construction	CBI	IO Open	SWMSP – Table 8-1 IO – include this SoC number in SWMSP SoC Table 1-3 Water supplied to site via tankers sourcing water from HWC metered standpipe on Old Punt Rd.
35	Develop hydrostatic test management measures in consultation with HWC, OEH and NOW. The management measures will address: • Hydrostatic test water supply. This is likely to be potable water from existing HWC water supply infrastructure, untreated water from HWC Station 20 bores, groundwater locally abstracted from new bores or a combination of these; • Assessment of potential changes to groundwater levels if groundwater is abstracted from existing HWC and new AGL bores	Construction	CBI	IO Open	SWMSP – Table 1-3 indicates included in Table 8-1. IO. Check of Table 8-1 indicates not actually discussed in this table. Refer instead to Section 2.4. Nil hydrostatic testing completed during audit period. AGL to develop Hydrostatic Test Water Management Plan by June 2013.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
36	Transport amenities wastewater offsite by a licensed operator to a licensed disposal facility.	Construction	CBI	Compliance Open	WMSP – refer Table 7-1 SWMSP – Table 8-1 GWMSP – Table 8-1 Review of materials tracking register indicates amenities wastewater transported by Affordable Sanitation Services – service dockets are left at site office. Verbal confirmation received that disposal location is appropriately licenced Written confirmation of disposal location from transporter obtained.
37	Test and treat water generated by dewatering of trenches or excavations if required, and infiltrate back into the groundwater table at designated infiltration areas, or alternatively transport offsite to a licensed disposal facility.	Construction	CBI	Compliance Open	SWMSP - Table 8-10 Nil dewatering undertaken during audit period
Surface Water Flow and Flooding					
38	Divert runoff from outside the work area to existing drainage lines to prevent the formation of new surface flow paths.	Construction	CBI	Compliance Open	SWMSP – Table 8-1 Nil runoff from outside current work area flows to site
39	Install culverts under new roads to maintain existing surface drainage flows.	Construction	CBI	Compliance Open	SWMSP – Table 8-3 Culverts noted under construction on Main access road and gas pipeline road during site inspections.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
40	Restrict vehicle movements to formed access roads and sealed roads to avoid surface compaction where practicable.	Construction	CBI	Compliance Open	SWMSP – Table 8-1 Vehicles noted using formed access roads and temporary construction access during site inspections
41	Monitor the potential for flooding by observing weather reports and river levels during potential flood events.	Construction	CBI	Compliance Open	SWMSP – Table 8-1 Adverse weather forecasts are discussed in pre start meetings (prestart records) with weather reports posted on meeting room wall.
42	Store equipment securely when not in use to prevent it being washed away in a flood.	Construction	CBI	Compliance Open	SWMSP – Table 8-11 Site inspections indicate tools and other equipment is packed into storage containers –theft prevention additional driver
43	Avoid unnecessary clearing of vegetation and excavation works.	Construction	CBI	Compliance Open	SWMSP – Table 8-1 Vegetation cleared along delineated boundaries. Trees along boundary line retained as noted in ER site inspection reports.
44	The gas storage facility will have a minimum floor level equivalent to the 100-year ARI flood level (approximately 4.6 m AHD) plus a freeboard of 0.5 m (i.e., at least 5.1 m AHD). The preliminary design for the facility has a finished floor level of 6.3 m AHD.	Construction	AGL	Compliance Open	SWMSP – Table 8-1 Design is compliant with this condition – construction currently underway with further confirmation of compliance once earthworks completed.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
45	The design of the Hexham receiving station has a minimum floor level equivalent to the 100-year ARI flood level (approximately 3.9 m AHD) plus a freeboard of 0.5 m (i.e., at least 4.4 m AHD). No additions to the existing building are currently proposed.	Construction – Stage 2	Other	NA Open	Stage 2 - Technical Design spec
Runoff, Erosion and Sediment Control					
46	Restrict construction traffic movement to formed access tracks to avoid excess disturbance to soil and creation of bare areas where practicable.	Construction	CBI	Compliance Open	SWMSP - Table 8-1 SMSP – Table 4-1 Vehicles noted during ER site inspections using formed access roads and temporary construction access during site inspections
47	Select construction equipment to minimise the disturbance to soils.	Construction	CBI	Compliance Open	SWMSP - Table 8-1
48	Minimise duration of subsoil (including stockpiles) exposure to weather.	Construction	CBI	Compliance Open	SMSP – Table 8-6 Subsoil stockpile consisting of unsuitable material being processed to enable reuse on site. Storage <2 months.
49	Secure disturbed bare soils by re-spreading topsoil, re-vegetating or applying a geo-fabric (or similar), as soon as practicable after reinstatement of earthworks.	Construction	CBI	NA Open	SMSP – Table 8-6 Earthworks still current – reinstatement works yet to commence
50	Re-vegetate exposed soils as soon as possible to reduce potential for sediment-laden runoff.	Construction	CBI	Compliance Open	VRWMP SMSP – Table 8-1

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
51	Provide wind-breaks (or equivalent control measures) around exposed areas and stockpiles to prevent wind erosion.	Construction	CBI	Compliance Open	SMSP – Table 8-3, Table 8-9
52	Place soil stockpiles upslope of excavations and not in drainage lines.	Construction	CBI	Compliance Open	SMSP – Table 8-3 Noted during site inspections topsoil stockpiles located along pipeline easement away from drainage lines. One excavation on site for sewage system for construction site office – stockpile located up gradient as observed during site inspections.
53	Construct roadside swales to capture runoff from the Primary Project Area access roads during construction.	Construction	CBI	Compliance Open	SMSP – Table 8-2 SWMSP – Table 8-2
54	Design drains to minimise water velocities.	Construction	CBI	Compliance Open	SWMSP - Table 8-2 SMSP – Table 8-2
55	Install velocity reduction devices, such as sandbags, in drains and sloped drains to reduce erosion.	Construction	CBI	Compliance Open	SWMSP - Table 8-7 SMSP – Appendix C (Section 6)
56	Install sediment capture devices, such as silt fences and bunding, down-slope of exposed soils and soil stockpiles.	Construction	CBI	Compliance Open	SWMSP - Table 8-1 SMSP – Table 4-1

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
57	Construct suitably lined sediment control ponds down-slope of construction work areas upfront. These will subsequently be developed into permanent wetlands during the operations stage.	Construction	CBI	Compliance Open	SWMSP - Table 8-4 GWMSP – Table 8-1 CBI will construct the sediment pond as part of the early civil work. AGL will subsequently convert this to permanent wetlands during the operation stage.
58	Treat construction tracks to minimise surface degradation, e.g., compaction or topping with gravel.	Construction	CBI	Compliance Open	SWMSP - Table 8-1 SMSP – Table 4-1
59	Stabilise the banks of any disturbed watercourses adjacent to Old Punt Road using measures such as rock rip-rap, diversion berms, sediment fences, jute matting and reseeding.	Construction	CBI	Compliance Open	SMSP - Appendix C Section 4.2
60	Divert runoff upstream of disturbed areas to existing drainage lines to prevent the risk of increasing erosion and requiring further sediment control measures.	Construction	CBI	NA Open	SWMSP – Table 8-2 SMSP – Table 4-1 Current project area slightly higher than surrounding land.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
61	Undertake daily inspections of all runoff, erosion and sediment control structures during the construction period.	Construction	CBI	IO Open	SMSP – Table 5-2 SWMSP – Section 5.0 Table 5-2. Table 5-2 indicates checks done weekly and after rainfall. IO – consider clarifying that daily checks are completed and diarised. Also states in Table 8.1 checks completed weekly which will also need to be amended to reflect daily checks as per the commitment
62	Maintain runoff, erosion and sediment control structures according to appropriate standards.	Construction	CBI	IO Open	SMSP – Table 8-1 IO - SWMSP indicates included in Table 8-2 but is not. Consider including in Table 8-1. Controls checked weekly by CBI site staff.
63	Ensure silt fences are in a vertical position and securely fixed and remove sediment or residue behind sediment control barriers.	Construction	CBI	IO Open	SWMSP – Table 8-7 IO - referred to in Table 1-3 of SMSP but not addressed in plan. Consider adding mitigation measure into Table 5-2 or remove reference Silt fences noted installed along boundaries of site. Minor repair issues raised after weekly CBI site inspections. Minor issues noted during ER site inspections.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
64	Monitor earthwork areas regularly for signs of erosion.	Construction	CBI	Compliance Open	SWMSP –Table 8-1 SMSP - Table 5-2 includes general requirement to check all strictures during all works CBI weekly reports indicated this is checked regularly.
65	Install and commission at the operations phase, runoff, erosion and sediment control measures as soon as practical.	Operations	AGL	NA Open	To be include in OEMP to be developed for operations phase
Discharge of Contaminated Water, Spills and Leaks					
66	Minimise the volume of hazardous chemicals stored on site.	Construction	CBI	Compliance Open	SWMSP – Table 8-11 DG&HMMSP – Table 8-1 Minor volumes of chemicals stored on site in bunded storage – primarily cleaning fluids, minor quantities of fuel, oils and lubricants.
67	Store and transport hazardous materials according to their material safety data sheet (MSDS).	Construction	CBI	Compliance Open	SWMSP – Table 8-11 DG&HMMSP – Table 8-2 Flammables stored in flammable goods cabinet or in plastic bunds adequate to contain spills or leaks.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
68	Store potentially contaminating chemicals according to the appropriate standards, including measures such as impervious bunded areas capable of capturing 110% of the maximum spill volume.	Construction	CBI	Compliance Open	SWMSP – Table 8-11 DG&HMMSP – Table 8-1 Fuel drums noted stored in plastic containers capable of holding content volume. Nil major quantities of chemicals currently stored on site
69	Prepare a spill response plan and ensure adequate spill kits are available at all construction sites and personnel are trained in their use.	Construction	CBI	Compliance Open	SWMSP – Section 3.2 and Appendix D DG&HMMSP – Table 8-4 and Appendix C Spill kit located at site office and in PPA. Small spill kits are required by the site to be carried by all vehicles on site. Random checks during site inspections by CBI staff and ER confirm compliance with site requirement. Two toolbox talks detailing spill response completed during period of audit
70	Maintain all construction equipment appropriately and inspect machinery for leaks.	Construction	CBI	Compliance Open	SWMSP – Table 8-11 All machinery checked daily and documented
71	Bund HDD entry points to prevent the release of leachate from drill cuttings, drilling fluids, or spills entering the surrounding environment, including the Hunter River.	Construction – Stage 2	Other	NA Open	Stage 2 CEMP – SWMSP

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
72	Implement hydrostatic test water management measures in consultation with HWC and NOW to determine and address requirements for testing and treating of this hydrostatic test water prior to re-use or disposal. Disposal options include infiltration to groundwater or discharge to an existing watercourse.	Construction	CBI	IO Open	SWMSP – Table 8-1. IO. Check of Table 8-1 indicates not actually discussed in this table. Refer instead to Section 2.4. AGL to develop hydrostatic testing strategy and plan. Nil hydrostatic testing during period of audit. AGL to develop Hydrostatic Test Water Management Plan by June 2013.
Frac-out					
73	A detailed geotechnical investigation will be undertaken prior to HDD under the Hunter River. This will include drilling investigation bore holes and shallow seismic surveys to provide detailed understanding of the geological strata under and adjacent to the river.	Preconstruction – Stage 2	Other	NA Open	Stage 2 CEMP
7.2.2 Monitoring					
74	A surface water quality monitoring program will be developed as part of the CEMP and OEMP surface water management plan and in consultation with relevant authorities (OEH, NOW, and HWC). It will include preconstruction ('baseline'), construction and operations monitoring of water quality parameters. Monitoring will be undertaken within the primary project area and at surface runoff control facilities (such as sediment ponds). The following monitoring locations are proposed: • Sediment ponds (during construction only).	Preconstruction	AGL	Compliance Open	SWMSP – Section 5.0 and Appendix C Baseline Water Data Appendix A – Figures including monitoring locations Sediment ponds in ESCP – to be updated as required Targets include in Appendix C Monitoring locations to be installed at time of audit

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	• Holding and inspection tanks. • Outflow from the holding pond. • Water Features 1 and 2. The proposed stormwater containment and treatment system will be designed to provide treatment of surface water runoff from the site through containing, treating and adequately disposing of this runoff. Maintenance and monitoring will need to be undertaken to ensure discharges satisfy regulatory requirements. Construction and operations monitoring results will be compared to target concentrations (trigger values) derived from baseline data. Where this is not possible due to insufficient data, the concentrations will be compared to recommended trigger value concentrations for protection of aquatic ecosystems (ANZECC, 2000). The plan will also require inspecting water levels in and the integrity of surface runoff control facilities (such as holding pond, bio-retention systems, drains, sumps and sediment fences) monthly and following significant rainfall.				
7.2.3 Modifications to Management and Mitigation Measures for Surface Water					
75	A surface water baseline monitoring program is carried out before construction commences.	Preconstruction	AGL	Compliance Closed	Completed – refer EA SWMSP lists base – Table line data results in Appendix C

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
76	During the construction program, holding and sediment pond areas on site will be monitored monthly following the initial 12-month construction period. It is envisaged that a report on a six-monthly basis will be produced, however final requirements will depend on the specific planning approvals (and associated reporting requirements to different agencies) for surface water and groundwater monitoring.	Construction	CBI	IO Open	SWMSP – Table 5.1 details monitoring program requirement IO – Consider adding this SoC to Table 1.3 Holding and sediment pond areas under construction at time of audit
77	AGL will appoint a peer reviewer for the engineering design of the stormwater management system.	Pre-construction	AGL	Compliance Closed	Confirmation email by Axel Hanson from Hunter Water Corporation dated 2-May-12 approving SMEC as the independent peer reviewer. Review of design completed with email received from HWC 2 May 2012 with recommendations. Meeting held with HWC 20 July 2012 to discuss review and recommendations. Submitted to DoPI on 8 June 2012
78	Stormwater from the site will be treated in accordance with PSC's 'Urban Stormwater and Rural Water Quality Management Plan for New Developments' and will therefore be of equivalent (or better) quality than stormwater from other sites within the municipality.	Construction	CBI	Compliance Open	This Mgt Plan has been referenced in design of stormwater controls on site. CEMP, EWMS, SWMSP Refer various commitments for specific controls
79	Holding pond will be sized to accommodate up to a 1 year ARI.	Construction	CBI	Compliance Open	SWMSP – refer Figure 5 Holding pond has been sized for up to 1 year ARI 24 hour storm.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
80	Disposal of hydrostatic test water will be managed under the surface water management plan in consultation with relevant agencies.	Construction	CBI	IO Open	SWMSP – Section 2.4. SWMSP has been submitted to agencies for review and accepted. IO – Consider adding this SoC to Table 1.3 Nil hydrostatic testing during audit period
81	AGL will prepare a stormwater management plan for the Project.	Preconstruction	CBI Other	Compliance Closed - CBI	SWMSP completed for CBI Stage 2 to be completed
82	A flood emergency response plan will be prepared for the Hexham receiving station.	Preconstruction – Stage 2	Other	NA Open	Stage 2
83	The surface water management plan will be prepared in consultation with HWC, OEH and NOW, and will include, but not be limited to: a) A description of the quantity and source of all surface water supplies relating to construction and operations; b) Detailed baseline data on surface water quality; c) Surface water quality impact assessment criteria and a protocol for the investigation, notification and mitigation of identified exceedances; d) A program to monitor surface water quality; e) Detailed design of all water crossings, culverts and instream works;	Preconstruction	CBI	IO Open	SWMSP – refer CoA 57d a) Section 2.3 b) Baseline included in Section 5.2 and Appendix C c) Appendix C for assessment criteria. IO - Protocol for investigation, notification and reporting of identified exceedances needs to be added d) Monitoring program included in Section 5.1 e) Design of water crossings, culverts and instream works included in ESCP as part of SMSP – Section 10.2

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	f) A program to monitor and manage watercourse crossings, culverts and instream works; g) A protocol for the investigation, notification and mitigation of identified impacts associated with watercourse crossings, culverts and instream works.				f) IO- Program to monitor and manage watercourse crossings, culverts and instream works to be added to plan if applicable to this stage of works (Section 5.2.2) g) IO – protocol for investigation, notification and mitigation of identified impacts associated with watercourse crossings, culverts and instream works to be included in plan IO - Add this SoC to Table 2.3
84	Water feature 4 is not disturbed by the access road corridor.	Preconstruction – Stage 2	Other	NA Open	Stage 2 CEMP - SWMSP
85	When wastewater is tankered: The system will have a telemetered level sensor that alarms when over range; The tank will be included on the regular site inspection and reporting program.	Construction	CBI	Compliance Open	WMSP – Table 7-1 Both toilet blocks have visible and audible alarms installed (ladies installed retrospectively after overflow incident). Wastewater pumped out regularly (weekly) which is entered into materials tracking register. Volumes reported in six monthly compliance reports.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
86	There is a groundwater monitoring piezometer that is regularly sampled for pathogens and nutrients, downstream of the wastewater holding tank.	Construction	CBI	IO Open	GMSP – Table 8.1 IO – edit reference in Table 1.3 from Table 1.8 to Table 8.1, change SoC number to correct number. Current wastewater holding tanks installed above ground. Groundwater bore located to north (down gradient) of sewage holding tank (MW6 and MW7) Analytes to be tested include nutrients but not pathogens such as E. Coli, total or faecal coliforms to indicate sewage contamination IO – consider sampling for E Coli or similar to detect any sewage contamination in down gradient bores whilst sewage tank is installed for construction site office
87	Ensure that the banks of watercourses are not disturbed during construction.	Construction	CBI Other	NA Open	GWMSP – Table 8-1 Nil works completed along banks of watercourse during audit period

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
88	Those conditions 1 to 5 recommended by PSC are implemented for the Project. 1) Full details of stormwater drainage shall be approved by an accredited certifier or Council prior to issue of Construction Certificate. 2) Submission of Works-As-Executed plans and report prepared and certified by a suitably qualified drainage engineer confirming all drainage works (volume, discharge, levels, location etc.) are built in accordance with conditions of consent and the approved plan. The documents shall be submitted to, and accepted by the Certifying Authority prior to issue of the Occupation certificate. 3) The stormwater system, including any water quality or quantity components, shall be maintained in perpetuity for the life of the development. 4) Separate approval is required to occupy, close or partially close the road reserve adjacent to the property under the Roads Act. The storage of materials, placement of toilets and rubbish skips within the road reserve is not permitted. 5) Provide water quality report that shows that the system for removal of nutrients and other pollutants meets the targets set out in Council's 'Urban Stormwater and Rural Water Quality management Plan' (see section 8). Details to be provided to the certifying authority prior to issue of the Con Cert.	Pre operations	AGL (1,3,5) CBI (2,4)	Compliance Open	1) Completed. 2) To be submitted once plant has been constructed 3) Noted – to be include in OEMP to be developed for operations phase 4) Refer Surveyors Plan for DP1173564 – current location of buildings is on shoulder of TAC access road. Check of PSC LEP for area confirms road is not a Public Road 5) Completed

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.3 Groundwater					
90	A groundwater management plan will be prepared in consultation with relevant agencies and implemented as part of the CEMP and OEMP. The groundwater management plan will describe best practice control measures to reduce the risk of contamination of shallow groundwater, or the substantial alteration of groundwater flows due to drawdown effects. The proposed (onsite) monitoring network will be effective in identifying any impacts during both the site construction and operation of the facility. The groundwater management plan will define the groundwater monitoring network, analytes and frequencies, include a spill response plan and a contingency plan to respond to any spills or measured groundwater contamination during Project construction or operations. Groundwater levels will also be monitored at a selection of sites. It will also include a contingency plan to respond to any drawdown caused by HDD based on groundwater monitoring described in section 7.4.6 of the EA Main Report.	Preconstruction	CBI Other – Stage 2	Compliance Open	Email from HWC 31 October 2011 indicating satisfaction with plan. Email to DoPI 9 August 2012 with correspondence attached endorsing GMSP from NOW Groundwater Management Sub Plan – sent in email to DoPI dated 11 July 2012. Letter from DOPI received 10/08/2012 approving plan for primary project area Groundwater Management Sub Plan – refer CoA B25 and B57 Contingency plan to respond to any drawdown caused by HDD based on groundwater monitoring to be included in relevant GMSP (Stage 2).
7.3.1 Groundwater Levels and Flow					
91	Minimise groundwater use.	Preconstruction	CBI	Compliance Open	GMSP – Table 8-1 Nil groundwater used during audit period

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
92	Discharge excess groundwater pumped from trenches during construction where possible to minimise temporary changes in local groundwater levels.	Preconstruction	CBI	IO Open	GMSP – Table 8-1 IO Table 1-3 refers to SoC 48 with this description. Nil groundwater pumped from trenches during audit period
93	Replace material excavated from trenches to minimise changes to groundwater flows, as far as practical. Where possible, pipelines will be bedded on sand in the base of the trench.	Preconstruction	CBI	IO Open	GMSP – Table 8-2 IO – align number in Table 1-3 to SoC number (111 to 93) One pit excavated at the intersection of the gas pipeline and Ausgrid powerline easement during audit period – material excavated from pit was replaced back into pit.
94	Undertake infiltration rate tests at the sites of proposed infiltration basins to determine local infiltration rates and the presence of indurated sand layers capable of inhibiting groundwater recharge.	Preconstruction	CBI	IO Open	IO - GMSP to include this SoC Nil infiltration basins installed during audit period
95	Monitor groundwater levels within and at the boundaries of the gas plant site.	Preconstruction	CBI	IO Open	GMSP – Section 5.0 IO – align number in Table to SoC number (90 to 95) Monthly groundwater monitoring completed – results and reports pending review.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.3.2 Groundwater Quality					
96	A groundwater baseline monitoring program has commenced and will continue during construction and operations. This includes measurement of groundwater levels and quality. Groundwater monitoring will be carried out throughout the life of the Project within the gas plant site. Measures for preventing contamination of surface water described in section 7.3.4 of the EA Main Report will assist in preventing the contamination of groundwater. Measures for preventing contaminated soils or ASS soils contaminating surface water are described in section 7.2.4 of the EA Main Report. These measures will prevent contamination of groundwater by negating the infiltration of contaminated surface water and the leaching of potential contaminants from the soil into the groundwater. A thorough geotechnical investigation will be completed prior to HDD commencing to ensure that it is designed to prevent groundwater contamination during construction. Water quality parameters to be monitored will be determined during development of the groundwater management plan and in consultation with HWC, OEH and NOW. A report presenting data and analysis of the six months of baseline water quality data (both groundwater and surface water) will be provided to HWC, OEH and NOW. The baseline report will review the interim thresholds and develop the final thresholds for water quality criteria for both the CEMP and OEMP.	Preconstruction Preconstruction – Stage 2	AGL	Compliance Open – Stage 2	Baseline report completed and summary of results include in GWMP Stage 2 - Geotechnical investigation prior to HDD to be completed

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Spills and Leaks					
97	The measures for preventing direct contamination of surface water include measures to prevent spills at the gas plant reaching groundwater.	All stages	AGL	IO Open	SWMSP GMSP – spill response contingency plan flowchart, Appendix E Spill Response Procedure IO – addition of this commitment to Table 1-3 of the SWMSP
7.3.3 Monitoring					
98	Groundwater monitoring will be undertaken in accordance with the groundwater management plan throughout the life of the Project in the PPA and during construction only at the Hexham receiving station site and adjacent to HDD entry and exit points, assuming no changes beyond expected natural variation are observed in these bores. Monitoring bores will be installed. There may be several phases of installation depending on the respective site and pipeline construction programs. A groundwater baseline will be established before construction commences (minimum six months at boundary locations). The final monitoring locations will be defined during development of the Groundwater Management Plan for the site and determined in consultation with HWC, OEH and NOW.	Preconstruction Preconstruction – Stage 2	CBI AGL	IO Open	GMSP – Section 5.0 IO – align number in Table to SoC number (119 to 98) Stage 2 – HDD GMSP to be developed Groundwater monitoring competed monthly. Results and reports pending.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	A thorough geotechnical investigation will be completed prior to HDD commencing to ensure that it is designed to prevent groundwater contamination during construction. Groundwater monitoring will be undertaken throughout the life of the Project in the PPA in accordance with the groundwater management plan. In addition the groundwater management plan will make provision for additional groundwater monitored at the Hexham receiving station site and adjacent to HDD entry and exit points during construction. Water quality parameters to be monitored will be defined during development of the groundwater management plan for the site and determined in consultation with HWC, OEH and NOW. Groundwater monitoring results will be evaluated against natural background concentrations (the primary comparison) and have relevance to ANZECC 2000 ecosystem trigger values and NHMRC 2004 Australian drinking water guidelines. Thresholds will be defined in the groundwater management plan for the site and determined in consultation with HWC, OEH and NOW. Exceedances above the final adopted thresholds would trigger responses as outlined in the contingency flow chart. The indicative groundwater monitoring program schedule is outlined in Table 7.1.				

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
99	Spill Response will include: (1) Clean-up of the contamination source; (2) Assess the groundwater quality with respect to relevant guidelines; (3) Advise OEH, NOW and HWC of any spill or leakage to unpaved ground that has potential to impact groundwater. (4) Undertake hydraulic containment using one or more downstream pumping bores; (5) install additional monitoring bores and increase monitoring frequency; (6) Pump the contained water to a treatment facility for treatment and reinjection to groundwater if the water meets criteria.	Preconstruction	CBI (1, 3, 6), AGL (2, 4, 5)	IO Open	GMSP 1. Appendix E 2. Section 2.0 3. Appendix E 4. Appendix E and Figures 5 & 6 5. Appendix E 6. Appendix E IO – align number in Table 1-3 to SoC number (various)
100	Advise OEH, NOW and HWC of any spill or leakage to unpaved ground that has potential to impact groundwater.	Construction	CBI AGL	IO Open	OEH notified in GMSP, Emergency Response Plan, CEMP and PIRMP. GMSP – Appendix E also includes requirement to contact NOW and HWC IO add in the requirement to notify HWC and NOW in the ERP, CEMP and PIRMP if potential groundwater impacts Nil major spills on site during audit period that may have potentially impacted groundwater. Commitment to report all spills over 20litres to EPA, NOW and HWC. Two incidents reported to agencies during audit period 15/10/2012 (sewage overflow) and 18/09/2012 (hydraulic oil).

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.3.4 Modifications to Management and Mitigation Measures for Groundwater					
101	A groundwater assessment (at Hexham site) based on site redevelopment details are carried out.	Preconstruction – Stage 2	AGL	NA Open	Stage 2
102	NOW will be consulted regarding any construction dewatering of pipeline excavations to ensure that any extractions are properly licensed (if required).	Construction – Stage 2	Other	NA Open	Stage 2
103	AGL will ensure compliance with all statutory licensing requirements, including those stipulated by the conditions of approval.	Construction	AGL CBI	Compliance Open	GMSP – Section 5.0 Audit schedule, review of operations, CBI reporting
104	All water supplies for construction and operations will be sourced from an authorised and reliable supply.	Construction Operations	CBI	IO Open	GMSP – Table 8-1 IO – align number in Table to SoC number Water sourced from HWC metered standpipe on Old Punt Rd
105	A groundwater management plan will be prepared in consultation with HWC, OEH and NOW. The groundwater management plan will include, but not be limited to: A description of the quantity and source of all surface water supplies relating to construction and operations; A description of all dewatering activities including the quantity of groundwater to be taken; In relations to groundwater levels and quality,	Preconstruction	AGL	IO Open	GMSP – sent in email to DoPI dated 11 July 2012 with acceptance of plan received August 2012 for Primary Project Area. Email from HWC 31 October 2011 indicating satisfaction with plan. Email to DoPI 9 August 2012 with correspondence attached endorsing GMSP from NOW

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	(i) a detailed baseline data on groundwater levels and quality, (ii) Groundwater quality impact assessment criteria, (iii) a program to monitor the effects of any change in groundwater levels and quality on groundwater dependent ecosystems, (iv) A protocol for the investigation, notification and mitigation of identified exceedances of the groundwater quality impact assessment criteria, (v) A strategy to prevent illegal dumping of waste on the site and any access roads or tracks.				(i) Appendix C includes baseline water quality, depth. Duration and frequency of monitoring include in Table 5-2 Groundwater Monitoring Requirements (ii) Performance criteria included in Section 5.1.1 (iii) Section 5.1.1 for water quality and changes in water levels (using CUMSUM) (iv) Contingency Plan Flowchart Figure 5 and Appendix E for spills IO - addition to plan if monitoring results indicate impacts, elevated analyte concentrations, changes in GW levels (v) WMSP – Table 7-7 Illegal Dumping
106	A groundwater monitoring piezometer will be installed and regularly sampled for pathogens and nutrients, downstream of the holding tank for wastewater.	Preconstruction	CBI	IO (repeat of SoC 86) IO Open	GMSP – Table 8.1 Groundwater monitoring completed at IO – align number in Table 1-3 to SoC number Refer SoC 86 (repeat) Current wastewater holding tanks installed above ground. Groundwater bore located to north (down gradient) of sewage holding tank (MW6 and MW7) Analytes to be tested include nutrients but not pathogens such as E. Coli, total or faecal coliforms to indicate sewage contamination

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
					IO – consider sampling for E Coli or similar to detect any sewage contamination in down gradient bores whilst sewage tank is installed for construction site office
107	Groundwater monitoring data collected from the site will be provided to HWC, OEH and NOW.	Construction	CBI	IO Open	GWMP – Section 3.0 and Section 5.0 IO – align number in Table to SoC number Groundwater monitoring completed monthly – review of correspondence sending reports to agencies to confirm compliance outstanding.
108	Monitor and assess groundwater quality with respect to background concentrations.	Construction	CBI	IO Open	GMSP – Section 5.0 IO – align number in Table 1-3 to SoC number Monthly groundwater monitoring reports to not reviewed during this audit.
109	Conduct a review of the analytical suite of groundwater monitoring parameters following first 12 months of construction works.	Construction	CBI	IO Open	GMSP – Section 5.0, Appendix C IO – align number in Table 1-3 to SoC number Construction within first 12 months at date of audit.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
110	Prepare remediation action plan which is likely to include hydraulic containment using one or more down gradient (new) pumping bores (in the event of spill).	Construction	CBI	IO Open	GMSP – Appendix E and Figures 5 & 6 GMSP outlines approach to be taken in event of spill/pollution which includes hydraulic containment. In relation to specific event AGL may provide support to CBI when CBI is developing management strategy. Strategy to be implemented by CBI. IO – align number in Table 1-3 to SoC number
7.4 Flora and Fauna					
7.4.1 Flora					
111	Limit the width of the construction right of ways for the gas pipeline (up to 10 m) where significant species and vegetation remnants are located (applies to gas pipeline corridor along northern boundary).	Preconstruction	CBI	Compliance Open	FFMSP – Appendix B, Table 8-9 Vegetation Clearing Protocol, Table 8-10 Earp's Gum Protection Protocol The current WP drawings show the whole of the 30m easement being cleared along the gas access track, with 10m being used to create a track. Letter from ecoBiological 14/05/2012 confirming that there are no significant species or ecological communities which would limit the clearing to 10m

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
112	Re-vegetate relevant sections of the right of ways with suitable native species that comply with pipeline license requirements (e.g., no large tree species) as soon as practicable following construction.	Preconstruction – Stage 2	Other	NA Open	Currently not referenced in FFMSP or VRMSP as CBI not completing works – pipeline installation contractor to add in their plans as required
113	Allow an appropriate buffer distance (to be determined when developing the CEMP) between any construction activity and remnant native vegetation, where practicable. In such situations, strict erosion controls will be implemented to prevent sediment-laden runoff entering the adjacent vegetation.	Preconstruction	AGL	Compliance Open	VRSMP Appendix B Table 8-2
114	Ensure vehicle and equipment parking areas and stockpile areas are identified and sited to avoid areas containing ecological value.	Preconstruction	CBI	Compliance Open	FFMSP – Appendix B Table 8-2 Access Table 8-10 Earp's Gum Protection Protocol VRSMP Appendix C SWMSP – Table 8-11 CEMP – includes location of stockpiles and offices. Areas located within delineated project area. ER and CBI inspections confirm locations
115	Erect flagging tape to mark 'no-go' zones to ensure areas to be protected are clearly defined, identified and avoided.	Preconstruction	AGL	Compliance Closed - CBI	FFMSP – Appendix B Table 8-1 General Construction Table 8-6 Pre-clearing Protocol Table 8-10 Earp's Gum Protection Protocol

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
					Table 8-12 Koala Protection Protocol Table 8-13 Hollow dependant Threatened Fauna Protection Protocol VRSMP Appendix C Site inspections confirmed flagging tape delineated boundary of works.
116	Identify appropriate biodiversity offsets consistent with 'improve or maintain' principles.	Preconstruction	AGL	Compliance Closed	Refer Offset Strategy EcoBiological May 2012
117	Use native vegetation grown from local seed banks for re-vegetation where appropriate.	Preconstruction	AGL (responsible for seed bank), Other responsible for re-vegetation	Compliance Open	VRSMP Appendix D, Appendix B Table 8-5 Re-vegetation works yet to commence at time of audit
118	Limit access to sensitive areas of riverbanks and riparian vegetation during construction of the pipelines where practicable to avoid inadvertent or unauthorised disturbance of adjacent vegetation.	Preconstruction	AGL	NA Open	Stage 2 Pipeline contractors to include in their FFMSP
119	Reinstate logs and rocks, which are removed for pipeline construction, along the right of ways or relocate them to appropriate nearby habitats.	Construction – Stage 2 Operations	Other	NA Open	Stage 2 Pipeline contractors to include in their FFMSP

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
120	Trim vegetation where possible rather than removing it.	Construction Operations	CBI	Compliance Open	VRSMP Section 3.2 ER site inspections confirm trees left along boundaries and trimmed where possible – refer inspection reports.
121	Re-vegetate disturbed areas where possible, other than those required for permanent use, access to the easement or facilities or for bushfire protections areas. The following procedures will be followed during re-vegetation: • Reinstate topsoil; • Re-spread cleared vegetation in the Project area to facilitate natural regeneration of native vegetation, where appropriate; • Undertake weed control where necessary to promote the rehabilitation of re-vegetated areas; • In consultation with the landowner, fence rehabilitated areas until successful re-vegetation is evident or until such time as the landowner requests fencing to be removed; • Monitor rehabilitation success, and undertake supplementary active re-vegetation (as outlined above), if required.	Construction Operations	Other	Compliance Open	FFMSP – Appendix B Table 8-1 General Construction Table 8-9 Vegetation Clearing Protocol VRMSP – Table 8-2, Table 8-5, Section 3.1, Section 5 Re-vegetation works yet to commence at time of audit
7.4.2 Fauna					
122	Prepare a detailed fauna translocation (displacement) protocol to assist in the translocation of wildlife during the clearing process.	Preconstruction	AGL	Compliance Closed	FFMSP – Appendix B Table 8.8 General Fauna Displacement Protocol

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
123	Use HDD where warranted.	Construction – Stage 2	Other	NA Open	Stage 2
124	Minimise the length of time that construction trenches remain open, particularly in areas where habitat for significant species has been identified nearby.	Construction	CBI	Compliance Open	FFMSP – Appendix B Table 8-1 General Construction One pit excavated at the intersection of the gas pipeline and Ausgrid powerline easement during audit period –open for two days before being backfilled
125	Clear fauna from the right of way prior to vegetation clearing and implement mitigation measures where habitat is present.	Pre-clearing	AGL	Compliance Closed	FFMSP – Appendix B Table 8-9 Vegetation Clearing Protocol Clearing process now completed – Ecobiological completed report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012) detailing fauna rescue and relocations. Total of 57 animals rescued from clearing zone.
126	Remove habitat features, such as rocks and logs, from the right of way prior to clearing, and carefully stockpile prior to clearing and return during easement restoration. Inspect these features for signs of fauna and remove habitat features prior to clearing the right of way.	Pre-clearing	CBI	Compliance Closed	IO – currently not included in FFMSP but referenced in Table 1-3 – to be added into Appendix B Table 8-6 Pre clearing protocol. One significant rock in area – will remain in PPA. Nil rocks or logs suitable for restoration works were identified by Ecobiological as per report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
127	Conduct pre-clearing surveys prior to any tree felling to identify hollow-bearing trees, which will be left standing, where practicable. Nesting boxes will be placed into nearby trees where hollow-bearing trees are removed.	Pre-clearing	AGL	Compliance Closed	FFMSP – Appendix B Table 8-6 Pre-clearing Protocol, Table 8-7 Hollow Bearing Tree Clearing Protocol Ecobiological detailed process in report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012). ER site inspections also noted protocol followed – refer inspection reports. Clearing now completed
128	Conduct pre-construction trapping and relocation of targeted species where possible in specified ecologically sensitive locations.	Pre-clearing	AGL	Compliance Closed	FFMSP – Appendix B Table 8-8 General Fauna Displacement Protocol Table 8-11 New Holland Mouse Protection Protocol Table 8-12 Koala Protection Protocol Ecobiological detailed trapping results in report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012). Nil New Holland Mice found during trapping program. Clearing now completed

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
129	Monitor open sections of trenches as required for trapped animals, such as small ground-dwelling mammals, particularly in areas where sensitive habitat has been identified.	Construction	CBI	IO Open	FFMSP – Appendix B Table 8-15 Monitoring IO – add cross reference of SoC to Table in Appendix B One pit excavated at the intersection of the gas pipeline and Ausgrid powerline easement during audit period – checked daily by CBI environment staff for two days pit was open
130	Ensure fauna ramps are regularly incorporated into open sections of trench to allow animals that have fallen into the trench to make their way out	Construction	CBI	IO Open	FFMSP – Appendix B Table 8-1 General Construction Table 8-15 Monitoring IO – add cross reference of SoC to Table in Appendix B One pit excavated at the intersection of the gas pipeline and Ausgrid powerline easement during audit period – ecologists placed branch into pit to allow fauna to escape. Noted in ER site inspection report and Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
131	Re-vegetate disturbed areas where possible, other than those required for permanent use, access to the easement or facilities, or for bushfire asset protection. Replace terrestrial habitat features, such as rocks and logs, following construction with landowner approval. Where landowner approval cannot be obtained, replace rocks and logs in another suitable location.	Construction	CBI	IO Open	VRMSP - Table 8-5 IO – add to SoC Table 1.2 in VRMSP Refer SoC 126 Nil revegetation works during audit period
132	Manage re-vegetated areas (specific techniques to be developed as part of the CEMP to prevent overgrazing from native fauna and introduced pest animals.	Construction	CBI	IO Open	IO – add to SoC Table 1.2 in VRMSP and include in Table 8.5 Revegetation works yet to commence
Gas Plant Site					
133	A number of avoidance and minimisation measures have been incorporated into the Project design, for example, the rigorous route selection of the pipeline alignments to avoid significant species and habitat.	Construction	AGL	Refer below	Design layout
134	Gas plant facility will be located at the western end of the gas plant site and partially on previously disturbed land to minimise clearing of established flora and fauna communities (including preferred koala habitat), east of the gas plant site.	Preconstruction	AGL	Compliance Closed	Final design – plant is located at western end of land
135	Develop and implement comprehensive CEMP and OEMP. These documents will include detailed information about significant flora and fauna species, their management and on-going conservation recommendations.	Preconstruction Pre-operations	CBI AGL	Compliance Open	FFMSP – CEMP completed OEMP to be developed for operations phase to be developed closer to commissioning

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
136	Clearing of Earp's gum will be minimised by: (1) Mapping location of individual Earp's gums within 100m of facility; (2) Marking sensitive 'no-go' areas; (3) Limiting amount of disturbance during construction phase; (4) Ensuring vehicles keep to designated tracks.	Preconstruction	AGL (1,2), CBI (3, 4)	Compliance Closed	FFMSP Appendix D – Table 8-10 1) Figure 2 of FFMSP 2) No go areas marked out with tape and parawebbing 3) Disturbance limited to project footprint 4) Access tracks only used for vehicles All controls noted as implemented in Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012). Clearing completed – boundary delineated with fencing. Earp's Gums adjacent to boundary marked.
137	A biodiversity offsets strategy will be prepared and implemented in consultation with OEH and DSEWPaC.	Preconstruction	AGL	Compliance Closed	Refer Biodiversity Offset Strategy prepared by Ecobiological May 2012 Correspondence from DoPI accepting Strategy sighted.
138	The CEMP will include management strategies to mitigate work-site lighting, dust suppression and noise associated with the construction phase of the Project.	Preconstruction	CBI	Compliance Open	CEMP Dust - AQMSP, Noise – NVMSP Site inspections indicate compliance during current construction activities
139	A habitat management plan will be prepared to document offset areas.	Preconstruction	AGL	NA Open	AGL to develop plan.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
140	The CEMP and OEMP will include vegetation and weed management plans to prevent spread of weed species and avoid disturbance on quality and functioning of sensitive ecological communities.	Preconstruction	CBI Other	Compliance Open	VRMSP – Table 8-4. Weeds sprayed prior to clearing works. Weed material stockpiled into separate piles and disposed off-site to landfill. Daily and weekly CBI inspections check for new weed outbreaks.
141	The OEMP will consider appropriate measures associated with lighting of facility, e.g., downward facing lighting, to minimise light pollution and impacts on light-sensitive fauna.	Preconstruction	Other	NA Open	OEMP to be developed prior to operations commencing
142	Surface water management plan will be implemented, particularly the best practice sediment and erosion control measures, to avoid impacts on surface water quality.	Construction	CBI	Compliance Open	SWMSP completed – implementation checked during daily and weekly inspections completed by CBI staff. Area relatively flat and ground sandy lowering erosion potential. Silt fences installed along work boundaries to prevent off site transport of sediment.
143	Implement a pest animal control program on areas owned and/or managed by AGL to prevent increase in pest animal populations in the vicinity of the gas plant site.	Construction	CBI	Compliance Open	FFMSP – Table 8-4 Feral Animals Wild dogs noted on site – EPA trapping program covers the area. No other pest animals noted on CBI inspection reports or during ER inspections
144	Fencing will be in accordance with PSC's Koala Plan of Management to allow for fauna dispersion. Fencing around facility will be vermin proof security fencing to prevent fauna entering the site.	Construction	CBI	Compliance Open	FFMSP – Table 8-12 Koala Protection Nil permanent fencing installed at time of audit

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Access road and utility corridor					
145	The access road and utility corridor will be partially located on land already cleared for fire trails and for electricity easements. This will minimise clearing of key flora and fauna communities within the Swamp Mahogany and Woodland Rehabilitation communities.	Preconstruction	AGL	Compliance Closed	Final design of road access completed with fire trails and electricity easements used where possible.
146	The alignment of the access road and utility corridor will avoid clearing of Earp's gum.	Preconstruction	AGL	Compliance Closed	Initial design would have removed 67 Earps Gums. Final design removed 4.
147	Fencing around sensitive 'no go' areas will be erected and speed limits will be in accordance with PSC's Koala Plan of Management to avoid or minimise death or injury of wildlife.	Preconstruction	CBI	Compliance Closed	FFMSP – Table 8-1, 8-12 Site inspections indicate project areas marked with flagging initially and replaced with parawebbing once boundaries surveyed. Earps gums marked off with parawebbing prior to clearing.
148	Perimeter fencing of Access Road and utility corridor will be in accordance with PSC's Koala Plan of Management to allow fauna dispersion beyond the corridor.	Preconstruction	CBI	Compliance Open	FFMSP – Table 8-12 Koala Protection Protocol Nil permanent fencing installed at time of audit
Preferred Gas Pipeline Access Corridor					
149	Clearing of Redgum-Earp's gum-Apple-Banksia Forest will be minimised by: • Limiting amount of disturbance during construction phase; • Ensuring vehicles keep to designated tracks.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
150	Clearing of Earp's Gum-Apple Banksia Forest will be minimised by – Marking 'no go' areas where possible.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works
151	Perimeter fencing of Gas pipeline access corridor will be in accordance with PSC's Koala Plan of Management to allow fauna dispersion beyond the corridor.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works
152	Pipeline corridor will be located on previously disturbed land or alongside road easements to avoid removal of Swamp Mahogany-Paperbark Swamp Forest and Phragmites Rushland.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works
153	Selection of pipeline corridor (option 2) and HDD will be used to avoid removal of Phragmites Rushland, Hunter River, SEPP 14 Coastal Wetlands and SEPP 71 Coastal Protection Areas where practicable.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works
153A	The surface water management plan will be implemented to avoid disturbance from water runoff and erosion.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works
154	Geotechnical investigations, specialist site design and suitable management of required materials will be carried out to minimise frac-out associated with HDD.	Preconstruction – stage 2	Contractor – Stage 2	NA Open	Stage 2 of works
155	Ensuring that works occur when favourable weather conditions prevail.	Construction – Stage 2 Operation	Contractor – Stage 2	NA Open	Stage 2 of works

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
155A	Use sediment fences and/or sterile straw bales down slope of exposed soil and stockpiles	Construction – Stage 2 Operation	Contractor – Stage 2	NA Open	Stage 2 of works
156	Undertake rapid seeding and re-vegetation of disturbed areas to limit the time soil is exposed to erosion.	Construction – Stage 2 Operation	Contractor – Stage 2	NA Open	Stage 2 of works
Threatened Ecological Communities					
Access Road and Utility Corridor					
156A	Worksite lighting will be kept to a minimum.	Construction Operation	CBI	Compliance Open	CEMP – Appendix A7 Table 12-5 Nil lighting along access road during current phase of works. All works competed during daylight hours with no permanent infrastructure installed including lighting.
157	The access road and utility corridor will be partially located on land already cleared for fire trails. This will minimise clearing of key flora and fauna communities within the Swamp Mahogany and Woodland Rehabilitation communities.	Construction Operation	Contractor	Compliance Closed	Access road and utility corridor have been sited to minimise clearing of key flora and fauna communities within the Swamp Mahogany and Woodland Rehabilitation communities.
158	Explore implementing the following options: Use of passive means of lighting, such as installing reflector roadway markers, lines, warning or information signs and attaching reflectors to furnishings, Use solar-powered light emitting diode studs to highlight roadways and paths of travel,	Construction Operation	CBI AGL	NA Open	Design to be clarified

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	Use of directional lighting focussed only upon areas to be illuminated and not mounted higher than an appropriate height from grounds. This will assist in reducing visual impacts from light spill.				
Preferred Pipeline Corridor (Option 2)					
159	Pipeline corridor will be located on previously disturbed land or alongside road easements to avoid removal of Swamp Mahogany-Paperbark Swamp Forest and Phragmites Rushland.	Construction – Stage 2 Operation	Other	NA Open	Stage 2 of project
160	Selection of pipeline corridor (option 2) and HDD will be used to avoid removal of Phragmites Rushland, Hunter River, SEPP 14 Coastal Wetlands and SEPP 71 Coastal Protection Areas where practicable.	Construction – Stage 2 Operation	Other	NA Open	Stage 2 of project
160A	The CEMP will include an ASS management plan to minimise potential ASS	Preconstruction – Stage 2	Other	NA Open	Stage 2 of project
160B	The surface water management plan will be implemented to avoid disturbance from water runoff and erosion	Preconstruction – Stage 2	Other	NA Open	Stage 2 of project
160C	The CEMP and OEMP will include vegetation and weed management plans to prevent spread of weed species and ensure avoid disturbance on quality and functioning of sensitive ecological communities	Preconstruction – Stage 2	Other	NA Open	Stage 2 of project

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
160D	Geotechnical investigations, specialist site design and suitable management of required materials will be carried out to minimise frac-out associated with HDD	Construction – Stage 2	Other	NA Open	Stage 2 of project
160E	Use sediment fences and/or sterile straw bales down slope of exposed soil and stockpiles	Construction-Stage 2 Operation	Other	NA Open	Stage 2 of project
160F	Ensuring that works occur when favourable weather conditions prevail	Construction – Stage 2	Other	NA Open	Stage 2 of project
160G	Undertake rapid seeding and revegetation of disturbed areas to limit the time soil is exposed to erosion	Construction – Stage 2	Other	NA Open	Stage 2 of project
'SEPP 14 Coastal Wetlands					
161	HDD will be used to avoid removal of SEPP 14 Coastal Wetlands for preferred pipeline corridor (option 2).	Preconstruction – Stage 2 Construction	Other	NA Open	Stage 2 of project
162	The surface water management plan will be implemented to avoid disturbance from water runoff and erosion.	Construction-Stage 2 Operation	Other	NA Open	Stage 2 of project
SEPP 71 Coastal Protection Areas					
163	HDD will be used to avoid removal of SEPP 71 Coastal Protection Areas where practicable.	Construction-Stage 2 Operation	Other	NA Open	Stage 2 of project

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
164	Construction right of way will be reduced to 10 m to minimise removal of SEPP 71 Coastal Protection Areas.	Construction- Stage 2 Operation	Other	NA Open	Stage 2 of project
SEPP 44 Koala Habitat Areas					
165	The Project components will be sited to avoid or minimise preferred koala habitat where possible	Preconstruction	AGL	Compliance Closed	Final project layout sited to west to avoid koala habitat.
166	Clearing of supplementary koala habitat will be avoided or minimised through HDD or reducing construction right of way where practicable	Construction – Stage 2	Other	NA Open	Stage 2 of Project
167	Identifying and restoring potential koala habitat will be undertaken in consultation with PSC	Construction Operation	AGL	Open	Conservation Agreement
168	Fencing around pipeline easements within Lot 105 will be in accordance PSC's Koala Plan of Management to ensure Koala movement beyond the Project area	Construction Operation	CBI	Compliance Open	FFMSP – Table 8-12 Koala Protection. Fencing for Lot105 has been specified by WP in detailed design work. Permanent fencing not installed as at time of audit
169	Speed limits along the access road and utility corridor will be in accordance with PSC's Koala Plan of Management to minimise injury or death to koalas and other wildlife	Construction Operation	CBI	Compliance Open	FFMSP – Table 8-12 Koala Protection Access road and utility corridor under construction at time of audit. Construction speed limit 20km/h.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
Habitat and Corridors					
170	Construction right of way will be reduced, where possible, to minimise removal of sensitive vegetation and habitat.	Construction Operation	AGL	Compliance Closed	Pre-construction – surveys completed by Ecobiological prior to clearing to ensure endangered flora not removed. Sighting of access roads along fire trails and electricity easements completed where possible.
Instream Habitats					
171	Geotechnical investigations, specialist site design and suitable management of required materials will be carried out to minimise frac-out associated with HDD.	Construction – Stage 2 Operation	AGL	NA Open	Stage 2 of Project
Groundwater dependant ecosystems (GDEs)					
172	The implementation of management measures identified in groundwater assessment, including implementation of groundwater management plan and surface water management plan to avoid disturbance from water runoff and erosion, will avoid measurable impacts to groundwater quality, levels or flow and on groundwater dependent ecosystems.	Construction Operation	CBI, AGL to implement monitoring component	Compliance Open	GWMSP and SWMP developed and implemented
173	Conduct pre-clearing surveys on identified clearing areas.	Pre-clearing	CBI	Compliance Closed - CBI	FFMSP – Table 8-6 Pre Clearing Protocol Ecobiological completed surveys in morning prior to works commencing. Refer Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
174	All hollow-bearing trees to be soft-felled by experienced machine operator.	Construction Operation	CBI	Compliance Closed - CBI	FFMSP – Table 8-7 Hollow Bearing Tree Clearing Protocol. Refer Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).
175	Remove habitat features, such as rocks and logs, from the right of way prior to clearing, and carefully stockpiled prior to clearing and returned, where possible, during easement restoration.	Construction Operation	CBI	Compliance Closed	Refer SoC 126 and 131 One significant rock in area – will remain in PPA. Nil rocks or logs suitable for restoration works were identified by Ecobiological as per report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).
EPBC – Earp's Gum					
	The gas plant facility will minimise clearing of the Woodland Rehabilitation community to the northern portion. This will avoid fragmentation of the existing Earp's gum population	Preconstruction Construction	AGL CBI	Compliance Closed	Siting of plant to west and north edge of project area. Four Earp's Gums removed during clearing works rather than 67 as originally assessed.
176	Clearing of Earp's gum will be minimised by: – Mapping location of individual Earp's gum within 100 m of gas plant facility and access road and utility corridor.	Preconstruction Construction	AGL	Compliance Closed	FFMSP – includes map with location of Earp's Gums.
177	Clearing of Earp's gum will be minimised by: – Marking 'no go' areas where possible.	Preconstruction Construction	AGL	Compliance Closed	FFMSP – Table 8-10 Earp's Gum Protection Protocol, site inspection reports. Earp's Gums on edge of project area marked with parawebbing to prevent accidental removal or damage. Project area defined by temporary taping replaced with parawebbing once boundary lines surveyed.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
178	Clearing of Earp's gum will be minimised by: – Limiting amount of disturbance during construction phase.	Preconstruction Construction	CBI	Compliance Closed	FFMSP – Table 8-9, site inspection reports Project area clearly marked. Vehicles remained on marked access tracks. Earp's Gums on edge of project area marked with parawebbing to prevent accidental removal or damage. Project area defined by temporary taping replaced with parawebbing once boundary lines surveyed.
179	Clearing of Earp's gum will be minimised by: – Ensuring vehicles keep to designated tracks.	Preconstruction Construction	CBI	Compliance Closed	FFMSP – Table 8-2 Access
EPBC – Dwarf Kerrawang					
180	No removal of potential dwarf kerrawang habitat is envisaged. However, clearing of potential suitable habitat will be limited to disturbed areas across the Project area.	Preconstruction Construction	CBI	Compliance Closed	Not included in FFMSP however, not required as nil clearing of dwarf kerrawang habitat. EcoBiological mapped all vegetation on site and marked out limit of area to be cleared. Clearing restricted to marked areas as stipulated in FFMSP – Table 8-1 and Table 8-2.
EPBC – New Holland Mouse					
181	The clearing of suitable New Holland mouse habitat, the Heath Rehabilitation community, will be avoided.	Preconstruction Construction	AGL	Compliance Closed	Site inspections during pre-clearing and clearing, EcoBiological report issued. Final area to be cleared moved to west and north of project area to avoid area

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
182	The Project will minimise the clearing of similar suitable habitat (including Coastal Sand Apple-Blackbutt Forest) by where possible locating Project components in disturbed areas or by reducing construction widths of right of ways.	Preconstruction Construction	AGL	Compliance Closed	Site inspections during pre-clearing and clearing, EcoBiological Report issued – main access and pipeline corridor limited to fire trails and electricity easement where possible.
183	The OEMP will consider appropriate measures associated with lighting to minimise impact on the light-sensitive New Holland mouse.	Preconstruction Construction	AGL	Compliance Open	Check final design if included. OEMP to be developed for operations phase
183A	Prepare and detailed biodiversity offsets strategy that includes implementation of a recovery plan for the New Holland mouse in consultation with the OEH and DSEWPaC	Preconstruction Construction	AGL	Compliance Closed	Offset Strategy report prepared by ecoBiological dated May 2012 Correspondence from DoPI accepting Strategy Biodiversity report states that PSC, OEH and DSEWPaC consulted during development of offset strategy
EPBC – Migratory Species					
184	HDD and reducing construction widths of right of ways will avoid or minimise removal of suitable habitat associated with regent honey eater, swift parrot, satin flycatcher, black-faced monarch and rufous fantail, respectively. These communities are: Alluvial Tall Moist Forest, Redgum-Apple-Banksia Forest, Swamp Mahogany-Paperbark Swamp Forest, Coastal Sand Apple-Blackbutt Forest.	Preconstruction Construction	AGL	Compliance Open	ROW restricted to 30m and within design boundaries

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
EPBC - Hunter estuary wetlands					
185	Geotechnical investigations, specialist site design and suitable management of required materials will be carried out to avoid risk of frac-out associated with HDD.	Preconstruction – Stage 2	Contractor	NA Open	Stage 2
	The surface water management plan will be implemented to avoid disturbance from water runoff and erosion	Preconstruction – Stage 2	Contractor	NA Open	Stage 2
	The CEMP will include an ASS management plan to avoid ASS entering the Hunter River	Preconstruction – Stage 2	Contractor	NA Open	Stage 2
186	The implementation of management measures identified in groundwater assessment, including the surface water management plan to avoid disturbance from water runoff and erosion, will avoid measurable impacts to groundwater quality, levels, flow and therefore on the Hunter Estuary Wetlands.	Preconstruction – Stage 2	Contractor	NA Open	Stage 2
186A	Ensure construction works occur when favourable weather conditions prevail	Preconstruction – Stage 2	Contractor	NA Open	Stage 2
186B	Use sediment fences and/or sterile straw bales down slope of exposed soil and stockpiles	Preconstruction – Stage 2	Contractor	NA Open	Stage 2
187	Undertake rapid seeding and re-vegetation of disturbed areas to limit the time soil is exposed to erosion.	Preconstruction – Stage 2	Contractor	NA Open	Stage 2

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
188	Noise attenuation measures associated with HDD will be considered to minimise impacts on significant bird species.	Preconstruction – Stage 2	Contractor	NA Open	Stage 2 CEMP - NVMSP
7.4.3 Monitoring					
189	Inspect 'no-go' areas to ensure they are clearly marked prior to clearing activities.	Pre-clearing	AGL	Compliance Closed - CBI	FFMSP – Appendix B Table 8-1 General Construction Table 8-6 Pre-clearing Protocol Table 8-10 Earp's Gum Protection Protocol Table 8-12 Koala Protection Protocol Table 8-13 Hollow dependant Threatened Fauna Protection Protocol Earps gums marked and other no go areas marked with tape. All clearing and scrubbing works completed with ecologist on site to prevent accidental clearing - refer to Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).
190	Conduct pre-clearing surveys prior to any tree felling to identify hollow-bearing trees, which will be left standing, where practicable. Nesting boxes will be placed into nearby trees where hollow-bearing trees are removed.	Pre-clearing	AGL	Compliance Closed - CBI	FFMSP – Appendix B Table 8-7 Hollow Bearing Tree Clearing Protocol Pre-clearing surveys completed by Ecobiological - refer to Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
191	Conduct pre-construction trapping and relocation of targeted species in specified ecologically sensitive locations.	Preconstruction	AGL	Compliance Closed - CBI	FFMSP – Appendix B Trapping for New Holland Mouse completed by Ecobiological - refer to Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012).
192	Supervise construction activities in sensitive areas to ensure procedures for spread move around, reduced right of way, HDD etc. are being implemented, where required.	Construction	CBI	Compliance Open	FFMSP – Appendix B
193	Monitor rehabilitated areas periodically to evaluate the success of rehabilitation procedures within Project components.	Construction	CBI, AGL	NA Open	VRMSP – Section 5.0 and Appendix B Table 8-5 Rehabilitation activities yet to commence at time of audit
194	Monitor trenched sections daily for trapped animals such as reptiles and small ground-dwelling mammals, particularly in areas where sensitive habitats have been identified.	Construction	CBI	Compliance Open	FFMSP – Appendix B Table 8-15 Monitoring One pit excavated at the intersection of the gas pipeline and Ausgrid powerline easement during audit period –open for two days before being backfilled. Monitored by CBI environment staff
7.4.4 Biodiversity Offsets					
195	AGL will secure a biodiversity offsets package for the Project in consultation with OEH, DP&I and the DSEWPaC prior to the commencement of construction. It is currently proposed that the Biodiversity Offset Package will comprise:	Preconstruction	AGL	Compliance Open	Referred to in FFMSP but detail in 'Conservation Agreement' with OEH Offset Strategy report prepared by ecoBiological dated May 2012

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	• Offsets which will be assessed in accordance with the Biobanking assessment methodology to ensure reasonably 'like for like' principle and vegetation types to those impacted by the Project. • Additional rehabilitation to offset loss of up to 15 Eucalyptus parramattensis (Earp's gum) from the development site. A number of potential offsets sites have been identified and AGL is committed to continuing to assess these sites and consult with landowners and the OEH, DP&I and DSEWPaC to determine the final preferred offsets. AGL is committed to securing the selected offsets in perpetuity with appropriate management regimes and financial security via one or more of the following mechanisms: • Conservation agreement under the National Parks and Wildlife Act 1974 (NSW) (NPW Act). • Dedication of land under the NPW Act. • Planning agreement under the EP&A Act • Trust agreement under the Nature Conservation Trust Act 2001 (NSW). • Biobanking agreement under the Threatened Species Conservation Act 1995 (NSW).				"BioBanking Assessment Methodology" (Seidel and Briggs 2009) adopted for determining the extent and type of offset required by AGL. Medowie Conservation Area Offset Monitoring Protocol prepared by ecoBiological dated May 2012 Draft Conservation Agreement for Lot 20 at 3 Old Swan Bay Road, Medowie Draft Conservation Agreement for Lot 16 at 218 Old Swan Bay Road, Medowie. 4 Earp's gums removed from development site. 60 plants will be established in Hunter Region Botanical Gardens Biodiversity report states that PSC, OEH and DSEWPaC consulted during development of offset strategy Correspondence from DoPI accepting Strategy dated 15 August 2012

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.4.5 Modifications to Management and Mitigation Measures for Flora and Fauna					
196	The internal access road into the gas plant site will be redesigned to greatly reduce the number of Earp's gum requiring removal.	Preconstruction	AGL	Compliance Closed	Road realigned to avoid clearing Earp's Gums. Four gums removed during clearing works – reduced from 67 predicted in EA. Clearing now completed
197	Seed collected from Earp's gum within the site will be provided to the Hunter Botanic Gardens to propagate the seed and plant the seedlings on their property. A habitat management sub plan will be prepared which will detail the management and on-going protection of the remaining Earp's gum within the site.	Preconstruction	AGL	Compliance Open	Long term management of Earp's gums include in Biodiversity Strategy, Ecobiological May 2012 Management of Earp's gums during construction detailed in FFMSP Appendix B Table 8-10. Habitat Management Sub Plan to be developed by AGL
198	A vegetation rehabilitation management sub plan will be prepared which will detail the management and on-going protection of the remaining Earp's gum within the PPA.	Preconstruction	CBI	IO Open	IO – consider adding to VRMSP Table 1-3 Statement of Commitments or main body of plan. Management of Earp's gums during construction detailed in FFMSP Appendix B Table 8-10

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
199	Additional targeted surveys will be undertaken in the appropriate season for Asperula asthenes, Galium australe, Lindernia alsinoides, Persicaria elatior, Zannichellia palustris and Maundia triglochinoides in areas of suitable habitat within the final development footprint prior to construction. Should any species be likely to be impacted by the proposal then such species will be adequately compensated for in the form of offsets.	Preconstruction	AGL	Compliance Closed	Survey completed 25 Nov 2011. Offsets include in Offset Strategy, Ecobiological May 2012
200	A habitat management plan will be prepared (in consultation with the OEH and DSEWPaC) and implemented for the offsets and the development footprint.	Preconstruction	AGL	Open	Habitat Management Plan to be developed and implemented by AGL
201	In order to protect Earp's gum, individual trees will be retained within the APZ.	Preconstruction	CBI	Compliance Closed	FFMSP – Table 8-1, Table 8-12, Site inspections. Trees within APZ area marked using parawebbing
202	There will be no direct disturbance to the Freshwater Wetlands Endangered Ecological Community (EEC), Riverflat Eucalypt Forest EEC and Swamp Sclerophyll Forest that are located along Old Punt Road (due to pipeline realignment and choice of construction technique).	Preconstruction – Stage 2	AGL	NA Open	Final design completed. To be added to Management Sub Plans. Check during pipeline works stage 2

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
203	The proposed width of the gas pipeline access corridor will be reduced to 30 m which will reduce clearing in the Redgum-Apple-Banksia community (that contains Eucalyptus tereticornis) from 0.85 ha to 0.69 ha.	Preconstruction	AGL CBI	Compliance Closed	FFMSP – Table 8-2. Site Inspections Project areas marked with flagging tape and parawebbing. Gas pipeline access corridor 30m width
204	Any New Holland Mouse trapped will be translocated into areas safe away from development. This will be done in consultation with DSEWPaC.	Preconstruction	AGL	Compliance Closed	FFMSP – Table 8-11 New Holland Mouse Protection Protocol Five transects completed with nil New Holland Mice captured. Refer to Ecobiological report "Vegetation Clearing for Newcastle Gas Storage Facility" (November 2012)
7.5 Bush Fire					
7.5.2 Emergency Planning					
205	An emergency response plan will detail required actions at construction sites for approaching bush fire danger. This emergency response plan will be consistent with the RFS Guidelines for the Preparedness of Emergency/Evacuation Plan and be in compliance with AS 3745-2002 'Emergency control organisation and procedures for buildings, structures and workplaces'. The plan will be prepared prior to construction.	Preconstruction	CBI	Compliance Closed - CBI	CBI's Bushfire Management Sub Plan includes reference to the AS
206	A CEMP will include measures for working in a bush fire-prone area. AGL will apply its standard procedures during construction e.g., hot work permits.	Preconstruction	CBI	Compliance Closed - CBI	BFMSP – Appendix B (Mitigation Measures) Table 12-13 in CEMP also has mitigation measures included

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.5.3 Access and Egress					
207	The design of the access road and utility corridor will be sufficiently wide to allow attending emergency vehicles and evacuating vehicles to pass unimpeded in case of fire. It will be accessible in all weather conditions and will be designed to have a minimum load rating to accommodate fire-fighting units. The gas pipeline access corridor will serve as an alternative access/egress road. It will be designed for one way traffic and for light vehicles only.	Preconstruction	AGL	Compliance Closed	Width of roads 30m to allow space for vehicles to pass. TMSP – Table 9-1 for requirement during construction phase
208	The access road and emergency access road will include adequate outer radius-turning circles at the entry of the gas plant site and vertical clearance will be maintained above the access road.	Preconstruction	AGL	IO Open	Referenced in ERP Table 1-3 Statement of Commitments IO – consider including requirement in main body of report or remove from Table 1-3 if not required for this stage of the project Included in TMSP – Table 9-1
7.5.4 Project Design					
209	The gas plant is classified as a Class 10 building under the BCA. The construction of buildings and infrastructure will be in accordance with AS 3959-2009 'Construction of Buildings in Bush Fire Prone Areas'.	Preconstruction	AGL	Open	Pre-construction technical design Not checked during this audit

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.5.5 Water and Services					
210	The bush fire fighting water supply for the gas plant site will exceed the minimum volume requirement of 20,000 L (0.02 ML). The firewater tank will be able to direct water for fire suppression and cooling within the plant for a minimum of two hours. Fixed pumping systems, one electric and one diesel-engine driven, will be used. The water tank will be close to the southern boundary of the site and unimpeded access for emergency vehicles will be provided. Connections to the water tank will be provided for fire fighting teams.	Preconstruction Operations	AGL	Open	Pre-construction technical design Not checked during this audit
7.5.6 Landscape and Vegetation Management					
211	A bushfire management plan will be prepared for the PPA. The plan will address the management and maintenance of bush fire mitigation infrastructure. Clearance within the easements will be maintained to ensure fuel loads are kept to a minimum.	Preconstruction	CBI	Compliance Open	BFMSP – Appendix B Table 8-1 Table 12-13 (Risk Register) in CEMP has mitigation measures included
7.5.8 Modifications to Management and Mitigation Measures for Bush Fire					
212	APZs will be sized to provide a Bushfire Attack Level (BAL) of 29 kW/m2.	Preconstruction	AGL	Compliance Closed	APZ based on design – PPA cleared as per design
213	An emergency plan will be prepared in accordance with clause 174ZC of the Occupational Health and Safety Regulations 2001 (NSW) and the DP&I guidance note HIPAP 1, Emergency Planning.	Preconstruction	CBI	NC-2 Open	NC-2 CBI's PRP does not refer to either document therefore it is unclear if plan is consistent with these guidelines and procedures. Consider including discussion in PIRMP or PRP on the compliance/non-compliance with these documents.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
					AGL will be responsible for developing the ERP for the operations phase of the Project.
214	A fire safety study will be prepared and submitted to FRNSW for review and comment. The fire safety study will be compiled in accordance with NSW Department of Planning and Infrastructure guidance note HIPAP 2, Fire Safety Study Guidelines.	Preconstruction	CBI	Compliance Open	CBI –FSS August 2012 based on final design Stage 2 – update based on final designs – January 2013 Letter from DoPI dated 6 August 2012 approving staged approach with requirement the FSS for the second stage should be an update on the FSS for the first stage. (The site must have a single FSS covering the whole site) Meeting with RFS to discuss FSS scheduled 4 September 2012 Updates from AGL to be obtained
215	The proposed emergency traffic arrangements will be reviewed and assessed to ensure compliance with the stated Emergency Vehicle Access Policy No. 4.	Preconstruction	CBI	NC-2 Open	NC-2 – consider including requirement into CBI's PRIMP or PRP
216	With regards to the LNG Tank, there are two sources to determine the APZ. The European LNG Code, EN 1473:2007 recommends a radiant heat less than 15kW/m2, which requires an APZ of 43m. The Department of Planning recommends a radiant heat less than 23kW/m2, which requires an APZ of 31m. The current site layout has a APZ of 46m (minimum), including the slashing zones, and therefore satisfies both requirements.	Preconstruction	AGL	Compliance Closed	Noted

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.6 Aboriginal Cultural Heritage					
218	Maintain an Aboriginal cultural heritage site register.	Preconstruction Construction	CBI	IO Open	CHMSP refers to requirement in SOC Table 1-3. Nil register currently kept on site. Inspection log maintained. RFS includes table of artefact attributes IO – consider link to AIHMS cards which includes all details of find. Reference this register/table in the CHMSP
219	Record all Aboriginal cultural heritage sites within proximity of the Project area in the CEMP and OEMP.	Preconstruction Construction	AGL	Compliance Closed	CHMSP – Section 2 and Figure 2-1
220	Train all employees and contractors as part of the induction process in the procedures to be followed in the event that Aboriginal cultural heritage sites, objects and/or remains are unearthed.	Preconstruction Construction	CBI	Compliance Open	CHMSP – Section 3-1 and Appendix A Induction includes overview of process if heritage item found. Specifics on heritage works discussed further in workshop 21 August 2012 with clearing contractors.
221	Prepare a Cultural Heritage Management Plan (CHMP) in consultation with Aboriginal Stakeholders prior to construction for incorporation into the CEMP. The CHMP will address: a) The impact mitigation and management requirements for Aboriginal and historic heritage, b) Details of any additional archaeological investigations to be undertaken and any associated licences or approvals required,	Preconstruction	AGL	Compliance Closed	CHMSP a) Section 2-3, Section 4 b) Section 5-1 and Appendix C for legislative context c) Appendix A d) Appendix A e) Appendix A

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	c) Procedures to be implemented if previously unidentified Aboriginal or historic objects are discovered during construction, d) Procedures if human remains found, e) An education program for construction personnel on their obligations for Aboriginal cultural materials and historic items.				
222	Conduct a field survey of the PPA when the current dense vegetation layer is removed. This will be undertaken by a qualified archaeologist and representatives from the Worimi Local Aboriginal Land Council, Mu-Roo-Ma Inc, Nu-Run-Gee Pty Ltd and the GGAC.	Preconstruction Clearing	AGL	Compliance Closed	CHMSP – Section 5-3 Three inspections of the site were completed by the groups. 30 August 2012 – understory vegetation removed 7 September 2012 – all material cleared 24 September 2012 – topsoil removed.
223	Regular monitoring of implementation of Aboriginal cultural heritage procedures, including the CHMP, and relevant legislation will be conducted to ensure that they are followed by staff and contractors.	Construction	CBI AGL	IO Open	CHMSP Table 5-1 indicates weekly inspections and three monthly internal audits completed. Daily and weekly checks for heritage issues conducted by CBI environment staff. Three monthly internal audit not completed. IO – consider the completion of three monthly audit as included in CHMSP.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.7 Non-Aboriginal Cultural Heritage					
224	The CHMP will include procedures in the event that significant non-Aboriginal cultural heritage material is unearthed during construction of the Project.	Preconstruction	AGL CBI	Compliance Closed	CHMSP – Appendix A All subsoil works completed on PPA – nil non-Aboriginal cultural heritage material found.
225	All staff and contractors will be inducted and trained in cultural heritage procedures and the CHMP so they are aware of their obligations under the NSW Heritage Act.	Preconstruction Construction	CBI	Compliance Open	CHMSP – Section 3-2 Induction included overview of process if heritage item found. Specific training on heritage find identification delivered to clearing contractors at workshop 21 August 2012.
7.8 Socio-Economic Environment					
226	Employ a strategy that focuses on equipment suppliers, trades and services, within the Port Stephens and Newcastle LGAs, boosting the local economy.	All	CBI	Compliance Open	Subcontractors have been sourced from Newcastle are including Wards Engineering, Newcastle Earthworks and Antquip
227	Meet the construction and operations noise goals of the Project to minimise disturbance to sensitive receptors.	All	CBI	IO Open	NVMSP – Section 2.0 IO – implement the NVMSP monitoring programme to confirm noise goals are being met
228	Use local labour where appropriately qualified people are available to minimise the influx of workers to the area during construction and reduce the risk of subsequent potential impacts on rental prices.	All	CBI	Compliance Open	Bulk earthworks and clearing completed by subcontractors sourced from local area at time of audit
229	Outline accommodation options for workers during inductions and encouraged, where practicable, to share houses during construction.	All	CBI	Compliance Open	Bulk earthworks and clearing completed by subcontractors sourced from local area at time of audit

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
230	Consult with local accommodation providers and tourism industry representatives on an on-going basis to manage potential impacts on short-term accommodation, particularly during peak construction periods.	All	CBI	Open	Not checked during this audit
7.8.3 Property					
231	Access to properties will be maintained during pipeline construction works and pipeline trenches will be progressively reinstated to minimise impacts on the use of land.	Preconstruction Construction	CBI	NA Open	27.02.12: CBI only responsible where their work crosses TAC private access road and Old Punt Rd associated with stormwater pipe.
232	Minimise the requirement for roadworks along the section of Old Punt Road passing through the Tomago industrial estate between Kennington Drive and Old Punt Road and Laverick Avenue and Tomago Road intersections.	Preconstruction – Stage 2 Construction	AGL	NA Open	Stage 2 of Project Check design
7.8.4 Employment, Training and Local Business					
233	Engage local businesses where possible to service the Project both during construction and operations. Detailed advanced notices of goods and services required by the Project will be issued to assist local businesses meet the needs of the Project.	All	CBI AGL	Compliance Open	Bulk earthworks and clearing completed by subcontractors sourced from local area at time of audit Check if advanced notice issued not checked as part of this audit
7.8.5 Social Infrastructure					
234	Community consultation will be on-going during the life of the Project.	All	CBI AGL	Compliance Open	Procedure provided in the Community Engagement Plan (Document no: NGSF-AGL-NAS-PM-PLN-0002) - Section 4 First CCC meeting 4 July 2012. Minutes are available on the Project website.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
235	Notify the local community by means of public notice publications and advertisements on the progress of the Project and the scheduling of works.	All	CBI AGL	Compliance Open	Provided in the Community Engagement Plan (Document no: NGSF-AGL-NAS-PM-PLN-0002) Project signboards have been erected on site at Hexham and Tomago with contact details Contact details advertised on project website – details also included in Newspaper advertisement published in: • Port Stephens Examiner – 21 June 2012 • Newcastle Herald – 21 June 2012 Notices indicate expected operational date (mid 2015) and that AGL will continue to inform the community throughout all stages of the project
236	Preventative occupational health and safety measures and awareness programs will be implemented.	Construction	CBI AGL	Compliance Open	Toolbox talks held weekly (records sighted) which discussed any topical issues Pre-starts held daily highlighting hazards and discussing works to be completed that day
237	All staff, contractors and site visitors will undergo site inductions, be conversant with the construction safety management plan and the emergency management plan, as well as occupational health and safety requirements as specified by specialist contractors, professional bodies and unions.	Construction	CBI	Compliance Open	CEMP –Section 3.2 Training and Awareness PIRMP – Section 3.2 Training and Awareness Induction records maintained – all staff required to undergo inductions prior to commencing works on site Review of induction content completed August 2012.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
238	Working relationships will be developed with local area emergency services providers, including Raymond Terrace Police, Ambulance and Fire services, and regional hospitals to advise on risks relating to on-site work and prepare for emergencies. Assistance will be provided with emergency training. This process will begin prior to construction.	Construction	CBI AGL	Compliance Open	BFMSP – Section 3.1 for Fire Services stakeholder consultation once plan completed. Visit to Rural Fire Service command centre in Raymond Terrace completed with discussion of plan completed. RFS was invited to site to complete toolbox for bushfire management however RFS has not attended site as at date of audit. Police and ambulance are aware of site however, specific relationships are yet to be developed.
239	A zero-tolerance on-site drug and alcohol policy will be enforced.	Construction	CBI	Compliance Open	Random breath testing completed during pre-starts and results recorded in register. Drug testing is not currently completed as type of testing appropriate to site to be confirmed i.e. blood, urine, saliva swab etc.
240	As the Project will be classified as a Major Hazard Facility, the Project will comply with the requirements for hazard and risk management under the National Standard for the Control of Major Hazard Facilities administered by NSW WorkCover. The National Standard for the Control of Major Hazard Facilities requires that relevant community and employee groups are consulted.	Construction	CBI AGL	Compliance Open	MCoA B16 states that a Final Hazard Analysis of the project, consistent with Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis (DoP, 2011) shall be developed. The FHA shall report on the implementations of the recommendations of the Preliminary Hazard Analysis.
241	Prior to operation of the Project, a safety management system will be implemented, which will include an emergency response plan.	Operations	AGL	Compliance Closed - CBI	PRIMP has been developed Safety management system and procedures has been developed and implemented

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
242	Project design will provide sufficient open space for emergency vehicles and equipment including fire fighting and rescue.	Preconstruction	CBI	Compliance Open	Check of final design not completed as part of this audit Refer SoC 207 and 208 TMSP – Table 9-2
243	Two suitably qualified first aid officers (with access to basic medical facilities) will be on duty at all times during construction activities associated with the gas plant, the receiving station in Hexham and the pipeline corridor, and at all times at the gas plant during operations.	Construction	CBI AGL	Compliance Open	Three designated first aid officers on site – details on wall of crib hut.
7.8.6 Monitoring					
244	The number of jobs created by the Project for local residents during the construction period to assist in quantifying the positive impacts of the Project on workforce participation.	Construction	CBI	Open	Monitoring records not checked as part of this audit
245	Stakeholder feedback via the implementation of a community information line to ensure that issues associated with the Project are appropriately addressed.	Construction	AGL	Compliance Open	Information line advertised on website Monitoring records not checked as part of this audit
246	The local community's response and awareness of the Project as a result of the community consultation program.	Construction	AGL	Open	Monitoring records not checked as part of this audit
247	Long-term benefits to the community achieved by AGL's partnering with stakeholders.	Construction	AGL	Open	Monitoring records not checked as part of this audit

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.9 Visual Amenity					
248	Colour selection of office buildings will be considerate of the surrounding environment.	All	CBI	Open	Preconstruction - design Not checked as part of this audit
249	Existing vegetation will be retained where possible to act as a visual screen.	All	AGL	Compliance Open	Only required area for PPA, access track and pipeline cleared. All other vegetation in Project area retained. Project is not visible from surrounding roads, residences or businesses. Pipeline route and Hexham Receiving Station to be checked
250	Additional screen planting will be undertaken on the front and side boundaries of the Hexham receiving station site. Planting will need to allow for the final site layout, location of underground infrastructure and any security surveillance requirements.	All – Stage 2	Other	NA Open	Stage 2 of Project
251	On completion of the pipeline construction, disturbed areas of land will be rehabilitated and returned to previous use.	All – Stage 2	Other	NA Open	Stage 2
7.10 Traffic					
252	A construction traffic management plan will be prepared for the Project to minimise any impacts on the road network. Measures in the construction traffic management plan will include: a) Transportation of equipment and machinery likely to cause delays to traffic flows will be timed to avoid peak traffic flows, where practicable;	Preconstruction	CBI	Compliance Closed	Traffic Management Sub Plan (TMSP) a) Table 9-1 b) Section 2.7 and Table 9-1 c) Table 9-1 d) Table 9-1

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
	b) Ensure heavy vehicles meet the Australian Road Rules and RTA standards so that road safety is not compromised; c) Transport oversized equipment and machinery in accordance with the RTA guidelines for oversized movements; d) Implement appropriate signage to warn road users of the presence of construction vehicles as well as changes to the normal traffic conditions.				
253	Notify the local community by means of public notice publications and advertisements on the progress of the Project and the scheduling of works so as to inform the local community of any additional vehicles added onto the local road network.	All	CBI AGL	Compliance Open	TMSP – Table 9-3 Notification Section 3 AGL needs to sign off any public notices regarding the project.
254	These measures (relating to traffic) will be developed and implemented in consultation with the RTA, Port Stephens Council and Newcastle City Council.	All	CBI	Compliance Open	TMSP - Section 3.1
255	It is anticipated that some Project components will be transported as over-dimensional loads during construction. Required permits will be obtained.	All	CBI	IO Open	TMSP – Table 9-1 IO – add SOC number to relevant section of Table 9-1

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
256	The pipeline construction may necessitate the partial closure of traffic lanes along Old Punt Road during pipeline installation. Temporary decking will be implemented if required during the trenching works to allow vehicles to traverse the open trench. The construction traffic management plan will outline management measures to protect pedestrian, cyclist and vehicular movements.	All – Stage 2	Other	NA Open	Stage 2 CEMP - TMSP
257	Operation traffic management controls will be implemented to ensure staff, contractor and public safety relating to vehicle transport. Safe driver conduct policies and standards will be applicable to all AGL staff and contractors. Other controls include: • Implement driver and pedestrian safety awareness programs, • Review speed limits across the Project sites for all vehicles, • Conduct a random alcohol and drug testing program.	Operations	AGL	NA Open	OEMP to be developed for operations phase
258	A detailed construction traffic management plan will be prepared and implemented	All	CBI	Compliance Open	TMSP prepared. Implementation to be checked (on-going)

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
259	A number of temporary construction compounds will be required along the route of the pipeline for its construction. Safe traffic movement in and out of these sites will be described in the construction traffic management plan.	All – Stage 2	Other	NA Open	Stage 2 TMSP
260	Temporary impacts to road infrastructure by the Project during the construction phase will be rehabilitated and reinstated by AGL.	All – Stage 2	AGL	NA Open	Stage 2 TMSP
261	AGL will carry out HDD beneath the Old Punt Road and Tomago Road intersection to avoid disruption to traffic during the Project construction phase.	All – Stage 2	Other	NA Open	Stage 2 TMSP
262	AGL shall arrange for a public liability policy to cover the RTA and the relevant Council for public liability in relation to this contract/works for an amount of $20 million.	All	AGL	Open	Not checked as part of this audit
263	Use of the existing infrastructure of the Hexham receiving station where possible, noting that there is existing parking and access to the site.	All – Stage 2	CBI	NA Open	Stage 2

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
7.11 Noise and Vibration					
7.11.1 Noise					
264	A noise and vibration management plan will be prepared as part of the CEMP and OEMP to ensure noise levels are adequately controlled and any impacts managed. The traffic noise management plan will be prepared within the construction traffic management plan. It will be prepared in line with practices outlined in DECCW Interim Construction Noise Guideline 2009 and DECCW Environmental Criteria for Road Traffic Noise 1999 and in consultation with the Port Stephens Council, Newcastle City Council and OEH. The CEMP will be implemented by AGL and the construction contractors.	All	CBI	Compliance Open	Noise and Vibration Management Sub plan (NVMSP) TMSP – Table 9-4. Consultation with PSC, NCC and EPA to be checked with AGL
265	Noise emissions will be confirmed for equipment and infrastructure (including low frequency noise) during detailed design when final specifications are known. The potential for high-flow gas flaring at the gas plant site will be reviewed and noise assessment may be required to determine impacts of noise associated with high-flow gas flaring.	All	AGL	Open	Technical design spec To be completed
266	Construction and operation activities will be undertaken with a focus on noise control at source, noise attenuation and in consultation with potentially affected receptors to minimise the risk of noise exceeding noise criteria and disturbing sensitive receptors. The following measures will be implemented (where practical) to manage impacts of noise and ensure Project goals are met:	All	CBI	Refer below	NVMSP completed with mitigation and management measures included in Appendix B. EA Noise component indicate construction noise will not exceed criteria at the sensitive receptors.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
267	Stage Project activities (and reduce simultaneous noise emitting practices) to reduce peak noise levels.	All	CBI	Compliance Open	NVMSP – Appendix B Table 8-2 Hours of Construction Construction activities and indicative timings include in Table 2-3 Predicted noise levels for each activity included in Table 2-6. Clearing and bulk earthworks identified as noisiest activity – predicted levels below criteria at receptors.
268	Incorporate attenuation (such as mufflers) into the design of Project equipment and infrastructure.	All	CBI	IO Open	Not include in CBI NVMSP. IO – investigate appropriateness of SoC to current stage of works and incorporate into NVMSP if applicable
269	Orient equipment away from receptors.	All	CBI	Compliance Open	NVMSP – Appendix B Table 8-3 Operation of Vehicles, Plant and Machinery Predicted noise levels from current site works not audible at nearest receptor (Botanical Gardens).
270	Restrict noise generating construction activities to daytime hours (7.00 a.m. to 6.00 p.m. Monday to Friday and 8.00 a.m. to 1.00 p.m. Saturday). In special circumstances, if noise generating evening or night work is required, a consultation process will be undertaken to ensure noise impacts can be adequately controlled. This will be the case for horizontal directional drilling works, which will occur 24 hours a day, 7 days per week.	All	CBI	Compliance Open	NVMSP – Appendix B Table 8-2 Hours of Construction Hours of construction within specified hours

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
271	Schedule high noise generating activities for less sensitive times of the day (including periodic respite breaks from noise).	All	CBI	Compliance Open	NVMSP – Appendix B Table 8-2 Hours of Construction Nil high noise generating activities during period of audit
272	Consult potential noise receptors (particularly those within 500 m of the gas pipeline works) about the nature of the noise emissions and avoidance and mitigation practices to be adopted. Complaints and feedback and will be recorded and addressed where practical.	All	CBI	Compliance Open	NVMSP - Section 3.1 and Table 8-1 General Construction Nil works within 500m of sensitive receptors during period of audit with exception of botanical gardens.
273	Ensure vehicles and equipment are in good working order and have effective noise reduction features.	All	CBI	Compliance Open	NVMSP – Appendix B Table 8-3 Operation of Vehicles, Plant and Machinery Vehicles checked daily – records kept. CBI environment staff note levels during daily and weekly site inspections
274	Ensure that best practices for noise attenuation (such as exhaust silencers, mufflers and enclosures) and noise minimisation are incorporated into the design of the gas plant and Hexham receiving station.	All	CBI	Open	Technical design spec no checked as part of this audit
275	Consult potential noise receptors about the nature of operations noise emissions and avoidance and mitigation practices to be adopted. Feedback and complaints will be recorded and addressed where practical.	Operations	AGL	NA Open	OEMP to be developed for operations phase

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
276	Monitor noise levels during operations to ensure localised noise creep (increase in local ambient noise) is not occurring due to the Project.	Operations	AGL	NA Open	OEMP to be developed for operations phase
7.11.2 Vibration					
277	Construction activities will be implemented with a focus on vibration control at source and consultation with potentially affected receptors.	Construction	CBI	Compliance Open	NVMSP – Table 8-3 Operation of Vehicles, Plant and Machinery Vibratory roller and vibro compaction completed during audit period – site inspections indicate impacts localised
278	The following measures will be implemented (where practical) to manage impacts of construction vibration and ensure Project goals are met:	Construction	CBI	Refer below	Refer below
279	Use alternative, lower-impact equipment or methods where practicable.	Construction	CBI	Compliance Open	NVMSP – Appendix B
280	Operate high vibration equipment as far away from receptors as possible. Rock-breakers will not be used within 20 m of residences.	Construction	CBI	Compliance Open	NVMSP – Table 8-3 Operation of Vehicles, Plant and Machinery
281	Schedule vibration-causing equipment to be used at the least sensitive time of day (times of day to be determined in consultation with local stakeholders, including councils).	Construction	CBI	Compliance Open	NVMSP – Appendix B Vibratory roller and vibro compaction completed during audit period – site inspections indicate impacts localised. Nil sensitive receptors impacted.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
282	Keep equipment well maintained.	Construction	CBI	Compliance Open	NVMSP – Appendix B Table 8-3 Operation of Vehicles, Plant and Machinery Vehicle checklist completed daily prestart. Records maintained.
283	Reduce instances of simultaneous vibration activities.	Construction	CBI	Compliance Open	NVMSP – Appendix B Table 8-3 Operation of Vehicles, Plant and Machinery Vibratory roller and vibro compaction completed during audit period – works in different areas with site inspections indicating nil cumulative impact.
284	Isolate high vibration equipment on resilient mounds.	Construction	CBI	Compliance Open	NVMSP – Appendix B Table 8-3 Operation of Vehicles, Plant and Machinery
285	Consult potential receptors about the nature of construction vibration and avoidance and mitigation practices to be adopted (particularly those within 500 m of the pipeline works, including the receptor R5 (217 Old Maitland Road)). Community feedback and complaints will be recorded and addressed where practical.	Construction	CBI	Compliance Open	NVMSP – Appendix B Table 8-1 General Nil vibratory works completed within 500m of sensitive receptors during audit period
7.11.3 Monitoring					
286	Noise emissions during construction and operations to ensure equipment is meeting noise certification and criteria requirements and detect any faulty or damaged equipment.	All	CBI	IO Open	NVMSP - Section 5.0 IO - Monitoring as per the NVMSP to be implemented.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
287	Vibration levels during construction to ensure vibration criteria are being met.	All	CBI	IO Open	NVMSP - Section 5.0 IO - Monitoring as per the NVMSP to be implemented.
288	Responding to community complaints in line with EPA license conditions.	All	CBI AGL	Compliance Open	NVMSP - Section 5.0 Nil complaints received during the audit period – refer complaints register
7.12 Air Quality					
289	Minimise vegetation clearance to reduce the areas of exposed soil.	Construction Operations	AGL	Compliance Open	Pre-Con - Site Layout - Detailed design AQMSP – Appendix B Table 8-1 General
290	Water construction sites during dry windy conditions as required, including cleared areas, soil stockpiles and unsealed roads.	Construction Operations	CBI	Compliance Open	AQMSP - Appendix B Table 8-1 General Site inspections indicate water carts used – refer ER site inspection reports.
291	Undertake activities likely to generate dust during favourable meteorological conditions where practical. Earth moving activities will be modified when wind speeds exceed 30 km/h if excessive dust is generated.	Construction Operations	CBI	Compliance Open	AQMSP - Appendix B Table 8-1 General and Table 8-4 Extreme Weather Conditions
292	Prevent dirt being carried onto the TAC Northern Access Road or Old Punt Road from the access road where it could form dust.	Construction Operations	CBI	Compliance Open	AQMSP - Appendix B Table 8-1 General Rumble grids installed at site exit point to assist with preventing tracking f material onto TAC Northern Access Road. Sweeper used to clear any tracked material – refer site inspection reports.

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
293	Load trucks transporting any potential dust generating material off site to below the height of the side and tail board and cover the load.	Construction Operations	CBI	IO Open	AQMSP - Appendix B Table 8-1 General IO – consider adding requirement to transport material offsite below the height of the tail and side board Loads noted to be covered when leaving site during site inspections
294	Enforce vehicle speed limits on unsealed roads to reduce dust generation.	Construction Operations	CBI	Compliance Open	AQMSP - Appendix B Table 8-1 General Site speed limit 20km/h .
295	Re-vegetate as soon as practical.	Construction Operations	AGL	Compliance Open	AQMSP - Appendix B Table 8-5 Re-vegetation of Cleared Areas Rehabilitation and revegetation yet to commence during period of audit
296	Maintain trucks and construction equipment in accordance with the manufacturers' specifications and comply with all relevant regulations.	Construction Operations	CBI	IO Open	IO - consider adding to AQMSP - Appendix B or remove from Table 1-3 Statement of Commitments if not applicable NVMSP – Appendix B Table 8-3 Operation of Vehicles, Plant and Machinery
297	Avoid unnecessary idling of trucks, plant and engines.	Construction Operations	CBI	Compliance Open	AQMSP - Appendix B Table 8-2 Vehicle, Plant and Equipment Management and Maintenance
298	Plan material deliveries to avoid congestion and excessive truck queuing and truck idling.	Construction Operations	CBI	Compliance Open	AQMSP - Appendix B Table 8-1 General

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
299	Project equipment, machinery and vehicles will meet exhaust air quality standards and will comply with state regulations. Machinery will be fitted with the appropriate emission control equipment and will be maintained and serviced frequently.	Construction Operations	CBI	IO Open	IO – consider adding to AQMSP - Appendix B Table 8-2 Vehicle, Plant and Equipment Management and Maintenance
300	Project equipment will be designed to enable monitoring of operating performance to ensure the equipment is operating according to manufacturer's specifications.	Construction Operations	CBI	Open	Not checked during this audit period
301	A monitoring program will be established to ensure regular (or continuous) monitoring of air emissions.	Operations	AGL	NA Open	OEMP to be developed for operations phase
302	The access road will be sealed during operations to prevent the generation of dust by vehicles using the road and to dirt being carried onto the TAC Northern Access Road or Old Punt Road where it could form dust.	Operations	AGL	NA Open	Pre-con/Technical Design Spec
303	Monitoring of the Project emissions will be in accordance with current AGL practice. Emissions of pollutants are reported annually in the National Pollution Inventory (NPI).	Operations	AGL	NA Open	OEMP to be developed for operations phase
304	Chemicals and analytes, including glycol, used across the Project for dehydration, rehydration and refrigeration will be monitored and modelled.	Operations	AGL	NA Open	OEMP to be developed for operations phase

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
305	Liaison will continue with OEH in relation to the licensing requirements for the Project under the POEO Act and the proposed draft conditions for the environmental protection licence.	Operations	AGL	NA Open	Operations
306	There will not be any gas venting during shutdown other than in an emergency.	Construction Operations	AGL	NA Open	OEMP to be developed for operations phase/Technical Design Spec
7.13 Greenhouse Gas Emissions					
307	Design the site layout to reduce the extent of vegetation clearing required.	All	AGL	Compliance Closed - CBI	Clearing as per design. Clearing now completed – stage 1
308	Incorporate initiatives focusing on energy efficiency in the Project design. This may include high-efficiency motors, variable speed drives and high-efficiency lighting (e.g., motion sensors or passive lighting).	All	AGL (WP)	Open	Design to be checked.
309	Implement the AGL Climate Change Policy which is incorporated through the Health, Safety and Environment Management System including greenhouse abatement initiatives will be adopted for the Project.	Operations	AGL	NA Open	OEMP to be developed for operations phase
310	Establish measureable greenhouse gas emission reduction targets.	Operations	AGL	NA Open	OEMP to be developed for operations phase
311	Maintain vehicles appropriately to maximise their fuel efficiency.	All	CBI	IO Open	IO - consider adding to AQMSP Appendix B Table 8-2 Vehicle, Plant and Equipment Management and Maintenance

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
312	In accordance with the Commonwealth National Greenhouse and Energy Reporting Act 2007, AGL will be required to report on greenhouse gas emissions, energy production and energy consumption. Greenhouse gas emissions will be monitored and reviewed on an annual basis.	All	CBI AGL	IO Open	IO – consider adding requirement to track fuel usage and electricity consumption of construction phase to AQMSP. Fuel usage maintained in excel spreadsheet – nil electricity from grid (generator only). OEMP to be developed for operations phase
7.14 Hazard and Risk					
7.14.1 Risk Management					
313	Conduct a review of the hazard and risk assessment once detailed design and hazard and operability studies (HAZOPs) have been completed for the Project, this will ensure that the assumptions made in this hazard and risk assessment remain valid though conservative.	All	AGL	Compliance Open	Letter to DoPI dated 19 June 2012 requesting approval to stage Fire Safety Study (FSS), Hazard and Operability Study (HAZOP), Final Hazard Analysis (FHA). CBI – HAZOP, FSS and FHA August 2012 based on final design Letter from DoPI dated 6 August 2012 approving staged approach with requirement the HAZOP for the second stage should cover the interaction with already installed equipment.
314	Undertake an audit of the Safety (Health and Environment) Management System within twelve months of commissioning the gas plant. This audit will focus on the management of potential major hazards associated with the development and based on the DP&I Hazard Audit Guidelines.	Operations	AGL	NA Open	12 months after operations commenced

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
315	Develop an emergency response plan that will coordinate procedures with the Tomago Aluminium Smelter, other adjacent industrial facilities and any local emergency planning groups, fire brigades, state and local police and appropriate government agencies. This plan will include: a) Contacts with state and local emergency response agencies; b) Scalable procedures for the prompt notification of appropriate local official and emergency response agencies, based on the level and severity of potential incidents; c) Procedures for notifying businesses, residents and recreational users within areas of potential hazard; d) Evacuation routes/methods for residents, business and members of the public in the vicinity of the Project. Evacuation routes will include alternatives to the main access road; e) The locations of permanent sirens and other warning devices; f) Appointment of an emergency coordinator(s) to be available on site at all times; g) Plans for initial and continued training of plant operators and local responders, along with provisions for periodic emergency response drills by emergency personnel, emergency response agencies and federal, state and local officials.	All	CBI	IO Open	PRIMP – Rev 0 a) Section 3.0, Section 6.1.2 (Table 6-2) b) Section 2.1 c) Section 6.1.2 d) Not applicable to this stage of works - operations e) IO - any warning devices to be marked on map f) Section 1.8. IO – consider including identification of designated emergency controller/coordinator in case of emergency into responsibilities section g) Not applicable to this stage of works - operations

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
316	Undertake a security assessment to ensure arrangements are acceptable for the gas plant site as per the current requirements for critical infrastructure in NSW and under the NSW Regulations for Major Hazards Facilities.	All	AGL	Compliance Open	Design and operations phase of project. Preliminary Hazard Analysis completed as part of EA. Final Hazard Analysis to be completed
317	Design the gas plant to ensure that any spills will drain into sumps, away from other plant items and infrastructure. Additional design features will also be incorporated to minimise the risk of cold metal brittle fracture and verify the adequacy of the design features during the HAZOP and safety integrity level (SIL) studies.	All	AGL	NA Open	Design to be confirmed
318	Install an automatic shutdown system for use in the event of a leak.	All	AGL	NA Open	Check of final design to be completed to confirm
319	Evaluate additional mitigation of vapour generated in the impoundment system, such as the installation of insulating concrete inside the LNG impoundment trenches and sump.	All	AGL	NA Open	Check of final design to be completed to confirm
320	Install an air quality monitoring or other early warning system inside the compressor building.	All	AGL	NA Open	Check of final design to be completed to confirm
321	Determine the requirement for lightning protection for the top of the tank during detailed design.	All	AGL	NA Open	Check of final design to be completed to confirm
322	Install an overfill and overpressure protection system for tanker loading.	All	AGL	NA Open	Check of final design to be completed to confirm

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
323	Consult with air transport stakeholders to determine any requirements for restricting airspace above the gas plant and aircraft warning lights or other warning devices.	All	AGL	NA Open	Check of final design to be completed to confirm
324	Incorporate appropriate allowances in the Project design to ensure that multiple pipelines located in the same easement are separated by acceptable distances to ensure that radiant heat produced during an incident is not transferred to a neighbouring pipe.	All	AGL	NA Open	Check of final design to be completed to confirm
7.14.2 Safe Engineering Design					
325	The storage facility will be designed according to Australian and/or international standards to meet the required earthquake characteristics of the site.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
326	AGL will continue to consult with all relevant agencies through the detailed design and Project operation phases.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
327	Maximise separation distances to separate the most credible (though rare) leaks from ignition sources, physically isolate any fire, prevent its spread and minimise the risk to people and property.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
328	Minimise the inventory of LNG and of pressurised natural gas in process equipment.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
329	Minimise pumping rates and pressure levels in Project components external to the storage tank.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
330	Minimise vulnerability of equipment and processes through equipment selection and design.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
331	Ensure maximum integrity of flammable material containment.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
332	Minimise exposure to people by reducing process complexity and maintenance requirements.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
333	Ensure systems are available for rapid detection and prompt remote isolation of any leaks.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
334	Control all ignition sources.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
335	Minimise the opportunity for ignition sources in areas where hydrocarbon leaks are a possibility.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
336	Provide passive and active fire protection systems for the gas plant site.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
337	Consider the implications of cold metal brittle failure in the design of the plant. The likelihood of a catastrophic cold metal brittle failure event should be rendered negligible through design.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
338	Ensure that LNG transfer pipes which enter and leave the storage tank are positioned on the roof of the tank.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
339	Minimise the likelihood of over pressure, under pressure or overfill scenarios of the LNG storage tank by instigating appropriate measures in the design of the Project.	Preconstruction	AGL	NA Open	Check of final design to be completed to confirm
7.14.3 Modifications to Management and Mitigation Measures for Hazard and Risk					
340	Advise the Office of Airspace Regulation of the expected start date of the operation of the facility six months prior to commencement of operation.	Preconstruction	AGL	NA Open	Notification not required until six months prior to expected operation of facility
341	Reasonable measures will be taken to maintain security of the construction site to prevent third parties gaining unlawful access to the site. Measures will include secure fencing and lighting along the main access road and the pipeline corridor close to Old Punt Road.	Preconstruction	CBI	Compliance Open	Temporary site alongside TAC Access Road fenced with lighting. CBI Occupier of access road only during Civil Works Package. Fencing and lighting to be installed.
342	If any evidence of illegal dumping of wastes on the Project area is observed the dumped material will be removed immediately. If any liquid sludge or chemical waste is observed then appropriate sampling and monitoring will be implemented to determine whether any impact to groundwater has occurred.	Construction	CBI	Compliance Open	WMSP – Table 7-1 Gates to site locked after hours. Some incidences of waste material dumped outside site gates. Legacy waste encountered during initial clearing works. Material collected by waste contractor and disposed to landfill – refer ER Site Inspection reports
343	AGL will provide 'as constructed' drawings and details to RAAF.	Operations	AGL	NA Open	NA - operations

Item	Commitment	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
344	AGL will continue to consult with all relevant agencies through the detailed design and operation phases of the Project.	Operations	AGL	NA Open	NA
345	An emergency plan will be prepared to comply with clause 174ZC of the Occupational Health and Safety Regulations 2001 (NSW).The emergency response plan will be compiled in accordance with DP&I guidance note HIPAP 1, Emergency Planning.	Operations	AGL	NA Open	OEMP to be developed for operations phase
346	The proposed emergency traffic arrangements will be reviewed and assessed to ensure compliance with the stated Emergency Vehicle Access Policy No.4.	Operations	AGL	NA Open	NA - operations
347	Compliance with the regulations applicable to major hazard facilities and will continue to consult with WorkCover in order to obtain details of its requirements for inclusion in the site risk assessment and safety report.	Operations	AGL	NA Open	NA - operations
348	AGL will prepare and submit the safety report to WorkCover six months prior to commissioning.	Operations	AGL	NA Open	NA - operations

Annex B

Monitoring Results

Table B1.1 Hunter River Area Groundwater Sampling Results – September 2012 – December 2012

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Sampling Results Range	October to December 2012 Sampling Results Range
General Parameters					
Field pH	pH unit	0.1	5.0 to 8.0	6.47 to 7.23	6.27 to 8.56
Electrical Conductivity @ 25°C	µS/cm	1	15000	1060 to 6340	1200 to 7220
Total Dissolved Solids @180°C	mg/L	5	7000	636 to 37 30	228 to 4500
Suspended Solids (SS)	mg/L	5	9000	20 to 556	106 to 4460
Cations					
Calcium	mg/L	1	N/A	20 to 75	24 to 142
Magnesium	mg/L	1	N/A	19 to 124	23 to 189
Sodium	mg/L	1	N/A	9 to 57	142 to 1240
Potassium	mg/L	1	N/A	103 to 1090	10 to 65
Anions					
Total Alkalinity as CaCO3	mg/L	1	N/A	378 to 969	323 to 934
Chloride	mg/L	1	N/A	74 to 1300	132 to 1730
Fluoride	mg/L	0.1	1.5	NT	0.2 to 1.1
Sulfate	mg/L	1	N/A	<1 to 114	<10 to 420
Dissolved Metals					
Arsenic	mg/L	0.001	0.02	<0.001 to 0.021	<0.001 to 0.022
Cadmium	mg/L	0.0001	0.0055	<0.0001	<0.0001 to 0.0002
Chromium	mg/L	0.001	0.05	<0.001 to 0.002	<0.001 to 0.002
Copper	mg/L	0.001	0.02	<0.001	<0.001 to 0.007
Lead	mg/L	0.001	0.01	<0.001	<0.001 to 0.009

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Sampling Results Range	October to December 2012 Sampling Results Range
Nickel	mg/L	0.001	0.07	<0.001 to 0.004	<0.001 to 0.006
Zinc	mg/L	0.005	0.08	<0.005 to 0.018	<0.005 to 0.062
Iron	mg/L	0.05	35	0.39 to 53.1	0.3 to 36
Nutrients					
Nitrate as N	mg/L	0.01	1	<0.01	<0.01 to 0.06
Nitrite as N	mg/L	0.01	3	<0.01	<0.01 to 0.04
Nitrite + Nitrate as N	mg/L	0.01	4	<0.01	<0.01 to 0.07
Total Kjeldahl Nitrogen as N	mg/L	0.1	15	1.7 to 4.9	1.5 to 7.4
Total Nitrogen as N	mg/L	0.1	15	1.7 to 4.9	1.5 to 7.4
Total Phosphorus as P	mg/L	0.01	10	0.31 to 1.3	0.23 to 2.4
Total Petroleum Hydrocarbons					
C6 - C9 Fraction	µg/L	20	<20	<20	<20 to <400
C10 - C14 Fraction	µg/L	50	<50	<50	<50 to 1440
C15 - C28 Fraction	µg/L	100	<100	<100	<100 to 1800
C29 - C36 Fraction	µg/L	50	<50	<50	<50 to 480
C10 - C36 Fraction (sum)	µg/L	50	<50	<50	<50
BTEX					
Benzene	µg/L	1	<1	<1	< 1 to <20
Toluene	µg/L	2	<2	<2	<2 to <20
Ethylbenzene	µg/L	2	<2	<2	<2 to <20

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Sampling Results Range	October to December 2012 Sampling Results Range
meta- & para-Xylene	µg/L	2	<2	<2	<2 to <20
ortho-Xylene	µg/L	2	<2	<2	<2 to <20

Table B1.2 Gas Storage Site Ground and Surface Water Monitoring Results – September 2012 –December 2012

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Groundwater Sampling Results Range	October to December 2012 Groundwater Sampling Results Range	Adopted Surface Water Thresholds	September 2012 Surface Water Sampling Results Range	October to December 2012 Surface Water Sampling Results Range
General Parameters								
Field pH	pH unit	0.1	3.0 to 7.0	4.74 to 6.12	4.52 to 6.71	3.0 to 8.0	4.38 to 5.54	3.61 to 4.70
Electrical Conductivity @ 25°C	µS/cm	1	1000	147 to 221	164 to 238	1000	102 to 552	227 to 581
Total Dissolved Solids @180°C	mg/L	5	650	96 to 373	72 to 1820	650	128 to 400	136 to 776
Suspended Solids (SS)	mg/L	5	5000	84 to 536	18 to 4820	1000	20 to 26	16 to 150
Cations								
Calcium	mg/L	1	N/A	<1 to 11	<1 to 4	N/A	<1 to 9	<1 to 6
Magnesium	mg/L	1	N/A	2 to 4	3 to 5	N/A	1 to 11	2 to 12
Sodium	mg/L	1	N/A	15 to 24	19 to 37	N/A	10 to 81	22 to 64
Potassium	mg/L	1	N/A	<1 to 3	<1 to 3	N/A	<1 to 4	1 to4
Anions								

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Groundwater Sampling Results Range	October to December 2012 Groundwater Sampling Results Range	Adopted Surface Water Thresholds	September 2012 Surface Water Sampling Results Range	October to December 2012 Surface Water Sampling Results Range
Total Alkalinity as CaCO3	mg/L	1	N/A	<1 to 27	1 to 7	N/A	<1 to 12	<1
Chloride	mg/L	1	N/A	16 to 38	27 to 49	N/A	16 to 147	41 to 106
Fluoride	mg/L	0.1	1.5	<0.1	<0.1 to 0.2	1.5	NT	0.4 to 1.9
Sulfate	mg/L	1	500	4 to 32	3 to 27	500	6 to 25	7 to 63
Dissolved Metals								
Arsenic	mg/L	0.001	0.01	<0.001 to 0.001	<0.001	0.007	NT	NT
Cadmium	mg/L	0.0001	0.002	<0.0001	<0.0001	0.002	NT	NT
Chromium	mg/L	0.001	0.05	0.001 to 0.003	<0.001 to 0.001	0.05	NT	NT
Copper	mg/L	0.001	0.02	<0.001 to 0.002	<0.001 to 0.002	0.02	NT	NT
Lead	mg/L	0.001	0.02	<0.001	<0.001	0.01	NT	NT
Nickel	mg/L	0.001	0.02	<0.001 to 0.001	<0.001 to 0.001	0.02	NT	NT
Zinc	mg/L	0.005	0.2	<0.005 to 0.021	<0.005 to 0.021	0.5	NT	NT

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Groundwater Sampling Results Range	October to December 2012 Groundwater Sampling Results Range	Adopted Surface Water Thresholds	September 2012 Surface Water Sampling Results Range	October to December 2012 Surface Water Sampling Results Range
Iron	mg/L	0.05	5	0.44 to 2.53	0.46 to 1.62	5	NT	NT
Total Metals								
Arsenic	mg/L	0.001	N/A	NT	NT	0.007	<0.001 to 0.002	<0.001 to 0.002
Cadmium	mg/L	0.0001	N/A	NT	NT	0.002	0.0001 to 0.0002	<0.0001 to 0.0009
Chromium	mg/L	0.001	N/A	NT	NT	0.05	0.001 to 0.002	<0.001 to 0.005
Copper	mg/L	0.001	N/A	NT	NT	0.02	0.002 to 0.003	<0.001 to 0.006
Lead	mg/L	0.001	N/A	NT	NT	0.01	0.002	<0.001 to 0.009
Nickel	mg/L	0.001	N/A	NT	NT	0.02	0.003 to 0.006	0.001 to 0.009
Zinc	mg/L	0.005	N/A	NT	NT	0.5	0.021 to 0.058	0.038 to 0.276
Iron	mg/L	0.05	N/A	NT	NT	16	1.28 to 8.54	0.8 to 4.73
Nutrients								
Nitrate as N	mg/L	0.01	1	0.02 to 3.84	<0.01 to 0.05	3	<0.01 to 0.23	<0.01 to 10.2
Nitrite as N	mg/L	0.01	3	<0.01	<0.01	3	<0.01	<0.01

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Groundwater Sampling Results Range	October to December 2012 Groundwater Sampling Results Range	Adopted Surface Water Thresholds	September 2012 Surface Water Sampling Results Range	October to December 2012 Surface Water Sampling Results Range
Nitrite + Nitrate as N	mg/L	0.01	4	0.02 to 3.84	<0.01 to 0.05	6	<0.01 to 0.23	<0.01 to 10.2
Total Kjeldahl Nitrogen as N	mg/L	0.1	2	<0.1 to 1.1	<0.5 to 7	9	0.8 to 0.9	1.3 to 18.1
Total Nitrogen as N	mg/L	0.1	4	<0.1 to 4	<0.5 to 7	9	0.9 to 1	1.4 to 7.9
Total Phosphorus as P	mg/L	0.01	2	<0.01 to 0.02	<0.05 to 1.96	0.5	<0.01 to 0.04	<0.01 to 0.22
Total Petroleum Hydrocarbons								
C6 - C9 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20
C10 - C14 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50
C15 - C28 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100 to 290
C29 - C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50 to <120

Analyte	Units	LOR	Adopted Groundwater Thresholds	September 2012 Groundwater Sampling Results Range	October to December 2012 Groundwater Sampling Results Range	Adopted Surface Water Thresholds	September 2012 Surface Water Sampling Results Range	October to December 2012 Surface Water Sampling Results Range
C10 - C36 Fraction (sum)	µg/L	50	<50	<200	<200	<50	<200	<200
BTEX								
Benzene	µg/L	1	<1	<1	<1	<1	<1	<1
Toluene	µg/L	2	<2	<2	<2	<2	<2	<2
Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2
meta- & para-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2
ortho-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2

Notes:

1. ANZECC (2000) Fresh Water Ecosystem Trigger Values for 95% Species Protection
2. NHMRC (2004) Drinking Water Guidelines (Health)
3. Range of values for NSW lowlands rivers
4. Chromium guidelines are for Chromium VI
5. ANZECC Indicative Interim Working Level (IIWL) - Low Reliability Trigger Values
6. NHMRC 2004 Drinking Guidelines (Aesthetics)
7. Value Within 1.1 threshold concentrations
8. Value Greater than 1.1 and up to 2.5 times threshold concentrations
9. Value Greater than 2.5 and up to 10 time threshold concentrations
10. Value Greater than 10 times threshold concentrations

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