

5 DESCRIPTION OF ACTIVITY

The site plant and equipment layout shown on **Diagram 4** provides an overview of site activities.

In summary, sawn hardwood logs are delivered to site and cut to length in the log yard (H) and stored in stacks according to length. When required, the logs are moved by endloader to the Sawmill (L) for processing. Most Sawmill processed timber is stacked and moved to the sawn timber storage area (P). Processed timber is then trucked offsite to customers. The primary product produced by Boonnenne Timbers is quality sawn hardwood structural timber for the building industry.

There is a small workshop in the Sawmill, which services and maintains mobile plant associated with the activity. Refuelling of mobile plant occurs onsite at the 1,000 L banded aboveground storage tank (AST) (J). There is minor onsite chemical storage in the Sawmill (L). The *Hazardous Chemical Register*, shown in **Appendix 1**, lists chemicals used on the site. All chemical storages are banded. The onsite office (N) is used for clerical activities and sales. Employee and visitor parking, staff lunch room and ablutions are located immediately north east of the site office. A rain water tank is located on the terrace between the office (N) and chipper (M).

The majority of waste produced by the activity is wood waste (sawdust, bark and chip). These are valuable by-products that are sold for re-use. **Section 7.1 Waste** describes how wastes produced by the activity are managed.

No burning of timber, timber by-products or other wastes occurs on the site.

Staff numbers onsite are 9 full-time and 4 part-time/casual who are long-term employees, and all residents of the district. There are also up to 10 contractors associated with the activity.

Site operating hours are 6am to 5pm Mondays to Fridays. Occasionally, depending on workorders to be completed, the mill may operate on Saturdays, from 6am to 12pm. It is unlikely the sawmill be operating on public holidays. Log deliveries, maintenance and capital works may be undertaken outside of these hours, but only as an exception.



6 STATE AND REGIONAL OVERVIEW

6.1 State Planning Considerations

The State Assessment and Referral Agency (SARA) seeks to deliver a coordinated, whole-of government approach to the state’s assessment of development applications. The State Development Assessment Provisions (SDAP) is an outcome of the SARA and a statutory instrument made under the Act which sets out matters of interest of the state for development assessment, where the chief executive of administering the Act is the assessment manager or a referral agency. Importantly, the SDAP outlines the criteria for assessment in relation to state matters.

A review of the Department of State Development Manufacturing, Infrastructure and Planning’s (DSDMIP) Development Assessment Mapping System (DAMS) reveals that the site is located within *Strategic Cropping Area* (under Areas of Regional Interest), *Water Resource Planning Area*, *Category X Regulated Vegetation*. In addition the site is connected via Boonenne Road to *State Controlled Road Bunya Highway* 2 km to the west and *State Controlled Kingaroy Cooyar Road* 1.6 km to the East.

As previously mentioned, Boonenne Timbers predict that yearly log processing throughput will increase to between 10,000t and 20,000t within 3 to 5 years. AS such, Boonenne Timbers will require an Environmental Authority (EA) for Environmentally Relevant Activity (ERA) 47(b) 10,000t to 20,000t per year.

7 ENVIRONMENTAL SEARCHES

To identify environmental values potentially impacted by the activity, environmental reports were acquired from Queensland Government Environmental Reports Online (November 2022) and Australian Government Department of Environment & Energy (November 2022) using site central coordinates. The findings are summarised in the following table together with comments regarding potential impact by the activity.

Table 2: Summary of Environmental Reports

Environmental report	Summary	Comment
Matters of State Environmental Significance (MSES) [The area of interest (AOI) being within 2km radius of the site]	Map 1 – State Conservation Areas – There are no State Conservation Areas within the AOI.	MINIMAL RISK OF IMPACT BY THE ACTIVITY
	Map 2 – Wetlands and Waterways – There are no mapped wetlands or waterways within the AOI.	MINIMAL RISK OF IMPACT BY THE ACTIVITY
	Maps 3a & 3b – Species – There is wildlife habitat (endangered and vulnerable) within the AOI. There is no koala habitat mapped within the AOI.	MSES Species unlikely to be present on the site as a sawmill has operated on the site since potentially the early 1980s. There are scattered trees and shrubs on the site, including along the north boundary facing Boonenne Road. MSES Species are potentially present where MSES wildlife habitat is mapped west, north-west, south-west and north-east of the site. Nonetheless, the closest proximity of these is 500 m west of the site. NO IMPACT BY THE ACTIVITY
	Map 4 – Regulated Vegetation – There is regulated vegetation Category B & Category C – endangered or of concern, and Category R – GBR riverine within the AOI.	Regulated vegetation not present on the site as a sawmill has operated on the site since potentially the early 1980s. Furthermore, the closest proximity of potential regulated vegetation is approximately 500 m west of the site on drainage lines draining west to the Stuart River, and mapped as <i>Great Barrier Reef (GBR) riverine</i> . NO IMPACT BY THE ACTIVITY

Environmental report	Summary	Comment
	Map 5 – Offset Areas – There are no offset areas mapped within the AOI	MINIMAL RISK OF IMPACT BY THE ACTIVITY
Biodiversity and Conservation Values – Biodiversity Planning Assessments and Aquatic Conservation Assessments [The area of interest (AOI) being within 2km radius of the site]	Map 2 – Biodiversity Planning Assessment (BPA) – There are several Local, State and Regional BPA areas within the AOI.	Regional and State BPA areas are shown south-west, west, north and north-east of the site and Local BPA areas are shown north-east. The mapping indicates this is largely related to special biodiversity values that contain <i>“multiple taxa in a unique ecological and often highly biodiverse environment”</i> . Given the wider area has been under intensive agriculture since before the 1950s, a sawmill has operated on the site since the 1980s, and there are only scattered trees and shrubs on the site, it is considered very unlikely that actual special biodiversity values will be present. MINIMAL RISK OF IMPACT BY THE ACTIVITY
	Map 3 – Corridors – There are no Corridor Triggered Vegetation areas or Core Area Vegetation areas within the AOI.	MINIMAL RISK OF IMPACT BY THE ACTIVITY
	Map 4 – Wetlands and Waterways – There are areas of RE 1-50% wetland within the AOI.	Wetlands and Waterways are not present on the site, but rather associated with Category B & C Regulated Vegetation approximately 500 m west. MINIMAL RISK OF IMPACT BY THE ACTIVITY
	Map 5 – Aquatic Conservation Assessment (ACA) – Riverine areas - The site is within a mapped ACA Riverine area of high sub-catchment significance.	There are no watercourses that intersect the site, the closest being streams approximately 250 m west and north-west, that drain west to the Stuart River. It is considered very unlikely that actual ACA Riverine areas of any sub-catchment significance will be present on the site. MINIMAL RISK OF IMPACT BY THE ACTIVITY.
	Map 6 – Aquatic Conservation Assessment (ACA) – Nonriverine areas - There are no mapped ACA Nonriverine areas within the AOI.	MINIMAL RISK OF IMPACT BY THE ACTIVITY.
Regional Ecosystems Report – biodiversity status [The area of interest (AOI) being within 2km radius of the site]	Map 2 – Remnant 2019 regional ecosystems (REs) – There are several areas of mapped REs (Of Concern – Dominant, No Concern at Present and Endangered-Dominant) within the AOI.	Remnant RE vegetation is not present on the site. A sawmill has operated on the site potentially since the 1980s and there are only scattered trees and shrubs on the site. Furthermore, the closest proximity of potential remnant RE vegetation is approximately 500 m west, mapped as <i>Of Concern – Dominant RE 12.12.12</i> and approximately 250 m north and 500 m east mapped as <i>Endangered – Dominant RE 12.5.13a / 12.5.2b</i> . These mapped Remnant REs are surrounded by intensive agriculture. MINIMAL RISK OF IMPACT BY THE ACTIVITY
	Map 4– Remnant 2019 REs by broad vegetation group (BVG) – There are several areas of mapped REs by BVG (Eucalypt woodlands to open forests and Rainforests and Scrubs) within the AOI.	Remnant RE by BVG vegetation are not present on the site. A sawmill has operated on the site potentially since the 1980s and there are only scattered trees and shrubs on the site. Furthermore, the closest proximity of potential remnant RE by BVG vegetation is 500 m west mapped as Eucalypt woodlands to open forests, and 250 m north & 500 m east mapped as Rainforests and Scrubs. These mapped REs by BVG are surrounded by intensive agriculture. MINIMAL RISK OF IMPACT BY THE ACTIVITY

Environmental report	Summary	Comment
	Map 6 – Wetlands and Waterways – There are areas of mapped wetlands and waterways (RE 1-50% wetland) within the AOI.	Wetlands and Waterways are not present on the site, but rather associated with the with the remnant REs approximately 500 m west and south-west of the site. MINIMAL RISK OF IMPACT BY THE ACTIVITY
Matters of National Environmental Significance – Protected Matters Report. (search outcome applies to a buffer zone within 2 km radius of the site)	No World Heritage Properties or National Heritage Places within the buffer zone.	MINIMAL RISK OF IMPACT BY THE ACTIVITY
	No Ramsar Wetlands within the buffer zone.	MINIMAL RISK OF IMPACT BY THE ACTIVITY
	4 x Listed Threatened Ecological Communities (LTECs) present within the area, being Lowland Rainforest of Subtropical Australia ("likely to occur"), Poplar Box Grassy Woodland on Alluvial Plains ("may occur") and White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland ("may occur").	LTECs not present on the site as a sawmill has operated on the site potentially since the 1980s and there are only scattered trees and shrubs on the site. LTECs potentially present where regulated vegetation is mapped, particularly RE 12.12.12, which includes <i>Eucalyptus teriticornis</i> , <i>Corymbia intermedia</i> and/or <i>E. crebra</i> approximately 500 m west and south-west; and RE 12.5.13 <i>Microphyll to notophyll vine forest</i> located approximately 250 m north and 500 m east (see RE details above). MINIMAL RISK OF IMPACT BY THE ACTIVITY
	40 x Listed Threatened Species or species habitat (LTSOSH) "may occur", or are "likely to occur", or are "known to occur" in the area.	LTSOSH not present on the site as a sawmill has operated on the site since potentially since the 1980s and there are only scattered trees and shrubs on the site. LTSOSH birds, fish, insects, mammals, plants and reptiles potentially present where MSES wildlife habitat is mapped (see MSES details above). Nonetheless, the closest proximity of potential LTSOSH is 500 m west and south-west (wildlife habitat). MINIMAL RISK OF IMPACT BY THE ACTIVITY
	14 x Listed Migratory Species or species habitat (LMSOSH) "may occur", or are "likely to occur", or are "known to occur" in the area.	LMSOSH not present on the site as a sawmill has operated on the site since potentially since the 1980s and there are only scattered trees and shrubs on the site. LMSOSH marine birds, terrestrial species and wetland species potentially present where MSES wildlife habitat is mapped (see MSES details above). Nonetheless, the closest proximity of potential LMSOSH is 500 m west and south-west (wildlife habitat). MINIMAL RISK OF IMPACT BY THE ACTIVITY
GeoRes Globe - Detailed Surface Geology layer (November, 2022)	Detailed surface geology mapping indicates the site and surrounding landscape is mapped as Laterite, extensive red (Krasnozem) soil development, minor ferricrete (Td/r-Qld).	Refer to Section 7.3 Land . MINIMAL RISK OF IMPACT BY THE ACTIVITY
Qld Globe - Areas of Regional Interest layer (November, 2022)	Land to the north, east, south and west of the site is mapped Strategic Cropping Land (SCL).	Proposed ERA is not considered to diminish the productivity of the SCLs. MINIMAL RISK OF IMPACT BY THE ACTIVITY

8 ENVIRONMENTAL OBJECTIVES ASSESSMENT

8.1 WASTE

Waste generated by the activity, and management practices are summarised in **Table 4**.

Table 3: Summary wastes produced and waste management practices.

Waste type		Management
Hardwood timber waste	Flitches from the Sawmill (L) and Log Yard (H) scrapings.	Stockpiled and contractor visits site to shred/grind, then deliver to landscaping industry for reuse / recycling .
	Sawdust from the Sawmill	Stockpiled beside Sawmill (L). Sawdust is collected by a contractor for reuse / recycling in landscaping, composting and animal husbandry industries.
	Bark from logs	Stockpiled at (Y) and collected weekly by a contractor for reuse / recycling in landscaping industry.
	Sawn timber dockings	Stockpiled at (E) and sold as firewood to camping and pizza oven industries.
Miscellaneous waste associated with timber processing	Biodegradable strapping	Taken to Kingaroy waste management facility for disposal in the appropriate recycling containers.
	Cardboard packaging	Kingaroy waste management facility for disposal in appropriate recycling containers.
	Conveyor belts	Repurposed onsite
	Chains, metal components	Scrap metal services for recycling
General crib room waste	Food scraps and packaging, tins and bottles.	Sorted and placed in appropriate SBRC-provided bins for kerbside collection

Waste type	Management
Fuels, oils, greases	The 2000 L diesel AST is within a bund. Minor quantities of oils and greases for use on fixed plant, are stored in a bund. Spill kits are strategically located and regularly audited and restocked as required. Empty oil, grease and chemical containers and oily rags are taken to the Kingaroy waste management facility for disposal in the appropriate containers (including the DrumMuster facility). Spilt oils are cleaned up using sawdust and placed into sealed containers then taken to the Kingaroy waste management facility for disposal in the appropriate containers.
Wastewater	Regular collection by JJ Richards.
Office waste	Paper waste to Kingaroy waste facility and placed into appropriate containers for recycling . Toner cartridges delivered to Conquer Fitness Kingaroy for recycling .

Any waste generated, transported, or received as part of carrying out the activity will be managed in a way that protects all environmental values. This environmental objective will be achieved by meeting the relevant performance outcomes as detailed below:

Performance Outcome	Applicant Response
(a) Waste generated, transported, or received, is managed in accordance with the waste and resource management hierarchy in the <i>Waste Reduction and Recycling Act 2011</i> ; and	Boonenne Timbers will <u>avoid unnecessary resource consumption</u> through responsible sourcing of raw materials. Boonenne Timbers will <u>reduce waste generation and disposal</u> through minimisation of non-recyclable wrapping materials used in the dispatch of timber packs.

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Performance Outcome	Applicant Response
	<p>Boonenne Timbers <i>reuse</i> waste resources without further manufacturing through on-sale of timber offcuts / bark / sawdust to the landscaping, composting and animal husbandry industries.</p> <p>Boonenne Timbers <i>recycle</i> waste resources to make the same or different products e.g. empty chemical containers are deposited at the DrumMuster facility in the Kingaroy waste management facility.</p> <p>Boonenne Timbers will continue to investigate opportunities to <i>recover</i> waste resources.</p> <p>Boonenne Timbers will continue to investigate opportunities to <i>treat</i> waste before disposal, including reducing the hazardous nature of waste.</p> <p>Boonenne Timbers <i>dispose</i> of waste only if there is no viable alternative. Materials that are currently assigned for disposal include general waste.</p>
(b) If waste is disposed of, it is disposed of in a way that prevents or minimises adverse effects on environmental values.	Wastes taken to the Kingaroy waste management facility are sorted and placed into the appropriate containers.

8.2 AIR

Air emissions associated with the activity are limited but potentially may arise from the following unit operations:

- » Sawmill equipment;
- » Chipper (M);
- » Mobile plant (exhaust emissions);
- » Vehicle movements (dust).

The Kingaroy Airport (BOM Station No. 40922), located ~3.7 km north-east of the site, indicates a 9 am annual average wind speed of 13.2 km/h (predominantly from the south-east) and a 3 pm annual average wind speed of 15.6 km/h (predominantly from the south-east and east).

The closest residential sensitive receptors are: (a) the residential home on the Boonenne Timbers site (occupied by the Keenans); (b) residential homes (on agricultural lands) across Boonenne Road, approximately 350 m north and 360 m and 650 m north-west. Based on Kingaroy Airport climate data, the houses to the north-west are potentially impacted by site activities, however no complaints have been received from the occupiers.

The activity will be operated in a way that protects the environmental values of air. This environmental objective will be achieved by meeting the relevant performance outcomes as detailed below:

Performance Outcome	Applicant Response
(a) Fugitive emissions of contaminants from storage, handling and processing of materials and transporting materials within the site are prevented or minimised; and	<p>Delivery / dispatch trucks will be managed to ensure no unnecessary idling whilst stationary.</p> <p>Mobile plant speeds restricted to 10kph to minimise dust generation.</p> <p>Monitoring of wind conditions and ensuring trafficable areas are watered as required via operation of dedicated mobile water cart with capacity of 20,000 L.</p> <p>High wind conditions result in cessation of onsite works (WHS issues in timber milling process), minimising onsite vehicle movements and watering the ground surface.</p> <p>Setting up material unloading as close as possible to final storage areas.</p> <p>Mist sprays on cutting saws in Sawmill (reduces dust emissions).</p>

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Performance Outcome	Applicant Response
	<p>Consideration of program for planting dust trapping endemic vegetation (e.g. <i>Casuarina</i> spp and <i>Allocasuarina</i> spp.) along priority boundaries of the site, up-wind and down-wind of operations deemed as higher risk of generating dust.</p> <p>Maintenance of chipper silo to capture the majority of fugitive dust from conveyor outfeeds – noting that the sawmill processes green logs, therefore emission of suspended particles from chipper is negligible.</p> <p>Regular maintenance of sawdust extraction, conveying and blower pipe infrastructure to ensure proper function.</p> <p>Minimising the volume of sawdust and shavings stored onsite by weekly collection by contractor for reuse in landscaping, composting and animal husbandry industries.</p> <p>Implementation of WHS management system to manage and minimise likelihood of air impacts to staff and visitors.</p>
(b) Contingency measures will prevent or minimise adverse effects on the environment from unplanned emissions and shut down and start up emissions of contaminants to air; and	<p>The only foreseeable unplanned emissions associated with the activity include residual sawdust that is not collected by the dust extraction and collection system. Contingency measures in place include maintaining a clean and tidy site, and maintaining / repairing sawdust extraction, conveying and blower pipe infrastructure to ensure proper function.</p> <p>As an additional contingency measure, Boonenne Timbers will implement their Environmental Policy, which includes a commitment to respond to and correct any public concerns or complaints regarding air emissions.</p>
(c) Releases of contaminants to the atmosphere for dispersion will be managed to prevent or minimise adverse effects on environmental values.	<p>Exhaust emissions released to the atmosphere will be minimised via management of unnecessary idling of trucks. Dust is managed by limiting speed of mobile plant and trucks to 10kph and watering trafficable areas.</p> <p>During high wind conditions, watering of trafficable areas is increased.</p> <p>Sawdust extraction, conveying and blower pipe infrastructure is monitored and maintained to ensure proper function.</p>

Based on the above, air emissions from the proposed activity are anticipated to have minimal adverse effect on (1) human health and wellbeing; (2) health and biodiversity of ecosystems; (3) agriculture; and (3) environmental aesthetics.

Of note: Boonenne Timbers operates in a rural environment transected by gravel (unpaved) roads, with widespread agricultural, horticultural, intensive animal operations, grazing activities and neighbouring sawmill.

8.3 LAND

The sawmill has operated on the site potentially since the 1980s. The Keenans have owned and operated Boonenne Timbers since 1997. The activity does not involve any ongoing land disturbance nor any potential release of contaminants to land.

Hardwood timber waste is stockpiled onsite for the minimum timeframe, e.g. sawdust, bark and chip is stockpiled and collected weekly by a contractor, and dockings for use as firewood are stockpiled and collected weekly by a contractor.

Minor quantities (<100 L) of chemicals including oil and grease, are stored in appropriately bunded areas.

Dedicated spill kits are established at the chemical storages. These are checked and maintained regularly.

Sewage is collected weekly by JJ Richards. Accordingly, no wastewater is disposed of to land on the site.

The activity will be operated in a way that protects the environmental values of land including soils, subsoils, landforms and associated flora and fauna. This environmental objective will be achieved by meeting the relevant performance outcome as detailed below:

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Performance Outcome	Applicant Response
<p>There is no actual or potential disturbance or adverse effect to the environmental values of land as part of carrying out the activity.</p>	<p>It is not expected that any new buildings will be constructed or equipment brought on to the site, other than to replace equipment for work health & safety (WHS) reasons, efficiency or age reasons. Boonenne Timbers will continue to operate their business as they have currently been doing.</p> <p>Minor quantities of chemicals are stored in appropriate containers in bunds. The diesel AST is located within a bund.</p> <p>Dedicated spill kits are established at the chemical storages and are checked / maintained regularly, and after deployment.</p> <p>No wastewater is disposed of to land on the site.</p> <p>Daily refuelling of mobile plant is undertaken onsite following standard procedures (e.g. fuel transfers are supervised).</p>

8.4 NOISE

Noise emissions associated with the activity may arise from the following activities on site:

- » Sawmill: circular saws; dust extraction; woodchipper; twin log edger; docking saw.
- » Truck, endloader and forklift movements;
- » Chainsaws; and
- » Air brakes on delivery / dispatch trucks.

The closest residential sensitive receptors are those north and north-west, directly across Boonenne Road, and to date no complaints have been received from the occupiers of those houses.

Based on the above, noise environmental values at the site include the qualities of the acoustic environment that are conducive to protecting:

- » Human health and wellbeing (including by ensuring a suitable acoustic environment for individuals to sleep; study or learn; or be involved in recreation, including relaxation and conversation); and
- » Amenity of the community.

Noise environmental values at the site also include the health and biodiversity of ecosystems, albeit to a lesser extent (refer to **Section 6 Environmental Searches**) to those described above due to the greatly disturbed nature of the surrounding lands which have been extensively developed for agriculture and grazing.

The site is set within an area of intensive agriculture. Machinery for ploughing, tilling and harvesting crops, plus trucks and semi-trailers that service the surrounding farms, traverse the local roads and Bunya Highway. The Goodger-Cooyar Road (1.5 km to the east) is the main access for Tarong Power Station and coal mine workers from Kingaroy. Both roads are B double rated, contributing to ambient noise. In addition, the neighbouring sawmill (south-west of the site) operates plant and equipment with no mufflers. That operation also includes a gas-operated Duboisia drying plant that also contribute substantially to ambient noise.

Importantly, with the exception of truck movements to and from the site, the majority of activities that have the potential to generate noise emissions are largely undertaken within the confines of the Sawmill building. Point source emitting equipment such as twin log edger, power fed bench, docking saw, dust extraction, chipper, loader, forklifts, chainsaws are modern, relatively new equipment with noise attenuation as supplied from original equipment suppliers. All equipment on site is regularly checked and maintained. Chainsaws and the on site loader are also no more than four (4) years old.

Primary noise mitigating measures include:

- » Limiting sawmilling operating hours from 6a.m. to 5 p.m. Monday to Thursday, and 6a.m. to 12p.m. Fridays;
- » Installation of broadband reversing alarms on forklifts and loaders rather than traditional tonal alarms (these are less intrusive to surrounding properties whilst still maintaining a safe work environment);
- » Installation of fixed guarding on milling equipment (the primary focus being to reduce laceration risks, but with the added benefit of reducing noise hazards);
- » Maintaining plant and equipment on a regular basis; and
- » Implementation of Boonenne Timbers' Environmental Policy Statement (refer to **Appendix 3**) which includes a commitment to respond to and correct any public concerns or complaints regarding noise emissions.

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The activity will be operated in a way that protects the environmental values of the acoustic environment. This environmental objective will be achieved by meeting the relevant performance outcomes as detailed below:

Performance Outcome	Applicant Response
(a) Sound from the activity is not audible at a sensitive receptor, or	The nearest sensitive receptors are residential homes north and north-west across Boonenne Road however no complaints have been received from these occupiers. In addition, the intensive agricultural activities in the surrounding district contribute to ambient noise. The majority of noise emitting activities are within walled and roofed buildings, with noise (and safety) attenuating covers installed.
(b) The release of sound to the environment from the activity is managed so that adverse effects on environmental values, including health and wellbeing and sensitive ecosystems, are prevented or minimised.	Despite it being likely that performance outcome (a) will not be met, the following mitigating measures will ensure that adverse effects on noise environmental values are prevented or minimised. Limiting routine sawmill operating hours from 6a.m. to 2.30 p.m. Monday to Thursday, 6a.m. to 12p.m. Fridays. The sawmill may operate 7am to 12 pm on Saturdays as required. Maintenance and cleaning operations may continue to 6pm daily Monday to Saturday. Chainsaws will not be used during night time or early morning (6am to 7am). Maintaining fixed guards around milling equipment. Maintaining mobile plant and fixed plant and equipment on a regular basis. Selecting quietest available mobile and fixed plant and equipment when seeking to replace such equipment. Installation of broadband reversing alarms on forklifts and loaders. Implementation of Boonenne Timbers' Environmental Policy which includes a commitment to respond to and correct any public concerns or complaints regarding noise emissions and maintaining commitment to operating the site as quietly as possible. Implementation of mitigation measures recommended by ATP Consulting Engineers, August 2023 (see below & Appendix 3).

A noise impact assessment (NIA) report was prepared by ATP Consulting Engineers (Refer **Appendix 3**). Background noise monitoring was undertaken in from 21 June to 1 July 2023 using an automated noise logger deployed at the subject site to record the background noise levels representative of the noise amenity at the nearest noise sensitive places. ATP undertook this survey in accordance with the *AS1055.1-3 - Acoustics – Description and Measurement of Environmental Noise* and the *Environmental Protection Act 1994* and the modelling of noise emissions has been carried out as per *International Standard ISO 9613*. ATP stated that Provided the recommendations of this report are fully implemented, there are no further acoustic constraints on the operation of the existing timber milling and woodchipping facility at 157 Boonenne Road in Goodger.

Based on the above, it is considered that the acoustic quality objectives prescribed in Schedule 1 of the *Environmental Protection (Noise) Policy 2019* will be met and that noise emissions from the proposed activity will have minimal risk of impact on (1) human health and wellbeing; (2) amenity of the community; and (3) health and biodiversity of ecosystems.

8.5 WATER

Environmental values applicable to the site are those for the Stuart River upstream of Gordonbrook Dam (BMRG, Undated) being:

- › Aquatic ecosystems;
- › Irrigation / farm supply and use / stock watering;
- › Human consumer / water supply;
- › Secondary recreation;
- › Visual recreation;
- › Drinking water.

The proposed activity does not involve any actual or potential discharges to surface waters, groundwaters or wetlands therefore the activity has no impact on the water environmental values.

8.5.1 Surface Waters

The site is serviced by rainwater tanks and septic tanks. Potable water is trucked to the site as required. Surface waters are not present on the site. The site is flat with an imperceptible slope towards the south-east. Planning is underway for construction of a sediment basin at the lowest elevation on the site in the south eastern corner. Stormwater flows on the site are generally in a south-east direction. The north portion of the site is predominantly grassed, which acts to slow stormwater flows and trap sediments. There is a low bund along the east boundary which directs stormwater to the sediment basin. Along the south boundary, there is a 1 m high grassed earthen bund, which also directs stormwater to the sediment basin. The basaltic derived Krasnozem soils characteristic of the site and surrounding landscape are considered non sodic and non-dispersive (Sorby & Reid 2001), thus presenting a low risk of sheet erosion providing other erosion risks are managed appropriately. **Diagram 5** shows inferred stormwater flow direction on the site.

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Diagram 5: Indicative stormwater flow paths on the site (purple line on east and south boundaries depicts earth / chip bund, blue circle represents a sediment basin (base figure Qld Globe, November 2022)).

In the wider landscape, there are scattered farm dams on drainage lines west, north-west and south-west of the site. These drainage lines flow into the Stuart River, approximately 3 km west of the site. Kingaroy Creek is approximately 1.8 km east of the site and flows in a general north direction to join the Stuart River. **Diagram 6** shows drainage features and surface water bodies in relation to the site.

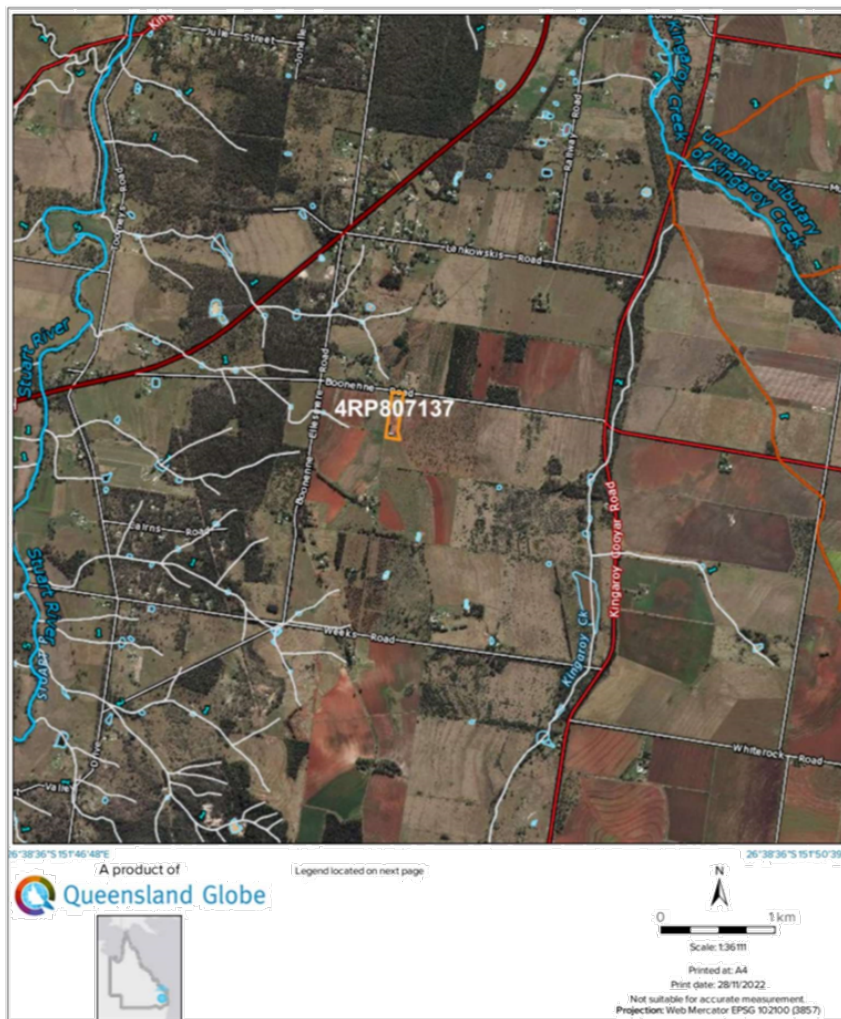


Diagram 6: Drainage features in relation to the site.

The activity will be operated in a way that protects environmental values of waters. This environmental objective will be achieved by meeting the relevant performance outcomes as detailed below:

Performance Outcome	Applicant Response
There is no actual or potential discharge to waters of contaminants that may cause an adverse effect on an environmental value from the operation of the activity.	There are no actual or potential discharges to waters associated with the activity. There are no onsite surface water impoundments, and no wastewater is disposed on the site or to waters adjacent to the site. The low earth/chip bund on the east boundary and the grassed earthen bund on the south boundary stops stormwater leaving site and directs overland flow to the stormwater sediment basin.
(a) The storage and handling of contaminants will include effective means of secondary containment to prevent or minimise releases to the environment from spillage or leaks.	Minor quantities of chemicals are stored in appropriate containers within a bund inside the Sawmill. The diesel AST is also bunded and procedures are in place for the fuel receipt and dispensing.

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Performance Outcome	Applicant Response
	Dedicated spill kits are established at the chemical storages and are checked / maintained on a monthly basis. Timber by-product is stockpiled away from drainage lines.
(b) Contingency measures will prevent or minimise adverse effects on the environment due to unplanned releases or discharges of contaminants to water.	Spill kits are deployed in the event of chemical spills. Procedures are in place to ensure that debris and liquid spills are cleaned from all ground surfaces, minimising potential for entrainment of solids and other contaminants in stormwater. Fuel transfers are always supervised by operator.
(c) The activity will be managed so that stormwater contaminated by the activity that may cause an adverse effect on an environmental value will not leave the site without prior treatment.	Ensuring stormwater potentially contaminated by the activity does not leave the site without prior treatment (i.e. a sediment basin has been constructed in the south-east corner of the site and bunds along the east and south boundaries direct stormwater to the sediment basin. There is planning for expansion of the sediment basin to capture additional water for site dust suppression along with installation of tanks for collection of rainwater from site buildings. Preliminary Modelling suggests that In addition, a system for capture of first flush and then diversion offsite of heavy rainfall during intense rain events is also being considered (as discussed with Daniel Spelchan). Nonetheless, stormwater ultimately flows from the site in an easterly direction across contoured heavily grazed and cropped land on the adjacent property over a distance of ~500 m before entering a large farm dam. Ensuring any stormwater discharge is managed so that there will be no adverse effects due to the altering of existing flow regimes. Timber by-product is stockpiled away from drainage lines. Fuel transfers are always supervised by operator.
(d) The disturbance of any acid sulfate soil, or potential acid sulfate soil, will be managed to prevent or minimise adverse effects on environmental values.	Mapping indicates there are no acid sulfate soils or potential acid sulfate soils on the site or surrounding area.
(e) Acid producing rock will be managed to ensure that the production and release of acidic waste is prevented or minimised, including impacts during operation and after the environmental authority has been surrendered.	There will be no disturbance or handling of acid producing rock since this is NOT associated with the activity.
(f) Any discharge to water or a watercourse or wetland will be managed so that there will be no adverse effects due to the altering of existing flow regimes for water or a watercourse or wetland.	There are no actual or potential point source / diffuse discharges to waters associated with the activity.
(g) For a petroleum activity, the activity will be managed in a way that is consistent with the coal seam gas water management policy, including the prioritisation hierarchy for managing and using coal seam gas water and the prioritisation hierarchy for managing saline waste.	The proposed activity is not a petroleum activity.
(h) The activity will be managed so that adverse effects on environmental values are prevented or minimised.	The responses above confirm that the activity will be undertaken in a manner that will largely prevent adverse effects on water environmental values. Where prevention is not able to be achieved, management measures will ensure that adverse effects on water environmental values will be minimised.

8.5.2 Wetlands

Wetlands are not present on the site, nor within a distance considered likely to receive runoff from the site. There are RE 1-50% wetlands mapped in association with the drainage lines north-west, west and south-west of the site. The closest potential wetland is the Stuart River, approximately 3 km west of the site. This wetland is within a totally different catchment (west of a ridge line) to Boonenne sawmill.

The activity will be operated in a way that protects the environmental values of wetlands. This environmental objective will be achieved by meeting the relevant performance outcomes as detailed below and noting that the applicant responses provided for performance outcomes associated with surface waters (**Section 7.5.1**) are also relevant in the context of protection of wetlands:

Performance Outcome	Applicant Response
(a) There will be no potential or actual adverse effect on a wetland as part of carrying out the activity.	There are no actual or potential discharges to wetlands associated with the activity. Accordingly, there will be no adverse effect on wetlands.
(b) The activity will be managed in a way that prevents or minimises adverse effects on wetlands.	The proposed activity will be undertaken in a manner that will prevent adverse effects on wetlands.

8.5.3 Groundwater

A groundwater bore was installed on the site during 2012 for water supply at the property residence to a depth of 179m where the water table was intersected. Beyond the site, the closest registered groundwater bore is approximately 1.1 km north-west. The bore reports for the onsite house bore and bores within 1.8km radius were reviewed to determine stratigraphy and potential depth to groundwater bearing strata. The details are summarised in **Table 7**. **Diagram 7** shows the location of reviewed groundwater bore reports.

The shallowest aquifer is approximately -12m below ground level (bgl)², as described in RN13630020. Regional groundwater quality appears to vary from moderately saline to very saline, and while the bore water is noted for water supply, likely use is for irrigation of crops or livestock watering. Stratigraphies are generally red soils overlaying clay layers then granite.

Table 4: Summary stratigraphy and depth to groundwater (State of Qld, 2022).

Bore reference / location	Use / water quality	SWL (m)	Formation / Aquifer depth (m)	Stratigraphy
RN156392 Onsite bore at residence (drilled in 2012)	Water supply EC 1500 µS/cm	0.31 m	Boondooma Igneous Complex 179 m	0.00 1.50 red soil 1.50 4.00 red clay 4.00 9.00 light pink clay 9.00 25.00 yellow / white clay sandy 25.00 63.00 soft weathered granite 63.00 84.00 firm to hard granite 84.00 179.00 hard granite black and white 179.00 200.00 soft granite
RN167858 1.1 km north-west (drilled in 2014)	Water supply Not specified	27 m	Elliott Formation 33 m	0.00 3.00 red soil 3.00 5.00 clay 5.00 19.00 weathered basalt 19.00 26.00 white clay 26.00 33.00 yellow weathered sandstone 33.00 48.00 quartz sandstone

² There was no indication as to whether these measurements were below ground level (bgl) or Australian Height Datum (AHD), however bgl is considered the more likely measurement.

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Bore reference / location	Use / water quality	SWL (m)	Formation / Aquifer depth (m)	Stratigraphy
RN13630020 1.8 km south-west (drilled 2005)	Natural Resources monitoring bore EC 13,500 µS/cm pH 6.2 (in 2006)	Ranging from 0.8 m to 3.04 m during the period 2005 to 2021	Boondooma Igneous Complex 12-24.2 m	0.00 1.00 grey brown clay, brown mottling 1.00 2.00 grey brown clay, red brown mottling 2.00 4.00 red brown silty lateritic clay 4.00 5.00 dark red brown lateritic clay 5.00 7.00 dark red brown sandy lateritic clay 7.00 8.00 red brown clayey vf-f sand 8.00 9.00 pale grey clayey vf-f sand, red brown mottling 9.00 11.00 pale brown clayey c-vc sand & gravel, polymictic 11.00 24.20 hornblende-biotite granite, fractured heavily weathered; water from 12.0m
RN167988 1.8km west-south-west (drilled 2016)	Water supply (irrigation) EC 1500 µS/cm	4 m	Boondooma Igneous Complex 22 m	0.00 8.00 brown clay 8.00 9.00 blue clay sticky damp 9.00 12.00 decomposing granite 12.00 22.00 hard granite 22.00 24.00 decomposing granite 24.00 25.00 hard granite



Diagram 7: Existing registered groundwater bores with aquifer details within 1.8km of the site (Qld Globe, November 2022) [site boundary indicated by orange outline]

Based on the reviewed bore reports, there is a very low likelihood of shallow water-bearing strata being present at or in near vicinity of the activity. In addition, the activity is unlikely to impact on groundwater due to:

- » No pathway to link potential source of contaminants to groundwater aquifers or groundwater recharge areas given depth through basalt to groundwater bearing strata;
- » Groundwater is not accessed for use at the sawmill operation;
- » There being no large-scale onsite chemical storages;
- » The minor chemical storages that are on site are managed such to minimise risk of spills to ground, and in the event of spills to ground clean-up procedures are implemented immediately;
- » The appropriate storage and handling of potential contaminants to prevent or minimise releases to the environment from spills or leaks; and
- » The stratigraphy overlaying the aquifer consisting of relatively impermeable materials (i.e. clay).

The activity will be operated in a way that protects the environmental values of groundwater and any associated surface ecological systems. This environmental objective will be achieved by meeting the relevant performance outcomes as detailed below and noting that applicant responses provided for performance outcomes associated with surface waters (**Section 7.5.1**) are also relevant in the context of protection of groundwater and any associated surface ecological systems.:

Performance Outcome	Applicant Response
(a) There will be no direct or indirect release of contaminants to groundwater from the operation of the activity.	There will be no direct or indirect release of contaminants to groundwater associated with the activity.
(b) There will be no actual or potential adverse effect on groundwater from the operation of the activity.	There will be no releases to groundwater associated with the activity. Accordingly, there will be no actual or potential adverse effects on groundwater.

8.6 TRAFFIC AND ACCESS

Site access is via Boonenne Road. Log trucks enter and exit via the western site access. Light vehicles and small trucks use the eastern access for the onsite residence.

Currently, there are approximately 1 x 62T (gross) B-double and 1 x 45.5T (gross) single semitrailer entering and leaving the site each day via the Bunya Highway which is approved for B-Doubles up to 25m in length. Kingaroy – Cooyar Road may be used occasionally, but only for smaller trucks. Movements by mobile plant are restricted to the southern portion of the site.

The activity is judged to not materially impact traffic movements in the region, given the Bunya Highway and Goodger-Cooyar Road is already carrying heavy vehicles associated with agricultural and grazing activities, power station and mine.

9 SITE REHABILITATION / REMEDIATION

Upon cessation of the proposed activity, disturbed areas will be rehabilitated or restored to achieve a site that is:

- i) Safe to humans and wildlife;
- ii) Non-polluting;
- iii) Stable; and
- iv) Able to sustain an appropriate land use after rehabilitation or restoration.

To achieve this, Boonenne Timbers will, where necessary:

- i) Remove all waste material from the site;
- ii) Remediate any contaminated land;
- iii) Reshape and re-profile significantly disturbed land to a stable landform;
- iv) Undertake weed management; and
- v) Establish groundcover in accordance with the surrounding landscape to ensure that erosion is minimised.

Regardless of the above commitments, it should be noted that Boonenne Timbers sawmill is considered a viable business having been operating since 1997 on the site and ongoing well into the foreseeable future. Furthermore, even when timber milling operations cease it is likely that future uses will utilise existing improvements such as buildings and access tracks for ongoing commercial / industrial or agricultural purposes. The proposed activity is also considered to involve minimal disturbance and/or risk of contamination of the site, especially when compared to resource activities or higher risk prescribed ERAs. Accordingly, no specific rehabilitation conditions are considered necessary. Instead, should Boonenne Timbers wish to surrender the EA at a later date, a statement of compliance with all conditions of the EA would accompany a surrender application, providing an opportunity to address any rehabilitation / remediation concerns at that point.

10 CONCLUSIONS

Boonenne Timbers is making an application for an EA for prescribed **ERA 47(b) Timber milling and woodchipping >10,000t to 20,000t per annum**.

This supporting document describes the site setting and proposed activities, identifies the environmental values potentially impacted by the activity, evaluates potential impacts of the activity on environmental values, and details strategies to manage potential impacts on environmental values.

Overall, it is considered that all relevant environmental objectives will be achieved by meeting the performance outcomes for waste, air, land, noise, and water.

Boonenne Timbers is striving to ensure compliance with Local and State Government requirements and therefore respectfully requests SBRC to provide direction for the need for a DA or otherwise, in order to inform the proposed application for EA as described above.

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APPENDICES

Appendix 1: Boonenne Timbers Hazardous Chemicals Register.

Appendix 2: Environmental Policy Statement.

Appendix 3: Noise Impact Assessment Report (ATP Consulting Engineers, August 2023).

Appendix 4: Boonenne Timbers DRAFT Environmental Issues Register

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Appendix 1: Boonenne Timbers Hazardous Chemicals Register.

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Hazardous Chemical Register

Workplace Location: Boonenne Timbers 157 Boonenne Rd KINGAROY Q. 4610 Date Last Reviewed: 28.04.2022
 Department Name: MAINTENANCE Contact Person: Andrew Keenan

Chemical Name	Max Quantity or kg	Safety Data Sheet (less than 5yrs old)	Storage Location	Controls in Place / Comments
Signet DO Ink - White	20L	1.11.2019	Workshop Cupboard	
WD - 40	4L	18.09.2019	Workshop Cupboard	
Log End Sealer	20L x 2	27.10.2019	Bunded Area - Back of Sawshop	
AC-40 Concentrated Truck Wash	20L	30.08.2021	Bunded Area - Back of Sawshop	
Tranzmile 85W-140 Transmission Oil	20L x 2	15.01.2018	Bunded Area - Back of Sawshop	
Tranzmile Hyspin Hydraulic Oil 68	20L	05.07.2018	Bunded Area - Back of Sawshop	
Tranzfleet 15W-40 Engine Oil	20L	31.12.2018	Bunded Area - Back of Sawshop	
Multi Purpose Degreaser	20L	05.07.2018	Bunded Area - Back of Sawshop	
Dy-Mark Spray Paint	350g x 12	01.11.2019	Chainsaw Shed	
Anti Seize	450g	4.2022	Workshop Cupboard	
Houghto - Grind 50	20L	21.09.2019	Saw Shop	
Unleaded 91 Petrol	20L	26.05.2021	Chainsaw Shed	
Diesel	1000L	08.06.2019	Bunded Tank - Machinery Bay	
Stihl 2 Stroke Oil	5L	29.08.2018	Chainsaw Shed	
Valvoline General Purpose Grease	450g x 12	08.01.2019	Workshop Cupboard	
Chain and Bar Oil	20L	19.03.2020	Chainsaw Shed	

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Appendix 2: Environmental Policy Statement.

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ENVIRONMENTAL POLICY STATEMENT

Boonenne Timbers understands that operating our business can potentially have an impact on the environment and the local community. It is therefore our primary aim to ensure our operations are undertaken in a way that places environmental values at the centre of the business.

We will manage our business so that we minimise the impact on the environment and are committed to:

- › Supporting the principles of sustainable development;
- › Providing training and encouragement of our workers to achieve and maintain sound environmental practices;
- › Minimise impact to air, noise, water and land;
- › Maintaining our operations in accordance with the laws, legislation and regulations relating to the environment;
- › Require subcontractors to operate in an environmentally responsible manner and adhere to our site's values.

Andrew Keenan

Boonenne Timbers.

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Appendix 3: Noise Impact Assessment Report (ATP Consulting Engineers, August 2023).

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