Condong Cogeneration Plant – Recovered Timber Fuel Project

Scoping Report

Prepared for:

Cape Byron Management

Prepared by:

May 2021

Condong Cogeneration Plant – Recovered Timber Fuel Project

Scoping Report

PREPARED BY

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APPLICANT

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DEVELOPMENT

Title:	Condong Cogeneration Plant – Recovered Timber Fuel Project
Description:	Single new development consent to regulate existing approved operations and allow the receipt, temporary storage and use of a recovered timber fuel as an alternative fuel source at the existing Condong Cogeneration Plant
Project Site:	Lot 1 DP 1058392, Lot 101 DP 1058418, Lots 19 and 23 DP 255029 123-153 McLeod Street, Condong NSW 2484
Local Government Area:	Tweed

STATEMENT

This Scoping Report has been prepared by EME Advisory in accordance with the brief provided by Cape Byron Power and the information available at the time. It is for the sole use of Cape Byron Management for the purpose of informing government agencies, the public and other relevant stakeholders.

EME Advisory

Lachlan Giles
20 May 2021

Eryn Bath
20 May 2021

ABBREVIATIONS

Abbreviation	Definition
AHIMS	Aboriginal Heritage Information Management System
BAT	Best Available Techniques
BCD	DPIE Biodiversity Conservation Division
BDAR	Biodiversity Development Assessment Report
BREF	Best Available Techniques Reference Document
C&D	Construction and demolition
C&I	Construction and industrial
CBM	Cape Byron Management
CBP	Cape Byron Power
CIV	Capital investment value
Coastal Management SEPP	*State Environmental Planning Policy (Coastal Management) 2018*
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DEC	(former) Department of Environment and Conservation
DECC	(former) Department of Environment and Climate Change
DECCW	(former) Department of Environment, Climate Change and Water
DoP	(former) Department of Planning
DP	Deposited Plan
DPE	(former) Department of Planning and Environment
DPIE	Department of Planning, Industry and Environment
DPIE Water	Department of Planning, Industry and Environment – Water
EfW	Energy from Waste
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPA	Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
EU	European Union
FEED	Front-end engineering design
FGT	Flue gas treatment
FGTr	Flue gas treatment residues
IBA	Incinerator bottom ash
IED	Industrial Emissions Directive
IPC	Independent Planning Commission
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007*
km	Kilometre

LEP	Local Environmental Plan
LGA	Local government area
MW	Megawatts
NSW	New South Wales
OEH	(former) Office of Environment and Heritage
POEO Act	*Protection of the Environment Operations Act 1997*
PoP	Proof of performance
RMS	Roads and Maritime Services
RRF	Resource recovery facility
RTS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
SEE	Statement of Environmental Effects
SEPP	State Environmental Planning Policy
SEPP 33	*State Environmental Planning Policy No. 33 - Hazardous and Offensive Development*
SEPP 55	*State Environmental Planning Policy No. 55 – Remediation of Land*
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
SSD	State significant development
TfNSW	Transport for NSW
WARR Act	*Waste Avoidance and Resource Recovery Act 2001*
WARR Strategy	*NSW Waste Avoidance and Resource Recovery Strategy 2014-21*
WI	Waste incineration
WM Act	*Water Management Act 2000*
WWTP	Wastewater treatment plant

GLOSSARY

Glossary	Definition
Best Available Techniques Reference Document (BREF)	European Commission, Best Available Techniques (BAT) Reference Document for Waste Incineration adopted under both the European Integrated Pollution Prevention and Control (IPPC) Directive (2008/1EC) and the Industrial Emissions Directive (IED 2010/75/EU) to guide the development of industrial facilities covered by the Industrial Emissions Directive (IED) in the European Union (EU). The BREF informs the relevant decision makers about what may be technically and economically available to industry in order to improve environmental performance. The latest version published in December 2019 has been used.
EfW Policy Statement	EPA's *NSW Energy from Waste Policy Statement 2015*
Energy from waste (EfW)	The process of thermally treating waste or waste-derived materials for the recovery of energy.
Flue gas treatment residues (FGTr)	A fine-grained powder known as one of the residual products from EfW facilities. Flue gas treatment is one of the main steps in the EfW process. The cooled flue gases leaving the boiler pass through a series of scrubbing and cleaning processes, which comprise the flue gas treatment (FGT) system and are designed to meet best available technology emissions standards. The FGT system produces FGTr at the end of this process which is formed of a mixture of entrained ash and spent treatment consumables (lime and activated carbon).
Incinerator bottom ash (IBA)	Ash from the end of the grate and from the incombustible siftings that pass through the gate. Granular material; typically contains glass, ceramics, silicates, rocks, masonry products and carbon/organics. Typically contains some ferrous and non-ferrous metals, which can be extracted for recycling.
Industrial Emissions Directive (IED)	European Parliament and Council, Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control). The IED is a European Union Directive which commits European Union member states to control and reduce the impact of industrial emissions on the environment.
Resource recovery facility (RRF)	As defined in the *Standard Instrument - Principal Local Environmental Plan*, a RRF is a building or place used for the recovery of resources from waste, including works or activities such as separating and sorting, processing or treating the waste, composting, temporary storage, transfer or sale of recovered resources, energy generation from gases and water treatment, but not including re-manufacture or disposal of the material by landfill or incineration.
the Plant	The existing Condong Cogeneration Plant
the Project	Cape Byron Management, as manager of the Cape Byron Power business, is seeking a single new development consent for the Plant to regulate existing approved operations and allow the receipt, temporary storage, and combustion of a recovered timber fuel (in addition to the bagasse, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative fuel source during the non-crush season.

EXECUTIVE SUMMARY

Overview

The Condong Cogeneration Plant (the Plant) is an existing combined power and heat facility located at Condong in the Northern Rivers region of New South Wales and in the Tweed local government area. The Plant is classified as an "energy from waste" (EfW) facility. EfW, which is a form of resource recovery, is the process of generating energy in the form of electricity and/or heat from the treatment of waste. It is estimated that the electricity generated by the Plant supplies approximately 30,000 homes.

The Plant has the capacity to generate up to 30 megawatts (MW) of electricity, along with process steam, through the combustion of:

(a) During the sugar cane crush season typically spanning June to December - up to 200,000 tonnes of bagasse and up to 120,000 tonnes of cane leaves from the adjacent Condong Sugar Mill annually and up to 70,000 tonnes of various wood-based materials annually; and

(b) During the non-crush season typically spanning January to mid-June – up to 130,000 tonnes of various wood-based fuel materials annually, including from weed eradication programs, timber mill and forestry operations and approved land clearing (for example, residential subdivision developments, road upgrade works).

This equates to a total of around 520,000 tonnes of fuel materials annually diverted from landfill.

The Plant currently operates under two existing development consents granted by the Tweed Shire Council under the provisions of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and an Environment Protection Licence (EPL 20424) administered by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997* (POEO Act).

Proposed Development

Cape Byron Management (CBM), as manager of the Cape Byron Power business, is seeking a single new development consent for the Plant to regulate existing approved operations and allow the receipt, temporary storage, and combustion of a recovered timber fuel (in addition to the bagasse, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative fuel source during the non-crush season (the Project). Most of the plant and equipment currently installed will be retained, with certain upgrades required to effectively receive, temporarily store, and combust the proposed recovered timber fuel and meet the requirements of the EPA's *NSW Energy from Waste Policy Statement 2015* (EfW Policy Statement).

The recovered timber fuel will be sourced from a purpose-built resource recovery facility (RRF) to be established in Brisbane by ResourceCo and potentially a small quantity from ResourceCo's existing RRF in Sydney. It will be extracted from non-putrescible dry construction and industrial (C&I) waste streams and mixed construction and demolition (C&D) waste streams that are currently destined for landfill, and will be approximately 90 percent (%) timber. The recovered timber fuel is not deemed an "eligible waste fuel" under the provisions of the EfW Policy Statement and, as such, the Project will be assessed as an "energy recovery facility".

In summary, the Project comprises the following key components:

- Continue the currently approved operations at the Plant, with the exception of an alternative fuel source during the non-crush season;

- Allow the receipt, temporary storage and combustion of around 120,000 tonnes of recovered timber fuel annually (in addition to the biomass, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative fuel source during the non-crush season;
- Upgrades to the existing fuel stockpile area to ensure suitability for the recovered timber fuel, including surface water and leachate management, fire protection provisions and dust control;
- Upgrades to the existing boiler and flue gas treatment system to meet design specifications and emission limits required by the EfW Policy Statement; and
- Upgrades to the existing ash collection system to enable the different ash streams that will be generated by the recovered timber fuel to be collected and disposed of separately.

The primary use and core characteristics of the existing facility, being a cogeneration plant, will remain as currently approved under Development Consents DA K00/0344 and DA 02/1915. Specifically:

- The Project does not involve any changes to the approved use of the land and infrastructure;
- The Project does not involve any additional land use;
- The upgrades required to receive, temporarily store and combust the recovered timber fuel will be limited works undertaken within previously cleared/developed land and will be designed to meet current international best practice; and
- The Project does not represent a development expansion, with the Plant to receive very close to the currently approved 520,000 tonnes of fuel materials and remain at the approved 30 MW capacity.

Table A summarises and compares the currently approved fuel materials and the proposed fuel materials at the Plant. As evident, there will be no change to the currently approved biomass fuels during the crush season. The recovered timber fuel will only be utilised during the non-crush season as an alternative to the increasingly hard to source wood-based fuel materials. There will likely be a reduction in the volume of fuel materials received at the Plant of approximately 10,000 tonnes.

Table A Approved and Proposed Fuel Materials

Fuel Material	Approved Annual Quantity (tonnes)	Proposed Annual Quantity (tonnes)	Difference (tonnes)
Sugar Cane Crush Season (typically June to December)			
Bagasse	200,000	200,000	0
Cane leaves	120,000	120,000	0
Various wood materials	70,000	70,000	0
Sub-Total	**390,000**	**390,000**	**0**
Non-Crush Season (typically January to mid-June)			
Various wood materials	130,000	0	-130,000
Recovered timber from ResourceCo	0	120,000[1]	+120,000[1]
Sub-Total	**130,000**	**120,000**[1]	**-10,000**[1]
Total	**520,000**	**510,000**[1]	**-10,000**[1]
		Net Difference	

[1] Based on a preliminary estimate of the recovered timber fuel volume. It is subject to the front-end engineering design (FEED)

Unlike the various wood-based fuel sources currently received and combusted at the Plant during the non-crush season, the recovered timber fuel from ResourceCo will have be produced to a specification, provide a more consistent feedstock that will reduce uncertainty and improve combustion efficiency. This will also enable CBM to tailor the combustion and emissions management during the non-crush season.

Statutory Context

The Project is classified as State significant development (SSD) under the provisions of Division 4.7 of Part 4 of the EP&A in accordance with the *State Environmental Planning Policy (State and Regional Development) 2011*, specifically sub-clause 20(a) of Schedule 1 which identifies development for the purpose of "electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power)" that has a capital investment value of more than $30 million as SSD.

The Project will also require an EPL (as a secondary approval) under Chapter 3 of the POEO Act from the EPA.

Strategic Context

As detailed in the *NSW Waste Avoidance and Resource Recovery Strategy 2014-21,* where avoiding, reusing or recycling waste materials are not feasible, the next preferred option in the waste hierarchy is energy recovery. The recovered timber fuel that is proposed to be combusted during the non-crush season as an alternative to the increasingly hard to source wood-based materials will come from C&I waste streams and mixed C&D waste streams currently destined for landfill to produce renewable electricity that will be fed in to the local grid. As such, the Project supports the waste hierarchy via:

- Recovering valuable energy resources from material that would otherwise have been disposed to landfill;
- Reducing demand for scarce landfill airspace;
- Reducing the environmental impacts associated with landfill; and
- Generating a source of renewable energy and reducing reliance on non-renewable sources such as coal-fired power stations.

Consultation

CBM is committed to engaging in a transparent and meaningful way with stakeholders throughout the design and environmental impact assessment for the Project. A formal community and stakeholder engagement strategy will be prepared to ensure effective engagement to inform the Project's development and EIS preparation. Relevant stakeholders have been identified for communication and engagement throughout the Project, as detailed in **Section 6**.

The key objectives of community and stakeholder engagement strategy for the Project are to:

- Initiate and maintain open and transparent communication;
- Provide an understanding of the regulatory approval process for the Project;
- Provide information about the Project to create awareness and help the local community understand the Project, including the source and nature of the proposed recovered timber fuel, required upgrades to the Plant, international best practice to be employed, and predicted environmental and social impacts;
- Take account of community values, concerns, aspirations and expectations;

- Actively engage with stakeholders and seek input into the Project by providing opportunities for stakeholders to identify key issues for consideration and provide feedback on the management practices and mitigation measures; and
- Work to have the Project make a positive impact, involving the local community and other stakeholders, and proactively responding to concerns raised.

Environmental Scoping

During the scoping process, environmental matters were identified through consideration of the likelihood and consequence of impacts factoring in mitigation measures. Matters were categorised as either "key issues" requiring a detailed level of assessment to understand and predict impacts and develop mitigation measures, or "other issues" requiring a less detailed assessment based on the predictability of impacts or the ability to avoid or manage impacts through design and mitigation measures.

Conclusion

This Scoping Report has been prepared to identify the Project Site, describe the existing approved operations and the proposed Project, confirm the planning approval pathway, and discuss the key environmental and social considerations that have been identified through preliminary constraints analysis and a qualitative environmental risk assessment. It aims to introduce the Project to government agencies, the public and other stakeholders and provide enough information to enable the Department of Planning, Industry and Environment to issue targeted and site-specific Secretary's Environmental Assessment Requirements for the Environmental Impact Statement needed to accompany the development application.

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1 INTRODUCTION

1.1 Overview

Cape Byron Power (CBP) operates the Condong Cogeneration Plant (the Plant), which is an existing combined heat and power facility located at Condong in the Northern Rivers region of New South Wales (NSW) and in the Tweed local government area (LGA). The Plant generates up to 30 megawatts (MW) of renewable electricity, which is exported to the local electricity grid and the adjoining Condong Sugar Mill, along with process steam, which is exported to the sugar mill for use during the sugar cane crush season (typically June to December).

The Plant currently operates under two existing development consents granted by the Tweed Shire Council (Council) under the provisions of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act):

- Development Consent K00/0344 – issued in December 2000 approving a "cogeneration facility (electricity plant)" with the capacity to generate 30 MW of electricity and process steam through the combustion of:
  - During the sugar cane crush season typically spanning June to December – bagasse (sugar cane milling waste) and cane leaves from the adjacent sugar mill, with a portion of wood-based fuel materials; and
  - During the non-crush season typically spanning January to mid-June - wood-based fuel materials.

  This consent also approved a large stockpile area for the receipt and temporary storage of fuel materials.
- Development Consent DA 02/1915 – issued in July 2003 approving an overland conveyor for the transfer of fuel materials from the stockpile area, over Tweed Valley Way (Old Pacific Highway) and McLeod Street and to the Plant for combustion.

Both consents have been modified on several occasions (see **Section 3.2**).

The Plant also operates under the provisions of an environment protection licence (EPL), being EPL 20424, administered by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997* (POEO Act). The scheduled activity is "electricity generation".

Based on the standard land use definitions in the *Standard Instrument - Principal Local Environmental Plan* (Standard Instrument) and the development description in the *Statement of Environmental Effects* (Worley Resources & Energy [Worley] 2000) (SEE) that accompanied the original development application to Council, along with the on-going operations, the Plant is characterised as an "electricity generating work". This is defined in the Standard Instrument as *a building or place used for the purpose of – (a) making or generating electricity, or (b) electricity storage.*

Cape Byron Management (CBM), who is the manager of the CBP business, is seeking a single new development consent for the Plant to regulate existing approved operations and allow the receipt, temporary storage, and combustion of around 120,000 tonnes of recovered timber fuel annually (in addition to the bagasse, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative fuel source during the non-crush season (the Project). The recovered timber fuel will be sourced from a purpose-built resource recovery facility (RRF) to be established in Brisbane by ResourceCo and potentially a small quantity from ResourceCo's existing RRF in Sydney. It will be extracted from dry construction and industrial (C&I) waste streams and mixed construction and demolition (C&D) waste streams that are currently destined for landfill, and will be approximately 90 percent (%) timber.

The recovered timber fuel is not deemed an "eligible waste fuel" under the provisions of the EPA's *NSW Energy from Waste Policy Statement 2015* (EfW Policy Statement) and, as such, the Project will be assessed as an "energy recovery facility" defined in the EfW Policy Statement as:

> *A facility that thermally treats a waste or waste-derived material that does not meet the definition of an eligible waste fuel. These facilities must be able to demonstrate that they will be using current international best practice techniques.*

The upgrades required at the Plant to receive, temporarily store, and combust the recovered timber fuel will be designed to comply with the requirements of the POEO Act and EfW Policy Statement to ensure there are no significant environmental risks. The EfW Policy Statement requires the use of "international best practice", which is generally accepted within the industry to mean compliance with the European Union (EU) *Industrial Emissions Directive* (IED) and associated *Best Available Techniques (BAT) Reference Document for Waste Incineration* (WI BREF).

The proposed works will total more than $30 million and, as such, the Project is classified as State significant development (SSD) under Division 4.7 of Part 4 of the EP&A Act in accordance with clause 20(a) of Schedule 1 of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Clause 20(a) declares development for the purpose of electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) with a capital investment value (CIV) of more than $30 million to be SSD. The Project will require development consent from the Minister for Planning and Public Spaces or the Independent Planning Commission (IPC) under Division 4.7 of the EP&A Act.

1.2 The Applicant

Cape Byron Management (CBM) is the "applicant" for the Project. CBM purchased the 30 MW cogeneration plant at Condong and a 38 MW cogeneration plant at Broadwater (NSW north coast) in 2013. Together, these plants form one of the largest renewable base load generators in Australia.

1.3 Project Rationale and Objectives

The Condong Cogeneration Plant is integral to the local sugar cane industry and a significant provider of renewable electricity to the local grid. It also plays an important role in meeting NSW targets for landfill diversion and resource recovery.

The Plant currently combusts various wood-based fuel materials during the non-crush season (typically January to mid-June), including residues from weed eradication programs, timber mill and forestry operations and approved land clearing (for example, road-side clearing, powerline clearing, land subdivision and housing developments undertaken by government authorities, private service providers and/or private developers). Issues being encountered by CBM with the current wood-based fuels include:

- Increasingly hard to source and obtain a consistent and reliable supply;
- It is sourced from a variety of activities and operators and, as such, the composition is highly variable, which has implications for the combustion process and emissions management; and
- Significant community opposition to the combustion of the wood-based fuel materials regardless of the fact that they are residues from lawful/approved land use and clearing activities undertaken by others (i.e. not CBM).

CBM has identified that an alternative reliable fuel source is required during the non-crush season to enable the Plant to continue operations on a consistent basis.

The recovered timber fuel proposed to replace the wood-based materials during the non-crush season will be sourced from C&I and C&D waste streams currently destined for landfill disposal. There will be a guaranteed supply volume from the purpose-built RRF and it will be produced to a specification that will reduce feedstock uncertainty and improve combustion efficiency. This will also enable CBM to tailor the combustion and emissions management during the non-crush season.

On this basis, the Project objectives are:

- Replace the increasingly hard to source and variable wood-based fuel materials with the proposed recovered timber fuel for combustion using current international best practice techniques during the non-crush season;
- Maintain continuity of renewable electricity generation for supply to the local grid;
- Maintain continuity of operations to support the local sugar cane industry;
- Maximise the use of existing approved infrastructure and equipment; and
- Continue to conduct operations in an environmentally responsible manner to ensure the potential for impact is minimised.

As outlined in **Section 5.7**, the Condong Cogeneration Plant (including the Project) supports the waste avoidance hierarchy and it will continue to play an important role in meeting NSW targets for landfill diversion and resource recovery.

1.4 Document Purpose

As advised in **Sections 1.1** and **5.2**, the Project is classified as SSD and will require development consent from the Minister or the IPC under Division 4.7 of the EP&A Act.

This Scoping Report has been prepared to identify the Project Site, describe the existing approved operations and the proposed Project, confirm the planning approval pathway, and discuss the key environmental, social, and economic considerations that have been identified through preliminary constraints analysis and a qualitative risk assessment. It aims to introduce the Project to government agencies, the public and other stakeholders and provide enough information to enable the Department of Planning, Industry and Environment (DPIE) to issue targeted and site-specific Secretary's Environmental Assessment Requirements (SEARs) for the Environmental Impact Statement (EIS) needed to accompany the development application.

The Scoping Report describes:

- The Project Site and surrounding land uses and receptors - **Section 2**;
- The existing approved cogeneration plant operations - **Section 3**;
- The proposed Project - **Section 4**;
- The regulatory and strategic framework for the Project's assessment - **Section 5**;
- Stakeholder engagement - see **Section 6**;
- The outcomes of a qualitative environmental risk assessment - **Section 7.2**;
- Key matters to be addressed in the EIS and the approach to their assessment - **Section 7.3**; and
- Conclusion - **Section 8**.

The Scoping Report has been prepared in consideration of DPIE's draft guideline *Scoping an Environmental Impact Statement* (Department of Planning and Environment [DPE] 2017) and the draft *State Significant Development Guide* (DPIE 2020).

2 PROJECT SITE

2.1 Overview

The Condong Cogeneration Plant is located at 123-153 McLeod Street in the village of Condong, approximately 4 kilometres (km) east of the centre of Murwillumbah in the Northern Rivers region of NSW and Tweed LGA. The land on which the Plant is situated was described in the original development application as Lots 16, 18, 19 and 23 Deposited Plan (DP) 255029, however there has since been some subdivision work and land resumption for the current Tweed Valley Way (Old Pacific Highway) route and the Project Site now comprises:

- Lot 1 DP 1058392 situated between the Tweed River and McLeod Street. Lot 1 comprises approximately 1.12 hectares (ha) and encloses the primary components of the Plant and gains vehicular access from McLeod Street;
- Lot 101 DP 1058418 situated between McLeod Street and Tweed Valley Way (Old Pacific Highway). This lot gains vehicular access from McLeod Street and comprises the overland conveyor from the fuel stockpile area to the main part of the Plant and other minor ancillary works associated with the Plant, along with the Condong Bowling Club, Condong Store (the land on which the bowling club and store are situated is leased from Sunshine Sugar [the landholder]) and ancillary works associated with the Condong Sugar Mill. Lot 101 comprises a total of approximately 3.76 ha, however only the land used by the Cogeneration Plant will be included as part of the Project Site (the residual land will continue to be occupied and used by the bowling club, store and sugar mill); and
- Lots 19 and 23 DP 255029 situated to the east of Tweed Valley Way (Old Pacific Highway) and comprising approximately 10.39 ha and 0.62 ha, respectively. These lots enclose the Plant's fuel material stockpile area. Vehicular access is gained from the adjoining Clothiers Creek Road to the north.

Figures 1 and **2** show the regional locality, Project Site, and surrounding lands.

Tweed Valley Way (Old Pacific Highway) is a major arterial road, provides access to Murwillumbah to the west and the Pacific Motorway to the northeast.

The Tweed River adjoins the Project Site to the west and flows in a north-easterly direction towards the Pacific Ocean at Tweed Heads.

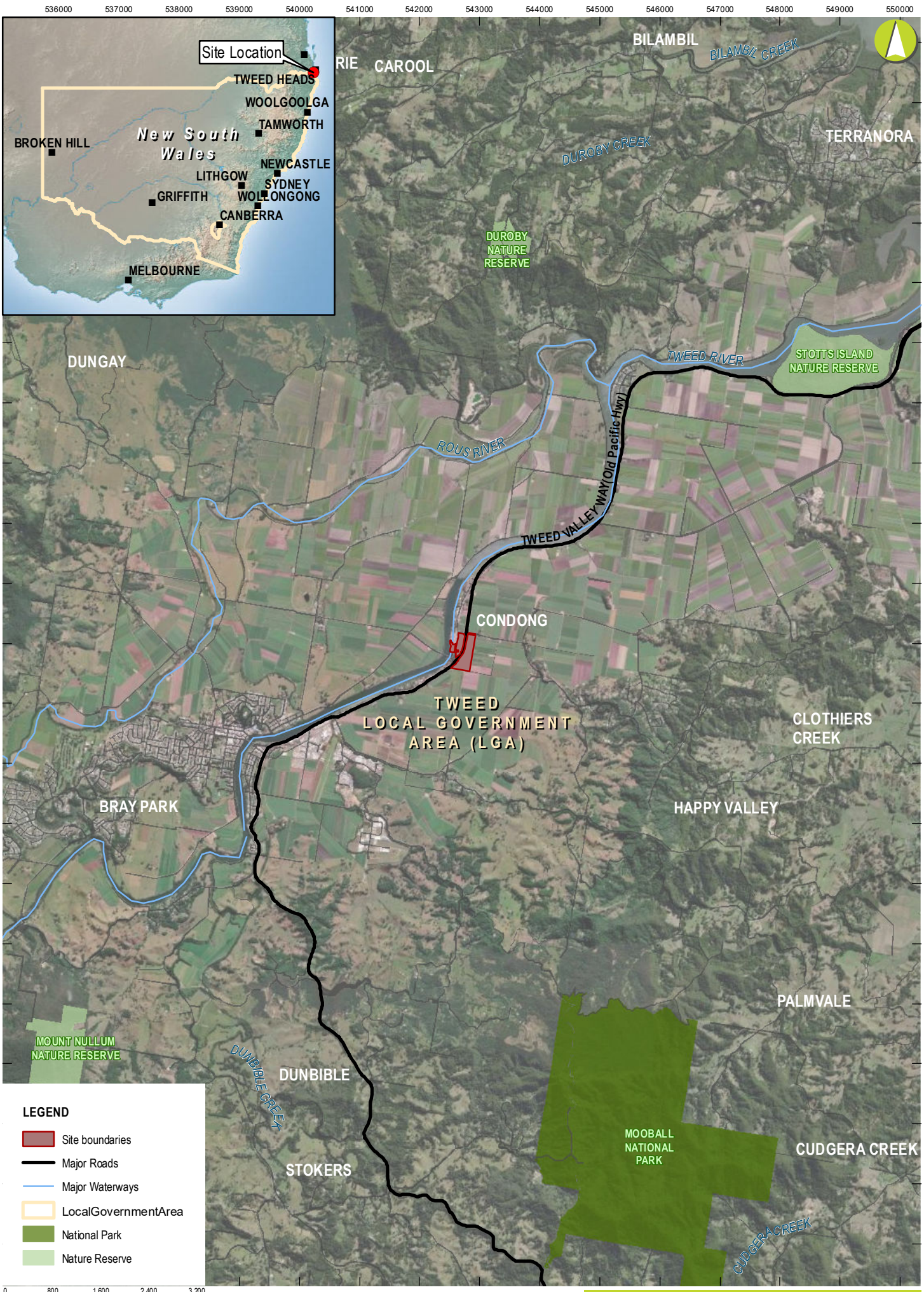
2.2 Zoning

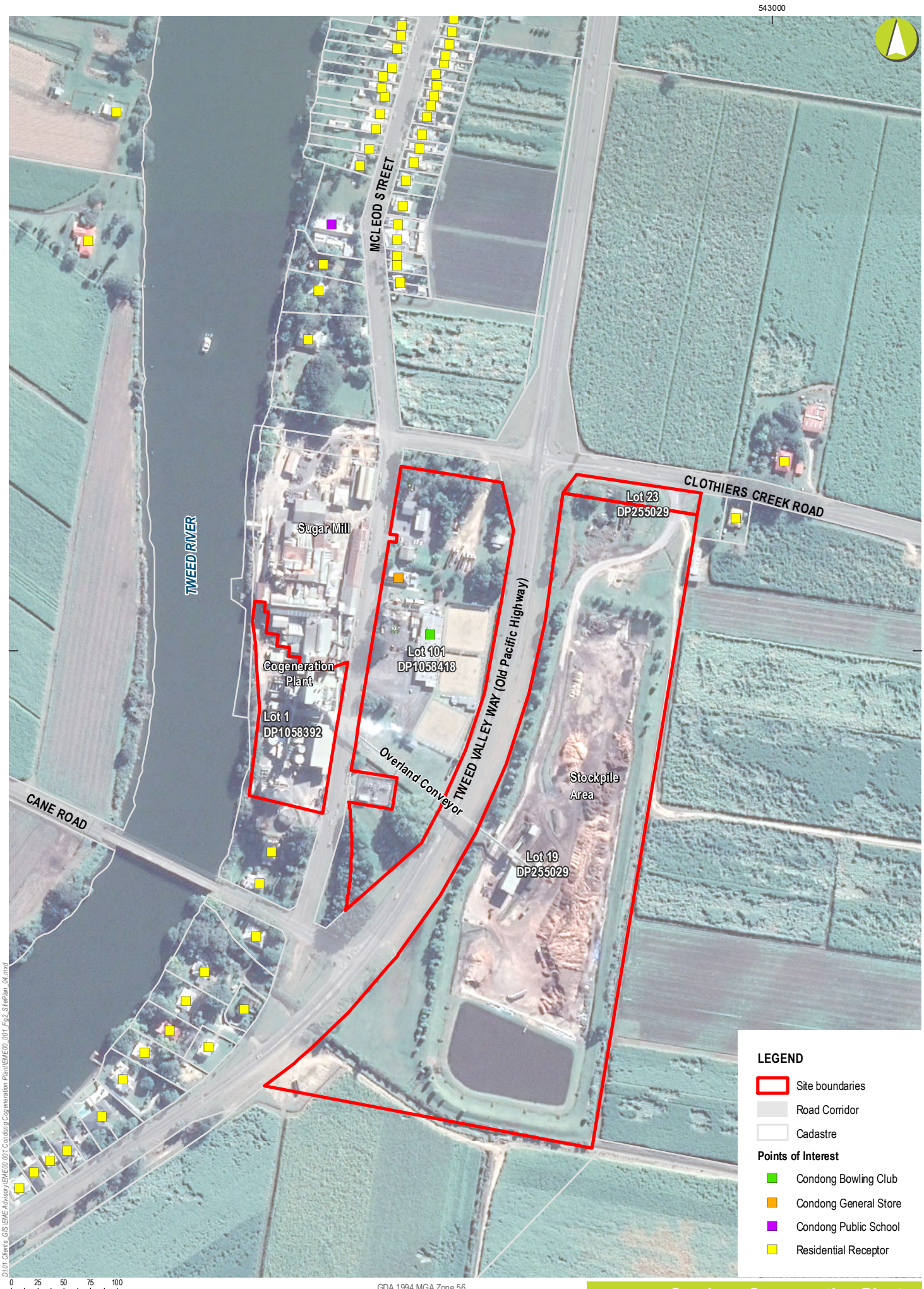
As shown on **Figure 3**, the following land use zonings apply to the Project Site under the provisions of the *Tweed Local Environmental Plan 2014* (LEP):

- Lot 1 DP 1058392 - IN1 General Industrial;
- Lot 101 DP 1058418 - RU1 Primary Production, with the bowling club curtilage zoned RE2 Private Recreation; and
- Lots 19 and 23 DP 255029 - RU1 Primary Production.

2.3 Land Ownership

While CBM own the Condong Cogeneration Plant, the Project Site itself (i.e. the land) is owned by Sunshine Sugar, who own and operate the adjoining Condong Sugar Mill.


Site Location
TWEED HEADS
WOOLGOOLGA
TAMWORTH
BROKEN HILL
New South Wales
NEWCASTLE
LITHGOW
SYDNEY
GRIFFITH
WOLLONGONG
CANBERRA
MELBOURNE
BILAMBIL
BILAMBIL CREEK
CAROOL
TERRANORA
DUROBY CREEK
DUROBY NATURE RESERVE
DUNGAY
TWEED RIVER
STOTTS ISLAND NATURE RESERVE
ROUS RIVER
TWEED VALLEY WAY (Old Pacific Hwy)
CONDONG
TWEED LOCAL GOVERNMENT AREA (LGA)
CLOTHIERS CREEK
BRAY PARK
HAPPY VALLEY
PALMVALE
MOUNT NULLUM NATURE RESERVE
DUNBIBLE CREEK
DUNBIBLE
MOOBALL NATIONAL PARK
CUDGERA CREEK
STOKERS
CUDGERA CREEK
LEGEND
Site boundaries
Major Roads
Major Waterways
LocalGovernmentArea
National Park
Nature Reserve
0
800
1,600
2,400
3,200
m
Scale: 1:80,000
Sheet Size : A4
GDA 1994 MGA Zone 56
7/04/2021
Condong Cogeneration Plant
Regional Locality
FIGURE 1
INTEGRATED ENVIRONMENTAL MANAGEMENT AUSTRALIA
www.iema.com.au
EME advisory



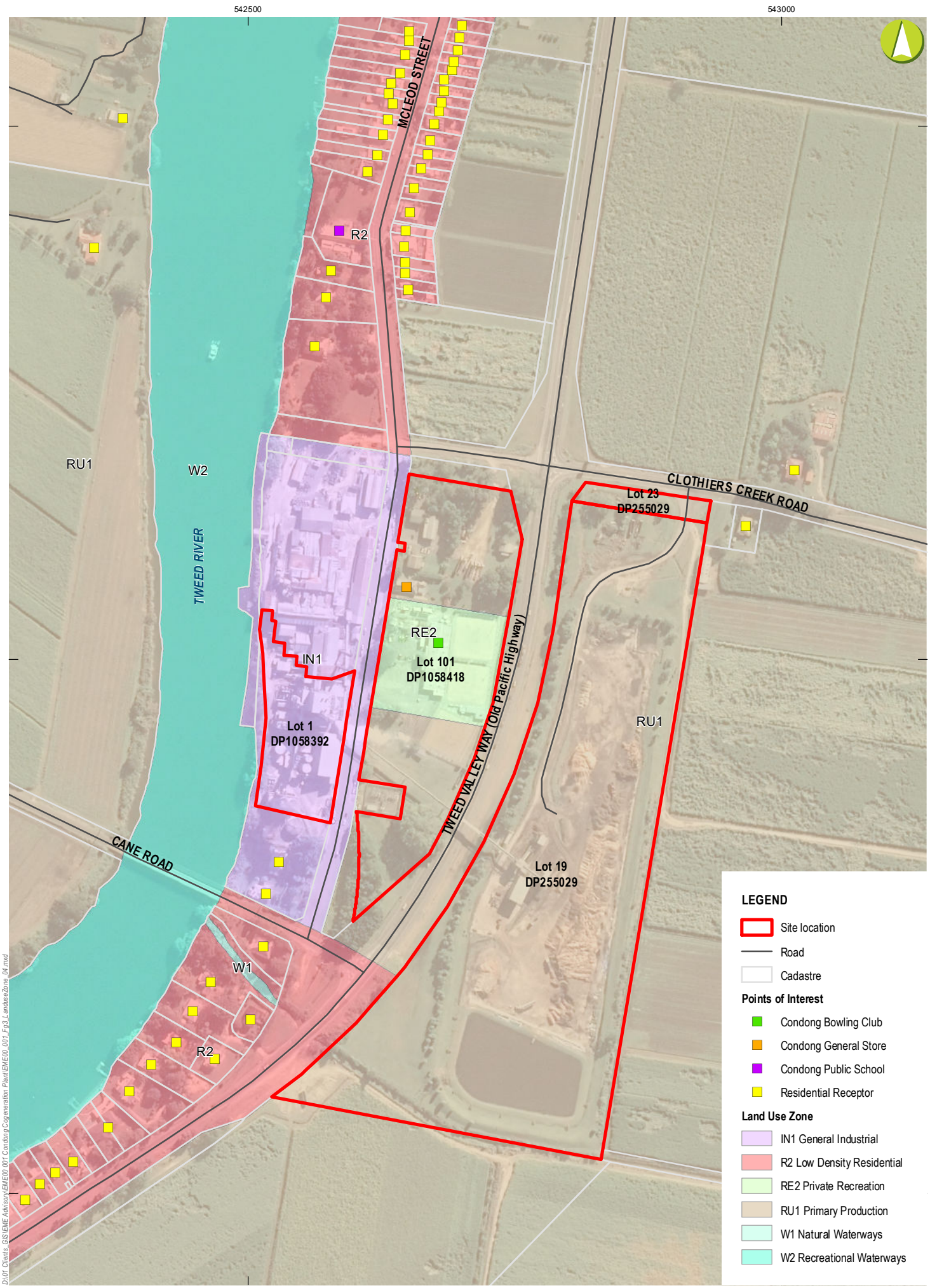
INTEGRATED ENVIRONMENTAL MANAGEMENT AUSTRALIA
www.iema.com.au

EME advisory

Condong Cogeneration Plant

Site Plan

FIGURE 2



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0 25 50 75 100 m

Scale: 1:4,500

Sheet Size : A4

GDA 1994 MGA Zone 56

12/04/2021

Source: EPI Land Zoning (LPZ)

Condong Cogeneration Plant

Land Use Zonings

FIGURE 3

2.4 Surrounding Land Uses and Nearest Receptors

As evident on **Figures 2** and **3**, the surrounding area is characterised by a mix of land uses, including:

- Condong Sugar Mill, which has been operational since 1880, adjacent to the Project Site to the north;
- Condong Bowling Club and Condong General Store situated between Tweed Valley Way (Old Pacific Highway) and McLeod Street;
- Condong Village, including residential lots to the north and south and the Condong Public School to the north;
- Residential lots to the south between Tweed Valley Way and the eastern bank of the Tweed River within the suburb of South Murwillumbah;
- Expansive sugar cane plantations; and
- Recreation activities associated with the Tweed River to the west.

The Condong Cogeneration Plant is situated within the southern extent of Condong, which has a suburb population of around 308 residents according to the 2016 Australian Bureau of Statistics census. The Condong Public School is located approximately 390 m to the north of the Plant itself and approximately 360 m to the northwest of the stockpile area.

There are around 140 privately-owned residences/dwellings within a 1 km radius of the Project Site. The closest are identified on **Figures 2** and **3**.

3 EXISTING DEVELOPMENT

3.1 Description Summary

The Condong Cogeneration Plant is a large-scale energy-from-waste (EfW) facility. EfW, which is a form of resource recovery, is the process of generating energy in the form of electricity and/or heat from the treatment of waste. It is estimated that the electricity generated by the Plant supplies approximately 30,000 homes.

Based on the SEE (Worley SEE) that accompanied the original development application to Council, the approved development is described as a cogeneration plant with the capacity to generate 30 MW of electricity, along with process steam, through the combustion of:

(c) During the sugar cane crush season typically spanning June to December - up to 200,000 tonnes of bagasse and up to 120,000 tonnes of cane leaves from the adjacent Condong Sugar Mill annually and up to 70,000 tonnes of various wood-based materials annually; and

(d) During the non-crush season typically spanning January to mid-June – up to 130,000 tonnes of various wood-based fuel materials annually, including from weed eradication programs, timber mill and forestry operations and approved land clearing (for example, residential subdivision developments, road upgrade works).

Photo 1 shows an aerial view of the Plant from the north.

Photo 1 Condong Cogeneration Plant

As evident, the Tweed Valley Way (Old Pacific Highway) bisects the Project Site, with the main components of the Plant located to the west of Tweed Valley Way between McLeod Street and the Tweed River, and a large stockpile area for the receipt and temporary storage of fuel materials located to the east of Tweed Valley Way. There is a partially-enclosed overland conveyor for the transfer of fuel materials from the stockpile area to the Plant for combustion.

Table 1 lists the currently approved biomass fuel materials.

Table 1 Approved Fuel Materials

Fuel Material	Approved Annual Quantity (tonnes)
Sugar Cane Crush Season	
Bagasse	200,000
Cane leaves	120,000
Various wood materials	70,000
Non-Crush Season	
Various wood materials	130,000
Total	**520,000**

The Condong Cogeneration Plant plays an important role in meeting NSW targets for landfill diversion and resource recovery through:

- Recovering valuable energy resources from material that would otherwise have been disposed to landfill;
- Reducing demand for scarce landfill airspace;
- Reducing the environmental impacts associated with landfill; and
- Generating a source of renewable energy and reducing reliance on non-renewable sources such as coal-fired power stations.

The key processing steps at the Plant are shown in **Figure 4** and summarised as:

1. **Fuel delivery and handling -** bagasse and cane leave fuel materials are delivered direct from the adjoining sugar mill via a conveyor to the Plant, while the other biomass fuel materials are delivered by road to the stockpile area where they are off-loaded into covered stockpiles. A front-end loader transfers stockpiled fuel to a conveyor feed hopper on an "as needs" basis for transfer to the Plant via the high-level overhead conveyor system.

2. **Conveying and metal removal** - biomass fuel is conveyed from the storage area to the in-line storage bin which is located adjacent to the boiler. The conveyor includes both ferrous and non-ferrous metals detection and removal.

3. **In-line storage bin** - the conveyor system deposits biomass into an in-line storage bin which has a capacity of approximately 24 hours.

4. **Conveying to the boiler -** biomass fuel is then conveyed from the in-line storage bin to the boiler feed chutes.

5. **Combustion in the boiler** - the fuel material is deposited on to a boiler grate. The combustion technology is a moving grate-based technology manufactured by Clyde Babcock Hitachi Australia (now part of Downer). The fuel is combusted on the air-cooled grate to generate heat. Hot flue gases flow through the boiler sections to transfer heat to the steam circuit. The boiler consists of a moving grate, furnace, radiant passes, economiser section and superheater section.

6. **Incinerator bottom ash and boiler ash circuit** - as the biomass reaches the end of the grate, combustion is achieved and the remaining ash falls from the end of the grate. Incinerator bottom ash (IBA) is ash that is left over from the combustion process; it is quenched in a wet ash conveyor to cool before being deposited in an ash bunker. Ash collected in the boiler superheaters and radiant passes (boiler ash) is also deposited with IBA. Residues are collected by vehicle and disposed of responsibly offsite.

7. **Steam circuit** - heat generated in the combustion process is converted in the boiler and superheater sections to superheated steam, the superheated steam is used to drive the steam turbine to generate electricity. For the adjoining sugar mill process steam is extracted from the steam turbine, with the extracted volume depending on the demand of the mill itself. Low pressure steam leaving the steam turbine is condensed in the air-cooled condenser and returned to the boiler feedwater tank for re-use.

8. **Flue gas treatment** - the Plant utilises a wet scrubber for flue gas treatment. This reduces dust within the flue gases. Residues are collected by vehicle and disposed of responsibly offsite.

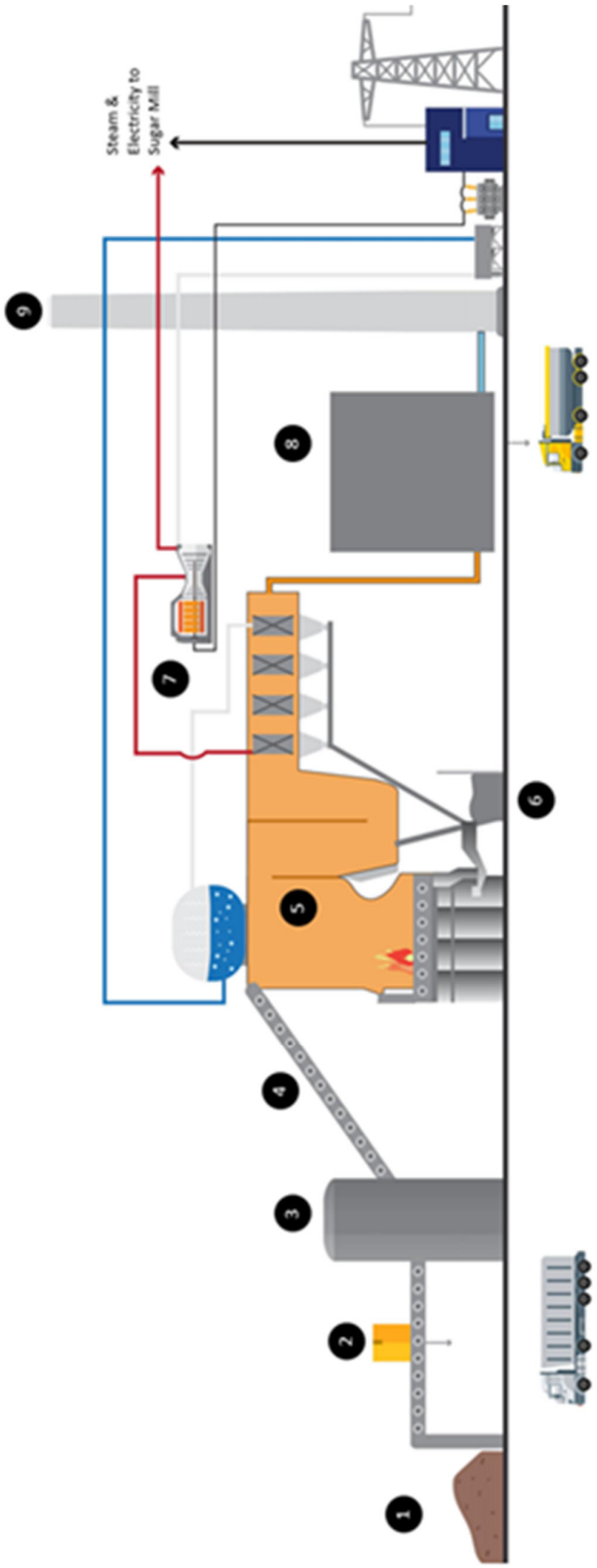
9. **Stack -** cleaned flue gases are then dispersed through a stack to ensure adequate dispersion.

The Plant includes various ancillary infrastructure and equipment required to operate. Any electricity that is not used by the Sugar Mill is exported to the electricity grid. The Plant is connected to Essential Energy's Terranora 110/66 kV sub-transmission substation via the Condong South switching station and three 66 kV transmission feed lines.

The primary operational water supply, including for both cooling and boiler feed water, is provided by Council in the form of tertiary treated effluent from the Murwillumbah wastewater treatment plant (WWTP) located on the north-western outskirts of Murwillumbah. The Plant also reuses condensate from the turbine condenser and from the adjoining sugar mill for operational water supply. There is no surface water or groundwater extracted for the operation.

The Plant employs 25 full-time equivalent staff members.

Figure 4 Existing Electricity Generation Process



3.2 Development Consents

3.2.1 Development Consent K00/0344

Development Consent K00/0344 was granted by Council for the Condong Cogeneration Plant on 11 December 2000 under the provisions of Part 4 of the EP&A Act. The consent describes the approved development as a "cogeneration facility (electricity plant)".

Since the approval of the Plant in 2000, Development Consent K00/0344 has been modified on eight occasions under either section 4.55(1A) of the EP&A Act for modifications involving minimal environmental impact or section 4.55(2) of the EP&A Act for "other" modifications. Based on a review of information available from CBM and Council, the eight modifications are summarised in **Table 2**.

Table 2 Modifications to Development Consent K00/0344

Reference No.	Date Approved	Planning Pathway	Purpose
K00/0344.01	28 Feb 2003	Section 4.55(2)	Unknown
K00/0344.02	2 Mar 2004	Section 4.55(1A)	Unknown
K00/0344.03	23 Jun 2005	Section 4.55(1A)	Amend conditions 51A, 52 and 83B relating to boiler stack emissions limits, air pollutant mass limits and pollution studies and reduction programs, respectively.
K00/0344.05	9 May 2005	Section 4.55(1A)	Unknown
K00/0344.06	10 Nov 2005	Section 4.55(1A)	Unknown
K00/0344.12	10 May 2006	Section 4.55(1A)	Unknown
K00/0344.17	26 Oct 2006	Section 4.55(1A)	Unknown
K00/0344.18	28 Mar 2007	Section 4.55(1A)	Replacement of conditions relating to water and air discharge limits and monitoring and construction hours, along with new conditions relating to hazardous materials, requirements in the event of construction noise issues and/or amenity impacts, public health legislation and other requirements for the cooling tower.
K00/0344.20	Withdrawn		

A copy of the latest consolidated version of the development consent, being K00/0344.18, is provided in **Appendix A**.

3.2.2 Development Consent DA 02/1915

Directly related to the Plant is the overland conveyor for the transfer of fuel materials from the stockpile area to the Plant for combustion, which was granted Development Consent DA 02/1915 by Council on 7 July 2003 under Part 4 of the EP&A Act. This consent was modified by Council on 13 October 2003 under section 4.55(1A) to specify that the support structures for the spans of the conveyor over McLeod Street must not be location within the road reserve.

A copy of the latest consolidated version of the development consent, being DA 02/1915.01, is provided in **Appendix B**.

3.3 Secondary Approvals

3.3.1 Environment Protection Licence EPL 20424

The Plant currently operates under the provisions of an environment protection licence, being EPL 20424, administered by the EPA under the POEO Act. The key aspects covered EPL 20424 are (in summary):

- Scheduled activity - "electricity generation".
- Fee based activity - "generation of electrical power otherwise than from coal, diesel or gas".
- Scale - 250 to 450 gigawatt hours annually.
- Discharge points - two air discharge points and four water discharge points.
- Monitoring points - five air monitoring points, three water monitoring points and one meteorological monitoring station.
- Permitted wastes – "wood waste" and "general or specific exempted waste". Disposal of cannabis is also permitted under direct supervision of the NSW Police. There must be no incineration or burning of chemically treated timber at the premises unless specifically approved by the EPA.
- Current environmental risk level – "level 2" (levels 1, 2 or 3 – with 3 being the highest risk).

A copy of EPL 20424 is provided in **Appendix C**.

3.3.2 Controlled Activity Approval

Section 5 of the SEE (Worley 2000) states that the original development application required approval from the (former) Department of Land and Water Conservation under the provisions of the *Water Act 1912* and the now repealed *Rivers and Foreshores Act 1948*. It is likely that this is now a "controlled activity approval" administered by Department of Planning, Industry and Environment – Water (DPIE Water) under section 91 of the *Water Management Act 2000* in relation to works on waterfront land.

3.4 Resource Recovery Order and Exemption

The existing "wastes" used as fuels at the Plant are covered by *The Cape Byron Management Pty Ltd biomaterial, exempted residues and bagasse (energy recovery) order 2021* (resource recovery order) and *The Cape Byron Management Pty Ltd biomaterial, exempted residues and bagasse (energy recovery) exemption 2021* (resource recovery exemption) issued by the EPA under the *Protection of the Environment Operations (Waste) Regulation 2014* (Waste Regulation).

The resource recovery order imposes quality control requirements in relation to the supply of biomaterial, exempted residues and bagasse for use as a fuel during boiler operation at the Plant. In this order:

- Biomaterial means forestry and sawmilling residues that are not native forest bio-material as defined in clause 96 of the *Protection of the Environment Operations (General) Regulation 2009* (General Regulation).
- Exempted residues means native forest bio-material that falls within the exception in clause 97A of the General Regulation. This might include trees cleared under a development consent or other authority for purposes like road-side clearing, powerline clearing and land subdivision.
- Bagasse means dry, fibrous residue that remains after the sugarcane has been crushed and the juice extracted.

The resource recovery exemption exempts CBM (as the consumer) from certain requirements under the POEO Act and the Waste Regulation in relation to the use of the waste defined in the order (i.e. biomaterial, exempted residues and bagasse) as a fuel, provided specific conditions are complied with.

3.5 Development Characterisation

The Standard Instrument includes a Dictionary of standard land use definitions. Based on these definitions and the description of the original approved development in the SEE (Worley 2000), along with on-going operations, the Plant is characterised as an "electricity generating work", which is defined as:

> ***Electricity generating works*** *means a building or place used for the purpose of – (a) making or generating electricity, or (b) electricity storage.*

The Condong Cogeneration Plant generates 30 MW of renewable electricity (along with process steam) through the combustion of biomass fuel materials and exports this electricity to the local grid and adjoining sugar mill on a year-round basis.

4 PROPOSED DEVELOPMENT

4.1 Overview

The Condong Cogeneration Plant is integral to the local sugar cane industry and a significant provider of electricity to the local grid. It also plays an important role in meeting NSW targets for landfill diversion and resource recovery. However, as outlined in **Section 1.3**, CBM has identified that an alternative reliable fuel source is required during the non-crush season to enable the Plant to continue consistent long-term operation.

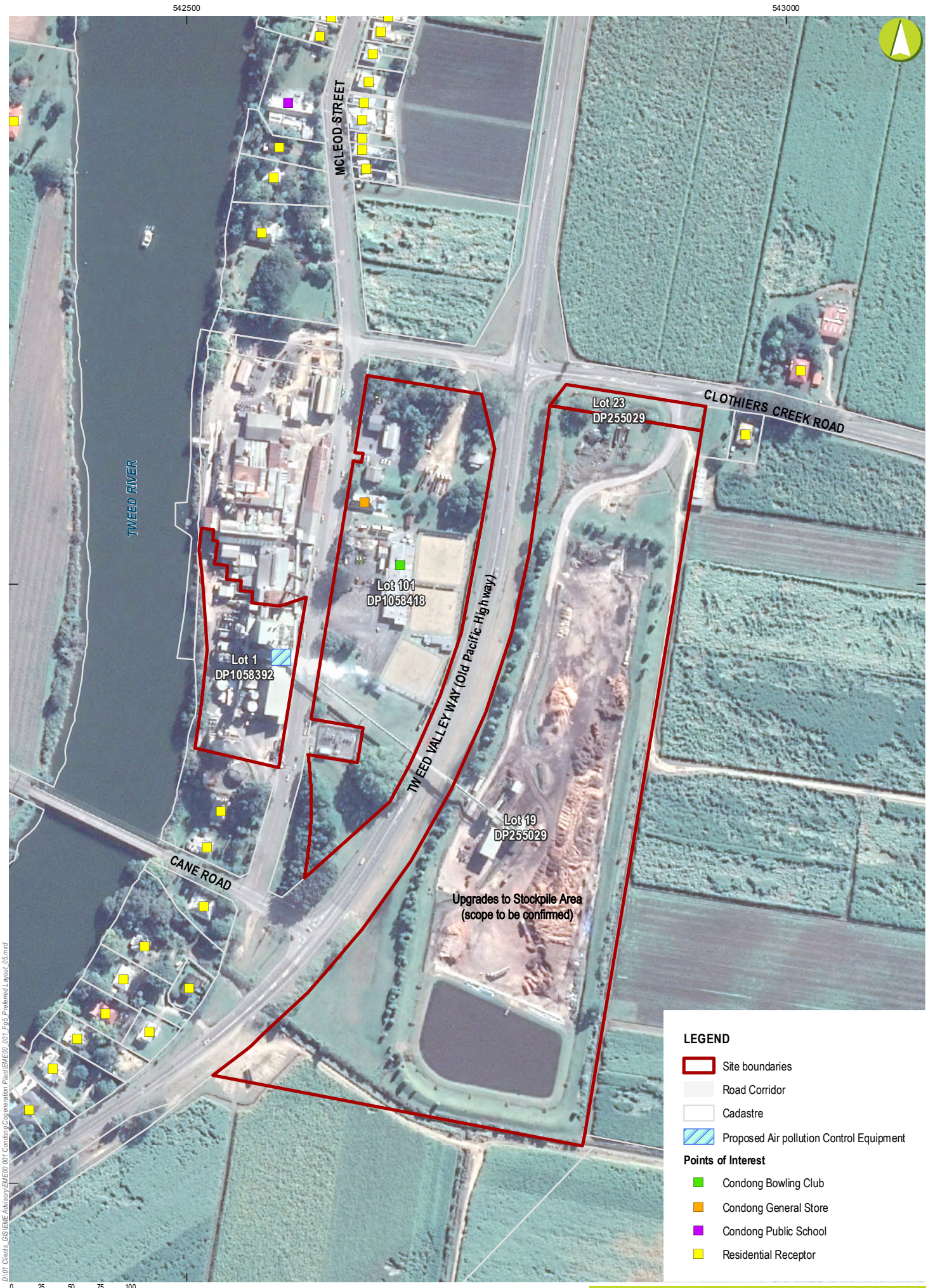
On this basis, CBM is seeking a new development consent under Part 4 of the EP&A Act to regulate existing approved operations and allow the receipt, temporary storage, and combustion of a recovered timber fuel (in addition to the bagasse, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative to the increasingly hard to source wood-based materials during the non-crush season (the Project). As evident on **Figure 5**, most of the plant and equipment currently installed will be retained, with certain upgrades required to effectively receive, temporarily store, and combust the proposed recovered timber fuel and meet the requirements of the EfW Policy Statement.

In summary, the Project comprises the following key components:

- Continue the currently approved operations at the Plant as briefly described in **Section 3.1**, with the exception of an alternative fuel source during the non-crush season;
- Allow the receipt, temporary storage and combustion of around 120,000 tonnes of recovered timber fuel annually (in addition to the biomass, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative fuel source during the non-crush season;
- Upgrades to the existing fuel stockpile area to ensure suitability for the recovered timber fuel, including surface water and leachate management, fire protection provisions and dust control;
- Upgrades to the existing boiler and flue gas treatment (FGT) system to meet design specifications and emission limits required by the EfW Policy Statement; and
- Upgrades to the existing ash collection system to enable the different ash streams that will be generated by the recovered timber fuel to be collected and disposed of separately.

The primary use and core characteristics of the existing facility, being a cogeneration plant, will remain as currently approved under Development Consents DA K00/0344 and DA 02/1915 (see **Section 3.2**). Specifically:

- The Project does not involve any changes to the approved use of the land and infrastructure;
- The Project does not involve any additional land use;
- The upgrades required to receive, temporarily store and combust the recovered timber fuel will be limited works undertaken within previously cleared/developed land and will be designed to meet current international best practice (see below);
- The Project does not represent a development expansion, with the Plant to receive very close to the currently approved 520,000 tonnes of fuel materials and remain at the approved 30 MW capacity.



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EME advisory

Condong Cogeneration Plant

Current Preferred Layout

FIGURE 5

The recovered timber is not deemed an "eligible waste fuel" under the provisions of the EfW Policy Statement and, as such, the Project will be assessed as an "energy recovery facility" defined in the EfW Policy Statement as:

> *A facility that thermally treats a waste or waste-derived material that does not meet the definition of an eligible waste fuel. These facilities must be able to demonstrate that they will be using current international best practice techniques.*

The upgrades required at the Plant to receive, temporarily store, and combust the recovered timber fuel will be designed to comply with the requirements of the POEO Act and EfW Policy Statement to ensure there are no significant environmental risks. The EfW Policy Statement requires the use of international best practice, which is generally accepted within the industry to mean compliance with the European Union's *Industrial Emissions Directive* (IED) (Directive 2010/75/EU) and the associated *Best Available Techniques (BAT) Reference Document for Waste Incineration* (WI BREF) (European Commission 2019).

Importantly, the Plant will only operate on the proposed recovered timber fuel during the non-crush season. During the sugar cane crush season, the Plant will continue to operate on the currently approved biomass fuels, comprising mainly bagasse and cane leaves from the adjoining sugar mill, with a portion of wood-based materials. As such, the EfW Policy Statement requirements would only need to be applied during the combustion of the recovered timber fuel (i.e. non-crush season). This is further discussed in relation to the EPL in **Section 5.4.2**.

The Plant will need to continue to operate during the upgrades required to receive, temporarily store, and combust the recovered timber fuel and during the "proof of performance" (POP) trials for the recovered timber. As such, the existing development consents will need to continue to operate during this time and only be surrendered once CBM have POP sign-off to combust the recovered timber fuel.

During the crush season, the Plant must provide process steam to the adjacent Condong Sugar Mill. Therefore, during the construction period to install the equipment and upgrade to allow the plant to receive, temporarily store and combust the recovered timber fuel, the Plant will need to continue to operate.

During the construction period for the proposed upgrades, the Plant will continue to combust bagasse, cane leaves and various wood materials as is currently consented. No recovered timber fuel would be stored on site or combusted during this period.

The proposed upgrades will be implemented while the plant continues to operate and without interfering with existing operations. Once construction is complete to a point where no more progress can be made without impacting existing operations, the facility will be shut down and timed to occur at the beginning of the non-crush season. At this point, redundant equipment will be removed and final connections will be made to the upgraded equipment.

Once connections are complete, the plant will undergo re-commissioning and Proof of Performance (PoP) trials using recovered timber fuel will be undertaken. As such, the existing development consents will need to continue to operate during this time and only be surrendered once CBM have POP sign-off to combust the recovered timber fuel.

The below sub-sections outline the proposed modifications and upgrades to the existing Plant.

4.2 Proposed Alternative Fuel

4.2.1 Description

The Plant will continue to utilise the currently approved biomass fuels during the sugar cane crush season, which, as identified in **Section 3.1**, comprise up to 200,000 tonnes of bagasse, up to 120,000 tonnes of cane leaves and up to 70,000 tonnes of wood-based materials annually.

During the non-crush season, the Plant will replace the currently approved 130,000 tonnes of wood-based materials with around 120,000 tonnes (preliminary estimated volume subject to the FEED) of recovered timber fuel sourced from a purpose-built RRF to be established in Brisbane (Hemmant) by ResourceCo and potentially a small quantity from ResourceCo's existing RRF in Sydney (Wetherill Park).

Photo 2 Image of recovered timber fuel produced by ResourceCo

ResourceCo is a privately owned Australian company regarded as a global leader in the recovery and re-manufacturing of primary resources, extracting maximum value from materials otherwise destined for landfill. The company has a strong track record of working with governments, communities and public and private companies to progress the circular economy and preserve natural resources for a sustainable future. ResourceCo's most recent project, being the Wetherill Park RRF has been operating for approximately 2 years and is almost identical to the RRF proposed by ResourceCo in Brisbane. The Brisbane RRF will process dry C&I and mixed C&D waste streams currently destined for landfill and will use a combination of mechanical pre-sorting, shredding, and screening and magnetic and air separating to achieve a product recovery rate of around 90%. The facility will produce recovered timber fuel specifically for the Condong Cogeneration Plant, along with other reusable commodities including aggregates, metal, timber, and soil. No wet or putrescible waste will be processed at the Brisbane RRF.

The development application for ResourceCo's Brisbane RRF has been submitted to Brisbane City Council and is currently under assessment.

Table 3 summarises and compares the currently approved fuel materials and the proposed fuel materials at the Condong Cogeneration Plant. As evident, there will be no change to the currently approved biomass fuels during the crush season. The recovered timber fuel will only be utilised during the non-crush season as an alternative to the increasingly hard to source wood-based fuel materials. There will likely be a reduction in the volume of fuel materials received at the Plant of approximately 10,000 tonnes.

Table 3 Approved and Proposed Fuel Materials

Fuel Material	Approved Annual Quantity (tonnes)	Proposed Annual Quantity (tonnes)	Difference (tonnes)
Sugar Cane Crush Season			
Bagasse	200,000	200,000	0
Cane leaves	120,000	120,000	0
Various wood materials	70,000	70,000	0
Sub-Total	**390,000**	**390,000**	**0**
Non-Crush Season			
Various wood materials	130,000	0	-130,000
Recovered timber from ResourceCo	0	120,000[1]	+120,000[1]
Sub-Total	**130,000**	**120,000**[1]	**-10,000**[1]
Total	**520,000**	**510,000**[1]	**-10,000**[1]
		Net Difference	

[1] Based on a preliminary estimate of the recovered timber fuel volume. It is subject to the FEED

The proposed recovered timber fuel will be extracted from relevant waste streams, including dry C&I and mixed C&D wastes, and will be approximately 90 % timber. **Table 4** lists the intended composition of the fuel.

Table 4 Composition of Proposed Recovered Timber Fuel

Parameter	Approximate % Recovered Timber Composition
Timber/Wood	>90%
Plastics	<10%
Textiles	<10%
Inert contaminants such as stones, glass, soil, etc.	<1%

As advised in **Section 4.1**, given that the recovered timber fuel from ResourceCo will have a level of contamination, it is not deemed an "eligible waste fuel" under the EfW Policy Statement. As a result, the Project will need to be assessed as an "energy recovery facility" and the EU WI BREF requirements will need to be demonstrated during combustion of the recovered timber fuel in the non-crush season.

Unlike the various wood-based fuel sources currently received and combusted at the Plant during the non-crush season, the recovered timber fuel from ResourceCo will have be produced to a specification, provide a more consistent feedstock that will reduce uncertainty and improve combustion efficiency. This will also enable CBM to tailor the combustion and emissions management during the non-crush season.

A feedstock specification and a sampling and testing procedure for the recovered timber fuel will be devised and implemented to effectively demonstrate on-going compliance with the specification which will form part of the development consent and environmental licensing requirements during combustion of the recovered timber fuel. The feedstock specification and sampling and testing procedure will be included as part of the EIS.

ResourceCo will also be required to provide evidence to demonstrate that the recovered timber fuel meets the resource recovery criteria of Table 1 of the EfW Policy Statement.

It is estimated that a total of 120,000 tonnes of recovered timber fuel will be delivered from ResourceCo over a typical 12-month period. The recovered timber fuel will be delivered in plastic cross-wrapped bales to the existing materials stockpile area by road in semi-trailers and B-doubles. While being stockpiled, the bales will remain in the plastic wraps. The bales will be transferred using front-end loaders to an existing covered shed within the stockpile area for de-baling and subsequent transfer to the Plant via the overland conveyor. The plastic bale wraps will be back-loaded to ResourceCo.

Investigations are underway in relation to an off-site interim storage facility to reduce the amount of fuel needing to be stored on-site at any one time. The provision of an off-site storage facility and the on-site storage requirements will be confirmed following further investigations and design.

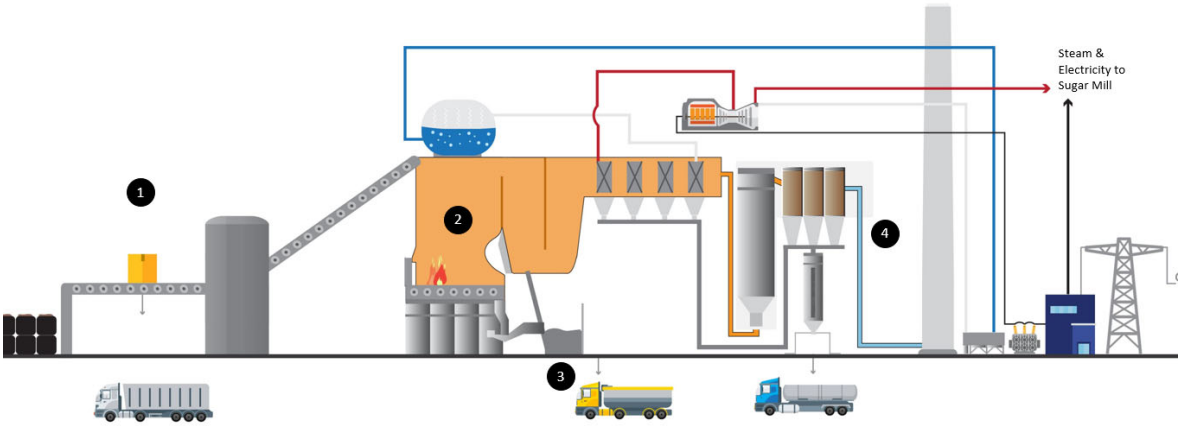
4.3 Proposed Upgrades

As previously mentioned, upgrades are required to effectively receive, temporarily store, and combust the proposed recovered timber fuel. The areas currently anticipated for upgrades are shown on **Figures 5** and **6**, with the upgraded process steps being:

1. Fuel stockpile area;
2. Boiler;
3. Ash collection system; and,
4. Flue gas treatment (FGT) system.

Unless mentioned in the list above, all other process steps remain as currently approved and operating. Each upgrade is further detailed in **Sections 4.3.1** to **4.3.5** below.

Figure 6 Proposed Electricity Generation Process



4.3.1 Storage and Handling

The existing stockpile area (see **Figure 5**) will be used to temporarily store the recovered timber in cross-wrapped bales. The bales will be transferred using front-end loaders to an existing covered shed within the stockpile area for de-baling and subsequent transfer to the Plant via the existing overhead conveyor system for combustion on an “as needs” basis. The recovered timber fuel will be dry and non-putrescible and, as such, will not pose an odour risk.

As noted earlier, investigations are underway in relation to an off-site interim storage facility to reduce the amount of fuel needing to be stored on-site at any one time. The provision of an off-site storage facility and the on-site storage requirements will be confirmed following further investigations and design.

The upgrades required at the stockpile area to ensure suitability for the recovered timber fuel include:

- The inclusion of at least two de-balers and a stormwater drainage and capture system in the existing covered shed;
- Upgraded surface water and leachate management system subject to further design and investigation;
- Fire protection provisions to ensure compliance with relevant requirements of *Fire Safety in Waste Facilities* (Fire and Rescue NSW 2020) and the Building Code of Australia;
- Additional dust controls where needed; and
- Potentially additional flood protection bunding, subject to further design and investigation.

Stockpile operations will be undertaken in accordance with a management plan developed to set out procedures for checking of the plastic bale wrapping, relocating any bales where the wrapping has been damaged indoors to a "quarantine area", and testing any surface water run-off.

4.3.2 Boiler Upgrade

Some upgrades to the existing boiler will be required to accommodate the proposed recovered timber fuel. The exact nature of these upgrades is subject to ongoing design and investigation; however, they are expected to be limited to upgrades required to enable compliance with the POEO Act, EfW Policy Statement and WI BREF during combustion of the recovered timber fuel in the non-crush season.

4.3.3 Flue Gas Treatment System Upgrade

The existing FGT system will likely be replaced with new equipment in order to meet the requirements of the POEO Act and EfW Policy Statement. This will involve removal of the current system post the boiler superheater and installation of a new upgraded system (yet to be selected), based on similar existing facilities currently operating in Europe. Equipment including consumable silos, a continuous emissions monitoring system, a compressed air system and mechanical and electrical balance of plant will also be required. A new induced draft fan may be required in place of the existing fan; however, this will depend on the final design of the FGT system.

4.3.4 Ash Collection System Upgrade

Upgrade of the current ash collection system will be required to accommodate the recovered timber fuel. The fuel combustion process generates three ash residue streams:

1. Incinerator bottom ash (IBA) from the boiler grate and the radiant boiler sections (empty passes);
2. Boiler fly ash from the economiser and superheater sections, as well as any collection point prior to the injection of FGT consumables; and
3. Flue gas treatment residues (FGTr) collected from the bag filters or other systems post addition of FGT chemicals.

When biomass is combusted, these three ash streams are substantially similar in composition to the source fuel and treatment consumables are not required. As such, the ash streams can be mixed and disposed of together. This is what is currently undertaken at the Plant and what is proposed to continue during the crush season when combusting the currently approved biomass fuels.

However, as the proposed recovered timber fuel is classed as a non-eligible waste fuel, the composition of the three ash streams during the non-crush season will differ as follows:

- The IBA stream will likely be classed as general solid waste;
- The boiler fly ash stream may be classed as either general solid waste or restricted solid waste; and
- The FGTr will be classed as restricted solid waste.

Therefore, upgrades are required to separate the different ash streams during combustion of the recovered timber fuel in the non-crush season so that each stream can be disposed of separately in an appropriate manner. The upgrades will likely involve retrofitting a new ash conveying system from existing collection points on the boiler, economiser, and superheater sections and the new FGT system, along with a silo(s) for the ash classified as restricted solid waste.

The existing IBA bunker will also be upgraded to provide a suitable storage environment.

4.3.5 Other Infrastructure

Other infrastructure and systems at the Plant, including the steam cycle, turbine, air-cooled condenser, stack, overhead conveyor and electrical infrastructure, are not anticipated to require modification or upgrade. However, this will be reviewed and confirmed during the FEED phase to be completed prior to preparation and submission of the EIS.

4.4 Related Facilities

The Project will rely on the following related facilities:

- A purpose-built RRF to be established in Brisbane (Hemmant) by ResourceCo that will supply the recovered timber fuel, as outlined in **Section 4.2**. The development application for this facility has been submitted to Brisbane City Council and is currently under assessment.
- Potentially - a facility to temporarily store the recovered timber fuel from ResourceCo to minimise the amount of fuel that will be required to be stored on-site within the stockpile area at any one time.
- A facility (or facilities) to receive and dispose of the ash generated during combustion of the recovered timber fuel (i.e. non-crush season). Preliminary investigations have identified suitably licensed disposal locations in Queensland and NSW for the different ash streams, however, these will be confirmed following further investigation and documented in the EIS.

Further details of these related facilities will be provided in the EIS.

4.5 Primary Transport Route

The primary transport route between ResourceCo's proposed RRF in Brisbane and the Condong Cogeneration Plant is illustrated on **Figure 7**. As evident, the primary transport route will comprise the M1 Pacific Motorway and Tweed Valley Way (Old Pacific Highway). Trucks will exit the Motorway on to Tweed Valley Way at the Chinderah Interchange thereby avoiding local roads.

As advised in **Section 4.4**, CBM is investigating the possibility of a facility to temporarily store the recovered timber fuel from ResourceCo to minimise the amount of fuel that will be required to be stored on-site within the stockpile area at any one time. This facility would ideally be located in proximity to ResourceCo's RRF in Brisbane or in proximity to the cogeneration plant or along the primary transport route shown on **Figure 7** to avoid additional roads needing to be used and avoid additional transport costs.


To Brisbane
Queensland
New South Wales
Currumbin Valley
Currumbin Creek Rd
Piggabeen
Cobaki
Coolangatta
Tweed Heads
Southern Cross University
Kennedy Dr
Scenic Dr
Terranora Broadwater
Tweed Heads South
Fingal
Banora Point
M1 PACIFIC MOTORWAY
Urliup Rd
Bilambil Rd
Duroby
Terranora
Terranora Rd
Chinderah
Chinderah Interchange
Upper Duroby
Cudgen
Tumbulgum
Pacific Hwy
Dulguigan
Dulguigan Rd
TWEED VALLEY WAY (Old Pacific Hwy)
Condong
Tweed Valley Way
Nunderi
Duranbah
Casuarina
Tweed Coast Rd
Cudgen Lake
Clothiers Creek Rd
Tanglewood
LEGEND
Site boundaries
State Boundary
Preferred Primary Transport Route
0 800 1,600 2,400 3,200 m
Scale: 1:80,000
Sheet Size : A4
GDA 1994 MGA Zone 56
8/04/2021
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EME advisory
Condong Cogeneration Plant
Preferred Primary Transport Route
FIGURE 7

5 STATUTORY AND STRATEGIC FRAMEWORK

5.1 Permissibility

The Condong Cogeneration Plant itself is located on land zoned IN1 General Industrial under the provisions of the Tweed LEP, with the materials stockpile area located on land zoned RU1 Primary Production (see **Figure 3**).

As defined in **Section 3.5**, the Plant is characterised as an "electricity generating work". It will continue to generate up to 30 MW of electricity (along with process steam) through the combustion of biomass and the proposed recovered timber fuel and exports this electricity to the local grid and to the adjoining sugar mill on a year-round basis.

Electricity generating works are "permitted with consent" in the IN1 zone under the provisions of the Tweed LEP, however are prohibited in the RU1 zone. Notwithstanding, Division 4 of Part 3 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) permits electricity generating works with consent on any land in a "prescribed rural, industrial or special use zone". Clause 33 confirms that the IN1 and RU1 zones are both prescribed zone for the purposes of Division 4 and sub-clause 34(1)(b) confirms that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed zone.

Clause 8 of the ISEPP establishes that the ISEPP prevails over other environmental planning instruments (including LEPs) to the extent of any inconsistency (with the exception of some limitations that are not relevant to the Condong Cogeneration Plant). As such, the Project is permissible with consent pursuant to the ISEPP.

Importantly, the Project relates to an existing approved facility. The primary use and core characteristics of the existing facility, being a cogeneration plant, will remain as currently approved under Development Consents DA K00/0344 and DA 02/1915 (see **Section 3.2**).

5.2 Planning Approval Pathway

The Project is classified as SSD under the provisions of Division 4.7 of Part 4 of the EP&A Act in accordance with the SRD SEPP. Sub-clause 20(a) of Schedule 1 of the SRD SEPP identifies development for the purpose of "electricity generating works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power)" that has a CIV of more than $30 million as SSD. The Project is electricity generating works with a CIV of more than $30 million and is therefore SSD.

The Project will require development consent from the Minister or the IPC under Division 4.7 of Part 4 of the EP&A Act, along with an EPL (as a secondary approval) under Chapter 3 of the POEO Act from the EPA (see **Section 5.4.2**).

5.3 Commonwealth Legislation

5.3.1 Environment and Biodiversity Protection Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is administered by the Commonwealth Department of Agriculture, Water and the Environment (DAWE) and provides a legal framework to protect and manage nationally important flora, fauna, ecological communities, water resources and heritage places defined as matters of "national environmental significance". An action that will have, or is likely to have, a significant impact on a matter of national environmental significance or a significant impact on the environment of Commonwealth land must be referred to the Commonwealth Minister for a decision on whether assessment and approval is required under the EPBC Act.

A search of DAWE's on-line Protected Matters Search Tool for the Project Site (including a 2 km buffer around the Site) was undertaken in January 2020. The results are provided in **Appendix D** and summarised below in **Table 5**.

Table 5 EPBC Act Protection Matters Search Results

Matters of National Environmental Significance	Finding
World heritage properties	None
National heritage places	None
Wetlands of international importance	None
Listed threatened species and ecological communities	72 listed species 2 listed ecological communities
Listed migratory species	38
Commonwealth marine areas	None
Great Barrier Reef Marine Park	None – not applicable
Nuclear actions	None – not applicable
A water resource, in relation to coal seam gas development and large coal mining development	None – not applicable

The result identified 72 threatened species, two threatened ecological communities and 38 migratory species (and/or their habitat) predicted to occur within a 2 km radius of the Project Site. No other matters of national environmental significance are likely to occur or are of relevance to the Site.

Given that the upgrades required at the Condong Cogeneration Plant to receive, temporarily store, and combust the recovered timber fuel will be limited works undertaken within previously cleared/developed land and will be designed to meet current international best practice, the Project is highly unlikely to have any impact on any matters of national environmental significance listed under the EPBC Act and will not result in any impact to the environment of Commonwealth land. As such, referral to the Commonwealth Minister is not anticipated. This will be further investigated and confirmed during the preparation of the EIS.

5.4 Key NSW State Legislation

5.4.1 Environment Planning and Assessment Act 1979

The EP&A Act is the principal piece of legislation overseeing the assessment and determination of development proposals in NSW. The objects of the Act generally seek to promote management and conservation of natural and artificial resources, while also permitting appropriate development to occur.

As outlined in **Section 5.2**, the Project is classified as SSD and, accordingly, development consent is sought under Division 4.7 of Part 4 of the EP&A Act. The SSD application will be accompanied by a detailed EIS prepared in consultation with DPIE and other relevant State and local government agencies, neighbouring landholders/occupiers, and the wider community. The EIS will be prepared in accordance with clauses 6 and 7 of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) and will address the SEARs and any other issues raised during community and stakeholder engagement activities. The aim will be to present a comprehensive and focussed evaluation of the Project, including environmental, social, and economic considerations.

Secondary Approvals

A key component of the Part 4 SSD process is that it removes the requirement for approved developments to obtain some types of secondary authorisations under other NSW legislation. Pursuant to section 4.41(1) of the EP&A Act, the following authorisation will not be required if development consent is granted:

- A controlled activity approval under section 91 of the *Water Management Act 2000* (WM Act) if any works are required within "waterfront land" (i.e. any watercourse and the land within 40 m of that watercourse).

The other secondary authorisations listed under section 4.41(1) do not appear relevant to the Project.

Pursuant to section 4.42(1) of the EP&A Act, the following authorisations cannot be refused if development consent is granted and must be issued "substantially consistent" with the SSD consent:

- An EPL under Chapter 3 of the POEO Act (for any of the purposes referred to in section 43).

The other secondary authorisations listed under section 4.42(1) do not appear relevant to the Project.

5.4.2 Protection of the Environment Operations Act 1997

The POEO Act is administered by the EPA and establishes the State's environmental regulatory framework and includes licensing requirements for certain activities. As a result of having the capacity to generate 30 MW of electrical power, the Condong Cogeneration Plant is a scheduled activity under clause 17 of Schedule 1 of the POEO Act and, as such, operates under the provisions of EPL 20424 (as contained in **Appendix C** and summarised in **Section 3.3.1**).

The Project will require a variation to the existing EPL 20424 or a new EPL. The Plant will only operate on the proposed recovered timber fuel during the non-crush season. During the sugar cane crush season, the Plant will continue to operate on the currently approved biomass fuels, primarily comprising bagasse and cane leaves with a portion of wood-based materials, and will comply with current emission limits specified in EPL 20424. When the recovered timber fuel is being used in the non-crush season, the facility would operate to meet the emission limits required by the EfW Policy Statement.

To this end, CPM is seeking a licensing approach where:

(a) Sugar cane crush season - the existing EPL air emission limits continue to apply when the Plant is operating during the sugar cane crush season and combusting the existing approved biomass fuels (i.e. eligible waste fuels under the EPA's EfW Policy Statement); and

(b) Non-crush season - a separate set of more stringent air emission limits in compliance with the EfW Policy Statement apply when the Plant is operating during the non-crush season and combusting the proposed recovered timber fuel.

It is not intended to change the fuel sources or mix during the crush season and, as such, this feedstock will continue to meet the eligible fuel criteria under the EfW Policy Statement. It would not be deemed commensurate to the risk posed by the crush season fuel to handle it in the same fashion as the recovered timber fuel proposed to be used in the non-crush season. It would have a perverse environmental outcome if it was subjected to the same treatment, and would result in the unnecessary consumption of consumables, additional energy and generation of residual ash that could no longer be returned to land and would require specialist disposal.

Under this licensing approach, there would be no need for consumable dosing of the exhaust gases with lime, ammonia or activated carbon during the sugar cane crush season when combusting the currently approved biomass fuels, and no significant change to the composition of the ash. As such, the ash streams can continue to be mixed and disposed of together via beneficial land application.

As outlined in **Section 4.3.4**, the ash generated during the non-crush season when combusting the recovered timber fuel will differ in composition and will need to be separately collected and appropriately disposed of as general solid waste and restricted solid waste.

5.4.3 Water Management Act 2000

The WM Act is intended to ensure that water resources are conserved and properly managed for sustainable use benefitting both present and future generations.

By operation of section 4.41(1) of the EP&A Act (see **Section 5.4.1**), the Project will not require a controlled activity approval under section 91 of the WM Act if any of the upgrades works happened to be within waterfront land.

Operational water supply will continue to be provided by Council in the form of tertiary treated effluent from the Murwillumbah WWTP and also reuse of condensate from the turbine condenser and adjoining sugar mill. As such, there will not be any water supply approvals required under the WM Act.

5.4.4 Contaminated Land Management Act 1997

The general objective of the *Contaminated Land Management Act 1997* is to establish a process for investigating and (where required) remediating land that the EPA considers to be contaminated significantly enough to require regulation under Division 2 of Part 3 of the Act.

The Project will not result in a more sensitive land use, a change of land use or any additional land use. As such, assessment in relation to potential existing contamination is only considered necessary to the extent that potentially contaminated land may be disturbed during construction. The primary use and core characteristics of the Plant will remain as currently approved.

5.4.5 Waste Avoidance and Resource Recovery Act 2001

The *Waste Avoidance and Resource Recovery Act 2001* (WARR Act) aims to ensure that resource management options are considered against a hierarchy of the following order:

(i) avoidance of unnecessary resource consumption,

(ii) resource recovery options (including reuse, reprocessing, recycling and energy recovery),

(iii) disposal.

Where waste materials cannot be avoided or products reused, resource recovery is considered a beneficial option for maximising resource efficiencies. The Condong Cogeneration Plant combusts various biomass waste materials that would otherwise be sent to landfill to produce renewable electricity. This supports the waste avoidance hierarchy in the WARR Act by:

- Recovering valuable energy resources from material that would otherwise have been disposed to landfill;
- Reducing demand for scarce landfill airspace;
- Reducing the environmental impacts associated with landfill; and
- Generating a source of renewable energy and reducing reliance on non-renewable sources such as coal-fired power stations.

The recovered timber fuel that is proposed to be combusted in the Plant during the non-crush season as an alternative for the increasingly hard to source wood-based materials will come from C&I and C&D waste streams currently destined for landfill. As such, the Project supports the waste avoidance hierarchy and the Plant will continue to play an important role in meeting NSW targets for landfill diversion and resource recovery.

5.5 State Environmental Planning Policies

State Environmental Planning Policies (SEPPs) are legal environmental planning instruments (EPIs) prepared by the Minister to address significant planning and environmental issues for NSW. The SEPPs identified in the below sub-sections are potentially relevant to the Project and therefore will be addressed in the EIS.

5.5.1 SEPP (State and Regional Development) 2011

One of the aims of the SRD SEPP is to identify development to which the SSD assessment and determination process under Division 4.7 of Part 4 of the EP&A Act applies. As outlined in **Section 5.2**, the Project is classified as SSD pursuant to sub-clause 20(a) of Schedule 1 of the SRD SEPP.

5.5.2 SEPP (Infrastructure) 2007

The ISEPP aims to facilitate the effective delivery of infrastructure across NSW by improving regulatory certainty and efficiency through a consistent planning regime and greater flexibility in the location of infrastructure and service facilities. As outlined in **Section 5.1**, the Project is permissible with consent pursuant to the ISEPP.

Clause 104 of the ISEPP specifies that the consent authority for any of the traffic-generating developments listed in Schedule 3 refer the development application to Transport for NSW (TfNSW) and take into consideration any submission received from TfNSW, the accessibility of the site and any potential traffic safety, road congestion or parking implications. Electricity generating works (or similar) are not specifically listed in Schedule 3 of the ISEPP. Regardless, given the proximity of the Plant to Tweed Valley Way (Old Pacific Highway), it is anticipated that the development application will be referred to TfNSW for comment.

5.5.3 State Environmental Planning Policy (Coastal Management) 2018

The *State Environmental Planning Policy (Coastal Management) 2018* (Coastal Management SEPP) promotes an integrated and coordinated approach to land use planning within the "coastal zone". It maps the four coastal management areas defined in the *Coastal Management Act 2016* and specifies assessment criteria to be applied by consent authorities when assessing development proposals within the mapped areas.

The entire Project Site is mapped within the "coastal environment area" and the area of the Site situated between the Tweed Valley Way (Old Pacific Highway) and the Tweed River is mapped within the "coastal use area". The matters listed in clauses 13 and 14 will be addressed within the EIS with the aim of demonstrating no adverse impact. Given that the Project does not involve any changes to the approved use of the land and infrastructure and that the upgrades required to receive, temporarily store, and combust the recovered timber fuel will be limited works undertaken within previously cleared/developed land and will be designed to meet current international best practice, the Project is unlikely to have any impact on the features and values of the coastal environment area or the coastal use area.

5.5.4 State Environmental Planning Policy No. 33 - Hazardous and Offensive Development

The *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development* (SEPP 33) regulates, amongst other things, the determination of development applications to undertake development for the purposes of a "potentially hazardous industry" or "potentially offensive industry".

It is noted that the Project may introduce new risks associated with the transport, storage and use of potentially hazardous goods, being the FGT chemicals and the portion of the residual ash classified as restricted solid waste. A preliminary risk screening will be undertaken in accordance with the document *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33* (Department of Planning [DoP] 2011). Should the preliminary screening indicate that the Project is potentially hazardous, a preliminary hazard analysis will be prepared in accordance with relevant Hazardous Industry Planning Advisory Paper(s).

The Plant will continue to implement the existing environmental mitigation and management practices, and the upgrades to receive, temporarily store and combust the proposed recovered timber fuel will be designed to meet current international best practice. As such, the Project should not pose a significant risk to the locality, human health, life or property or the biophysical environment.

In most cases, compliance with the requirements of environmental licensing (for example, an EPL) is sufficient to demonstrate that a proposal is not an offensive industry.

5.5.5 State Environmental Planning Policy No. 55 – Remediation of Land

The *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) aims to provide a State-wide approach to the remediation of contaminated land.

The Project will not result in a more sensitive land use, a change of land use or any additional land use. As such, assessment in relation to potential existing contamination is not considered warranted, other than the assessment of risks associated with the disturbance of potentially contaminated soil during construction. The primary use and core characteristics of the Plant will remain as currently approved.

5.6 Tweed Local Environmental Plan 2014

The Condong Cogeneration Plant itself is located on land zoned IN1 General Industrial under the provisions of the Tweed LEP, with the materials stockpile area located on land zoned RU1 Primary Production (see **Figure 3**).

While electricity generating works are "permitted with consent" in the IN1 zone, they are prohibited in the RU1 zone. Notwithstanding, as outlined in **Section 5.1**, the Project is permissible with consent pursuant to the ISEPP. Importantly, the Project relates to an existing approved facility. The primary use and core characteristics of the Plant will remain as currently approved under Development Consents DA K00/0344 and DA 02/1915 (see **Section 3.2**).

It is noted that the Project Site (all or part) is mapped in the LEP as:

- Comprising Class 3 and Class 4 acid sulphate soils;
- Within the flood planning area;
- Within a heritage conservation area (the Condong General Store in Lot 101 is mapped and listed as a heritage item in the LEP); and
- Within the obstacle limitation surface for the Murwillumbah Airfield.

These and other relevant matters under Parts 4, 5 and 7 of the LEP will be addressed in the EIS.

Based on the current land use zonings mapped in the LEP and the *North Coast Regional Plan 2036* (NSW Government 2017), there does not appear to be any plans for future new residential development in the area around the Condong Cogeneration Plant.

5.7 Strategic Framework

5.7.1 NSW Energy from Waste Policy Statement 2015

The EfW Policy Statement (EPA 2015) sets out the policy framework and overarching criteria for facilities proposing to thermally treat waste or waste-derived materials for the recovery of energy. It recognises that the recovery of energy and resources from the thermal processing of waste has the potential, as part of an integrated waste management strategy, to deliver positive outcomes for the community and environment.

Given that the recovered timber fuel from ResourceCo will have a level of contamination, it is not deemed an "eligible waste fuel" under the EfW Policy Statement and, as such, the Project will be assessed under the Policy Statement as an "energy recovery facility" defined as:

A facility that thermally treats a waste or waste-derived material that does not meet the definition of an eligible waste fuel. These facilities must be able to demonstrate that they will be using current international best practice techniques.

The EIS will need to demonstrate that:

- The proposed recovered timber fuel meets the relevant resource recovery criteria in Table 1 of the EfW Policy Statement;
- The upgrades required at the Plant to receive, temporarily store and combust the recovered timber fuel will be designed to meet current international best practice (i.e. WI BREF), particularly in relation to process design and control, waste receipt and storage, emission control and monitoring, and management of residuals; and
- The technologies are proven, well understood and capable of handling the expected variability and type of waste feedstock. This will be achieved through reference to operational plants in other comparable jurisdictions that are using similar technologies and combusting like waste fuel. Candidate reference facilities have been identified and are being reviewed to confirm which facilities will be nominated for the purposes of the EIS.

The Plant will only operate on the proposed recovered timber fuel during the non-crush season. During the sugar cane crush season, the Plant will continue to operate on the currently approved biomass fuels, which primarily comprise bagasse and cane leaves from the adjoining sugar mill and a portion of wood-based materials. As such, the requirements of the EfW Policy Statement would only need to be applied during the combustion of the recovered timber fuel in the non-crush season.

The EfW Policy Statement defines eligible waste fuels as "waste or waste-derived materials considered by the EPA to pose a low risk of harm to the environment and human health due to their origin, low levels of contaminants and consistency over time". Eligible waste fuels are listed under Section 3 of the Policy Statement and include (as relevant to this proposal);

- Biomass from agriculture;
- Forestry and sawmilling residues; and
- Uncontaminated wood waste.

Facilities treating eligible waste fuels are not required to meet the full requirements of an energy recovery facility as set out in the Policy Statement so long as they fulfil the following criteria:

- Ability to demonstrate to the EPA that the waste consistently meets the definition of an EPA-approved eligible waste fuel;
- Confirm there are no practical, higher order reuse opportunities for the waste;
- Fully characterise the waste and/or undertake proof of performance;
- Meet the relevant emission standards as set out in the *Protection of the Environment Operations (Clean Air) Regulation 2010*.

It is not intended to change the fuel source or mix during the crush season and, as such, the feedstock will continue to meet the eligible fuel criteria. It would not be deemed commensurate to the risk posed by the crush season fuel to handle it in the same fashion as the recovered timber fuel proposed to be used in the non-crush season. It would have a perverse environmental outcome if subject to the same treatment, and would result in the unnecessary consumption of consumables, additional energy and generation of residual ash that could no longer be returned to land for beneficial application and would require specialist disposal.

Reference Facilities

CBM recognises that a "reference facility" is required to demonstrate that the technologies to be adopted at the Plant are proven, well understood and capable of handling the expected variability and type of waste feedstock. In accordance with the EfW Policy Statement, reference facilities are ideally fully operational plants using the same technologies and treating like waste streams in other similar jurisdictions.

Recovered timber-based facilities are common in Europe and operate with a variety of feedstocks using a variety of techniques for emissions abatement and control. CBM is in the process of identifying the most suitable combustion system upgrades and the most appropriate emissions abatement technology for the Condong Cogeneration Plant. Once this has been finalised, the most appropriate reference facility that demonstrates treating "like waste streams" will be selected as the reference facility for the Project. This is a longer process for an existing plant than it is for a proposed new plant as existing design characteristics need to be taken into account. As such, although there are several possible reference facilities, the preferred or optimum facility has not been selected at this point in the Project.

5.7.2 NSW Energy from Waste Draft Policy Statement

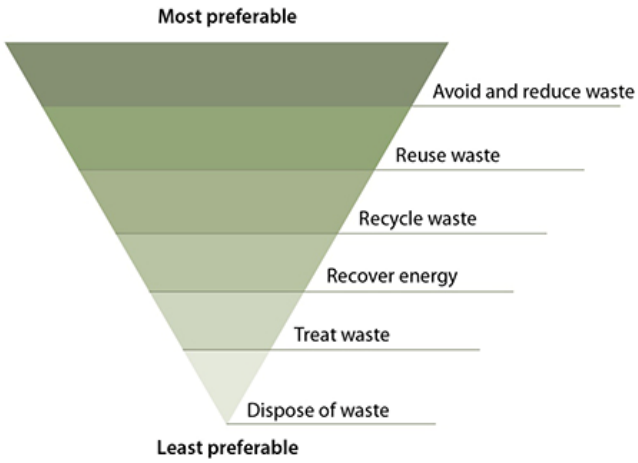
In December 2019, the Minister of Energy and Environment requested that the NSW Chief Scientist and Engineer establish a working group to undertake a review of EFW in NSW to ensure proposals adopt international best practice standards and controls to protect human health and the environment. The report for this work was submitted in May 2020 with additional advice provided in November 2020, including an independent expert review of the draft NSW best practice air emission limits for EFW plants.

In response, the EPA has revised the 2015 EfW Policy Statement to reflect the air emission recommendations of the Chief Scientist and Engineer and is currently undertaking public consultation on a draft revised policy statement until 30 April 2021. The proposed changes are intended to apply to all current and future EfW proposals in NSW. As such, the revised policy statement (whether in draft or final) will be considered during the FEED and EIS preparation for the Project.

5.7.3 NSW Waste Avoidance and Resource Recovery Strategy 2014-21

The *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* (EPA 2014) (WARR Strategy) is informed and driven by the WARR Act (see **Section 0**). It aims (among other things) to divert waste from landfill and encourage the prioritisation of waste management through the waste hierarchy shown in **Figure 8**.

Figure 8 NSW Waste Hierarchy (EPA 2014)



Where avoiding, reusing, or recycling waste materials are not feasible, the next preferred option in the hierarchy is energy recovery, with the WARR Strategy advising *it may be possible to recover the energy from the material and feed that back into the economy where this is acceptable to the community* (EPA 2014).

The recovered timber fuel that is proposed to be combusted during the non-crush season as an alternative to the increasingly hard to source wood-based materials will come from C&I and C&D waste streams currently destined for landfill to produce renewable electricity that will be fed in to the local grid. As such, the Project supports the waste hierarchy via:

- Recovering valuable energy resources from material that would otherwise have been disposed to landfill;
- Reducing demand for scarce landfill airspace;
- Reducing the environmental impacts associated with landfill; and
- Generating a source of renewable energy and reducing reliance on non-renewable sources such as coal-fired power stations.

5.7.4 Energy Policies and Strategies

The Condong Cogeneration Plant, including the Project, is a large-scale renewable energy generator that supports the aims and objectives of key Commonwealth and State energy policies and strategies. These include:

- *Commonwealth Renewable Energy Target Scheme*, which was agreed to by the Australian Parliament in 2015 in order to encourage the additional generation of electricity from renewable sources to reduce greenhouse gas emissions in the electricity sector.
- *NSW Renewable Energy Action Plan* (NSW Government 2013), which aims to increase renewable energy generation through (a) attracting renewable energy investment and projects; (b) building community support for renewable energy; and (c) attracting and growing expertise in renewable energy technology.
- *NSW 2021: A Plan to Make NSW Number One* (NSW Government 2011), which sets priorities for waste reform, including renewable energy generation targets.

6 COMMUNITY AND STAKEHOLDER ENGAGEMENT

CBM is committed to engaging in a transparent and meaningful way with stakeholders throughout the design and environmental impact assessment for the Project. This includes surrounding residents and businesses, the wider community, key State government agencies, the local Council and other interest groups. PlanCom Consulting has been engaged to prepare a formal community and stakeholder engagement strategy and to work with CBM to ensure effective engagement to inform the Project's development and EIS preparation.

6.1 Objectives

The key objectives of community and stakeholder engagement for the Project are to:

- Initiate and maintain open and transparent communication;
- Provide an understanding of the regulatory approval process for the Project;
- Provide information about the Project to create awareness and help the local community understand the Project, including the source and nature of the proposed recovered timber fuel, required upgrades to the Plant, international best practice to be employed, and predicted environmental, economic and social impacts;
- Take account of community values, concerns, aspirations and expectations;
- Actively engage with stakeholders and seek input into the Project by providing opportunities for stakeholders to identify key issues for consideration and provide feedback on the management practices and mitigation measures; and
- Work to have the Project make a positive impact, involving the local community and other stakeholders, and proactively responded to concerns raised.

6.2 Identified Stakeholders

Table 6 lists the key stakeholders identified for communication and engagement throughout the Project. Other stakeholders may be identified during the preparation and implementation of the community and engagement strategy and the EIS and will be engaged with as appropriate.

Table 6 Identified Stakeholders

Government	Community and Other Stakeholder Groups
• DPIE • EPA • NSW Health • Tweed Shire Council • TfNSW • DPIE Water • Natural Resources Access Regulator • NSW Fire and Rescue • Department of Primary Industries – Agriculture • Air Services Australia • Civil Aviation Safety Authority • Heritage NSW • DPIE Biodiversity and Conservation Division • Energy NSW • Essential Energy • State members of Parliament • Relevant portfolio Ministers	• Employees • Local residents, including the Condong village and wider community • Local businesses • Condong Public School and Condong Possums Community Preschool • Condong Sugar Mill (Sunshine Sugar) • Local sugar cane farmers • Local and regional community and environmental groups • State based environment / advocacy groups • Tweed/Byron Local Aboriginal Land Council

6.3 Project Engagement Activities Undertaken to Date

Site Inspection and Planning Focus Meeting

A site inspection and Planning Focus Meeting (PFM) were held on 13 May 2021 and were attended by representatives from the following government agencies:

- DPIE – site inspection and PFM;
- EPA – site inspection and PFM;
- DPIE Biodiversity Conservation Division (BCD) – site inspection and PFM;
- Council – site inspection and PFM;
- NSW Health – PFM; and
- TfNSW – PFM.

The Department of Primary Industries, Natural Resources Access Regulator, WaterNSW, NSW Fire and Rescue, Heritage NSW and CASA were also invited, however unable to attend.

Other

Consultation/engagement prior to the PFM has included the following:

EPA

- November 2019 - a face-to-face meeting was held with the EPA (Sydney) to introduce the Project (at this point the Project was positioned to be a development modification) and discuss key planning and environmental considerations.
- February 2021 - a meeting was held with the EPA via teleconference to reintroduce the Project as a new SSD proposal and under the provisions of the EfW Policy Statement.

Council

- January 2020 - a face-to-face meeting was held with Council (Development Assessment Panel) to introduce the Project (at this point the Project was positioned to be a development modification) and discuss key planning and environmental considerations.
- February 2021 - a meeting was held with Council to reintroduce the Project as a new SSD proposal and under the provisions of the EfW Policy Statement.
- March 2021 – a meeting was held with Council and several councillors to brief them on the overall CBP business and the proposed Project.

DPIE

- September 2020 - a planning approval pathway memo was submitted to DPIE in early September 2020, followed by a video conference meeting mid-September 2020 to introduce the Project and discuss the intended SSD approval pathway. There has been further email and phone consultations with DPIE.
- March 2021 – a draft version of this Scoping Report was emailed to DPIE for review and comment prior to submitting the final document via the Major Projects portal.

Members of Parliament

- April 2021 – a meeting was held to brief the local State and Federal members of parliament.

Employees

- April 2021 – a letter was emailed to all employees introducing the Project.

Local Residents

- April 2021 – a letter was mailed to around 1,700 residents within the Condong, South Murwillumbah and Tygalgah areas introducing the Project and providing contact details and avenues for further information.

Wider Community

- April 2021 – a webpage has been added to the CBP website in relation to the Project. This webpage includes preliminary information responding to a range of "frequently asked questions" and contact details for any questions/comments.

Sunshine Sugar

- April 2021 – a meeting was held with Sunshine Sugar, who own and operate the adjoining Condong Sugar Mill, to discuss the Project.

6.4 Proposed Project Engagement Activities

The Project has been divided in to the following five stages for the purposes of devising effective engagement techniques:

- Stage 1 - submission of Scoping Report through to release of SEARs;
- Stage 2 - project design and EIS preparation;
- Stage 3 - EIS exhibition;
- Stage 4 - Response to Submissions (RTS) preparation; and
- Stage 5 - post development consent.

The potential engagement activities and objectives for these stages are listed in **Table 7**.

Table 7 Stakeholder Engagement Activities and Objectives

Project Stage	Potential Engagement Activities	Engagement Objectives
Stage 1 - submission of Scoping Report through to release of SEARs	• Planning Focus Meeting with key government agencies • Website information, including an on-line Q&A and ways to register their details and initial comments. • Project newsletter (letterbox drop/mail/email) to local residents, businesses, school and preschool, local community facilities and interest groups • Meetings/briefings with key agencies • Advertisement in local newspaper	• Introduce the Project • Introduce the applicant and project team and provide relevant contact details • Outline the planning approval pathway, key milestones and opportunities for participation • Inform stakeholders of the preliminary project investigations by providing information to assist them in understanding the project scope and the associated issues and opportunities • Obtain community and stakeholder feedback on key concerns, any project options that might be under consideration and technical factors related to the project • Inform on the EIS process, potential project impacts and associated avoidance, mitigation and management strategies

Stage 2 - project design and EIS preparation	• Website information, including on-line platform and Q&A • Information sessions/workshops for the community and interested groups, including presentation of specialist impact assessment work • Project newsletters (letterbox drop/ mail/email) to local residents, businesses, school and preschool, local community facilities and interest groups • Meetings/briefings with local residents, businesses, Condong Public School, local community facilities and interest groups • Meetings/briefings with key agencies • Use and availability of technical experts to discuss issues with the community	• Work directly with interested stakeholders to ensure their concerns and aspirations are understood • Inform on the EIS process, potential project impacts and associated avoidance, mitigation and management strategies • Inform on the design process and other aspects of the project, and obtain feedback to help enhance project outcomes • Involve the community and stakeholders in working through key issues, opportunities and potential mitigations or ways to enhance project outcomes
Stage 3 - EIS exhibition	• Website information, including on-line platform and Q&A • Information session for the community and interested groups, including presentation of specialist impact assessment work • Project newsletter (letterbox drop/ mail/email) to local residents, businesses, school and preschool, local community facilities and interest groups • Meetings/briefings with local residents, businesses, Condong Public School, local community facilities and interest groups • Meetings/briefings with key agencies • Use and availability of technical experts to discuss issues with the community	• Inform on the EIS exhibition and assessment process • Inform on the key EIS findings, conclusions, recommendations and management/mitigation commitments, particularly for the key issues of waste, air quality, health, etc. • Involve the community and stakeholders in working through key issues, opportunities and potential mitigations or ways to enhance project outcomes
Stage 4 - RTS preparation	• Website information, including on-line platform and Q&A • Information session for the community and interested groups, including presentation of any additional specialist impact assessment work • Project newsletter (letterbox drop/ mail/email) to local residents, businesses, school and preschool, local community facilities and interest groups • Meetings/briefings with local residents, businesses, Condong Public School, local community facilities and interest groups • Meetings/briefings with key agencies	• Inform on the issues raised in the submissions received following EIS exhibition, any additional specialist impact assessment work required to address the issues and the intended responses to the issues • Involve the community and stakeholders in working through the key issues and the intended responses to the issues • Work with property owners and stakeholders around implementing mitigations if relevant
Stage 5 - post development consent	• Website information, including on-line platform and Q&A • Project newsletter (letterbox drop/ mail/email) to local residents, businesses, school and preschool, local community facilities and interest groups • Creation and implementation of a Community Consultative Committee	• Inform on the development consent conditions, where these are connected to issues raised by the community • Inform on the project progress/status, key milestones and next steps • Seek feedback on any concerns/issues that the community may have in relation to the on-going operation of the Plant and provide updates and feedback

7 ENVIRONMENTAL SCOPING

7.1 Introduction

One of the important functions of the Scoping Report is to identify the issues that should be assessed in the EIS, including the approach to assessment, to inform the Secretary in preparing SEARs.

The remainder of this section is structured as follows:

- **Section 7.2** describes the approach to the environmental scoping and risk assessment and includes a table summarising the outcome of the assessment and identifying the issues that should be assessed in the EIS and their categorisation as 'key' or 'other' issues.
- **Section 7.3** provides additional information for each of the identified issues, describing the existing environment for each issue, the potential impacts as a result of the Project, and the proposed approach to assessment.

7.2 Environmental scoping and risk assessment

Environmental scoping is the process used to identify the issues that will be assessed in the EIS. The methodology used for environmental scoping for the Project involved the following steps:

- Description of the existing environment relevant to each issue (e.g. for traffic and transport, a description of the local transport network).
- Identification of the aspects of the Project that may interact with the existing environment to identify potential impacts (e.g. changes to traffic volumes and patterns during construction and operation of the Project).
- Preliminary assessment of the impact to consider whether the impact is *likely* to happen and whether the *consequences* of the impact would be material. The concepts of likelihood and consequence are commonly used in risk assessments and have been used in a simple form for the purpose of the environmental scoping exercise.
- Likelihood of impact (negative or positive) refers to the impact that would result taking into account mitigation measures. This recognises that for many issues, mitigation is an integral part of the Project. For example, the air pollution controls which clean the air prior to its discharge are a key part of the project design.
- The concept of material impact is similar to the concept of significance which is used throughout impact assessment practice. However, significance has a specific meaning within the *Environmental Planning & Assessment Act 1979,* therefore material is used to avoid any confusion.
- Consider community perceptions of potential impacts based on the findings of the community engagement undertaken to date and community responses to similar projects.
- Use the above information to categorise the issue as either "Key" or "Other" issues. Key issues are those where there is a likelihood of a material impact or uncertainty about the nature and scale of an impact or where there is a high level of community concern about the issue. Key issues require a detailed assessment in the EIS to better understand the impact or to develop project specific mitigation measures. Other issues are those where a material impact is not likely. A less detailed assessment may be required, either because the impact is well understood or there are standard mitigation measures available to manage the impact.

- Note that most issues can be broken down into components, for example, construction dust and operational air emissions are part of Air Quality and Odour for the purposes of environmental scoping. Where one component of the issue is categorised as a "key issue" and another component is categorised as an "other issue", the overall issue – Air Quality and Odour – is considered a "key issue".
- Identify issues that were considered during scoping but are not subject to any further assessment in the EIS as they are unlikely to have an impact on the receiving environment

The use of the above assessment categories generally follows the approach described in the Department of Planning's Draft EIA Guidelines for State Significant Projects, exhibited in June 2017. The Draft Guidelines described a process to identify which elements of the receiving environment (matters) are potentially impacted by a proposed development and the level of assessment needed to predict and understand the impact and mitigation measures.

The Draft Guidelines also considered cumulative impacts, where the elements of the receiving environment are affected from the combination of a Project's impacts and the impacts of other committed and approved projects.

The environmental scoping process is designed to allow decisions to be made using professional judgement and the best-available information at the time. It is not expected that detailed technical assessment is carried out at this stage to inform the scoping process. However, it is expected that where there are data gaps or points of uncertainty in relation to an issue, precaution is adopted, and the issue is treated as key.

Table 8 summarises the outcomes of the environmental scoping exercise. Each issue is categorised as "likely" or "unlikely" and the potential consequence of impact is categorised as "material" or "not material".

Table 8 Environmental Scoping Outcomes

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
Waste management	
● Key issue	Waste Supply - Resource Recovery Criteria: • Likelihood: it is **unlikely** that waste received at the EfW facility will be non-compliant with the resource recovery criteria of the EfW Policy as waste supply arrangements for the recovered timber fuel would ensure waste is residual from resource recovery operations. The supplier of the recovered timber fuel would also be required to demonstrate that the resource recovery criteria are being met. • Consequence: receival of non-compliant waste would be **material** as it would result in the use of a resource which has a higher order value in the waste hierarchy and non-compliance with the EfW Policy. Waste Supply – Hazardous Waste: • Likelihood: it is **unlikely** that hazardous waste will enter the combustion process as the recovered timber fuel is produced to a specification and waste receival and handling process requires in- bound vehicles to provide documentation on the source and type of waste. Loads can be inspected in the fuel receival / storage area and arrangements made for unapproved waste to be quarantined and transported off-site. The Project will also include secure fencing and access arrangements to the site. • Consequence: depending on the type of material, combustion of hazardous waste in the EfW process could be **material** as it would generate additional contaminants in the flue gas, however, this would be managed through the flue gas treatment process. Ensuring hazardous waste does not enter the combustion process is an important issue for the community. Residual waste management: • Likelihood: it is **unlikely** that residual waste from the EfW process (bottom ash, boiler ash and FGTr) will be disposed at facilities that are not approved and licenced to receive this type of waste. • Consequence: inappropriate management and disposal of residual waste would be **material** because of the potential impacts on land and water. Residual waste management is an important issue for the community.
Air quality and odour	
● Key issue	Air quality: • Likelihood: it is **unlikely** that emissions from the stack will exceed air quality standards because of the air pollution controls incorporated into the EfW process and facility design. These controls are based on similar plants operating in the EU to best international practice standards. • Consequence: exceedance of air quality standards as a result of emissions from the stack would be **material** because of the potential impacts on air quality and human health. Air quality is an important issue for the community.

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
● Other issue	Odour: • Likelihood: emissions of odour from the facility are **unlikely** as the waste feedstock is a recovered timber fuel which is unlikely to contain odorous material. • Consequence: odour emissions would be **material** because of the proximity to residential and other sensitive receptors in Condong. Odour is an important issue for the community. Air quality - construction: • Likelihood: generation of dust off-site during construction is **unlikely** with the implementation of standard construction environmental management measures. • Consequence: off-site dust generation would be **material** given the proximity to residential and other sensitive receptors in Condong.
Human health	
● Key issue	Human health – air quality: • Likelihood: exposure of people to unacceptable levels of air emissions from the stack is **unlikely** because of the air pollution controls incorporated into the EfW process. • Consequence: exposure of people to unacceptable levels of air emissions from the stack would be **material** because of the impact on human health. Air quality related human health risk is an important issue for the community. Human health – soil contamination: • Likelihood: exposure of workers to contaminants in soil disturbed and mobilised during construction is **unlikely** because of the construction environmental management and material management procedures that will be used during construction. • Consequence: exposure of workers to contaminants in soil is **material** because of the potential impacts on the health of workers. Human health – potable water quality: • Likelihood: risks to human health as a result of deposition of pollutants on drinking water sources from air emissions from the stack is **unlikely** because of the air pollution controls incorporated into the EfW process. • Consequence: exposure of people to unacceptable levels of pollutants in potable water sources would be **material** because of the impact on human health. Water quality related human health risk is an important issue for the community.
● Other issue	Human health – disposal of contaminated soil: • Likelihood: exposure of the community from mobilisation of soil contaminants to off-site locations is **unlikely** because of the management procedures that will be used during construction. • Consequence: community exposure to mobilised contaminants is **material** because of the potential health impacts to the community.

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
Noise and vibration	
● Key issue	Noise – EfW operations: • Likelihood: increased noise in the area around the Project is **likely** as a result of operation of the EfW facility but will be limited in the context of the existing facility. • Consequence: increased noise is **material** because of the potential impact on nearby residential and other sensitive receivers.
	Noise – construction: • Likelihood: noise from construction activities is **likely**. • Consequence: noise impacts are **material** because of the potential impact on nearby residential and other sensitive receivers.
● Other issue	Noise – transport: • Likelihood: noise as a result of waste delivery truck movements is **unlikel**y as overall truck movements will decline as a result of the Project. • Consequence: increased transport related noise is **material** because of the potential impacts on nearby residential and other sensitive receivers.
Water – surface, groundwater and hydrology	
● Key issue	Surface water – run-off (operation) • Likelihood: increased surface water run-off as a result of a permanent increase in the impervious area of the site, particularly the fuel receival and storage area, is **likely,** however, surface water management infrastructure will be incorporated into the site layout and design to minimise the risk. • Consequence: increased surface water run-off is **material** because of the potential impacts on existing drainage / surface water infrastructure and the potential for flooding Surface water – water quality (operation) • Likelihood: water quality impacts as a result of increased surface water run-off from the fuel storage area is **likely,** however, surface water management infrastructure will be incorporated into the site layout and design to minimise the risk. • Consequence: water quality impacts are **material** because of the potential impacts on the nearby Tweed River. Groundwater: • Likelihood: the extent of excavation work and in ground structure is not known at this stage, however, may be required for ash storage, therefore impacts to groundwater are **likely**. • Consequence: the surrounding area is characterized by shallow groundwater conditions however detailed information on site groundwater conditions are not known therefore, the consequences of groundwater impacts is assumed to be **material.**

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
● Other issue	Surface water – water quality (construction) • Likelihood: erosion and sedimentation dispersion during construction is **unlikely** when standard construction environmental management measures are used. • Consequence: erosion and sedimentation dispersion during construction causing impacts on water quality is **material** because of the proximity to the Tweed River.
Traffic and transport	
● Key issue	Traffic – network performance (operation): • Likelihood: the Project is un**likely** to generate an increase in overall car and truck movements on the road during operations as the overall waste quantity delivered to the site would reduce. • Consequence: while waste delivery routes are not yet known, the Project may lead to a transfer of traffic volumes between different parts of the network which may be **material**. Traffic – access: • Likelihood: the Project is **unlikely** to require new site access arrangements as the overall volume of traffic accessing the site is likely to reduce. • Consequence: if existing access arrangements are not suitable it may lead to queuing into the site with potential **material** consequences for the local road network.
● Other issue	Traffic – network performance (construction): • Likelihood: construction of the Project is **likely** to generate a temporary increase in truck and vehicle movements on the local road network. • Consequence: the volume of construction traffic and construction traffic routes are not yet known and are therefore assumed to be **material.** Construction traffic is likely to be an issue of concern to local residents and businesses.
Hazard and risk	
● Key issue	Hazard and risk – incidents related to dangerous goods: • Likelihood: the storage of dangerous goods on site is **unlikely** to result in incidents which may pose a risk to employees and off-site properties as materials will be handled and stored in accordance with the relevant requirements of the Australian Dangerous Goods Code. • Consequence: incidents resulting from the inappropriate handling and storage of dangerous goods are **material** because of the potential exposure of employees and off-site properties to hazards.

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
	Hazard and risk – transport of restricted solid waste residues to disposal location • Likelihood: risks to receptors located alongside routes used to transport restricted solid waste is **unlikely** as the waste will be transported in special purpose vehicles and routes can be chosen to minimize proximity to receptors. • Consequence: exposure of receptors to waste residues as a result of inappropriate transport of waste or transport incidents is **material**.
● Other issue	Hazard and risk – construction incidents related to dangerous goods: • Likelihood: worker incidents, spills and leaks and exposure to contaminated soil during construction are **unlikely** as the construction contractor will implement site safety and material handling procedures. • Consequence: impacts from worker incidents, spills and leaks and exposure to contaminated soil during construction are **materia**l because of the potential exposure of workers and off-site properties to hazards.
Flora and fauna	
● Key issue	Flora and fauna – terrestrial: • Likelihood: the site is previously cleared and disturbed however there are patches of vegetation around the perimeter of the site. As the scope of works / disturbance in the fuel storage area is not yet fully defined, clearing of vegetation during construction is assumed to be **likely** • Consequence: the impact of vegetation clearing is **not material** as there are no threatened ecological communities mapped on the Project site. Flora and fauna – aquatic: • Likelihood: increased surface water run-off to Tweed River will **likely** affect any aquatic ecology. This risk will be managed through construction environmental management measures and permanent surface water management measures used on site. • Consequence: the impact of run-off on aquatic ecology is unknown and is assumed to be **material.**
● Other issue	Fauna – artificial light: • Likelihood: increased external lighting as a result of the Project may add to existing light sources but this is un**likely** to impact fauna and fauna habitat given the site is a previously disturbed site adjacent to roads and commercial agriculture. • Consequence: the impact on fauna and fauna habitat from the introduction of additional artificial light sources is **not material** as the site is an existing facility that is previously disturbed.
Landscape character and visual amenity	
● Key issue	Landscape and visual: • Likelihood: the additional built form is limited compared to existing facility and is **unlikely to** impact on visual amenity • Consequence: the impact of new built form on visual amenity would not be **material** due to the existing industrial built form of the power plant and adjacent sugar mill.

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
Greenhouse gas emissions	
● Key issue	GHG emissions: • Likelihood: the Project is **likely** to result in a neutral or slight reduction in GHG emissions. • Consequence: the impact of any GHG emissions reduction is **material** as it will contribute to NSW and National policy objectives in relation to climate change and renewable energy generation.
Airspace operations	
● Key issue	Airspace – intrusion • Likelihood: the interaction between the Project and protected airspace is not yet know but is assumed to be **likely** given the distance to the nearby Murwillumbah Airport • Consequence: the impact of intrusion into protected airspace is **material** as it would present a risk to aviation safety.
Contamination, geology and soils	
● Key issue	Contamination • Likelihood: disturbance and mobilisation of soil contaminants during construction is **likely** but risks will be managed through construction environmental management and material handling procedures. • Consequence: impacts of exposure to workers and off-site properties to soil contaminants is **material**.
● Other issue	Soils: • Likelihood: erosion and sedimentation dispersion during construction is unlikely when standard construction environmental management measures are used.
Services and utilities	
● Key issue	Connection to electricity grid: • Likelihood: as the existing facility has an existing connection to the power grid, it is **unlikely** that the Project will require a new or upgraded connection. • Consequence: if a new or upgraded connection is required, impact is assumed to be **material**. Connection to other services: • Likelihood: as the Project is for the alteration of an existing facility, it is un**likely** that it will require new connections to utility services such as water supply, drainage and wastewater. • Consequence: the capacity of the existing services infrastructure to accommodate new connections to the site is unknown, therefore, the impact is assumed to be **material**.

Issue and categorisation	Likelihood of impact (following mitigation): likely or unlikely Consequences of impact: material or not material
Social	
● Key issue	Social: • Likelihood: the Project is **likely** to have real and perceived impacts on people and communities through a combination of impact pathways described in the above sections. Impacts can be avoided, mitigated and managed. The Project will undertake a comprehensive community and stakeholder engagement strategy during the preparation of the EIS to address community concerns – real and perceived – about the Project. • Consequence: impacts on people and communities, through a variety of impact pathways, is **material**.
Heritage	
● Other issue	Heritage: • **Likelihood**: As the site is previously disturbed and the Project will be undertaken on the existing site, it is **unlikely** to result in heritage impacts. Any potential impacts during construction would be managed through an unexpected finds protocol. • **Consequence**: The consequence of impacts on heritage is **material** as there are a small number of locally listed heritage items immediately adjacent to the site**.**
Bushfire	
No further assessment required	The site is not mapped as bush fire prone land; therefore, no further assessment of bushfire risk is proposed.

7.3 Preliminary Environmental Assessment

7.3.1 Waste

Existing Environment

The existing environment for waste for the Project is the C&I and C&D regional waste market in northern NSW and southern Queensland, reflecting the location of the Project Site in Condong (northern NSW) and the RRF in Brisbane.

The Condong Cogeneration Plant currently process 520,000 tonnes of biomass fuel materials, including a mixture of bagasse, cane leaves and various wood materials. The Condong Cogeneration Plant plays an important role in meeting NSW targets for landfill diversion and resource recovery. The existing waste feedstock is described in detail in **Section 3.1** above.

The EIS will provide a detailed analysis of the waste market including waste availability to support the production of recovered timber fuel.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Construction waste generated will need to be appropriately managed to ensure various waste streams are minimised, recycled where possible, and otherwise safely disposed.
- Demonstration that the recovered timber fuel feedstock is residual from resource recovery operations in accordance with the resource recovery criteria of the EfW Policy Statement.
- Development of procedures to ensure proper handling, receipt and storage of feedstock and ensuring inappropriate waste does not enter the combustion process.
- Management of risks associated with the handling, storage, transport and disposal of waste by-products, specifically incinerator bottom ash (IBA), boiler fly ash and flue gas treatment residues (FGTr).

Assessment Approach

The approach to the waste management assessment will include:

- The waste supply strategy in the EIS will demonstrate compliance with the resource recovery criteria of the EfW Policy Statement by describing the source of the waste and the resource recovery facilities where waste has been processed to produce the recovered timber fuel for the EfW facility. It will also detail the composition of the recovered timber fuel feedstock.
- An analysis of the composition of the recovered timber fuel to estimate the likely volumes and composition of residues.
- Development of procedures to ensure the recovered timber fuel is consistently produced to a known specification and unsuitable feedstock does not enter the combustion process.
- An assessment of how the Project complies with the NSW EfW Policy Statement will be provided in the EIS. In addition to demonstrating how the resource recovery criteria are met and describing the approach to residual waste management, this assessment will describe how the Project meets international best available technology in relation to emissions and process control, comparing the Project to nominated reference facilities and assess it against the technical and thermal efficiency criteria in the Policy.

- A feedstock specification and a sampling and testing procedure for the recovered timber fuel will be devised and implemented to effectively demonstrate on-going compliance with the resource recovery requirements of the EfW Policy Statement, along with development consent and environmental licensing requirements, during combustion of the recovered timber fuel. The feedstock specification and sampling and testing procedure will be included as part of the EIS.

7.3.2 Air Quality

Existing Environment

The area surrounding the Project is characterised by a mix of land uses, including the Condong Sugar Mill, Condong Bowling Club, Condong General Store, residential lots to the north and south, Condong Public School, expansive sugar cane plantations and the Tweed River to the west (refer to **Figure 2**).

Air quality for the region is expected to be characteristic of a rural area and affected by other existing activities, including; the existing Plant operations, transport movements on Tweed Valley Way (Old Pacific Highway), agricultural activities, bushfires and residential wood-burning heaters.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- During construction, the primary air quality impacts are associated with dust emissions from heavy machinery use and site activities. As the Project involves upgrades to the existing facility, earthworks are expected to be limited to the fuel storage area.
- Operational air quality impacts are associated with emissions from the facility and cumulative air quality impacts with other emission sources. Impacts are unlikely as other comparable facilities in the EU have been successfully operating within stringent air quality standards set by the BREF. Air pollution controls used in these facilities will be incorporated into the Project to ensure emissions are within BREF standards. Air quality impact is a key issue of concern to the community.
- Odour emissions are unlikely as the feedstock is a dry recovered timber fuel which would not contain putrescible material associated with odour.

Assessment Approach

The approach to the air quality and odour assessment will involve the following:

- A review of local air quality and meteorological data in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA 2017) (the Approved Methods). This will be used to identify the most representative data to describe ambient conditions at the site for modelling.
- Identification of all receivers, such as residences, schools, hospitals, aged-care facilities, businesses and public open spaces, within the airshed. Key representative sensitive receivers will be identified and selected for the impact assessment.
- A quantitative assessment of operational air quality and odour emissions in accordance with the Approved Methods (EPA 2017) and related EPA guidelines such as the *Technical Framework and Technical Notes for the Assessment of Odour from Stationary Sources in New South Wales* (EPA 2006). This will involve modelling all key air pollutant and odour emissions from the site. While this will mainly focus on emissions from the facility's stack, it will also consider emissions from all other significant sources onsite such as truck movements, diesel generators (factoring in their limited use) and the fuel storage area.
- Calibration with NSW Government Sydney air quality monitoring stations in the vicinity of the Site.

- Modelling to predict the maximum ground level pollutant and odour concentrations in the airshed under various operating scenarios and weather conditions. The modelling will also predict pollutant and odour concentrations at the identified key receivers. The modelling predictions will be used to inform the design and specification of air pollution controls in the facility with the aim of demonstrating that the Project can operate to a level and standard that can treat and manage emissions so that they present no adverse human health or environmental impacts consistent with the requirements of the EfW Policy. This means demonstrating being able to operate well within the air emission limits set under Group 6 of the *Protection of Environment Operations (Clean Air) Regulation 2010* and the *National Environment Protection (Ambient Air Quality) Measure* and IED and BREF.
- Identification of mitigation measures focussing on an operational management plan that will explain the need for continuous monitoring that feeds back to facility operations, the purpose and role of a community liaison group, the consultation and complaints handling process, and the process for dealing with atypical operating conditions such as incidents and emergencies.
- Consultation with the EPA, DPIE and Council will continue throughout the EIS to ensure the approach to air quality assessment reflects stakeholder requirements. This will extend to discussions on the selection of operational reference sites that can effectively demonstrate the technologies that are proposed for adoption.

7.3.3 Human Health

Existing Environment

The description of the existing environment and key sensitive receivers for the air quality section is also relevant to human health but also considers risks to neighbouring properties. The assessment will consider the related human health risks and implications from other assessments including air quality, contamination, noise, dust and hazards and risks.

Other aspects of the existing environment relevant to the human health assessment include drinking water sources and existing agricultural activities in the surrounding area and airshed.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- There is potential for worker exposure to contaminants and wider community exposure as a result of disturbance of contaminated soil during construction. This is considered unlikely given that there are effective and proven methods to prevent any exposure risks, however, any exposure to contaminated materials may result in short-term (acute) or long-term (chronic) health impacts to workers and the wider community.
- Air emissions from the stack have the potential to impact on human health. Exposure pathways could include inhalation, ingestion and dermal contact, of which the potential impacts could result in short-term (acute) or long-term (chronic) health impacts. This impact is considered unlikely as other comparable facilities in the EU have been successfully operating within stringent air quality standards set by the BREF. However, the consequence of unacceptable air quality emission is considered material given that any exceedance of the NSW emissions limits may present short-term (acute) or long-term (chronic) health impacts on people living in the airshed. Health impacts are an issue of key concern to the community.
- Other impacts such as noise and hazards present a risk of human health exposure. This impact is considered unlikely as impacts can be adequately managed and mitigated.

Assessment Approach

The approach to the human health risk assessment will involve the following:

- The construction human health risk assessment will consider the risk of exposure of workers, neighbouring properties and the community to incidents, spills and leaks and contaminated soil. Construction activities would be carried out in accordance with relevant management plans designed to deal with these risks. The management plans would include guidance on handling unexpected finds so the potential for worker exposure and environmental risks can be minimised.
- The operational impact assessment will focus on identifying exposure risks from the various emissions and hazards on and offsite and informing the facility's design and operational management to avoid health impacts.
- The assessment would focus on:
  - Emission and risk sources.
  - Exposure pathways including respiratory inhalation; ingestion through accumulation in crops, milk, and animals; accumulation in drinking and other potable water sources; and through direct skin contact.
  - Consideration of short (acute) and long (chronic) term health-based risks.
- The assessment will consider direct pathways (e.g. inhalation) compared to indirect pathways (e.g. pollution deposition over drinking water sources or accumulation pathways in crops, animals, and milk). The assessment will be informed by the proposed typical and atypical operation of the pollution abatement controls for the Project.
- The assessment will be undertaken in accordance with the *Environmental Health Risk Assessment: Guidelines for assessing human health risks from environmental hazards* (enHealth 2012a) and the supporting *Australian Exposure Factor Guidance – Guidelines for assessing human health risks from environmental hazards* (enHealth 2012b) and *Health Impact Assessment Guidelines* (enHealth 2017).
- Consultation will be undertaken with the NSW Department of Health and the Northern NSW Local Health District.

7.3.4 Hazards and Risks

Existing Environment

The existing environment and key sensitive receivers described in the air quality section is also relevant to the hazards and risk assessment. In addition, a search of the NSW Rural Fire Service online search tool in July 2019 did not identify the site as being within a designated bushfire prone area.

A preliminary review of airports and airfields in proximity of the Project Site has identified two key airports that will require further investigation and assessment to determine the potential interaction between the Project and protected airspace:

- Bob Whittle Murwillumbah Airfield is located approximately 2.5 km southwest of the Project
- Gold Coast Airport, an international airport, is located approximately 17 km northeast of the Project.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Health and environmental risks from accidental spills or mismanagement of hazardous substances. Both construction and operation will require the use of various hazardous substances (including chemicals, oils and fuels) which require implementation of proper handling procedures during the various materials transportation, use and disposal.
- Injuries from working on a construction site associated with the use of equipment and machinery.
- Health and environmental risks from encountering contaminated land or groundwater.
- Injuries and environmental risks from natural events such as flooding and adverse weather.
- Environmental and health risks from damaging or rupturing buried services and utilities.
- Health and environmental impacts from onsite fires, explosions, onsite emergencies, diesel leaks from storage tanks, equipment failure, accidents, and atypical conditions.
- Potential impacts on aviation as a result of a plume rise from the stack interacting with protected airspace.
- Cumulative impacts from current activities in the local area including other nearby waste processing activities.

Assessment Approach

The approach to the hazards and risks assessment will involve the following:

- Construction risks are well defined and can be managed by effective construction management processes defined under the *Work Health and Safety Act 2011, Storage and Handling of Dangerous Good Code of Practice* (WorkCover NSW 2005), and *Storing and Handling Liquids: Environmental Protection, Participant's Manual* (DECC 2007).
- While hazardous materials are not proposed to be received at the facility a preliminary risk screening will be completed as part of the EIS to determine if the Project constitutes potentially hazardous or offensive development. The risk assessment will be in accordance with *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development* and *Applying SEPP 33* (DoP 2011), with a clear indication of the class, quantity and location of all dangerous goods and hazardous materials associated with the WSERRC. This will define the need to carry out a more detailed preliminary hazard analysis in accordance with *Hazardous Industry Planning Advisory Paper No 6: Hazard Analysis* (DoP 2011).
- A Form 1247 application will be submitted to the Civil Aviation Safety Authority for a preliminary assessment of the potential for the plume rise from the Project to interact with the operations of prescribed airspace. The Project is not expected to present a risk to aviation, however, the need for any further assessment will be determined through the Form 1247 application.

7.3.5 Surface Water and Flooding

Existing Environment

The Project is located within the Tweed River Catchment which covers an area of 1,326 km^2. The Project is situated immediately adjacent to the Tweed River on its eastern bank. The Tweed River continues to flow in a generally north-eastern direction for approximately 25 km where it meets the Pacific Ocean at Tweed Heads, NSW.

The landform surrounding the Tweed River is characterised as narrow alluvial plains. Consequently, most of the catchment area is mapped as flood prone land. A review of the Tweed LEP Flood Planning Map indicates that the Project Site is predominately mapped as flood prone land, although discrete portions of the fuel storage area is excluded.

The fuel storage area is bunded to limit the potential for fuel materials or leachate to be carried into the surrounding waterways during a flood event.

Water demand for process requirements is currently sourced from recycled water provided by Council.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Erosion and sedimentation impact during construction associated with excavation and stockpiling. Standard erosion and sediment control measures will be implemented to appropriately manage potential impacts.
- Potential for run-off impacts from increased impervious area in the fuel storage area. This risk is reduced as a result of the existing bunding and by the potential to capture and treat stormwater, subject to further engineering investigation and design, to ensure appropriate water quality prior to discharge.
- Potential to generate leachate from bale storage where the plastic wrap is ripped or damaged. A management procedure will be developed to check plastic bale wrapping to ensure ripped or damaged bales are relocated to a "quarantine area" to mitigate leachate risks.
- An assessment of current and future process water demand and the source of water to meet demand (currently serviced by Council recycled water supply).
- Risk of inundation of the fuel storage area during flood events. A flood risk assessment will be undertaken for the EIS and to inform the design of flood mitigation measures, noting that the storage area is already bunded.

Assessment Approach

The approach to the surface water and flooding assessment will involve the following:

- A qualitative assessment of the potential impacts on surface water (drainage and water quality) will be undertaken for the EIS. The assessment will consider relevant NSW Government guidelines and legislation, including the *Water Act 1912,* WM Act and the *Water Sharing Plan for the Tweed River Area Unregulated and Alluvial Water Sources*.
- The water assessment, working with the air quality and human health risk assessment teams, will assess the potential for air emissions from the facility to deposit on drinking water sources and the impacts on water quality and human health.
- Water management measures would be prepared as part of the EIS to address the management of surface water during construction and operation, including erosion and sediment control requirements. The need for water inputs such as for dust suppression would also be assessed.
- A detailed water balance to identify potential and available water sources, water demand for all key stages of operations, and water recycling opportunities would be included in the impact assessment including measures to minimise potable water demand.
- A flood risk assessment will be carried out to assess flood risks to the site and downstream. The assessment will help to inform design measures required to reduce risk. The assessment will be undertaken in accordance with the *NSW Floodplain Development Manual 2005* (incorporating the *Flood Prone Land Policy*), *Council's Flood Risk Management Policy* (Council 2018), the Tweed LEP, *the Tweed Development Control Plan 2014* and *Tweed Valley Floodplain Risk Management Study 2014.*

7.3.6 Groundwater

Existing Environment

There are numerous groundwater bores across the broader Tweed River catchment. The closest bore (GW304765) is situated on the eastern bank of the Tweed River, approximately 1.8 km upstream from the Project. At the time of recording in 2004, the groundwater level was 4.0 m below surface level, with a yield of 5 L per second, and salinity levels of 1500 mg/L.

The geology of the low-lying plains surrounding the Project Site is identified as quaternary alluvial deposits, which is predominately comprised of mud, silt, sand and gravel.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Erosion and sediment impact during construction associated with excavation and stockpiling and risk of accidental spills. Standard measures will be implemented during construction to appropriately manage potential impacts.
- Given the anticipated shallow depth to groundwater in the area, excavation works may pose a risk of intersecting with groundwater. However, the Project is not expected to involve deep excavations or permanent underground structures.

Assessment Approach

The approach to the groundwater assessment will involve the following:

- Assessment of the potential for works to intercept groundwater in accordance with the NSW Aquifer Interference Policy, including impacts on groundwater flow and quality
- Assessment of the potential to mobilise contamination in groundwater including any off-site impact.
- Development of management measures would be incorporated into the assessment to address the management of groundwater during construction and operation.

7.3.7 Soils and Contamination

Existing Environment

The geology of the low-lying plains surrounding the Project Site is identified as quaternary alluvial deposits, which is predominately comprised of mud, silt, sand and gravel. The dominant soil type of the Project Site is identified as being humic gley soils, as shown by DPIE's eSPADE mapping tool.

Review of the Tweed LEP has identified that the Project Site is mapped as Class 3 and Class 4 acid sulfate soils. Acid sulphate soil in a Class 3 area is likely found beyond 1 m below the ground surface, while acid sulphate soil in a Class 4 area is likely found beyond 2 m.

A search of the EPA's contaminated land register and notified sites registers has identified that there are no contaminated lands in proximity to the Project.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Erosion and sediment impact during construction associated with excavation and stockpiling. Standard erosion and sediment control measures will be implemented to appropriately manage potential impacts.

- Construction on site has the potential to mobilise contaminants in the soil and ground water with potential implications for the suitability of the site for its proposed use, worker exposure and off-site migration of contaminants.

Assessment Approach

The approach to the soils and contamination assessment will involve the following:

- A site investigation will be undertaken as part of the EIS to confirm the presence of contaminants. This will assist in quantitatively characterising the soil and groundwater through a conceptual site model.
- The EIS will include a soil assessment to determine the potential impacts and appropriate mitigation measures relating to soil disturbance and prevention of contamination to adjacent waterways and groundwater resources, during both construction and operation of the Project. This will include an assessment of the potential for contaminated soil to be disturbed during construction.
- The assessment will be undertaken with regard to the *Contaminated Land Management Act 1997* and *SEPP 55 (Remediation of Land) 1998*.

7.3.8 Visual

Existing Environment

The visual landscape of the area is dominated by the surrounding agricultural land utilised for the production of sugar cane. The existing Plant and the adjacent sugar mill are a dominant feature, as part of the visual landscape of the area, being readily viewed from the residents of Condong and commuters along Tweed Valley Way (Old Pacific Highway), although discrete visual barriers exist for some viewpoints.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Visual impacts associated with the construction of the Project will be experienced in the short-term and are unlikely to alter the landscape character given the existing operations of the Plant.
- The potential for new permanent visual impacts is anticipated to limited as the Project is expected to only involve minor additions to the built form.
- Potential for additional lighting (i.e. security lighting) to impact the neighbouring properties, although this is likely to be minimised through careful design.

Assessment Approach

The approach to the visual assessment will involve the following:

- An assessment of potential visual impact as a result of changes to built form or features of the project such as stockpiling of recovered timber fuel at the stockpile area.
- Identification of mitigation and management measures to minimise visual impacts.
- The assessment will be undertaken having regard to the *Guideline Note for Landscape and Visual Assessment* (Australian Institute of Landscape Architects 2018) and *Australian Standard AS 4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting.*

7.3.9 Traffic

Existing Environment

The Project Site is bisected by Tweed Valley Way (Old Pacific Highway), classified as a regional main road. Tweed Valley Way is a two-way undivided road with a sign-post speed limit of 80 km/hr in the area of the Project Site. Tweed Valley Way extends for 42 km from its junction with Brunswick Valley Way at Yelgun Interchange in the south, to its junction with the Pacific Motorway at the Oak Avenue Interchange at Chinderah in the north.

The Project Site currently receives between 15 and 20 inbound and outbound heavy vehicles per day under existing operations.

Access to the stockpile area is from Clothiers Creek Road, whilst access to the Plant is achieved via McLeod Street.

Potential Impacts

Potential impacts associated with the Project include:

- It is estimated that a total of 120,000 tonnes of recovered timber fuel will be delivered by road in semi-trailers and B-doubles from ResourceCo over a typical 12-month period. Traffic volumes generated as a result of fuel deliveries will remain similar to the existing facility, with the potential to reduce slightly. The timing of traffic movements and routes to the facility may change. Investigations are underway in relation to an off-site interim storage facility to reduce the amount of fuel needing to be stored on-site at any one time.
- The Project will generate residues from the combustion and flue gas treatment process which will be transport to licenced off-site disposal locations, generating additional traffic movements.
- Additional and/or changes to traffic movement patterns will be assessed for their impact on the capacity and performance of the road network.
- Sufficient vehicle parking and queuing distances is made available to avoid any off-site parking and queuing of heavy vehicles onto the main road.

Assessment Approach

The approach to the assessment of transport and traffic impacts will involve the following:

- A qualitative assessment of construction traffic will be carried out to identify the increase in traffic and to assist in development management plans to ensure there are no safety or congestion impacts on local roads.
- A quantitative traffic impact assessment would be carried out in accordance with Roads and Maritime Service (RMS) and Austroads standards to identify existing baseline conditions, consider the suitability and capacity of the existing road network, calculate the impact of the uplift in construction and operational traffic and identify any road or intersection upgrade requirements on the network.
- Consultation will be undertaken with Council to ensure any traffic-related concerns are sufficiently addressed during the preparation of the EIS.

TfNSW queried the need for a durability assessment for the existing overhead conveyor during the PFM. The conveyor is an approved and certified structure, and, at this point, there are no notable structural changes proposed for the conveyor as part of the Project. As such, there is no trigger for a durability assessment.

7.3.10 Noise

Existing Environment

The existing environment described in the air quality and odour section is also relevant to the noise assessment.

Ambient noise in the project area is dominated by existing Plant operations, traffic along Tweed Valley Way (Old Pacific Highway) and seasonal agricultural activities such as the sugar cane crush season

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Noise impacts associated with the construction of the Project will be experienced in the short-term and are related to the use of heavy vehicles and machinery for the transportation and installation of Project components. Management measures such as equipment selection and maintenance and scheduling of noisy activities will be implemented to reduce noise impacts to nearby receptors.
- Construction traffic movements to and from the Project Site also have the potential to create noise and vibration impacts along transport routes.
- Operational noise is expected to be similar to the existing facility with no material changes to how noise is experienced by nearby receptors, subject to confirming the scope of any equipment upgrades such as induced draft fans.
- Heavy vehicle traffic movements to and from the Project Site associated with the delivery of the recovered timber fuel has the potential to create noise and vibration impacts along the transport route between the Project and the RRF in Brisbane. Overall traffic volumes will reduce compared to the existing facility, however, the routes taken and timing of deliveries may change.

Assessment Approach

The approach to the assessment of noise and vibration impacts will involve the following:

- Construction noise and vibration impacts will be assessed in accordance with the *Interim Construction Noise Guideline* (DECC 2009), the *Assessing Vibration: a technical guideline* (DEC 2006), and *BS 7385-2: Evaluation and Measurement of Vibration in Buildings* (British Standard 1993) and *DIN 4150 Vibration in Buildings* (German Standards 1993).
- Construction traffic noise impacts will be assessed in accordance with the *NSW Road Noise Policy* (DECCW 2011) and the *Construction Noise and Vibration Guideline* (RMS 2016).
- The operational facility includes various noise-generating activities which are already part of the existing operations, including: equipment and machinery, exhaust fans, air conditioning units, turbines and diesel generators (factoring in their limited use).
- The potential for noise impacts would vary depending on operational conditions, equipment use and character, and the combination of activities taking place onsite. The operational plant and equipment and site activities would not be a notable source of vibration.
- Noise impacts from the facility's operation and maintenance will be assessed in accordance with the *Noise Policy for Industry* (EPA 2017) and will consider the existing operations and any additional noise generating activities as a result of the Project.
- Operational road traffic noise will be considered and assessed in accordance the *NSW Road Noise Policy* (DECCW 2011) and *Noise Mitigation Guideline* (RMS 2015).

7.3.11 Social

Existing Environment

The description of the existing environment and key sensitive receivers for the air quality section is also relevant to the social assessment.

Census data from the Australian Bureau of Statistics provides an insight to the local social-economic environment of the Condong suburb. As recorded by the 2016 Census, Condong had 308 residents, of which 144 people were reported to be in the labour force. The dominant occupations were technicians and trade workers (23.9%), labourers (15.7%), managers (11.9%) and professionals (10.4%).

As previously discussed, the Project Site is situated within the Condong village, within immediate proximity to residences and businesses. The proximity of receptors, coupled with the unfamiliarity of EfW technology, makes it likely the local community will have concerns related to a proposed EfW facility.

A comprehensive engagement strategy will be implemented during the EIS phase which is summarised in **Section 6**. Engagement with community and stakeholders will aim to communicate complex engineering and scientific information about the environmental performance of the facility.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Community concerns about potential health impacts from air emissions from the Project.
- Likely positive impacts associated with employment opportunities for local jobs during construction. During operation, the Plant employs 25 full-time equivalent staff members.
- Diversion of waste streams that are currently destined for landfill, and consequently reducing the environmental impacts associated with landfill.
- The Project supports the waste hierarchy and the Plant will continue to play an important role in meeting NSW targets for landfill diversion and resource recovery.
- The Project will generate a source of renewable energy and reducing reliance on non-renewable sources such as coal-fired power stations.
- Valuable capital investment to the local economy as a result of the Project, through the increased demand for skilled workers, local materials and indirect spending of the workforce for accommodation, food and hospitality sectors.
- During operation the Project will generate 30 MW of electricity, contributing to the local electricity grid.

Assessment Approach

The approach to the assessment of noise and vibration impacts will involve the following:

- A detailed social impact assessment would be carried out in general accordance with the DPIE's draft *Social Impact Assessment Guideline, State significant projects* (October 2020). The proposed engagement and consultation described in **Section 6** would be essential in defining community and social values, expectations and outcomes.
- Describe the social and economic profile of the communities and businesses local to the site and any related development
- Define the community and social values, perceptions and concerns identified during consultation.

- Assess the potential positive and negative impacts from constructing, operating and maintaining the Project on the community and social values of the local area.
- Clearly communicate the approach to community engagement and the process used to help gain community acceptance. This will draw on the air quality and human health assessments to provide evidence for the environmental and human health performance of the facility.
- Identify wider community values and associated economic impacts and benefits from building and operating the facility, including related property and existing and future land use impacts.
- Identify appropriate mitigation and management measures, which would focus on ongoing community engagement and partnering.

The results of the air quality, human health, noise and vibration, traffic and transport and hazard and risk assessment would inform the social impact assessment.

The assessment will describe the potential positive and negative impacts of the Project for the local community and social values of the local area, including relevant mitigation management for potential adverse social impacts and measures to ensure positive impacts are maintained and, where possible, enhanced.

7.3.12 Biodiversity

Existing Environment

The Project Site has been historically cleared, with remnant vegetation predominately acting as a visual screen for nearby receptors and motorists traveling along the Tweed Valley Way (Old Pacific Highway). Vegetation is largely scattered at the northern and southern extents of the Project Site and running along the western side of the fuel material stockpile area, separating the fuel material stockpile area from the roadway.

According to the Vegetation Information System Database, there are no threatened ecological communities mapped on the Project Site.

Listed threatened species have been previously recorded within the Project Site, including a sighting of *Phascolarctos cinereus* (Koala).

The portion of the Tweed River adjacent to the Project is mapped as “high potential for aquatic groundwater dependent ecosystems”.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Storage of recovered timber fuel in bales presents a risk for potential leachate to soils and water specifically surrounding the stockpile area and subsequent risks to the water quality of surface water and groundwater. This is a potential for the aquatic ecosystem of the Tweed River and any groundwater dependent ecosystems.
- Potential impacts to vegetation and fauna habitat as a result of any clearing activities. The Project Site has been largely cleared, although remnant vegetation exists. The design of the Project will attempt to avoid impacting these remnant vegetation areas as far as practicable.

Assessment Approach

The approach to biodiversity will involve the following:

- If required, a Biodiversity Development Assessment Report (BDAR) will be prepared to support the EIS detailing the potential biodiversity impacts to occur during the Project construction and operation. The BDAR would be prepared in accordance with the *Biodiversity Assessment Method* requirements, including detailing the methodology, results (desktop and seasonal surveys if necessary) and identification of the type and extent of all biodiversity values.
- There is the possibility that this Project warrants a "BDAR waiver" and this will be worked through with BCD. While submitting a BDAR waiver with the SEARs application is the preference, it is not essential. Specialist biodiversity consultants are currently preparing a scope of works for a BDAR waiver. It will be approached in two stages, with stage 1 comprising the desktop and field investigations required to determine whether a waiver is a possibility; and stage 2 comprising preparation of the BDAR waiver if the FEED, including potential works in the stockpile area, supports a waiver.
- Biosecurity issues will be addressed, primarily through the inclusion of management measures designed to control the spread of noxious weeds across the Project Site.
- Consultation will be undertaken with relevant key stakeholders, including with BCD, DPIE and Council to ensure the approach to biodiversity assessment reflects stakeholder requirements.

7.3.13 Non-Aboriginal Heritage

Existing Environment

The Department of Premier and Cabinet administers the NSW Heritage Register Database. A search for the Tweed LGA identified two (2) state heritage listings and 169 local heritage listings.

The Project Site intersects with three (3) local heritage items, as listed under the Tweed LEP. As shown in **Figure 9**, the heritage items are located on the western portion of the Project Site, noting that each item is associated with the historical production of sugar in the region. A description of each heritage listing is provided in **Table 9**, and their respective extents are shown in **Figure 9** below.

There are no State, Commonwealth, National or World heritage listings in proximity to the Project Site.

Table 9 Local Heritage Listings within the Project Site Boundary

Heritage Item	Listing Ref.	Description[1]	Statement of Signficance[1]
Condong Mill Conservation Area	C1	In the C1 area are a sugar mill and associated buildings, machinery, a wide range of C.S.R. staff houses, a shop and storage sheds, railway tracks and spur line to Murwillumbah, wharves, sunken punts, river pylons, navigation markers, recreation facilities and landscape features.	This precinct is unique on the Tweed and is of state significance in that it has been the site of the continuous production of sugar and associated activities and infrastructure since 1888 and contains a remarkable and largely intact historical record of its 125 years of use.
Condong General Store (excluding storage sheds)	14	Simple weatherboard and iron roof building. Timber parapet with rounded pediment. Large open verandah and extension separate roof to main roof. The three sheds are made of corrugated iron with pitched roof, gable ended. The windows are top-hung iron windows.	This item is a component of the sugar mill precinct conservation area (i.e. 'C1' above). This precinct is unique on the Tweed and is of state significance in that it has been the site of the continuous production of sugar and associated activities and infrastructure since 1888 and contains a remarkable and largely intact historical record of its 125 years of use.

Heritage Item	Listing Ref.	Description[1]	Statement of Signficance[1]
Remains of the Condong Sugar Mill Pail Line	15	A short length of the original NSW standard gauge track from Murwillumbah retained alongside a replanted area.	The tram track is important in the course of the agricultural history of the Tweed district. This railway was an extension from the Murwillumbah Railway station and in the early part of the 20th century provided transport of sugar cane from the Crabbes Creek area north and the transport south of the products of the mill to Byron Bay for shipment further south. It is part of the longest siding on the NSW rail system when opened in 1894.
[1] The 'Description' and 'Statement of Significance' of each listing have been sourced from the NSW Heritage Register Database			

Potential Impacts

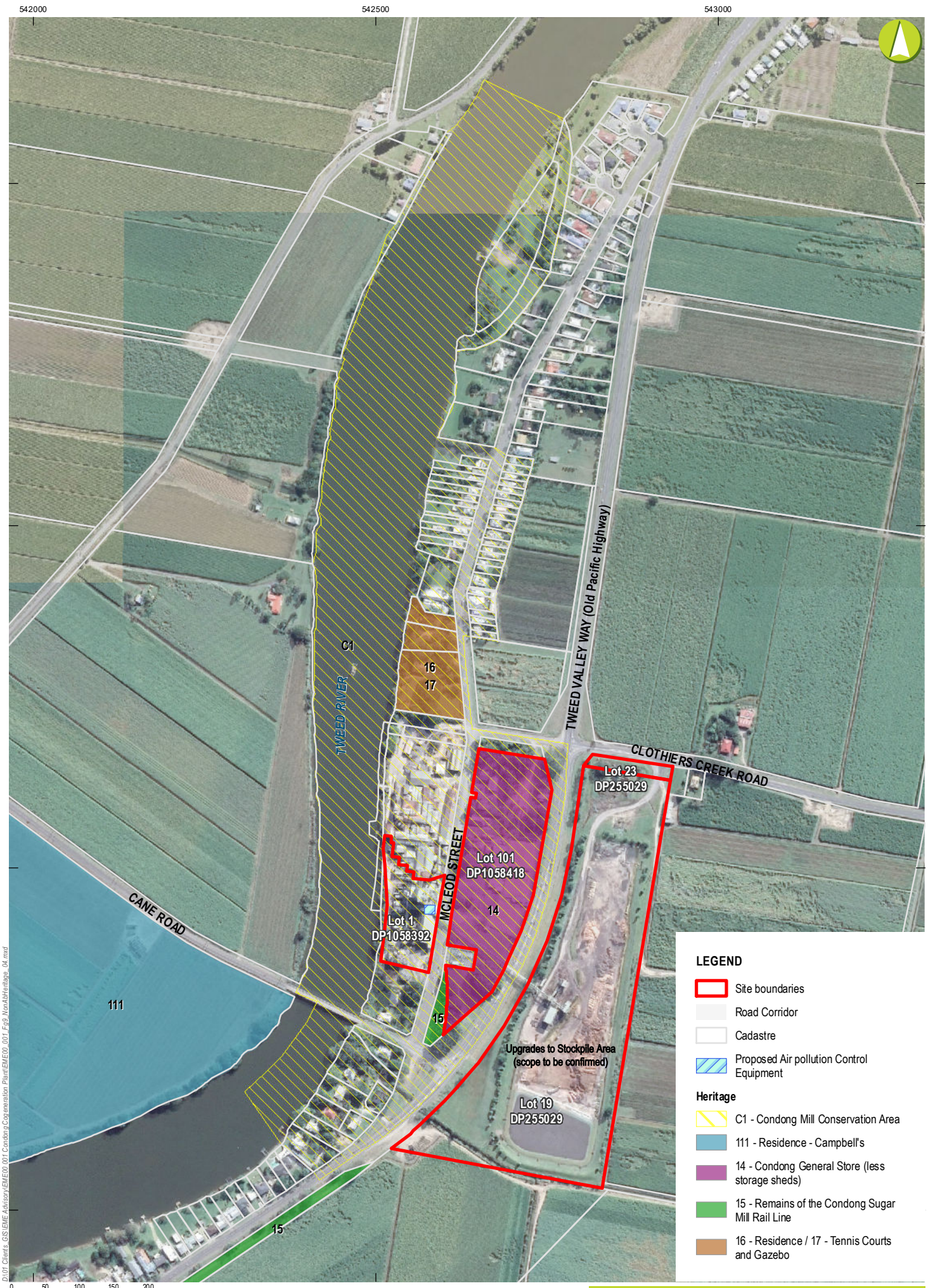
Potential impacts associated with the Project construction and operations include:

- Potential for direct impacts during construction to items of local heritage significance, resulting in a degradation of local heritage items.
- Potential for the Project to impact on the cultural significance of the conservation area during operations.

Assessment Approach

The approach to the heritage assessment will include the following:

- An Historical Heritage Assessment will be prepared as part of the EIS to consider built heritage and archaeology, as well as any intangible values held by the community or relevant stakeholders. Preparation of the heritage assessment would involve detailed historical research, likely physical inspection of the relevant areas of the Project Site, and consultation with any other relevant stakeholders or special interest groups. Relevant management measures will be included to ensure impacts are minimise or avoided for the identified historical heritage values.
- Consideration will be given to whether a Statement of Heritage Impact will be required, should the Project potentially impact a heritage item.



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Source Imagery: Google Earth (7/11/2019) & NSW public imagery

Condong Cogeneration Plant

Non-Aboriginal Heritage

FIGURE 9

7.3.14 Aboriginal Heritage

Existing Environment

A search of the NSW Heritage Register Database for the Tweed LGA identified two Aboriginal Places listed under the NPW Act, being Ukerabagh Island and Wollumbin (Mount Warning), located approximately 17 km northeast and 15 km southwest of the Project Site respectively.

A search of the Aboriginal Heritage Information Management System (AHIMS) on 19 January 2021 has identified one previously recorded Aboriginal site within a 1 km buffer of the Project Site.

Aboriginal objects are often associated with particular landscape features as a result of Aboriginal people's use of those features in their everyday lives and for traditional cultural activities. Given the classification of the Tweed River as a landscape feature, being a water body within 200 m of the proposed activity, due regard would typically be required under the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010). However, regardless of the presence of this landscape feature, the Project is unlikely to impact on any undiscovered Aboriginal items given the disturbed nature of the Project Site.

Potential Impacts

Potential impacts associated with the Project construction and operations include:

- Disturbance and/or direct impact to the recorded AHIMS site in proximity to the Project.
- Potential for excavation or ground disturbance works to discover previously undiscovered aboriginal artefacts.

Assessment Approach

If required in consultation with Heritage NSW, an Aboriginal Cultural Heritage Assessment would form part of the EIS in accordance with all NSW legislation and relevant guidelines including the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010), *the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011), and the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010).

The assessment will include an extensive search of the AHIMS site to ascertain the exact location and extent of the nearby Aboriginal site, and to review the site card (if available) to inform the desktop assessment of Aboriginal heritage. Should the AHIMS site be located in immediate proximity to the Project, archaeological survey work may be required during the EIS, however it is anticipated that a detailed assessment and the provision of appropriate management measures would be sufficient.

Consultation will also be undertaken with relevant stakeholders and Aboriginal parties throughout the preparation of the EIS as required in accordance with *the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010).

7.3.15 Cumulative Impacts

Cumulative impacts are described as impacts that arise from the incremental or combined effects of an activity or project when added to other existing or planned developments. Consideration of potential cumulative environmental and social impacts will be undertaken as part of the EIS prepared for the project.

Based on a search of the NSW planning portal, there are no State significant projects in the assessment process within a 10 km radius of the Project Site.

8 CONCLUSION

The Condong Cogeneration Plant is an existing large-scale combined power and heat facility, classified as an EfW facility. The Plant has the capacity to generate up to 30 MW of electricity, along with process steam, through the combustion of 520,000 tonnes of fuel materials annually diverted from landfill.

CBM is seeking a new development consent under Part 4 of the EP&A Act to regulate existing approved operations and allow the receipt, temporary storage and combustion of around 120,000 tonnes of recovered timber fuel annually (in addition to the bagasse, cane leaves and wood-based fuel materials currently used in the crush season) as an alternative to the increasingly hard to source wood-based materials during the non-crush season. Most of the plant and equipment currently installed will be retained, with certain upgrades required to effectively receive, temporarily store and combust the proposed recovered timber fuel and meet the requirements of the EfW Policy Statement.

The Project objectives are:

- Replace the increasingly hard to source and variable wood-based fuel materials with the proposed recovered timber fuel for combustion using current international best practice techniques during the non-crush season;
- Maintain continuity of renewable electricity generation for supply to the local grid;
- Maintain continuity of operations to support the local sugar cane industry;
- Maximise the use of existing approved infrastructure and equipment; and
- Continue to conduct operations in an environmentally responsible manner to ensure the potential for impact is minimised.

This Scoping Report has been prepared to identify the Project Site, describe the existing approved operations and the proposed Project, confirm the planning approval pathway, and discuss the key environmental and social considerations that have been identified through preliminary constraints analysis and a qualitative environmental risk assessment. It aims to introduce the Project to government agencies, the public and other stakeholders and provide enough information to enable DPIE to issue targeted and site-specific SEARs for the EIS needed to accompany the development application.

During the scoping process, environmental matters were identified through consideration of the likelihood and consequence of impacts factoring in mitigation measures. Matters were categorised as either “key issues” requiring a detailed level of assessment to understand and predict impacts and develop mitigation measures, or “other issues” requiring a less detailed assessment based on the predictability of impacts or the ability to avoid or manage impacts through design and mitigation measures.

The Scoping Report describes the approach to engagement which supports CBM’s commitment to engaging in a transparent and meaningful way with stakeholders throughout the design and environmental impact assessment process for the Project. A formal community and stakeholder engagement strategy will be prepared to ensure effective engagement to inform the Project’s development and EIS preparation.

9 REFERENCES

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Condong Cogeneration Plant – Recovered Timber Fuel Project

Scoping Report

Appendix A

Development Consent K00/0344.18 – Condong Cogeneration Plant

TWEED
SHIRE
COUNCIL

Please Quote Council Ref: K00/0344.18 DA3220/260
Your Ref No:
For Enquiries Please Contact: Redmond McNamara
Telephone Direct (02) 6670 2661

23076

s96notice.dot

28 March 2007

Downer Energy Systems
Level 9, 411 Vulture Street
WOOLOONGABBA QLD 4102

Dear Sir/Madam

Section 96 Application K00/0344.18 - amendment to Development Consent K00/0344 for the construction of cogeneration plant at Lot 19 DP255029 Clothiers Creek Road, Lot 19 & Lot 23 DP255029 Tweed Valley Way, Lot 18 & Lot 16 DP255029 No. 123-153 McLeod Street, Condong

I refer to your application regarding the above and enclose herewith Amended Consent K00/0344. The consent has been amended as follows: -

1. Deletion of condition 39A and new condition 39B be inserted as follows:

   39B. The development shall be completed in general accordance with plans, Statement of Environmental Effects and Environmental Management Plan submitted with the development application. Approved plans include Plan A (undated), Plan B, dated 31 January 2002 and Plan C, dated 8 February 2005 - prepared by Brown & Haan Surveyors and Dwg. Nos. M5-10443C-SXM00-XA-0001 (Rev.1) dated 05/10/06, M5-10443C-SXM00-XA-0010 (Rev.C) dated 07/03/06, M5-10443C-SXM00-XA-0011 (Rev.B) dated 12/07/05, prepared by Downer Energy Systems and Sheet Nos.1-3 of Dwg. No. T-068-GA01 prepared by Transtank and dated 03/03/06.

2. Deletion of condition 68A and new condition 68B be inserted as follows:

   68B. To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

   Water

   During the sugar cane crushing season the following concentration limits apply prior to combination with the wastewater discharge from the Condong Sugar Mill. During the non-crushing season the concentration limits apply to the discharge via the licensed outfall.

Pollutant	Units of measure	90% concentration limit	100% concentration limit

BOD	Mg/L	70	140
TSS	Mg/L	105	210
TP	Mg/L	3.5	7
TN	Mg/L	70	140
TEMP	oC	*3>bgd	5>bgd
PH	pH		6.5 to 8.5
Total residual chlorine	Mg/L as $C1_2$	0.1	0.5

Note: The concentration limits in the above table are based on effluent concentration limits specified for the Murwillumbah Sewage Treatment Plant under Pollution Control Approval No. 1024 issued to the Tweed Shire Council. The specified limits are based on a maximum of 7 fold increase in pollutant concentrations specified in the Environment Protection Licence held by Tweed Shire Council for treated effluent from the Murwillumbah Sewage Treatment Plan.

The concentration limits will be subject to periodic review under the licensing provisions of the Protection of the Environment Operations Act. This may result in a reduction of the concentration limits or Pollution Reduction Programs being negotiated with Tweed Shire Council and the applicant to improve the quality or reduce the overall mass of effluent discharged to the environment

* ">bgd" means the concentration above background levels in the receiving waters of the Tweed River. Background levels are to be determined by the sampling of inlet waters in accordance with the monitoring requirements attached to Environment Protection Licence No. 170 and held by NSW Sugar Milling Co-operative Limited.

Note 2: The DEC has approved the use of the "Proposed Dosing Chemicals" as outlined in Attachment A within the Application to Modify a Consent dated 10 November 2006. No other dosing rates or chemicals are to be used without prior approval by the DEC

"Air Emissions - Concentration and Mass Load Limits

The concentration and mass loads of the following air pollutants discharged from the locations, identified in the Tables below, must not exceed the concentration limits and mass load limits specified in the tables below.

New Boiler Stack

Cogeneration Plant - Concentration Limits				
Pollutant	Units of Measure	100% Limit	Reference Conditions	Averaging Period
H_2SO_4 and SO_3 (as SO_3)	g/m^3	0.1	Dry, 273 K, 101.3kPa	As per test method
Total Sulfur	g/m^3	0.65	Dry, 273K, 101.3kPa, 7%	1 hour (moving)

gas as SO_2			O_2	or as per test method if not CEM
Total NO_x (as NO_2)	g/m^3	0.5	Dry, 273 K, 101.3kPa, 7% O_2	1 hour (moving)
Solid Particles	mg/m^3	100	Dry, 273 K, 101.3kPa, 7% O_2	As per test method
Opacity	%	20	**Gas stream temperature above dew point. Path length corrected to stack exit diameter.**	6 minutes (moving)

3. Deletion of condition 90A and new condition 90B be inserted as follows:

90B. For each monitoring/ discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

WATER

Monitoring requirements for cogeneration effluent prior to mixing with wastewater from sugar milling operations

Pollutant	Units of measure	Frequency	Sampling Method
BOD	mg/L	Weekly	Composite sample
TSS	mg/L	Weekly	Composite sample
TP	mg/L	Weekly	Composite sample
TN	mg/L	Weekly	Composite sample
TEMP	OC	Continuous	In line instrumentation
pH	PH	Continuous	In line instrumentation
Total residual chlorine	Mg/L as $C1_2$	Weekly	Grab

* Note, Monitoring conditions may be varied upon commissioning of the approved activity to more closely match monitoring requirements under the existing Environment Protection Licence.

Emissions Monitoring

Stack and other monitoring must be completed for the following parameters at the frequency detailed using, where specified, the method listed.

AIR

Pollutant	Units of Measure	Frequency	Sampling Method
Solid Particles	mg/m^3	Annual	TM-15
Sulfuric acid mist and/or sulfur trioxide	mg/m^3	Post commissioning and quarterly	TM-3

Sulfur dioxide	mg/m^3	Post commissioning and quarterly	TM-4
Nitrogen oxides	mg/m^3	Post commissioning and quarterly	TM-11
Carbon Monoxide	ppm	Continuous	CEM-4
Opacity	%	Continuous	CEM-1
Velocity	m/s	Post commissioning and quarterly	TM-2
Volumetric flow rate	m^3/s	Post commissioning and quarterly	TM-2
Temperature	°C	Post commissioning and quarterly	TM-2
Moisture content in stack gases	%	Post commissioning and quarterly	TM-22
Dry gas density	kg/m^3	Post commissioning and quarterly	TM-23
Molecular weight of stack gases	g/gmole	Post commissioning and quarterly	TM-23
Carbon dioxide in stack gases	%	Post commissioning and quarterly	TM-24
Oxygen in stack gases	%	Continuous	CEM-3

Note: All continuous emissions and periodic monitoring must be carried out strictly in accordance with the methods prescribed in the Clean Air (Plant and Equipment) Regulation 1997 and the "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

* Where stack emissions are near or below dew point the applicant must provide monitoring equipment specifically adapted to operate in a wet stack environment or sample and treat the emission sample to accommodate the required monitoring.

4. Condition 75 be deleted and new condition 75A be inserted to read:

75A. Construction activities are limited to 7am - 6pm Monday to Saturday and 8am - 1pm Sunday.

Night shift construction activities are limited to 5pm – 4am Monday to Saturday. Night shift activities to be limited as follows:-

- No access to the site laydown areas for retrieval of materials during the night shift.
- No heavy vehicles or heavy machinery to be operated on site during the night shift.
- Mechanical and structural erection works only.
- Lighting onsite will be limited to those areas where works are being performed.

Work outside these hours which may be permitted include:-

- Any works which do not cause noise emissions to be audible at any nearby residential property.
- The delivery and unloading of material which is required outside of these hours requested by police or other authority for safety reasons.
- Emergency works.

5. Insertion of new condition 129:

129. No fuel or washdown water is permitted to exit the premises via existing stormwater infrastructure.

6. Insertion of new condition 130:

130. Any spills must be cleaned up immediately using dry methods; absorbent materials should be readily available for this purpose and staff should be trained in spill management.

7. Insertion of new condition 113A:

113A. Prior to commencement of operations a Spillage Management Plan for the aboveground Fuel Oil Tank shall be compiled and implemented and made available to authorised officers upon required.

8. Insertion of new condition 113B:

113B. NSW Workcover requirements shall be implemented and any approvals gained for the storage of hazardous chemicals and waste.

9. Insertion of new condition 75B:

75B. Prior to the implementation of the night shift construction hours, the NSW Sugar Milling Co-operative is required to renotify the public of the on-site contact details in the event that noise issues arise.

10. Insert new Condition No.75C:-

75C. The construction phase of the development must not be permitted to impact on the amenity of any residential premises. In the event of complaints from neighbouring or adjacent residential premises, with the Department of Environment and Conservation or Council deem to be reasonable, the permitted hours of construction may be modified to the satisfaction of the DEC or Council's General Manager or delegate.

11. Insert new Condition No.59A:-

59A. The installation, maintenance and operation of the cooling tower must be conducted in accordance with the Public Health Act 1991, Public Health (Microbial Control) Regulation 2000 and the Code of Practice for the Control of Legionnaires' Disease, 2nd Edition, 2004.

12. Insert new Condition No.59B:-

59B. Under clause 15 of the Public Health (Microbial Control) Regulation 2000, the occupier, where a regulated system is installed, must notify the local Council of the following particulars:

- the type of system;
- the address of the premises on which the system is installed;
- the name and the residential and business addresses of the owner of the premises and if the operation area on the premises is occupied by someone other than the owner, those particulars in relation to the occupier; and
- the telephone numbers at which during business hours and after business hours the person or persons referred to in the above point may be contacted.

These particulars must be notified to the Council within one (1) month after the person becomes the owner or occupier of the premises or if there is an alteration of the above details.

13. Insert Condition No.59C:-

59C. Cooling tower system must be installed in accordance with AS/NZS 3666.1: 2002 Air-handling and water systems of buildings – Microbial control – Operation *and maintenance*.

14. Insert Condition No.59D:-

59D. The occupier must be given both operation and maintenance manuals for the system by the installer, each of which must comply with the requirements for manuals set out in AS/NZS 3.66.2:2002.

15. Insert Condition No.59E:

59E. The cooling tower system must be equipped with a process designed to control microbial growth and that process:

(a) must be in operation at all times, and

(b) must be certified by a competent person annually as being an effective process of disinfection under the range of operating conditions that could ordinarily be expected, and

(c) must be sufficiently effective so that:

(i) no sample taken from the system subjected to a test for total *Legionella* numbers in accordance with the relevant Australian Standard has a level of *Legionella* of more than 10 colony-forming units per millilitre, or

(ii) no sample taken from the system subjected to a test for heterotrophic plate count in accordance with the relevant Australian Standard has a heterotrophic plate count of more than 100,000 colony-forming units per millilitre, and

(d) must be supplemented by remedial action taken by a competent person after any test where a level set out in paragraph (c)(i) or (ii) is exceeded.

(e) a competent person is a reference to a person who is a tertiary qualified chemist, chemical engineer or microbiologist and who has expertise in the relevant field.

Yours faithfully

Denise Galle
Acting Manager Development Assessment

Enc

AMENDED CONSENT ISSUED 28/3/2007

NOTICE NO. K00/344
(DA3220/260 Pt2)

TWEED SHIRE COUNCIL

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

FORM 4 - NOTICE OF DETERMINATION OF A DEVELOPMENT APPLICATION

To: NSW Sugar Milling Co-operative Ltd
Condong Mill
McLeod Street
CONDONG 2484

Pursuant to Section 81(1)(a) of the Act, notice is hereby given of the determination by the Tweed Shire Council of Development Application No. **K00/344** relating to land described as:-

Lots 16, 18, 19 and 23 DP 255029
McLeod Street, Condong

to be developed in accordance with plans and details submitted for the purpose of -

COGENERATION FACILITY (ELECTRICITY PLANT)

The Development Application has been determined by the granting of consent subject to the conditions described below:-

STAGE 1

1. Prior to commencement of work pursuant to this consent a **Construction Certificate** shall be obtained for the works proposed and required by this consent.

   The following information must accompany applications for a construction certificate for building work.

   (i) Building Work

   In the case of an application for a construction certificate for **building work:**

   a) copies of compliance certificates relied upon

   b) four (4) copies of detailed plans and specifications

      The plan for the building must be drawn to a suitable scale and consist of a general plan and a block plan. The general plan of the building is to:

      - show a plan of each floor section

- show a plan of each elevation of the building
- show the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground
- indicate the height, design, construction and provision for fire safety and fire resistance (if any)

Where the proposed building work involves any alteration or addition to, or rebuilding of, an existing building the general plan is to be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the proposed alteration, addition or rebuilding.

Where the proposed building works involves a modification to previously approved plans and specifications the general plans must be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the modification.

The specification is:

- to describe the construction and materials of which the building is to be built and the method of drainage, sewerage and water supply
- state whether the materials proposed to be used are new or second hand and give particulars of any second hand materials used

c) where the application involves an alternative solution to meet the performance requirements of the BCA, the application must also be accompanied by:

- details of the performance requirements that the alternative solution is intended to meet, and
- details of the assessment methods used to establish compliance with those performance requirements

d) evidence of any accredited component, process or design sought to be relied upon

e) except in the case of an application for, or in respect of, a class 1a or class 10 building:

- a list of any fire safety measures that are proposed to be implemented in the building or on the land on which the building is situated, and
- if the application relates to a proposal to carry out any alteration or rebuilding of, addition to, an existing building, a separate list of such of those measures as are currently implemented in the building or on the land on which the building is situated.

f) Engineering plans and specifications for all civil engineering works required by this consent.

The list must describe the extent, capability and basis of design of each of the measures concerned.

2. No structures are to be erected over or within 3 metres of tramway easements.

3. In the event that Council is not utilised as the inspection/Certifying authority, within seven (7) days of building works commencing on the site a Compliance Certificate in the prescribed form is to be submitted to Council together with the prescribed fee, by the nominated principal certifying authority to certify the following:

   i. All required erosion and sedimentation control devices have been installed and are operational.

   ii. Required toilet facilities have been provided on the site in accordance with Section 78i of the Environmental Planning & Assessment Amendment Regulations 1998.

   iii. A sign has been erected on the site in accordance with Section 78H of the Environmental Planning & Assessment Amendment Regulations 1998.

   iv. All conditions of consent required to be complied with prior to work commencing on the site have been satisfied.

   v. That the licensee has complied with the provisions of Section 78c of the Environmental Planning and Assessment Amendment Regulations 1998.

4. In the event that Council is not utilised as the inspection/certifying authority, prior to occupation of the building a Compliance Certificate in the prescribed form is to be submitted to Council from the nominated principal certifying authority, together with the prescribed fee, to certify that all work has been completed in accordance with the approved plans and specifications, conditions of Consent and the relevant provisions of the Building Code of Australia.

5. All building work (other than work relating to the erection of a temporary building) must be carried out in accordance with the requirements of the Building Code of Australia (as in force on the date the application for the relevant construction certificate or complying development certificate was made).

6. The erection of a building in accordance with a development consent must not be commenced until:

   a. detailed plans and specifications of the building have been endorsed with a construction certificate by:

      (i) the consent authority; or

      (ii) an accredited certifier; and

   b. the person having the benefit of the development consent:

      (i) has appointed a Principal Certifying Authority; and

      (ii) has notified the consent authority and the Council (if the Council is not the consent authority) of the appointment; and

   c. the person having the benefit of the development consent has given at least 2 days notice to the Council of the person's intention to commence the erection of the building.

7. Prior to work commencing, a "Notice of Commencement of Building or Subdivision Work and Appointment of Principal Certifying Authority" shall be submitted to Council at least **2 days** prior to work commencing.

STAGE 2

8. All demolition works are to observe the guidelines set down under the Environment Protection Authority publication "A Renovators Guide to the Dangers of Lead".

9. Demolition of building existing on site is to be carried out in accordance with the provisions of Australian Standard AS 2601-1991 "The Demolition of Structures".

STAGE 3

10. **A meteorological station** must be installed at a suitable location to assist with dust emission control strategies such as ceasing retrieval operations when wind speeds exceed 10 m/s. The meteorological station should be sited and operated in accordance with methods AM-1, AM-2 and AM-4 the which are detailed in the "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

STAGE 4

PRE-REQUISITES –that must be satisfied prior to the issue of a construction certificate

General

11. The submission of an amended Environmental Management Plan to the satisfaction of the Director of Development Services and Director of Engineering Services prior to the issue of a construction certificate which incorporates the following:-

    i. Management measures to ensure that truck traffic generated by the development does not use Clothiers Creek Road between Condor Place and North's Lane.

    ii. A requirement that the Management Plan in respect of the traffic restriction on Clothiers Creek Road not be amended without approval of the Director of Development Services and Director of Engineering Services.

12. A traffic control plan that complies with the provisions of the RTA document "Traffic Control at Work Sites" Version 2 shall be prepared by a person who is qualified, authorised and has passed an RTA approved training course, and submitted for approval by Council, prior to issue of the Construction Certificate. All works are to comply with the Occupational Health and Safety Act and the RTA document and the approval particularly in respect to works on public roads. Safe public access shall be provided at all times.

13. **Prior** to the commencement of work the applicant shall submit to Council evidence that a Site-Specific Safety Management Plan and Safe Work Methods for the subject site have been prepared in accordance with either:-

    a. Occupation Health and Safety and Rehabilitation Management Systems Guidelines, 3rd Edition, NSW Government, or

b. AS4804 Occupation Health and Safety Management Systems - General Guidelines on Principles Systems and Supporting Techniques.

Contributions

14. (i) Payment of the following contributions pursuant to Section 94 of the Act and the relevant Section 94 Plan.

Pursuant to Clause 79H of the Environmental Planning and Assessment Regulations, 1994, a Construction Certificate shall NOT be issued by a Certifying Authority unless all Section 94 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" signed by an authorised officer of Council.

These charges will remain fixed for a period of 12 months from the date of this consent and thereafter in accordance with the rates applicable in the current version/edition of the relevant Section 94 Plan current at the time of the payment.

A copy of the Section 94 contribution plans may be inspected at the Civic and Cultural Centres, Tumbulgum Road, Murwillumbah and Brett Street, Tweed Heads.

a. Tweed Road Contribution Plan: $27,875.70

S94 Plan No. 4 (Version 4.0)

(Murwillumbah - commercial)

Heavy Haulage Component

Payment of a contribution pursuant to Section 94 of the Act and the Heavy Haulage (Extractive materials) provisions of Tweed Road Contribution Plan No. 4 - Version 4.1 prior to the issue of a construction certificate. The contribution shall be based on the following formula:-

$$\$Con_{TRCP - Heavy} = Prod. \times Dist \times \$Unit \times (1+Admin.)$$

where:

$\$Con_{TRCP - Heavy}$ heavy haulage contribution

and:

Prod.	projected demand for extractive material to be hauled to the site over life of project in tonnes
Dist.	average haulage distance of product on Shire roads (trip one way)
$Unit	the unit cost attributed to maintaining a road as set out in Section 6.4 (currently 2.5c per tonne per kilometre)
Admin.	Administration component - 5% - see Section 6.5

b. Extensions to Council Administration Offices & Technical Support Facilities

Section 94 Plan No. 18

$48 per 300m^2 (or part thereof) of additional industrial floor area. Details of existing and proposed floor areas are to be provided prior to the release of the construction certificate

15. A **certificate of compliance** (CC) under Part 3 Division 2 of the Water Supply Authorities Act 1987 is to be obtained from Council to verify that the necessary requirements for the supply of water and sewerage to the development have been made with the Tweed Shire Council.

Pursuant to Clause 79H of the Environmental Planning and Assessment Regulations, 1994, a Construction Certificate shall **NOT** be issued by a Certifying Authority unless all Section 64 Contributions have been paid and the Certifying Authority has sighted Council's "Contribution Sheet" and a "Certificate of Compliance" signed by an authorised officer of Council.

Annexed hereto is an information sheet indicating the procedure to follow to obtain a Certificate of Compliance:

Water: $3590 per 1000m^2 (or part thereof) of additional industrial floor area. Details of existing and proposed floor areas are to be provided prior to release of the construction certificate.

Sewer: $2970 per 1000m^2 or part thereof of additional industrial floor area. Details of existing and proposed floor areas are to be provided prior to release of the construction certificate plus

$2970 per 280kl/annum returned to sewer from the cogeneration process. Details to be provided to the satisfaction of the Director of Engineering Services prior to release of the construction certificate.

These charges to remain fixed for a period of twelve (12) months from the date of this consent and thereafter in accordance with the rates applicable in Council's adopted Fees and Charges current at the time of payment.

Note: The Environmental Planning and Assessment Act, 1979 (as amended) makes no provision for works under the Water Supplies Authorities Act, 1987 to be certified by an Accredited Certifier.

Environment Protection

16. Waste material (soil, concrete, timber, masonry, steel and the like) generated by the development shall be disposed of in accordance with a Waste Management Plan which shall be submitted to and approved by the Director of Environment and Community Services **PRIOR** to the issue of a construction certificate.

The Plan shall specify how the waste is to be treated and/or where the waste is to be disposed of.

17. In accordance with Section 109F(i)of the Environmental Planning & Assessment Act, 1979 (as amended), a construction certificate for **SUBDIVISION WORKS OR BUILDING WORKS** shall **NOT** be issued until any long service levy payable under Section 34 of the Building and Construction Industry Long

Service Payments Act, 1986 (or where such levy is payable by instalments, the first instalment of the levy) has been paid. Council is authorised to accept payment.

18. A permit under Section 3A of the Rivers and Foreshores Improvement Act is to be obtained if deemed necessary by the Department of Land and Water Conservation.

19. (a) All stormwater runoff from the proposed fuel storage area on Lot 19 DP 255029 east of the Pacific Highway, is to be discharged into the Creek at the south west corner of Lot 19. The applicant is to obtain any necessary statutory approvals for these drainage works from NSW Fisheries and DLWC.

    (b) Stormwater runoff from the plant area on Lot 16 DP 255029 on the western side of the Pacific Highway is to be discharged into the existing stormwater system which discharges to the Tweed River. If necessary the applicant is to obtain any necessary statutory approvals for drainage works in/adjacent to the Tweed river and within the riparian zone.

20. An Acid Sulfate Soil Management Plan is to be submitted and approved by the Director of Environment and Community Services generally in accordance with the Acid Sulfate Soil Manual produced by the Acid Sulfate Soil Management Advisory Committee 1998.

21. (a) Construction phase stormwater quality treatment (erosion and sediment control) shall be designed and constructed in accordance with detailed engineering plans to be submitted and approved with the construction certificate. Erosion and sediment control shall be in accordance with the "Tweed Urban Stormwater Quality Management Plan" (adopted by Council 19 April 2000) section 5.5.2 "Stormwater Objectives During the Construction Phase of New Development". This section requires all new development to comply with Appendix E of the Plan "Tweed Shire Council Aus-Spec D7 – Stormwater Quality" and its Annexure A – "Code of Practice for Soil and Water Management or Construction Works". Erosion and sediment control shall remain in place until final approval is given and the maintenance bond (if required) has been released.

    (b) The Construction Certificate Application must include a detailed erosion and sediment control plan (ESCP) for the construction phase of development, prepared in accordance with Section D7.07 of Tweed Shire Council Aus-Spec D7 – Stormwater Quality.

22. An impermeable barrier is to be provided under the stockpile to prevent leachate entering the ground water. Details are to be submitted with the construction certificate.

23. **PS2.1** Prior to the commencement of construction of the co-generation plant, the applicant must provide manufacturer's performance guarantees for all plant and equipment, demonstrating to the satisfaction of the EPA that all sources of air pollutants will comply with the emission concentration limits specified in condition L3.

PRE-REQUISITES - that must be satisfied prior to the commencement of work

24. The submission and approval of an application under Part 4 and/or Part V of the Environmental Planning and Assessment Act, 1979 for the supply of treated effluent from Murwillumbah Sewerage Treatment Plant to the subject site.

25. The Applicant must develop a Construction Noise Protocol prior to the commencement of any construction activity on the premises. The Protocol must include (and not necessarily be limited to), the following;

- potentially noise affected properties and applicable noise goals;
- management and mitigation measures to minimise the exceedences of the construction noise performance goals
- equipment used including equipment noise levels;
- mitigation measures demonstrating best practice including the design and operation of equipment;
- compliance monitoring methods and program
- noise complaints line; and
- contingency measures to deal with incidents when exceedences have occurred or noise complaints have been received.

O3. Stormwater/sediment control - Construction Phase

26. *A Soil and Water Management Plan (SWMP)* must be prepared and implemented. The plan must describe the measures that will be employed to minimise soil erosion and the discharge of sediment and other pollutants to lands and/or waters during construction activities. The *SWMP* should be prepared in accordance with the requirements for such plans outlined in *Managing Urban Stormwater: Soils and Construction* (available from the Department of Housing).

M5 Environmental Monitoring

27. Within twelve months of the granting of Development Consent, the applicant must submit details of an environmental monitoring program with the following aims to the EPA for endorsement:

- Validation of the Cormix plume structure and dilution predictions contained in the proposal addressing both the near field and far field predictions
- Ongoing environmental monitoring of the impact of thermal, nutrient and organic loads on the Tweed River under a characteristic range of operational and ambient conditions.

28. The applicant must implement the endorsed environmental monitoring program within 3 months of commissioning the approved works and thereafter on an annual basis. The frequency of carrying out the environmental monitoring program must be increased where results indicate that more detailed or frequent monitoring is appropriate.

STAGE 5

PRE-REQUISITES - that must be satisfied prior to the issue of a construction certificate

29. A detailed plan of landscaping is to be submitted and approved by Council's Director, Development Services prior to the issue of a Construction Certificate. All landscaping work is to be completed in accordance with the approved plans prior to any use or occupation of the building. The plan is to incorporate the use of mature plant species to screen the proposed stockpile site.

30. Approval for the relevant work is to be obtained from the Roads and Traffic Authority under Section 138(2) of the Roads Act, 1993 prior to release of the construction certificate.

31. Detailed design of the stockpile bund is to be submitted to and approved by the Director of Engineering Services. Details are to be submitted and approved prior to the issuing of the Construction Certificate. The design is to minimise impacts on adjoining properties.

ROADS/STREETS

32. Trucks are prohibited from using Clothiers Creek Road between Condor Place and North's Lane until Clothiers Creek Road has been upgraded to the satisfaction of the Director of Development Services.

33. The following intersections are to be constructed by the applicant to the specified standards below:-

    a. Clothiers Creek Road/Stockpile Site Entrance

        - Austroads Guide to Traffic Generating Developments Pt 5 Type C right turn intersection with
        - Austroads Guide to Traffic Generating Developments left turn deceleration and acceleration lane on Clothiers Creek Road
        - Street lighting to Australian Standards 1158 – Route Lighting.

    b. Cane Road/Pacific Highway

        - Austroads Guide to Traffic Generating Developments Pt 5 left turn acceleration and merge from Cane Road onto the Pacific Highway
        - Left turn deceleration and turn lane from Pacific Highway into Cane Road

    c. Cane Road/McLeod Street

        - Austroads Guide to Traffic Generating Developments Type B intersection for right turns
        - Type B left turn treatments sufficient for heavy vehicles
        - Intersection lighting to Australian Standards 1158 – Route Lighting

    d. Clothiers Creek Road/Pacific Highway

        - Upgrade left turn onto Pacific Highway to enable heavy vehicles to turn into acceleration/merge lane without encroaching into through traffic lane.

34. McLeod Street between Cane Road and 50m north of the proposed entrance is to be constructed 13 metres wide between kerbs including the construction of vertical faced kerb and gutter and associated drainage.

35. The entrance driveway is to be constructed from reinforced concrete in accordance with detailed design plans after approval by the Director of Engineering Services.

36. Detailed engineering design plans for the works specified in conditions 80, 81 & 82 are to be prepared and submitted to the Director of Engineering Services for approval and any amendments required made prior to construction.

DRAINAGE/FLOODING

37. (a) Permanent stormwater quality treatment shall comply with "Tweed Urban Stormwater Quality Management Plan" (adopted by Council 19 April 200) section 5.5.3 "Stormwater Objectives During the Post Construction or Occupational Phase of Development". New development is required to comply with table 5.4 of the plan and demonstrate compliance by modelling in accordance with section 5.5.4. Section 5.5.5 of the plan further advises that treatment that is in accordance with the "deemed to comply" provisions of Appendix E – Tweed Shire Council, Aus-Spec D7 – Stormwater Quality is deemed to comply with the objectives in 5.5.3.

"Table 5.4 Stormwater Treatment Objectives for Post Construction (Occupational) Phase of Development"

Pollutant			
Nutrients	Maximum permissible load that may be discharged kg/ha/year		
	Average year (1719mm)	Wet year (2185mm)	Dry year (929mm)
Suspended solids (SS)	300	400	120
Total Phosphorus (TP)	0.8	1.1	0.35
Total Nitrogen (TN)	4.5	6	1.5
Litter	Retention 70% of annual litter load greater than 5mm		
Coarse sediment	Retention of 90% of annual load of sediment coarser than 0.125mm		
Oil and grease (hydrocarbons)	<10 mg/litre in flows up to 40% of Q1 peak		

(b) Water sensitive design practices shall be adopted. Where it is practical, water quality features are to be designed into the land development site rather than rely on special end of pipe devices to strip pollutants and nutrients from stormwater prior to discharge. Typical water quality features that can be designed into the site development include use of

porous pavements, directing runoff over filter strips or grass swales in landscaped areas, utilising landscaping as an integral part of stormwater quality management, maximising use of infiltration and stormwater reuse (eg. Rainwater tanks). These features can be complemented by site management practices which minimise creation of stormwater pollutants and nutrients and provide for appropriate operation, cleaning and maintenance of water quality control devices.

(c) The Construction Certificate Application must include a detailed stormwater management plan (SWMP) for the occupational or use stage of the development, prepared in accordance with Section D7.07 of Tweed Shire Council Aus-Spec D7 – Stormwater quality.

(d) Specific Requirements

(i) The fuel stockpile area is to be provided with full strength sealed access pavements and roadways for movement, turning, parking, loading and unloading to minimise risk of vehicles picking up soil and pollutants on tyres and transporting this material onto the public road system. These sealed surfaces are to be fully maintained for the entire life of the stockpile.

(ii) All accesses to the fuel stockpile area are to be provided with devices for automatic cleaning of soil and other pollutants from vehicle types. These devices are to be operated at all times for the entire life of the stockpile to ensure soil and pollutants on types are not transported onto the public road system.

PRE-REQUISITES - that must be satisfied prior to the commencement of work

Further Approvals

38. Prior to commencement of work pursuant to this consent a **Construction Certificate** shall be obtained for the works proposed and required by this consent.

The following information must accompany applications for a construction certificate for building work.

(i) Building Work

In the case of an application for a construction certificate for **building work**:

a) copies of compliance certificates relied upon

b) four (4) copies of detailed plans and specifications

The plan for the building must be drawn to a suitable scale and consist of a general plan and a block plan. The general plan of the building is to:

- show a plan of each floor section
- show a plan of each elevation of the building
- show the levels of the lowest floor and of any yard or unbuilt on area belonging to that floor and the levels of the adjacent ground

- indicate the height, design, construction and provision for fire safety and fire resistance (if any)

Where the proposed building work involves any alteration or addition to, or rebuilding of, an existing building the general plan is to be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the proposed alteration, addition or rebuilding.

Where the proposed building works involves a modification to previously approved plans and specifications the general plans must be coloured or otherwise marked to the satisfaction of the certifying authority to adequately distinguish the modification.

The specification is:

- to describe the construction and materials of which the building is to be built and the method of drainage, sewerage and water supply
- state whether the materials proposed to be used are new or second hand and give particulars of any second hand materials used

c) where the application involves an alternative solution to meet the performance requirements of the BCA, the application must also be accompanied by:

- details of the performance requirements that the alternative solution is intended to meet, and
- details of the assessment methods used to establish compliance with those performance requirements

d) evidence of any accredited component, process or design sought to be relied upon

e) except in the case of an application for, or in respect of, a class 1a or class 10 building:

- a list of any fire safety measures that are proposed to be implemented in the building or on the land on which the building is situated, and
- if the application relates to a proposal to carry out any alteration or rebuilding of, addition to, an existing building, a separate list of such of those measures as are currently implemented in the building or on the land on which the building is situated.

f) Engineering plans and specifications for all civil engineering works required by this consent.

The list must describe the extent, capability and basis of design of each of the measures concerned.

GENERAL

39. **DELETED**

39A. **DELETED**

39B. The development shall be completed in general accordance with plans, Statement of Environmental Effects and Environmental Management Plan submitted with the development application. Approved plans include Plan A (undated), Plan B, dated 31 January 2002 and Plan C, dated 8 February 2005 - prepared by Brown & Haan Surveyors and Dwg. Nos. M5-10443C-SXM00-XA-0001 (Rev.1) dated 05/10/06, M5-10443C-SXM00-XA-0010 (Rev.C) dated 07/03/06, M5-10443C-SXM00-XA-0011 (Rev.B) dated 12/07/05, prepared by Downer Energy Systems and Sheet Nos.1-3 of Dwg. No. T-068-GA01 prepared by Transtank and dated 03/03/06.

40. The traffic aspect of Environmental Management Plan is not to be amended without approval from the Director of Development Services and Director of Engineering Services.

41. All structures on Lot 19 DP 255029 are to be setback a minimum of 30 metres from the Pacific Highway and Clothiers Creek Road.

42. No structures are to be erected over or within 3 metres of tramway easements.

43. Any damage caused to public infrastructure (roads, footpaths, water and sewer mains, power and telephone services etc) during construction of the development shall be repaired to the satisfaction of the Director of Engineering Services prior to any use or occupation of the buildings.

44. The builder must provide an adequate trade waste service to ensure that all waste material is contained, and removed from the site for the period of construction.

45. Building materials used in the construction of the building are not to be deposited or stored on Council's footpath or road reserve, unless prior approval is obtained from Council.

45A. An interim stockpile area as identified on Plan 35018-C301 is approved for the temporary storage of cane based fuel until the completion of the works for the wider stockpile area.

46. The area of the stockpile is limited to 6.1 hectares. A separate development application (or application to modify this consent under Section 96 of the Environmental Planning and Assessment Act, 1979, if deemed appropriate by the Director of Development Services) is to be submitted to make any increase in area of the stockpile.

47. A balustrade or barrier more than four (4) metres above finished ground level must not be provided with horizontal elements to facilitate climbing as prescribed under the provisions of the Building Code of Australia.

48. The certifying authority is to be given 24 hours notice for any of the following inspections prior to the next stage of construction:

    a. footings, prior to pouring of concrete

    b. slab, prior to pouring of concrete

    c. frame prior to the erection of brick work or any wall sheeting

49. In the event that Council is not utilised as the inspection/Certifying authority, within seven (7) days of building works commencing on the site a Compliance Certificate in the prescribed form is to be submitted to Council together with the prescribed fee, by the nominated principal certifying authority to certify the following:

    i. All required erosion and sedimentation control devices have been installed and are operational.

    ii. Required toilet facilities have been provided on the site in accordance with Section 78i of the Environmental Planning & Assessment Amendment Regulations 1998.

    iii. A sign has been erected on the site in accordance with Section 78H of the Environmental Planning & Assessment Amendment Regulations 1998.

    iv. All conditions of consent required to be complied with prior to work commencing on the site have been satisfied.

    v. That the licensee has complied with the provisions of Section 78c of the Environmental Planning and Assessment Amendment Regulations 1998.

50. In the event that Council is not utilised as the inspection/certifying authority, prior to occupation of the building a Compliance Certificate in the prescribed form is to be submitted to Council from the nominated principal certifying authority, together with the prescribed fee, to certify that all work has been completed in accordance with the approved plans and specifications, conditions of Consent and the relevant provisions of the Building Code of Australia.

51. Where the construction work is on or adjacent to public roads, parks or drainage reserves the development shall provide and maintain all warning signs, lights, barriers and fences in accordance with AS 1742-1991 (Manual for Uniform Traffic Control Devices). The contractor or property owner shall be adequately insured against Public Risk Liability and shall be responsible for any claims arising from these works.

52. In pursuance of the provisions of the Disability Discrimination Act, 1992 (Commonwealth) the design of the proposed development shall facilitate access for the disabled in accordance with AS1428-1993 Parts 1 to 4 - Design for Access and Mobility.

53. Advertising structures/signs to be the subject of a separate development application, where statutorily required.

54. All demolition works are to observe the guidelines set down under the Environment Protection Authority publication "A Renovators Guide to the Dangers of Lead".

55. Demolition of building existing on site is to be carried out in accordance with the provisions of Australian Standard AS 2601-1991 "The Demolition of Structures".

56. All loading/unloading to take place within the boundary of the subject property.

57. Disinfection of cooling tower water with oxidisation or similar to ensure public health issues associated with aerosol drift are addressed to the satisfaction of the Director of Environment and Community Services.

58. All fill material is to be obtained from an approved source. Details of the source are to be submitted and approved by the Director of Development Services.

59. If any structures or buildings are to be relocated, any necessary approvals are to be obtained prior to relocation occurring.

59A. The installation, maintenance and operation of the cooling tower must be conducted in accordance with the Public Health Act 1991, Public Health (Microbial Control) Regulation 2000 and the Code of Practice for the Control of Legionnaires' Disease, 2nd Edition, 2004.

59B. Under clause 15 of the Public Health (Microbial Control) Regulation 2000, the occupier, where a regulated system is installed, must notify the local Council of the following particulars:

- the type of system;
- the address of the premises on which the system is installed;
- the name and the residential and business addresses of the owner of the premises and if the operation area on the premises is occupied by someone other than the owner, those particulars in relation to the occupier; and
- the telephone numbers at which during business hours and after business hours the person or persons referred to in the above point may be contacted.

These particulars must be notified to the Council within one (1) month after the person becomes the owner or occupier of the premises or if there is an alteration of the above details.

59C. Cooling tower system must be installed in accordance with AS/NZS 3666.1: 2002 Air-handling and water systems of buildings – Microbial control – Operation *and maintenance.*

59D. The occupier must be given both operation and maintenance manuals for the system by the Installer, each of which must comply with the requirements for manuals set out in AS/NZS 3.66.2:2002.

59E. The cooling tower system must be equipped with a process designed to control microbial growth and that process:

(a) must be in operation at all times, and

(b) must be certified by a competent person annually as being an effective process of disinfection under the range of operating conditions that could ordinarily be expected, and

(c) must be sufficiently effective so that:

(i) no sample taken from the system subjected to a test for total *Legionella* numbers in accordance with the relevant Australian Standard has a level of *Legionella* of more than 10 colony-forming units per millilitre, or

(ii) no sample taken from the system subjected to a test for heterotrophic plate count in accordance with the relevant Australian Standard has

a heterotrophic plate count of more than 100,000 colony-forming units per millilitre, and

(d) must be supplemented by remedial action taken by a competent person after any test where a level set out in paragraph (c)(i) or (ii) is exceeded.

(e) a competent person is a reference to a person who is a tertiary qualified chemist, chemical engineer or microbiologist and who has expertise in the relevant field.

ENVIRONMENT PROTECTION AUTHORITY GENERAL TERMS OF APPROVAL

Administrative conditions

A1. Information supplied to the EPA

60. Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

* the development application DA K2000/344 submitted to Tweed Shire Council on 10 Mach 2000;

* a statement of environmental effects titled "Condong Biomass Cogeneration" and dated March 2000 relating to the development;

* all additional documents supplied to the EPA in relation to the development.

A2. Fit and Proper Person

61. The applicant must, in the opinion of the EPA, be a fit and proper person to hold a licence under the Protection of the Environmental Operations Act 1997, having regard to the matters in s.83 of that Act.

Limit conditions

L1. Pollution of waters

62. Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

63. All wastewater discharged to the Tweed River from the approved activity must be discharged via a submerged outfall at a point not less than 10 metres from the eastern river bank adjacent to the mill premises.

L3. Concentration limits

64. **Deleted.**

64A. For each discharge point or utilisation area specified in the table/s below, the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentrations limits specified for that pollutant in the table.

65. **Deleted.**

66A. Where a pH quality limit is specified in the Table, the specified percentage of samples must be within the specified ranges.

67. **Deleted.**

68A. **DELETED**

68B. To avoid any doubt, this condition does not authorise the discharge or emission of any other pollutants.

Water

During the sugar cane crushing season the following concentration limits apply prior to combination with the wastewater discharge from the Condong Sugar Mill. During the non-crushing season the concentration limits apply to the discharge via the licensed outfall.

Pollutant	Units of measure	90% concentration limit	100% concentration limit
BOD	Mg/L	70	140
TSS	Mg/L	105	210
TP	Mg/L	3.5	7
TN	Mg/L	70	140
TEMP	oC	*3>bgd	5>bgd
PH	pH		6.5 to 8.5
Total residual chlorine	Mg/L as $C1_2$	0.1	0.5

Note: The concentration limits in the above table are based on effluent concentration limits specified for the Murwillumbah Sewage Treatment Plant under Pollution Control Approval No. 1024 issued to the Tweed Shire Council. The specified limits are based on a maximum of 7 fold increase in pollutant concentrations specified in the Environment Protection Licence held by Tweed Shire Council for treated effluent from the Murwillumbah Sewage Treatment Plan.

The concentration limits will be subject to periodic review under the licensing provisions of the Protection of the Environment Operations Act. This may result in a reduction of the concentration limits or Pollution Reduction Programs being negotiated with Tweed Shire Council and the applicant to improve the quality or reduce the overall mass of effluent discharged to the environment

* ">bgd" means the concentration above background levels in the receiving waters of the Tweed River. Background levels are to be determined by the sampling of inlet waters in accordance with the monitoring requirements attached to Environment Protection Licence No. 170 and held by NSW Sugar Milling Co-operative Limited.

Note 2: The DEC has approved the use of the "Proposed Dosing Chemicals" as outlined in Attachment A within the Application to Modify a Consent dated 10 November 2006. No other dosing rates or chemicals are to be used without prior approval by the DEC

"Air Emissions - Concentration and Mass Load Limits

The concentration and mass loads of the following air pollutants discharged from the locations, identified in the Tables below, must not exceed the concentration limits and mass load limits specified in the tables below.

New Boiler Stack

Cogeneration Plant - Concentration Limits				
Pollutant	Units of Measure	100% Limit	Reference Conditions	Averaging Period
H_2SO_4 and SO_3 (as SO_3)	g/m^3	0.1	Dry, 273 K, 101.3kPa	As per test method
Total Sulfur gas as SO_2	g/m^3	0.65	Dry, 273K, 101.3kPa, 7% O_2	1 hour (moving) or as per test method if not CEM
Total NO_x (as NO_2)	g/m^3	0.5	Dry, 273 K, 101.3kPa, 7% O_2	1 hour (moving)
Solid Particles	mg/m^3	100	Dry, 273 K, 101.3kPa, 7% O_2	As per test method
Opacity	%	20	**Gas stream temperature above dew point. Path length corrected to stack exit diameter.**	6 minutes (moving)

L4. Volume and mass limits

69.

Cogeneration Plant (Mass Loads)		
Pollutant	Units of Measure	100% Mass Limit
NO_x (as NO_2)	tonnes per year	1037 *(table 7 AQIA, SEE used in modelling)*
Coarse Particles	tonnes per year	208 *(table 7 AQIA, SEE used in modelling)*
Fine Particles	tonnes per year	164 *(table 7 AQIA, SEE used in modelling)*

L4.2 Potential Pollution Reduction Program

70. If future environmental monitoring results indicate that the quality of the wastewater discharged from the premises is causing an exceedance of ANZECC criteria in the receiving waters, the EPA may require the applicant to implement remedial strategies, including improvements to the quality of the water supply used for cooling purposes.

L5. Waste

71. The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing,

reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997.

72. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.

L6. Noise limits

Operational Noise

73. Operational noise from the premises must not exceed the limits presented in Table A.

Table A Operational Noise Limits

RECEIVER AREA	L_{eq}(15 minute) dB(A)	
	Day	Night
Residence C (refer to EIS)	49	38
Residence D (refer to EIS)	49	38
Residence E (refer to EIS)	47	37

Note:

The noise emission limits apply for winds up to 3 metres per second and Pascall stability class A, B, C, D, E and F.

For the purpose of noise measurements the L_{A10} noise level must be measured or computed at the most affected receiver specified using "FAST" response on the sound level meter over a period of 15 minutes. The measurement location is the receiver boundary or 30 metres from the receiver facade where the boundary is more than 30 metres away from the receiver facade.

For the purpose of the noise criteria for this condition, 5dBA must be added to the measured level if the noise is substantially tonal or impulsive in character.

74. Noise from the premises is to be measured at residential premises C, D & E to determine compliance with this condition

Hours of operation

Construction Noise

75. **DELETED**

75A. Construction activities are limited to 7am - 6pm Monday to Saturday and 8am - 1pm Sunday.

Night shift construction activities are limited to 5pm – 4am Monday to Saturday. Night shift activities to be limited as follows:-

- No access to the site laydown areas for retrieval of materials during the night shift.
- No heavy vehicles or heavy machinery to be operated on site during the night shift.
- Mechanical and structural erection works only.
- Lighting onsite will be limited to those areas where works are being performed.

Work outside these hours which may be permitted include:-

- Any works which do not cause noise emissions to be audible at any nearby residential property.
- The delivery and unloading of material which is required outside of these hours requested by police or other authority for safety reasons.
- Emergency works.

75B. Prior to the implementation of the night shift construction hours, the NSW Sugar Milling Co-operative is required to renotify the public of the on-site contact details in the event that noise issues arise.

75C. The construction phase of the development must not be permitted to impact on the amenity of any residential premises. In the event of complaints from neighbouring or adjacent residential premises, with the Department of Environment and Conservation or Council deem to be reasonable, the permitted hours of construction may be modified to the satisfaction of the DEC or Council's General Manager or delegate.

O1. Air

Flue Gas

76. The air emissions from the new boiler must be discharged from a stack with a height of not less than 60 metres above local ground level. The stack must be designed to achieve a discharge velocity of 15 m/s under full load plant operating conditions in order to minimise the effects of stack tip downwash.

77. **Ash handling**, storage and disposal must be enclosed, where practicable, and be sufficiently moist to prevent dust emission.

78. **The conveyor system** transporting fuel from the mill to the buffer fuel storage must be enclosed, where practicable, and fitted with dual belt cleaning devices.

79. **Transfer stations** must be fully enclosed, where practicable, with exhaust air being ducted to an appropriately designed dust control unit.

80. **Wood fuel receival and processing** must be enclosed where practicable with the exhaust air being ducted to an appropriately designed dust control unit to ensure fugitive emissions from these sources are minimised.

81. **Stockpile storage** must not be more than 6.1 hectares in area and be covered except where fuel retrieval or deposits prevents this taking place. Additional dust controls for the retrieval areas must be installed. Access roads must be sealed.

O2. Dust

82. Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

83. Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading. *Note: dust control measures for traffic areas and open stockpiles, including ceasing dust generating activities during certain meteorological conditions as indicated below will be required.*

O4. Stormwater/sediment control - Operation Phase

84. A Stormwater Management Scheme must be prepared for the development and must be implemented. Implementation of the Scheme must mitigate the impacts of stormwater run-off from and within the premises following the completion of construction activities. The Scheme should be consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the Scheme should be consistent with the guidance contained in *Managing Urban Stormwater: Council Handbook* (available from the EPA).

O5. Noise

Monitoring and recording conditions

85. Upon completion of the construction work and within 28 days of commencement of production operations of the approved works, the applicant must carry out a compliance noise survey. The compliance survey must cover all aspects of noise where noise predictions were contained in the Statement of Environmental Effect and identify remedial measures to be implemented where exceedence of predicted noise levels are detected.

    The survey results and remedial strategy shall be provided to the EPA within 60 days of commencement of operation of the approved works.

M1 Monitoring records

86. The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

87. All records required to be kept by the licence must be:

    - in a legible form, or in a form that can readily be reduced to a legible form;
    - kept for at least 4 years after the monitoring or event to which they relate took place; and
    - produced in a legible form to any authorised officer of the EPA who asks to see them.

88 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;

    - the time(s) at which the sample was collected;

- the point at which the sample was taken; and
- the name of the person who collected the sample.

M2. Requirement to monitor concentration of pollutants discharged

89. **Deleted.**

90A. **DELETED**

90B. For each monitoring/ discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

WATER

Monitoring requirements for cogeneration effluent prior to mixing with wastewater from sugar milling operations

Pollutant	Units of measure	Frequency	Sampling Method
BOD	mg/L	Weekly	Composite sample
TSS	mg/L	Weekly	Composite sample
TP	mg/L	Weekly	Composite sample
TN	mg/L	Weekly	Composite sample
TEMP	OC	Continuous	In line instrumentation
pH	PH	Continuous	In line instrumentation
Total residual chlorine	Mg/L as $C1_2$	Weekly	Grab

* Note, Monitoring conditions may be varied upon commissioning of the approved activity to more closely match monitoring requirements under the existing Environment Protection Licence.

Emissions Monitoring

Stack and other monitoring must be completed for the following parameters at the frequency detailed using, where specified, the method listed.

AIR

Pollutant	Units of Measure	Frequency	Sampling Method
Solid Particles	mg/m^3	Annual	TM-15
Sulfuric acid mist and/or sulfur trioxide	mg/m^3	Post commissioning and quarterly	TM-3
Sulfur dioxide	mg/m^3	Post commissioning and quarterly	TM-4
Nitrogen	mg/m^3	Post commissioning	TM-11

oxides		and quarterly	
Carbon Monoxide	ppm	Continuous	CEM-4
Opacity	%	Continuous	CEM-1
Velocity	m/s	Post commissioning and quarterly	TM-2
Volumetric flow rate	m^3/s	Post commissioning and quarterly	TM-2
Temperature	°C	Post commissioning and quarterly	TM-2
Moisture content in stack gases	%	Post commissioning and quarterly	TM-22
Dry gas density	kg/m^3	Post commissioning and quarterly	TM-23
Molecular weight of stack gases	g/gmole	Post commissioning and quarterly	TM-23
Carbon dioxide in stack gases	%	Post commissioning and quarterly	TM-24
Oxygen in stack gases	%	Continuous	CEM-3

Note: All continuous emissions and periodic monitoring must be carried out strictly in accordance with the methods prescribed in the Clean Air (Plant and Equipment) Regulation 1997 and the "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

* Where stack emissions are near or below dew point the applicant must provide monitoring equipment specifically adapted to operate in a wet stack environment or sample and treat the emission sample to accommodate the required monitoring.

M3. Requirement to monitor volume or mass

91. For each discharge point or utilisation area specified below, the applicant must monitor:

- the volume of liquids discharged to water or applied to the area;

- the mass of solids applied to the area;
- the mass of pollutants emitted to the air,

over the interval, at the frequency and using the method and units of measure, specified below.

WATER

Point	Frequency	Units of Measure	Sampling Method
Prior to mixing with sugar mill effluent	Daily	KL/day	In line instrumentation

M4. Testing methods - concentration limits

92. Monitoring for the concentration of a pollutant emitted to the air required to be conducted by the EPA's general terms of approval, or a licence under the Protection of the Environment Operations Act 1997, in relation to the development or in order to comply with a relevant local calculation protocol must be done in accordance with:

- any methodology which is required by or under the POEO Act 1997 to be used for the testing of the concentration of the pollutant; or
- if no such requirement is imposed by or under the POEO Act 1997, any methodology which the general terms of approval or a condition of the licence or the protocol (as the case may be) requires to be used for that testing; or
- if no such requirement is imposed by or under the POEO Act 1997 or by the general terms of approval or a condition of the licence or the protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Clean Air (Plant and Equipment) Regulation 1997 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".)

93. Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area required by condition **M3** must be done in accordance with:

- the Approved Methods Publication; or
- if there is no methodology required by the Approved Methods Publication or by the general terms of approval or in the licence under the Protection of the Environment Operations Act 1997 in relation to the development or the relevant load calculation protocol, a method approved by the EPA in writing before any tests are conducted,

unless otherwise expressly provided in the licence.

94A. **DELETED**

95B. **Pollution Studies and Reduction Programs**

PS1 Site Specific Emission Concentration Limit

PS1.1 By February 2007 the applicant must submit a dispersion modelling report to the DEC which confirms that the emission concentration limits for sulfuric acid mist and/or sulfur trioxide (as SO_3) and sulfur dioxide for discharge **point 1** will ensure compliance with the design criteria specified in the table below. The dispersion modelling must utilise site-specific meteorological data and be conducted in accordance with the *Approved Methoeds and Guidance for the Modelling and Assessment of Air Pollutants in NSW.*

Pollutant	Design Criteria ($\mu g/m^2$)	Averaging Time	Percentile
Sulfuric acid mist and/or sulfur trioxide (as SO_3)	27	3 minute	99.9
Sulfur Dioxide	712	10 minute	100
Sulfur Dioxide	570	1 hour	100
Sulfur Dioxide	228	24 hour	100
Sulfur Dioxide	60	Annual	100

PS1.2 By January 2007 the applicant must submit a report to the EPA which includes a site specific emission concentration limit recommendation for carbon monoxide from discharge point 1. The recommended emission concentration limits shall be developed in accordance with world's best practice for boilers operating on biomass fuel. The report must include an analysis of available carbon monoxide modelling data.

PS2 Manufacturer's Performance Guarantees

PS2.1 Prior to the commencement of construction of the co-generation plant, the applicant must provide manufacturer's performance guarantees for all plant and equipment, demonstrating to the satisfaction of the DEC that that all sources of air pollutants will comply with the emission concentration limits specified in condition L3.

Reporting conditions

96. The applicant must provide an annual return to the EPA in relation to the development as required by any licence under the Protection of the Environment Operations Act 1997 in relation to the development. In the return the applicant must report on the annual monitoring undertaken (where the activity results in pollutant discharges), provide a summary of complaints relating to the development, report on compliance with licence conditions and provide a calculation of licence fees (administrative fees and, where relevant, load based fees) that are payable. If load based fees apply to the activity the applicant will be required to submit load-based fee calculation work sheets with the return.

PRESCRIBED (BUILDING)

97. It is the responsibility of the applicant to restrict public access to the building site, building works or materials or equipment on the site when building work is not in progress or the site is otherwise unoccupied.

98. All building work (other than work relating to the erection of a temporary building) must be carried out in accordance with the requirements of the Building Code of Australia (as in force on the date the application for the relevant construction certificate or complying development certificate was made).

99. The erection of a building in accordance with a development consent must not be commenced until:

    a. detailed plans and specifications of the building have been endorsed with a construction certificate by:

        (i) the consent authority; or

        (ii) an accredited certifier; and

    b. the person having the benefit of the development consent:

        (i) has appointed a Principal Certifying Authority; and

        (ii) has notified the consent authority and the Council (if the Council is not the consent authority) of the appointment; and

    c. the person having the benefit of the development consent has given at least 2 days notice to the Council of the person's intention to commence the erection of the building.

100. Prior to occupation of the building a Occupation Certificate is to be obtained. If Council is requested to issue the Occupation Certificate, the application must be accompanied by relevant Compliance Certificates or documentary evidence of compliance.

101. Prior to work commencing, a "Notice of Commencement of Building or Subdivision Work and Appointment of Principal Certifying Authority" shall be submitted to Council at least **2 days** prior to work commencing.

102. The building is not to be occupied or a final occupation certificate issued until a fire safety certificate has been issued for the building to the effect that each required essential fire safety measure has been designed and installed in accordance with the relevant standards.

FIRE (BUILDING)

103. All fire service connections are to be compatible with those of the NSW Fire Brigade.

FURTHER APPROVALS

104. Submission and approval of any necessary applications for the upgrade of electrical infrastructure and connection to enable export of electricity from the site.

105. The footpath area is to be upgraded to the kerb and turfed for the full frontage of the site.

106. The access road into the stockpile site is to be sealed for its entirety or alternatively 20 metres at 6 metres wide with a "wheel wash" or other approved device by the Director of Development Services.

107. The access roads at the plant in McLeod Street are to be sealed 6m wide where 2 way traffic and 4 metres where one way traffic to the satisfaction of the Director of Development Services.

108. The provision of adequate vehicular access in accordance with Council's "Vehicular Access to Property Construction Specification" pamphlet, including the provision of an invert crossing at the kerb and gutter where required and paving of the driveway across the footpath to the front alignment to the satisfaction of the Director, Engineering Services. Twenty four (24) hours notice is to be given to Council's Engineering Services Division before placement of concrete to enable formwork to be inspected. Failure to do so may result in rejection of the vehicular access and its reconstruction.

109. The concrete driveway across the footpath is to be 200 millimetres thick minimum and reinforced with F82 mesh with 40mm cover.

110. All stormwater from roof catchment to be connected directly into road drainage pits if available, or to kerb and gutter, along the frontage of the site.

111. Provision to be made for a flood free storage area for stock and equipment susceptible to water damage.

112. Building materials used below Council's minimum floor level of RL 5.3m AHD must not be susceptible to water damage.

113. Subject to the requirements of Northpower, all electrical wiring, power outlets, switches, etc, should, to the maximum extent possible be located above the design flood level. All electrical wiring installed below the design flood level should be suitably treated to withstand continuous submergence in water.

113A. Prior to commencement of operations a Spillage Management Plan for the aboveground Fuel Oil Tank shall be compiled and implemented and made available to authorised officers upon required.

113B. NSW Workcover requirements shall be implemented and any approvals gained for the storage of hazardous chemicals and waste.

SERVICES

114. Sewer main within site is to be accurately located and the Principal Certifying Authority advised of its location and depth prior to start of any building works.

115. The building is to be sited at least one metre horizontally clear of sewer main on site. All footings and slabs within the area of influence of the sewer main are to be designed by a practising Structural Engineer. The engineer is to submit a certification to the Principal Certifying Authority that the design of such footings and slabs will ensure that all building loads will be transferred to the foundation material and will not effect or be affected by the sewer main.

116. **Note:** Sewer manhole is present on this site. This manhole is not to be covered with soil or other material or concealed below ground level.

Should additional fill be proposed in the area of the sewer manhole Council's Engineering Services Division must be consulted and suitable arrangements made for the raising of the manhole to the satisfaction of Council's Manager Public Utilities.

PLUMBING & DRAINAGE

117. Council is to be given 24 hours notice for any of the following inspections prior to the next stage of construction:

a. internal drainage, prior to slab preparation;

b. water plumbing rough in, and/or stackwork prior to the erection of brick work or any wall sheeting;

c. external drainage prior to backfilling.

d. completion of work.

118. A. A plumbing permit is to be obtained from Council prior to commencement of any plumbing and drainage work.

B. The whole of the plumbing and drainage work is to be completed in accordance with the requirements of the NSW Code of Practice for Plumbing and Drainage.

119. An application to connect to Council's sewer is to be submitted to and approved by Council prior to the commencement of any works on the site.

120. Back flow prevention devices shall be installed where ever cross connection occurs or is likely to occur. The type of device shall be determined in accordance with AS 3500.1 and shall be maintained in working order and inspected for operational function at intervals not exceeding 12 months in accordance with Section 4.7.2 of this Standard.

121. Prior to commencement of building works provide hydraulic drawings on the proposed sewer drainage systems including pipe sizes, details of materials and discharge temperatures and water reticulation system.

ENVIRONMENT PROTECTION

122. Suitable covering and protection is to be provided to ensure that no material is removed from the site by wind, causing nuisance to neighbouring properties.

123. All work associated with this approval is to be carried out so as not to cause a nuisance to residents in the locality from noise, water or air pollution.

124. The use to be conducted so as not to cause disruption to the amenity of the locality, particularly by way of the emission of noise, dust, fumes or the like.

125. All activities associated with the occupancy of the building are to comply with the Protection of the Environment Operations Act, 1997.

126. The wall and roof cladding is to be of a non reflective nature to the satisfaction of the Principal Certifying Authority.

127. Any discharge to Councils sewer is to be to the satisfaction of the Director of Engineering Services and is to comply with Councils Trade Waste Policy.

128. Dust minimisation measures are to be implemented for the fuel stockpile area generally in accordance with Section 9.1 of Jelliffe Environmental QLD Pty Ltd Report No. Q990006 (A,2 2/03) dated 15 June 2000.

129. No fuel or washdown water is permitted to exit the premises via existing stormwater infrastructure.

130. Any spills must be cleaned up immediately using dry methods; absorbent materials should be readily available for this purpose and staff should be trained in spill management.

The reasons for the imposition of conditions are to minimise any adverse impact the development may cause and to give effect to the objectives of the Environmental Planning and Assessment Act, 1979.

The application was determined on: **6 December 2000**
The consent to operate from: **11 December 2000**
The consent to lapse on **11 December 2005** unless commenced prior to that date.

Right of Appeal

If you are dissatisfied with this decision Section 97 of the Environmental Planning and Assessment Act, 1979 gives you to right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.

Signed on behalf of the Tweed Shire Council .....

Garry Smith, Manager Development Assessment
11 December 2000

Condong Cogeneration Plant – Recovered Timber Fuel Project

Scoping Report

Appendix B

Development Consent DA 02/1915.01 – Overland Conveyor

Please Quote Council Ref: DA02/1915.01

23076

Your Ref No:

For Enquiries Please Contact: Chris Larkin

Telephone Direct (02) 6670 2496

s96notice.dot

13 October 2003

NSW Sugar Milling CO
Condong Mill
McLeod Street
MURWILLUMBAH NSW 2484

Dear Sir/Madam

Section 96 Application DA02/1915.01 - amendment to Development Consent DA02/1915 for an overland conveyor for Condong co-generation facility for transport of biomass to and from co-generation plant at Part Lot 16 DP 255029, Lot 18 DP 255029, Part Lot 19 DP 255029, No. 123-153 McLeod Street, Condong

I refer to your application regarding the above and enclose herewith Amended Consent DA02/1915.

The consent has been amended as follows: -

Amend Condition No. 7 to read

7. The support structures for the spans of the conveyor over McLeod Street are not to be located within the road reserve.

   The western support structure for the span of the conveyor over the Tweed Valley Way must not be within the road reserve. The eastern support structure for the span of the conveyor over Tweed Valley Way must not be a minimum distance of 33 metres from the western boundary of the road reserve. The span is to be protected by a guardrail complying with the relevant RTA Design Standards. Detailed Design Plans to be submitted to Council and approved by the Director of Engineering Services prior to construction.

Yours faithfully

Garry Smith
Manager Development Assessment

Enc

AMENDED CONSENT ISSUED 13/10/2003

NOTICE NO. DA02/1915

TWEED SHIRE COUNCIL

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

NOTICE OF DETERMINATION OF A DEVELOPMENT APPLICATION

To: NSW Sugar Milling CO-OP Ltd
C/ Daniel Willis
Leddy Sergiacomi & Associates Pty Ltd
PO Box 1256
CALOUNDRA QLD 4551

Pursuant to Section 81(1)(a) of the Act, notice is hereby given of the determination by the Tweed Shire Council of Development Application No. **DA02/1915** relating to land described as:-

Part Lot 16 DP 255029
Lot 18 DP 255029
Lot 19 DP 255029
No. 123-153 McLeod Street
CONDONG

to be developed in accordance with plans and details submitted for the purpose of –

OVERLAND CONVEYOR FOR CONDONG CO-GENERATION FACILITY FOR TRANSPORT OF BIOMASS TO AND FROM CO-GENERATION PLANT

The Development Application has been determined by the granting of consent subject to the conditions described below:-

GENERAL

1. The development shall be completed in accordance with the Statement of Environmental Effects and Plan Nos MHN0309-10 and MNH0309 dated 17/7/01 and prepared by Barclay Mowlem Construction Ltd, except where varied by these conditions.
2. Approval is given subject to the location of, protection of, and/or any necessary modifications to any existing public utilities situated within the subject property.
3. The erection of a building in accordance with a development consent must not be commenced until:
   a. detailed plans and specifications of the building have been endorsed with a construction certificate by:
      (i) the consent authority; or
      (ii) an accredited certifier; and
   b. the person having the benefit of the development consent:
      (i) has appointed a Principal Certifying Authority; and

(ii) has notified the consent authority and the Council (if the Council is not the consent authority) of the appointment; and

c. the person having the benefit of the development consent has given at least 2 days notice to the Council of the person's intention to commence the erection of the building.

4. The issue of this Development Consent does not certify compliance with the relevant provisions of the Building Code of Australia.

5. A Landscape Plan to be submitted to Council's Director Development Services for approval prior to the issue of the Construction Certificate. The plan is to include but is not limited to plantings either side of the Overland Conveyor on Lot 18 and 19 DP 255029 adjacent to Tweed Valley Way to screen the development. The plan is to include species and number of plants to be planted and management regime. Only natives endemic to the area are to be used.

6. Approval to be sought and obtained form the Director of Planning NSW for the leasing of the road reserve in accordance with Section 149 of the Roads Act 1993. Such approval to be obtained prior to the issue of the construction certificate.

7. The support structures for the spans of the conveyor over McLeod Street are not to be located within the road reserve.

   The western support structure for the span of the conveyor over the Tweed Valley Way must not be within the road reserve. The eastern support structure for the span of the conveyor over Tweed Valley Way must be a minimum distance of 33 metres from the western boundary of the road reserve. The span is to be protected by a guardrail complying with the relevant RTA Design Standards. Detailed Design Plans to be submitted to Council and approved by the Director of Engineering Services prior to construction

8. The conveyor is to be enclosed and clad in colourbond or similar non reflective materials.

9. The overland conveyor shall provide for a minimum clearance of 7 metres above McLeod Street or Tweed Valley Way.

PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

10. Notwithstanding the issue of this development consent, separate consent from Council under Section 138 of the Roads Act 1993, must be obtained prior to any works taking place on a public road including the construction of new driveway access (or modification of access). Applications for consent under Section 138 must be submitted on Council's standard application form and be accompanied by the required attachments and prescribed fee.

11. The footings and floor slab are to be designed by a practising Structural Engineer after consideration of a soil report from an accredited soil testing laboratory and shall be submitted to and approved by the Principal Certifying Authority prior to the issue of a construction certificate.

12. Details from a Structural Engineer are to be submitted to the Principal Certifying Authority for approval for the whole structure, prior to the issue of a construction certificate.

13. Prior to the issue of the Construction Certificate any alternative solution in relation to Building Code of Australia compliance is to be submitted to the PCA for approval with specific details in regard to compliance with the following sections of the Building Code of Australia

    * Section C Fire Resistance
    * Section D Access and Egress
    * Section E Service and Equipment

    The results of the alternative solution are to be accompanied by a report from a suitably qualified peer review panel confirming that the alternative solutions will satisfy the performance requirements contained in the Building Code of Australia.

PRIOR TO COMMENCEMENT OF WORK

14. Please note that while the proposal, subject to the conditions of approval, may comply with the provisions of the Building Code of Australia for persons with disabilities your attention is drawn to the Disability Discrimination Act which may contain requirements in excess of those under the Building Code of Australia. It is therefore required that these provisions be investigated prior to start of works to determine the necessity for them to be incorporated within the design.
15. All cut or fill on the property is to be battered at an angle not greater than 45° within the property boundary, stabilised to the satisfaction of the Principal Certifying Authority and provided with a dish drain or similar at the base or otherwise retained to the satisfaction of the Principle Certifying Authority. All retaining works shall be completed to the satisfaction of the Principal Certifying Authority prior to start of building work. Please note timber retaining walls are not permitted.
16. A sign must be erected on the site in a prominent, visible position stating:
    a. that unauthorised entry to the work site is prohibited; and
    b. showing the name of the builder, or another person responsible for the site and a telephone number at which the builder or other person can be contacted outside working hours.
    c. Lot number.
17. Prior to work commencing, a "Notice of Commencement of Building or Subdivision Work and Appointment of Principal Certifying Authority" shall be submitted to Council at least **2 days** prior to work commencing.
18. Sewer main within site is to be accurately located and the Principal Certifying Authority advised of its location and depth prior to start of any building works.
19. All roof waters are to be disposed of through properly jointed pipes to the street gutter, interallotment drainage or to the satisfaction of the Principal Certifying Authority. All PVC pipes to have adequate cover and installed in accordance with the provisions of AS/NZS3500.3.2. **Note** All roof water must be connected to an interallotment drainage system where available. A detailed stormwater and drainage plan is to be submitted to and approved by the PCA prior to commencement of building works.
20. Prior to commencement of works all required sedimentation and siltation control measures are to be installed and operational to the satisfaction of the Principal Certifying Authority.

    Erosion and sediment control shall be in accordance with *the "Tweed Urban Stormwater Quality Management Plan*" (adopted by Council 19 April 2000) section 5.5.2 "Stormwater Objectives During the Construction Phase of New Development". This section requires all new development to comply with Appendix E of the Plan "*Tweed Shire Council Aus-Spec D7 - Stormwater Quality*" and its Annexure A - "Code of Practice for Soil and Water Management on Construction Works". Erosion and sediment controls shall remain in place until final approval is given and the maintenance bond has been released.

DURING CONSTRUCTION

21. All reasonable steps shall be taken to muffle and acoustically baffle all plant and equipment. In the event of complaints from the neighbours, which Council deem to be reasonable, the noise from the construction site is not to exceed the following:

    A. Short Term Period - 4 weeks.

    L10 noise level measured over a period of not less than 15 minutes when the construction site is in operation, must not exceed the background level by more than 20dB(A) at the boundary of the nearest likely affected residence.

    B. Long term period - the duration.

    L10 noise level measured over a period of not less than 15 minutes when the construction site is in

operation, must not exceed the background level by more than 15dB(A) at the boundary of the nearest affected residence.

22. All building work (other than work relating to the erection of a temporary building) must be carried out in accordance with the requirements of the Building Code of Australia (as in force on the date the application for the relevant construction certificate or complying development certificate was made).
23. The builder must provide an adequate trade waste service to ensure that all waste material is contained, and removed from the site for the period of construction.
24. The certifying authority is to be given 24 hours notice for any of the following inspections prior to the next stage of construction:
    a. footings, prior to pouring of concrete
    b. frame
    c. completion of work
25. It is the responsibility of the applicant to restrict public access to the building site, building works or materials or equipment on the site when building work is not in progress or the site is otherwise unoccupied.
26. All work associated with this approval is to be carried out so as not to cause a nuisance to residents in the locality from noise, water or air pollution.
27. Construction site work including the entering and leaving of vehicles is to be restricted to between 7.00 am and 7.00 pm Monday to Saturday and no work on Sundays or public holidays.
28. In the event that Council is not utilised as the inspection/Certifying authority, within seven (7) days of building works commencing on the site a Compliance Certificate in the prescribed form is to be submitted to Council together with the prescribed fee, by the nominated principal certifying authority to certify the following:
    i. All required erosion and sedimentation control devices have been installed and are operational.
    iii. A sign has been erected on the site identifying:
        - Lot number
        - Builder
        - Phone number of builder or person responsible for site.
    iv. All conditions of consent required to be complied with prior to work commencing on the site have been satisfied.
29. Any damage caused to public infrastructure (roads, footpaths, water and sewer mains, power and telephone services etc) during construction of the development shall be repaired to the satisfaction of the Director of Engineering Services prior to the issue of a Subdivision Certificate and/or prior to any use or occupation of the buildings.
30. House drainage lines affected by the proposal are to be relocated to Council's satisfaction. Inspection of drainage works prior to covering is required.
31. The provision of five off street car parking spaces. The layout and construction standards to be in accordance with Development Control Plan No. 2 - Parking Controls.

PRIOR TO ISSUE OF OCCUPATION CERTIFICATE

32. Prior to the issue of the Occupation Certificate the air space over Tweed Valley Way and McLeod Street containing the overland conveyor shall be defined using the Australian Height Datum reduced levels by a subdivision for lease purposes over public roads. This subdivision for lease purposes shall be endorsed by Tweed Shire Council and shall be registered at the Land and Property

Information Office prior to the issue of the Occupation Certificate.

33. In the event that Council is not utilised as the inspection/certifying authority, prior to occupation of the building a Compliance Certificate in the prescribed form is to be submitted to Council from the nominated principal certifying authority, together with the prescribed fee, to certify that all work has been completed in accordance with the approved plans and specifications, conditions of Consent and the relevant provisions of the Building Code of Australia.
34. On completion of work a certificate signed by a practising structural engineer is to be submitted to the PCA to certify the structural adequacy of the structure.

USE

35. The use to be conducted so as not to cause disruption to the amenity of the locality, particularly by way of the emission of noise, dust, fumes or the like.
36. No lighting is to spill from the Conveyor onto adjoining properties or residences which may cause a nuisance.

The reasons for the imposition of conditions are to minimise any adverse impact the development may cause and to give effect to the objectives of the Environmental Planning and Assessment Act, 1979.

The application was determined on: **2 July 2003**
The consent to operate from: **7 July 2003**
The consent to lapse on 7 July 2008 unless commenced prior to that date.
Building Code of Australia Building Classification: **8 - Factory**

RIGHT OF APPEAL
If you are dissatisfied with this decision Section 97 of the Environmental Planning and Assessment Act, 1979 gives you to right to appeal to the Land and Environment Court within 12 months after the date on which you receive this notice.

Signed on behalf of the Tweed Shire Council

Garry Smith, Manager Development Assessment
7 July 2003

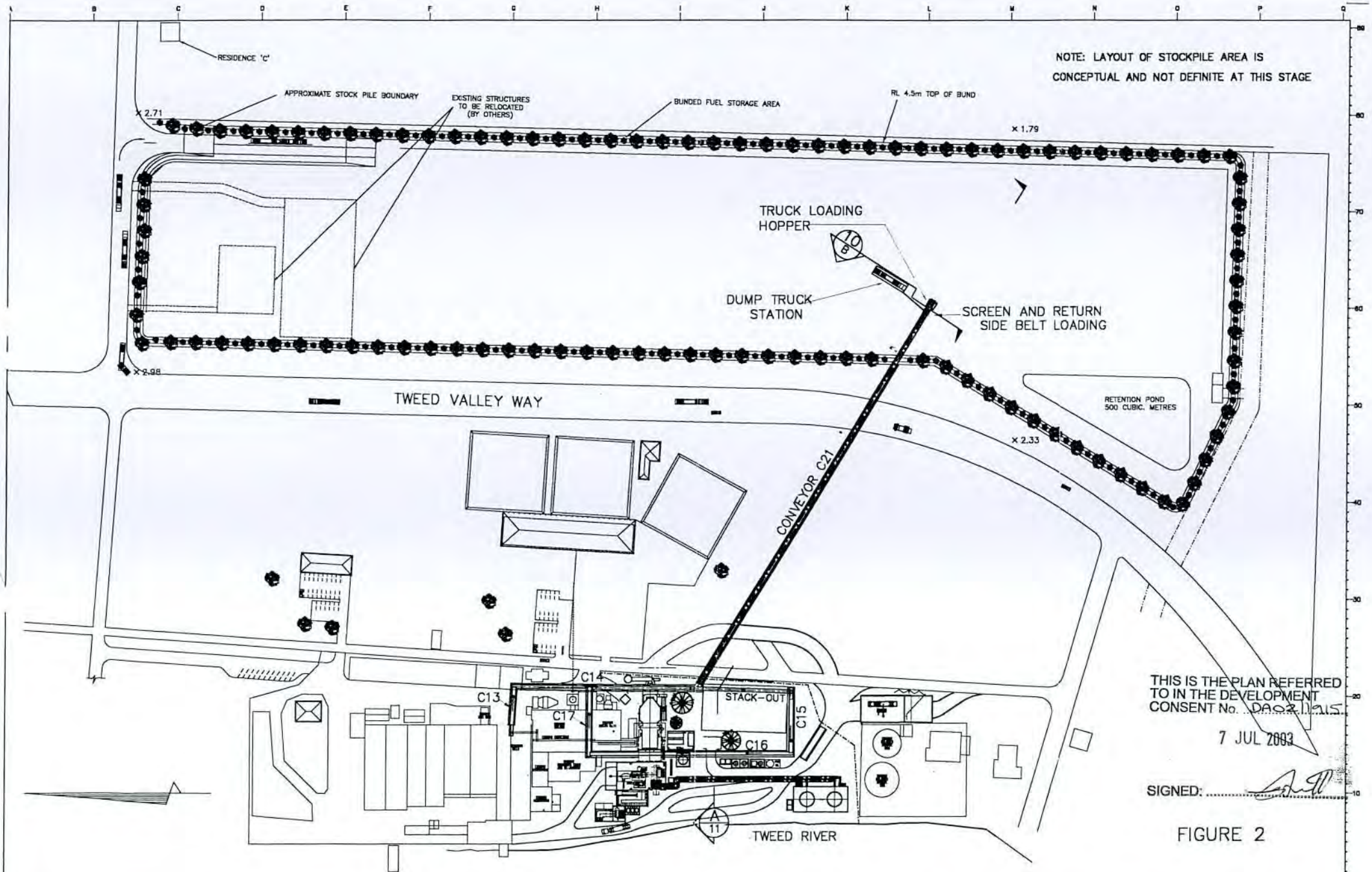

FIGURE 2

REVISIONS	DESCRIPTION	REFERENCES
B 27.6.01	DUMP TRUCK STATION RELOCATED, CONVEYOR C21 MODIFIED	DRAWING No.
A 17.07.01	FOR TENDER PURPOSES ONLY	SAM/BJG

BARCLAY MOWLEM
BARCLAY MOWLEM CONSTRUCTION LIMITED

ITEM	DESCRIPTION	REQ'D	MATERIAL	REMARKS
	CLYDE BABCOCK-HITACHI (AUST) P/L.			CLIENT'S DRAWING No.
	CONDONG PROJECT			
	SUGAR MILL COGENERATION			
	SITE PLAN			

DRAWN	SAM	DATE	09.07.01
CHECKED	BJG	DATE	17.07.01
SCALE		DRAWING NUMBER	REV

Condong Cogeneration Plant – Recovered Timber Fuel Project

Scoping Report

Appendix C

Environment Protection Licence EPL 20424

Environment Protection Licence

Licence - 20424

Licence Details	
Number:	20424
Anniversary Date:	20-May

Licensee

CAPE BYRON MANAGEMENT PTY LTD

153 MCLEOD STREET

CONDONG NSW 2484

Premises

CONDONG COGENERATION POWER PLANT

122-153 MCLEOD STREET

CONDONG NSW 2484

Scheduled Activity

Electricity generation

Fee Based Activity	Scale
Generation of electrical power otherwise than from coal, diesel or gas	> 250-450 GWh annual generating capacity

Region

North - North Coast

NSW Govt Offices, 49 Victoria Street
GRAFTON NSW 2460

Phone: (02) 6640 2500

Fax: (02) 6642 7743

PO Box 498

GRAFTON NSW 2460

Environment Protection Licence

Licence - 20424

Environment Protection Licence

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Environment Protection Licence

Licence - 20424

Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

Environment Protection Licence

Licence - 20424

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

CAPE BYRON MANAGEMENT PTY LTD
153 MCLEOD STREET
CONDONG NSW 2484

subject to the conditions which follow.

Environment Protection Licence

Licence - 20424

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Electricity generation	Generation of electrical power otherwise than from coal, diesel or gas	> 250 - 450 GWh annual generating capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
CONDONG COGENERATION POWER PLANT
122-153 MCLEOD STREET
CONDONG
NSW 2484
PART LOT 19 DP 255029, PART LOT 23 DP 255029, PART LOT 1 DP 1058392
REFER CONDONG SECOND SCHEDULE DOCUMENT OUTLINING LAND, LANDHOLDERS PROPERTY, COMMON AREAS, COMMON FIXTURES, LICENSED AREA A GRANTED BY THE LANDLORD IN FAVOUR OF THE TENNANTS AND LICENSED AREA B GRANTED BY THE TENNANTS IN FAVOUR OF THE LANDLORD PROVIDED TO EPA ELECTRONICALLY ON 15 MAY 2014. REFER TO TO CONDONG COGENERATION SITE PLAN LICENCE AND LEASE AREA DRAWINGS OF 8 FEBRUARY 2005 AND 28 AUGUST 2013. **ALSO REFER DRAWING TITLED "CONDONG SUGAR MILL EPA IDENTIFIED MONITORING POINTS" INCLUDING LOT DETAILS ISSUED 10 FEBRUARY 2014).**

A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Discharge to air and air emissions monitoring	Discharge to air and air emissions monitoring	New Stack 1 labelled as "EPA Identification Point #1
2	Air Monitoring		High volume sampler located at Meteorological station, North of Fuel stockpile area labelled as "EPA Identification Point #8"
4	Dust Deposition: East of Mill		Located North of Bowling Club (west of fuel storage area) as shown on the aerial photograph dated 3/12/08 labelled as "EPA Identification Point #11"
5	Dust Deposition: South of Mill		Located South West of fuel stockpile area on Tweed Valley Way as shown on aerial photograph 3/12/08 labelled as "EPA Identification Point #12"
6	Discharge to air and air emissions monitoring	Discharge to air and air emissions monitoring	Meter located prior to (upstream of) the primary air heater, labelled as "EPA Ident. No. 13" on Site Plan EPA-012011 submitted to the EPA on 10 May 2011

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description

8	Monitoring of background water quality (temperature only to determine compliance at point 9)		Pump intake pipe labelled as "EPA point #4" on the drawing titled "Site Map EPA Licence No. 170 Condong 1/10/05" submitted to the EPA on 10 May 2011. Shown as "EPA Identification Point #4" on drawing titled "Condong Sugar Mill EPA Ident. Pnts on 10.2.1
9	Cogeneration effluent from cooling tower - quality and volume monitoring	Cogeneration effluent from cooling tower - quality and volume monitoring	North Cooling water pump, adjacent to cooling tower (Shown as "EPA identification point #7" Condong Sugar Mill EPA Ident. Point on 10.2.14)
10		Cogeneration effluent from cooling tower - discharge to Tweed River	Pipe attached to Mill discharge torri drain (point #3). Labelled as "EPA Identification Point #9" on drawing titled "Condong Sugar Mill EPA Identification Monitoring Points" issued 10 February 2014 and submitted to the EPA
11		Stormwater runoff from fuel stockpile area that have not entered or been treated by the capture and treatment basin	The discharge point is at the inlet to the culvert before the bypass waters leave the site.
12	Stormwater discharge from capture and treatment basin	Stormwater discharge from capture and treatment basin	Southern end of stockpile storage site on the eastern side of Tweed Valley Way. These discharge waters are separate and distinct from waters at Point 11

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L1.2 Discharge of biological oxygen demand, nitrogen, pH, phosphorus, and suspended solids to waters from Point 11 is permitted when the discharge occurs solely as a result of rainfall at the premises exceeding a total of 82 millimetres over any consecutive five day period.

L2 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table\s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the

specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutants other than those also specified in the table/s and condition L1.2.

L2.4 Air Concentration Limits

POINT 1

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Nitrogen Oxides	milligrams per cubic metre	500			
Solid Particles	milligrams per cubic metre	100			
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	30			

L2.5 Water and/or Land Concentration Limits

POINT 9

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Biochemical oxygen demand	milligrams per litre		30		100
Nitrogen (total)	milligrams per litre		45		70
pH (Wet)	pH				6.5 to 8.5
Phosphorus (total)	milligrams per litre		2.5		7
Temperature	degrees Celsius		3>bgd		5>bgd
Total residual chlorine	milligrams per litre		0.3		0.5
Total suspended solids	milligrams per litre		40		100

Environment Protection Licence

Licence - 20424

POINT 12

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
BOD	milligrams per litre		30		55
Nitrogen (total)	milligrams per litre		10		20
pH	pH				6.5 - 8.5
Total suspended solids	milligrams per litre				50

L2.6 The concentration limits for point 12 only apply for discharges after 30 March 2017.

L2.7 In respect of Point 12, if the pH of the discharge is less than 6.5, the pH of the discharge must be greater than that of the receiving waters at the point of discharge into the canal.

L2.8 For the purposes of the table above ">bgd" means the temperature in degrees celsius above the background temperature of the receiving waters. Background temperature is to be determined in accordance with condition M2.1 at point 8.

L2.9 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\s.

L3 Waste

L3.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.
Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.
Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.
This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	Wood waste			NA
NA	General or Specific exempted waste			NA

L3.2 There must be no incineration or burning of chemically treated timber at the premises unless specifically

approved by EPA in writing.

L3.3 The table below sets out conditions permitting the disposal of cannabis under the direct supervision of the NSW Police Force.

Waste	Description	Activitiy	Limits
Cannabis	Cannabis confiscated by the NSW Police Force	Destruction by way of burning of cannabis under the direct supervision of the NSW Police Force	<200 tonnes per annum

L4 Noise limits

Note: Operational noise during "non-crush" season from the premises must not exceed limits presented in the table below.

For the purpose of noise measurements the L_{A10} noise level must be measured or computed at the most affected receiver specified using "Fast" response on the sound level meter over a period of 15 minutes. The measurement location is the receiver boundary or 30 metres from the receiver facade where the boundary is more than 30 metres away from the receiver facade.

A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the Environmental Noise Management - Industrial Noise Policy (January 2000).

Receiver Area	Day Limit: 7am to 10pm LA10 (15 minute) dB(A)	Night Limit: 10pm to 7am LA10 (15 minute) dB(A)
Residence C - Clothiers Road 400m ENE of plant stack	49	38
Residence D - 380m North of plant stack	49	38
Residence E - 445m South of plant stack	47	37

L4.1 The noise emission limits identified in this licence apply under all meteorological conditions except:
a) during rain and wind speeds (at 10m height) greater than 3m/s; and
b) under "non-significant weather conditions".

Note: Field meteorological indicators for non-significant weather conditions are described in the NSW Industrial Noise Policy, Chapter 5 and Appendix E in relation to wind and temperature inversions.

L5 Potentially offensive odour

L5.1 No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the Protection of the Environment Operations Act 1997.

L5.2 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the

premises.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O1.2 The capacity of the stormwater capture and treatment pond is to be restored within 5 days of rainfall ceasing, reinstating capacity to capture run-off from the design rainfall (ie an 82mm 5 day rainfall event).

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
a) must be maintained in a proper and efficient condition; and
b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

All activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises. This includes the following: ash handling, transporting fuel via the conveyor system, fuel transfer stations and the stockpile storage area.

Fuel Storage and Stockpile Area

O3.2

a) Stockpiles must be covered except where fuel retrieval or deposits prevents this taking place.

b) Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

c) A meteorological station must be maintained at the fuel stockpile area to assist with dust emission control strategies. The meteorological station should be sited and operated in accordance with methods AM-1, AM-2 and AM-4 which are detailed in the “Approved Methods for the Sampling and Analysis of Air Pollutants in NSW”. The station must contain and operate an alarm (in an appropriate position) that will notify the staff to cease operations at the stockpile storage area when wind speed exceeds 10 m/s.

d) All stockpile fuel movement and retrieval operations must cease when wind speeds exceed 10 m/s.

O4 Waste management

O4.1 Controlled discharges from the stormwater capture and treatment pond can only occur in compliance with the discharge limits at L2.5. Stormwater captured in the capture and treatment pond that cannot be discharged in compliance with the limits or reused must be disposed of at a lawful facility. Reuse must be in accordance with the plan developed in accordance with U1.1.

O4.2 The stormwater management system at the fuel stockpile area is to be maintained to ensure that run-off from all rainfall events up to 82mm over a five day period are captured in the capture and treatment pond.

Above the design capacity, runoff should bypass the capture and treatment pond to Point 11.

O4.3 No irrigation is to occur on the site whenever a bypass flow is occurring. This requirement is to be incorporated into the Stormwater Reuse/Disposal Plan referred to in condition U1.1

O5 Other operating conditions

O5.1

Only Standard fuels as defined by EPA may be used by the premises as boiler fuel, which include:
a) untreated timber residues, such as from forest operations or sawmilling, but excluding any form of treated or painted timber
b) bagasse from sugar cane,
c) petroleum distillate or LPG, (permitted for start up and combustion support) and,
d) any other fuels to be used must be approved by EPA in writing.

5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and

c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Air Monitoring Requirements

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Carbon dioxide	percent	Quarterly	TM-24
Dry gas density	kilograms per cubic metre	Quarterly	TM-23
Moisture content	percent	Quarterly	TM-22
Molecular weight of stack gases	grams per gram mole	Quarterly	TM-23
Solid Particles	milligrams per cubic metre	Quarterly	TM-15
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Quarterly	TM-3
Temperature	degrees Celsius	Quarterly	TM-2
Velocity	metres per second	Quarterly	TM-2
Volumetric flowrate	cubic metres per second	Quarterly	TM-2

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Continuous	AM-19
PM10	micrograms per cubic metre	Special Frequency 1	AM-18

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Continuous	AM-19

POINT 5

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Continuous	AM-19

POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Oxygen (O2)	percent	Continuous	CEM-3

M2.3 For the purposes of the table(s) above Special Frequency 1 means the collection of samples once every 7 days when the stockpile site is operating.

M2.4 Water and/ or Land Monitoring Requirements

POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
Temperature	degrees Celsius	Fortnightly	Representative sample

POINT 9

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Weekly	Composite sample
Nitrogen (total)	milligrams per litre	Weekly	Composite sample
pH (Wet)	pH	Continuous	In line instrumentation
Phosphorus (total)	milligrams per litre	Weekly	Composite sample
Temperature	degrees Celsius	Continuous	In line instrumentation
Total residual chlorine	milligrams per litre	Weekly	Grab sample
Total suspended solids	milligrams per litre	Weekly	Composite sample

POINT 12

Pollutant	Units of measure	Frequency	Sampling Method

BOD	milligrams per litre	Special Frequency 2	Grab sample
Nitrogen (total)	milligrams per litre	Special Frequency 2	Grab sample
pH	pH	Special Frequency 2	Probe
Phosphorus (total)	milligrams per litre	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

M2.5 Special Frequency 2 means sampling any discharge, whether controlled or otherwise, which has not occurred from rainfall exceeding 82mm over any consecutive five day period.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M3.2 Samples taken pursuant to a requirement in this licence to monitor the volume, mass or concentration of pollutants, must be analysed and reported in accordance with the laboratory accreditation requirements set out in section 2.1.3 of the Load Calculation Protocol.

The Load Calculation Protocol is the Protocol referred to in clause 18 of the Protection of the Environment Operations (General) Regulation 1998. A copy of the Protocol was published in the Government Gazette on 25 June 1999 and can be purchased from the EPA or viewed at http://www.epa.nsw.gov.au.

M3.3 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Weather monitoring

M4.1 The licensee is required to install and maintain a rainfall depth measuring device capable of recording individual rain events in addition to total daily rainfall.

M4.2 Rainfall from each rainfall event at the premises must be measured and recorded in millimetres (mm).

M5 Recording of pollution complaints

M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M5.2 The record must include details of the following:
a) the date and time of the complaint;
b) the method by which the complaint was made;
c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M6 Telephone complaints line

M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M6.3 The preceding two conditions do not apply until 3 months the date of the issue of this licence.

M7 Requirement to monitor volume or mass

M7.1 For each discharge point or utilisation area specified below, the licensee must monitor:
a) the volume of liquids discharged to water or applied to the area;
b) the mass of solids applied to the area;
c) the mass of pollutants emitted to the air;
at the frequency and using the method and units of measure, specified below.

POINT 9

Frequency	Unit of Measure	Sampling Method
Continuous	kilolitres per day	In line instrumentation

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6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or
b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

Environment Protection Licence

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7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environmen t Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 mo nths. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste

Mr Graeme Budd

Environment Protection Authority

(By Delegation)

Date of this edition: 20-May-2014

End Notes

2	Licence varied by notice	1524423 issued on 11-Nov-2014
3	Licence varied by notice	1533787 issued on 28-Sep-2015
4	Licence varied by notice	1544975 issued on 29-Sep-2016
5	Licence varied by notice	1550552 issued on 24-Mar-2017
6	Licence varied by notice	1582154 issued on 05-Jul-2019

Condong Cogeneration Plant – Recovered Timber Fuel Project

Scoping Report

Appendix D

EPBC Protected Matters Search Results

Australian Government

Department of Agriculture, Water and the Environment

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about Environment Assessments and the EPBC Act including significance guidelines, forms and application process details.

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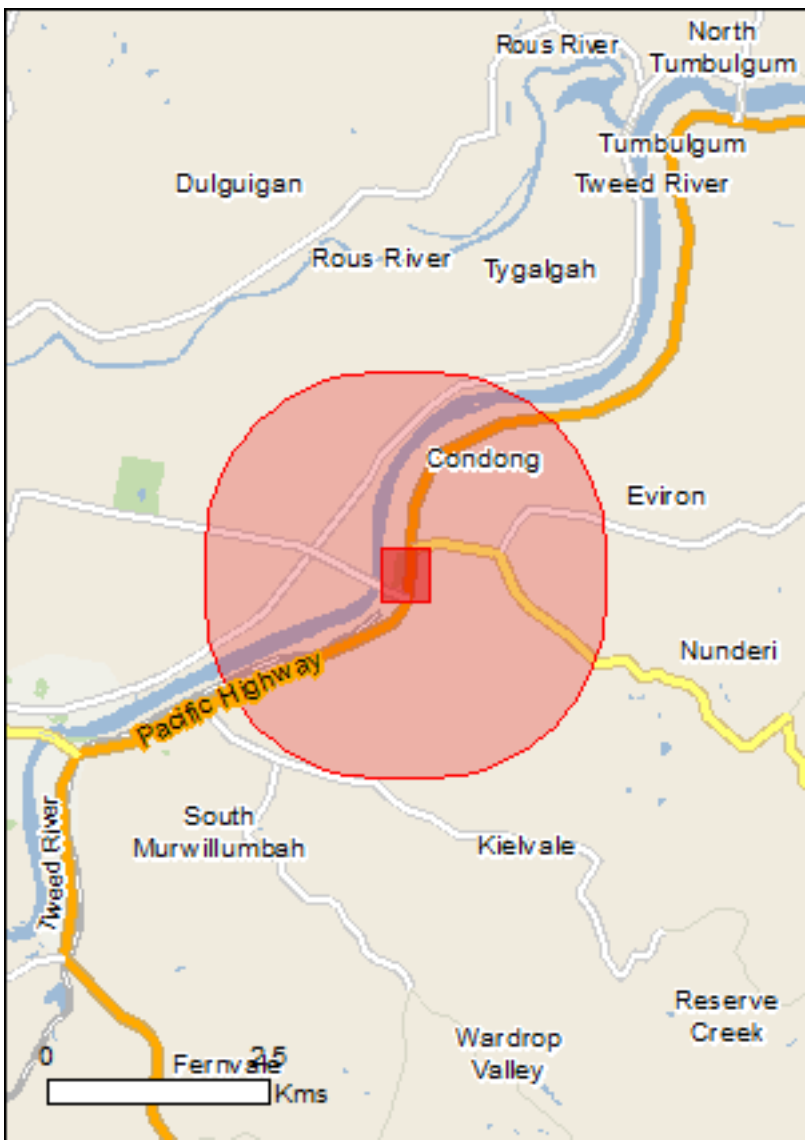

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Coordinates

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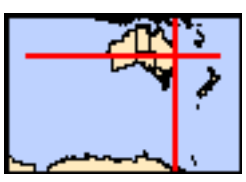

Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	72
Listed Migratory Species:	38

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at http://www.environment.gov.au/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	43
Whales and Other Cetaceans:	1
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	1
Invasive Species:	35
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community likely to occur within area

Listed Threatened Species [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat likely to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
Diomedea antipodensis gibsoni Gibson's Albatross [82270]	Vulnerable	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat known to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat likely to occur within area
Thinornis cucullatus cucullatus Hooded Plover (eastern), Eastern Hooded Plover [90381]	Vulnerable	Species or species habitat may occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
Fish		
Epinephelus daemelii Black Rockcod, Black Cod, Saddled Rockcod [68449]	Vulnerable	Species or species habitat may occur within area
Frogs		
Litoria olongburensis Wallum Sedge Frog [1821]	Vulnerable	Species or species habitat may occur within area
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat likely to occur

Name	Status	Type of Presence within area
Mixophyes iteratus Giant Barred Frog, Southern Barred Frog [1944]	Endangered	Species or species habitat may occur within area
Insects		
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat likely to occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus tridactylus Long-nosed Potoroo (SE Mainland) [66645]	Vulnerable	Species or species habitat likely to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Plants		
Acronychia littoralis Scented Acronychia [8582]	Endangered	Species or species habitat likely to occur within area
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area
Baloghia marmorata Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat may occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area
Cynanchum elegans White-flowered Wax Plant [12533]	Endangered	Species or species habitat likely to occur within area
Davidsonia johnsonii Smooth Davidsonia, Smooth Davidson's Plum, Small-leaved Davidson's Plum [67178]	Endangered	Species or species habitat likely to occur within area
Diploglottis campbellii Small-leaved Tamarind [21484]	Endangered	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Endiandra floydii Floyd's Walnut [52955]	Endangered	Species or species habitat likely to occur within area
Fontainea australis Southern Fontainea [24037]	Vulnerable	Species or species habitat may occur within area
Gossia fragrantissima Sweet Myrtle, Small-leaved Myrtle [78867]	Endangered	Species or species habitat likely to occur within area
Hicksbeachia pinnatifolia Monkey Nut, Bopple Nut, Red Bopple, Red Bopple Nut, Red Nut, Beef Nut, Red Apple Nut, Red Boppel Nut, Ivory Silky Oak [21189]	Vulnerable	Species or species habitat likely to occur within area
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat may occur within area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat likely to occur within area
Marsdenia longiloba Clear Milkvine [2794]	Vulnerable	Species or species habitat likely to occur within area
Ochrosia moorei Southern Ochrosia [11350]	Endangered	Species or species habitat likely to occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat likely to occur within area
Randia moorei Spiny Gardenia [10577]	Endangered	Species or species habitat likely to occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat likely to occur within area
Sophora fraseri [8836]	Vulnerable	Species or species habitat may occur within area
Symplocos baeuerlenii Small-leaved Hazelwood, Shrubby Hazelwood [19010]	Vulnerable	Species or species habitat may occur within area
Syzygium hodgkinsoniae Smooth-bark Rose Apple, Red Lilly Pilly [3539]	Vulnerable	Species or species habitat likely to occur within area
Syzygium moorei Rose Apple, Coolamon, Robby, Durobby, Watermelon Tree, Coolamon Rose Apple [12284]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Tylophora woollsii [20503]	Endangered	Species or species habitat likely to occur within area
Reptiles		

Name	Status	Type of Presence
Caretta caretta Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Coeranoscincus reticulatus Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat may occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Listed Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna grisea Sooty Shearwater [82651]		Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Thalassarche eremita		
Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
Thalassarche impavida		
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris		
Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini		
Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi		
White-capped Albatross [64462]	Vulnerable	Species or species habitat likely to occur within area
Migratory Marine Species		
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Lamna nasus		
Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Lepidochelys olivacea		
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat may occur within area
Manta alfredi		
Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris		
Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur

Name	Threatened	Type of Presence
		within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Ardea alba Great Egret, White Egret [59541]		Breeding known to occur within area
Ardea ibis Cattle Egret [59542]		Breeding likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Species or species habitat may occur within area
Diomedea gibsoni Gibson's Albatross [64466]	Vulnerable*	Species or species habitat may occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat known to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within

Name	Threatened	Type of Presence
		area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Puffinus griseus Sooty Shearwater [1024]		Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area
Thalassarche eremita Chatham Albatross [64457]	Endangered	Species or species habitat may occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat likely to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable*	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat may occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Congregation or aggregation known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area
Lepidochelys olivacea		
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat may occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Whales and other Cetaceans [Resource Information]

Name	Status	Type of Presence
Mammals		
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Species or species habitat likely to occur within area

Extra Information

Regional Forest Agreements [Resource Information]

Note that all areas with completed RFAs have been included.

Name	State
North East NSW RFA	New South Wales

Invasive Species [Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis		
Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia		
Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata		
Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Pycnonotus jocosus		
Red-whiskered Bulbul [631]		Species or species

Name	Status	Type of Presence
		habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat known to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Hymenachne amplexicaulis Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]		Species or species habitat likely to occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-28.31148 153.43354,-28.31148 153.4383,-28.31617 153.4383,-28.31617 153.43354,-28.31148 153.43354

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
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-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact Us page.

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