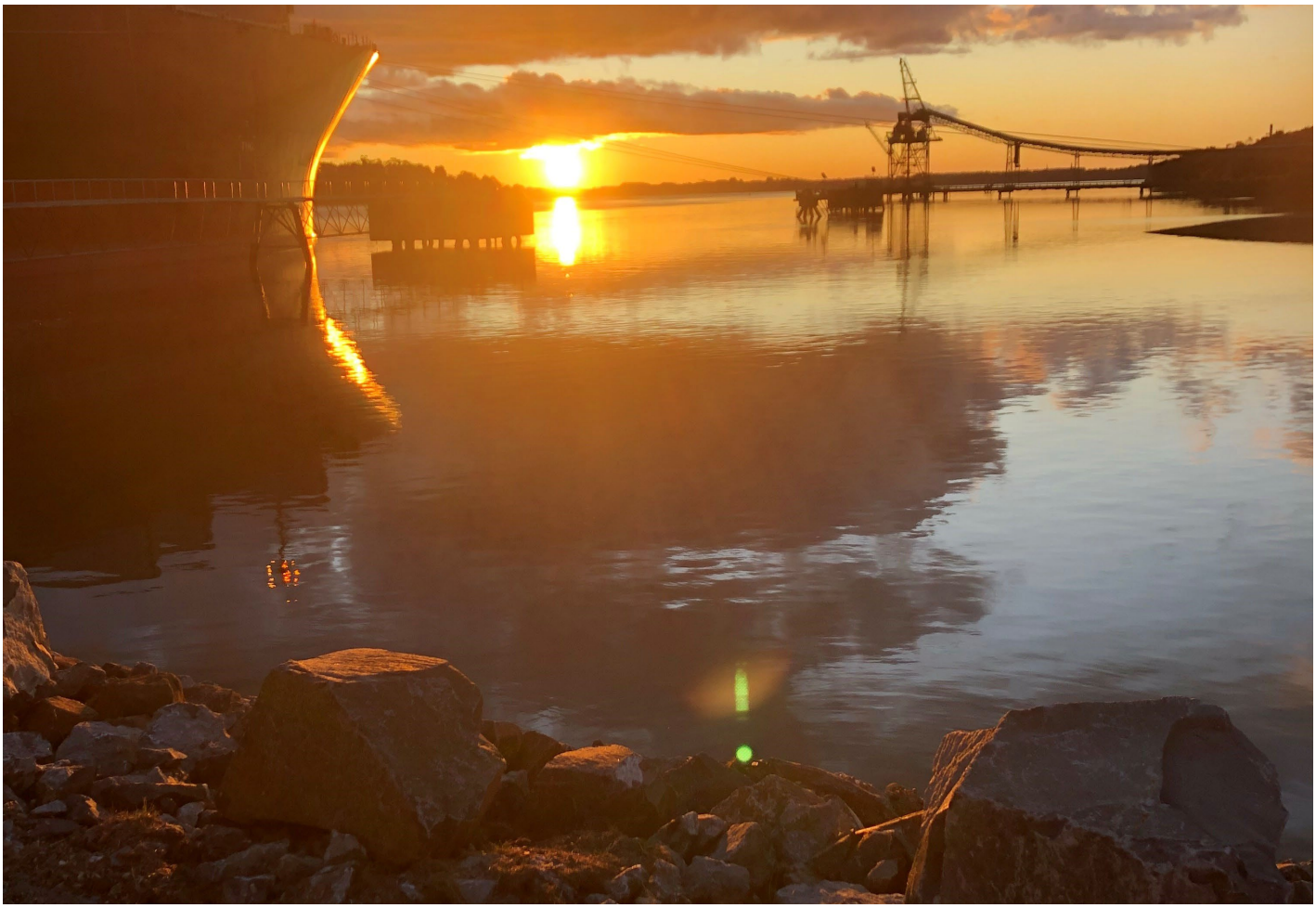
Long Reach Mill

Public Environmental Report

Forico Pty Limited

14 November 2022

→ **July 2019 – June 2022**



PUBLIC ENVIRONMENTAL REPORT

For the operating period 1 July 2019 to 30 June 2022

for and on behalf of

The Trust Company (PTAL) Limited in its capacity as trustee of the

Tasmanian Forest Investment Sub Trust (TFIST)

The Trust Company (Australia) Limited in its capacity as trustee of the

Tasmanian Forest Operating Sub Trust (TFOST)

and

Forico Pty Limited as Operator (Forico)

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1. Context of Public Environmental Report

The Long Reach Mill was purchased by the Tasmanian Forest Operating Sub-Trust (TFOST) in September 2014 and is operated by Forico Pty Limited (Forico). The Long Reach mill site operates within the parameters of an Environment Protection Notice (EPN) issued under the Environmental Management and Pollution Control Act 1994 (EMPCA). The EPN, numbered 7968/4, sets out the permit conditions in Schedule 2 of the EPN, with the most recent update issued in August 2019.

Under Regulation 9 of Environmental Management and Pollution Control (General) Regulations 2017, a Public Environmental Report (PER) must be submitted to the Director of the Environment Protection Authority Tasmania (EPA) on a triennial basis.

This report is the third PER submitted for the Long Reach Mill site and covers the operating period of 1/07/2019 – 31/07/2022. The previous two PERs submitted to the Director in accordance with the Regulations were for 5/09/2014 – 30/06/2016 and 1/7/2016 – 30/06/2019.

Condition G6 of EPN 7968/4 requires submission of an Annual Environmental Review (AER) to the Director of EPA, presenting specific content requirements and stipulating the reporting period to end on 30 June each year.

This PER is aimed to simultaneously satisfy both the AER requirement for the year in which the PER three-year reporting period ends and the full three-year PER period.

The methodology to compile this PER incorporated the following:

- Desktop review of environmental data collected over the reporting period, including site water monitoring, emissions, and wastes;
- Site visits conducted prior to the end of each reporting period, including discussions of environmental incidents that may have occurred during the reporting period, and environmental related procedural or process changes;
- Presentation of draft for internal review and finalisation.

The scope of the report is limited to the operations at the Long Reach Mill site and does not include the entire scope of Forico operations, which encompasses a broad range of activities in the forest and wood products sector. For information on broader operations, including detailed information of both greenhouse emissions and sequestrations relating to the entire Forico Pty Limited group (inclusive of the Long Reach Mill site) please refer to the Forico website, and in particular the annual versions of Forico's Natural Capital Reports.

Hard copies of this public environmental report are available by request via the "Contact Us" section of the Forico website: www.forico.com.au

2. Statement of Acknowledgement

In fulfilment of condition G6 of EPN 7968/4, we present the following information which encompasses site operations of the Forico Long Reach Mill. This report has been scoped and formatted to meet the requirements of the Public Environmental Report (PER) as described by the *Environmental Management and Pollution Control (General) Regulations 2017 Annual Fee Remission Guidelines Second edition March 2010 (updated 1 July 2019)* and the Annual Environmental Review (AER) as described in Condition G6.

The reporting period of this PER is from 1 July 2019 to 30 June 2022 and is the third PER submitted to the Director of the EPA.

The purpose of the PER is to:

- Document the Long Reach Mill site's compliance in relation to environmental monitoring, reporting and performance conditions as detailed in EPN 7968/4;
- Review site-based commitments and targets for the reporting period;
- Communicate site-based commitments and targets for the coming period;
- Provide a public record of environmental performance for one of Forico's two wood fibre processing sites.

As Chief Executive Officer of Forico I endorse the following information as an accurate record of the activities of the Forico Long Reach Mill for the nominated period.

Evangelista Albertini

Chief Executive Officer

Forico Pty Limited

3. About Forico

Forico Pty Limited (Forico) is Tasmania's largest private plantation management company. Representing a new era of plantation forestry in Tasmania, Forico has a strong focus on supply chain management in an environment that prioritises people and environmental performance. Forico has operated in the Tasmanian plantation resource sector now for over 8 years, building and maintaining a sustainable business model on assets that were first established by prior forest based business entities over the previous 40 years.

3.1. Company profile and commitments

Forico is an integrated timber plantation, forest management, and forest products export business operating within Tasmania. Forico manage 170,670 hectares of land in Tasmania, comprised of 86,547 ha of plantation, 77,024 ha of natural forest, 3,246 ha of water bodies, and 3,852 ha of infrastructure.

Forico has a skilled workforce of 124 direct employees, and approximately 450 contractors and sub-contractors.

The Forico business comprises of:

- A tree breeding nursery at Somerset;
- Plantation operations, harvesting and replanting activities, including the management of cultural values and natural forests on the Forico estate;
- Administrative bases in Launceston and Ridgley (The Forico Corporate Office is located in Launceston, Tasmania with a regional office at Ridgley in north-west Tasmania);
- Fibre Technology Laboratory materials testing facility at Ridgley;
- Surrey Hills Mill at Hampshire; and
- Long Reach Mill and Fibre Export facility in the Tamar Valley (the focal point of this report).

With these key assets, Forico is committed to a sustainable plantation forestry sector in Tasmania, producing high quality internationally certified plantation fibre products while meeting independently verified sustainable forest management standards. Forico has the supply chain infrastructure and export marketing capabilities in place to efficiently manage the entire supply chain from seed to market. Sustainable management of all assets, including the wood chipping mills, is regarded as a vital component of the Forico business.

»Forico's Purpose – We are the custodians of the natural environment, entrusted to use our natural resources for the betterment of future generations.«

3.2. Environmental sustainability commitments

Forico's Environmental Sustainability Policy demonstrates the company's high-level commitment to minimising environmental impacts. To summarise the key commitments provided within this Policy, the Long Reach Mill seeks to:

- Minimise risk for pollution of soil or water;

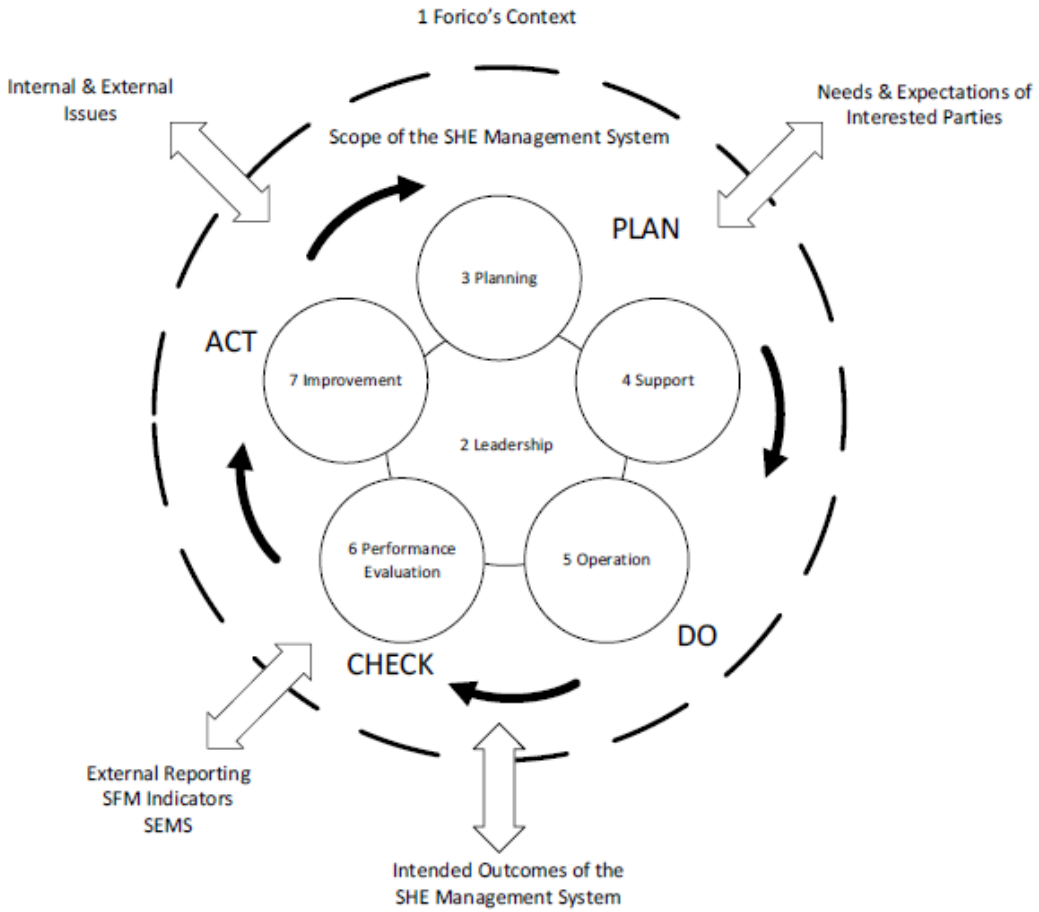
- Manage natural values on our estate through ongoing rehabilitation of natural forests, streamside reserves, and weed management;
- Control the generation of wastes, and work towards closed loop resource recovery systems within site operations;
- Seek ways to continue to improve carbon footprint by ongoing carbon capture in forestry operations, and system improvements to reduce emissions;
- Minimise potential impacts on surrounding communities; and
- Minimise the risk of biosecurity impacts associated with the international shipping of a bulk commodity.

The Forico Environmental Sustainability Policy is provided as Appendix A and can also be found on the Forico website.

3.2.1. Environmental Management Systems

Forico currently operates under the umbrella of a Safety, Health and Environmental Management System (SHE-MS) to manage environmental issues across the business. Forico's SHE-system is structured on the Plan-Do-Check-Act (PDCA) activity model which is integral to site operations. This is presented in Figure 1.

Figure 1 Conceptual model of the Plan-Do-Check-Act business cycle within Forico's SHE system



Training and development

A key component of Forico's SHE system relates to training and development of our staff and contractors. These include tailored inductions for contractors and other visitors, of which there are three main classes routinely visiting the Long Reach Mill. They are:

- Transport contractors for delivery of raw material in log and chip form;
- General engineering and maintenance contractors; and
- Persons involved in the maritime operations associated with the integrated Long Reach Mill port facility.

Given the divergent tasks and visitation patterns of the three classes, Forico uses tailored inductions delivered in video form with subsequent documented assessment. This provides a pragmatic, thorough and consistent approach for the significant number of non-permanently engaged staff who access the Long Reach site. At the time of writing, over 700 people have a current induction into one or more of the induction classes. All inductees are provided with the current Forico Environmental Sustainability Policy at the point of induction. Additionally, Policy documents are displayed on site notice boards.

Permanent staff and contractors also participate in ongoing training programs beyond the induction level, including Risk Management, Environmental Awareness and Biosecurity Awareness units. These are focussed on environmental and safety matters that relate directly to the Long Reach site or the integrated port facility as appropriate.

Environmental Awareness sub-topics include:

- Environmental noise;
- Hydrocarbon management;
- Wastewater quality;
- Protected Environmental Values (PEVs) of the local River(s) and the importance of their ongoing protection;
- Legal accountabilities; and
- Forico's Environmental Sustainability Policy.

Biosecurity Awareness sub-topics include:

- Biosecurity risks associated with port and vessel movements;
- Potential threat organism identification;
- Initial response strategies;
- Notification requirements; and
- Legal accountabilities.

3.2.2. Certification

Forico has achieved formal accreditation to various nationally and internationally recognised accreditation systems with regard to product stewardship and environmental management practices. Of relevance to this report are:

- AS/NZS ISO14001:2016 – Environmental Management Systems; and
- AS4707 – 2014 – Chain of Custody for Certified Wood and Forest Products.

The Environmental Management Systems certification applies across all Forico's operations, with the original audit certificate issued in July 2018 by Global-Mark. The re-certification process was again undertaken in June 2021, with the certificate updated on 10 July 2021 and expiring in July 2024. This is attached as Appendix B.

The Chain of Custody standards are also integral to operations at Long Reach, providing a trail of supply to link the resources processed to sustainably managed source forest. All wood processed at the Long Reach Mill has been sourced from plantations that meet the Forico sustainable management criteria, with a chain of custody trail to provide a transparent mechanism to track all material inputs. Together the environmental policies and certification processes provide accountable processes for market certainty, and regulatory oversight.

3.2.3. Community engagement

Figure 2 *Artwork by Aunty Judith-Rose Thomas for Forico RAP*

A key pillar of all of Forico's operations is our social responsibility. This includes not only our own people, with commitments to health and safety, but also the communities in which we work. We strive to engage with local communities, and provide a transparent and accountable operational framework, including active engagement through various sustainability reporting initiatives, available from the Stakeholder Engagement page of the Forico website (www.forico.com.au).

One major element of our recent community engagement has been to meaningfully engage with the Tasmanian Aboriginal community. To this end, our first Reconciliation Action Plan (RAP) commenced in January 2021. The Forico RAP encompasses a broad range of initiatives to develop and strengthen relationships with Aboriginal community members and build our internal knowledge and practices to recognise the significance of the original custodians of the land where we work.

On a broader community basis, any feedback or complaints received by the public across all of our operations are documented and followed up, with any relevant Long Reach Mill related issues summarised in Section 8 of this PER.

»In pursuit of our purpose, we consider it essential that we engage with and learn from Aboriginal and Torres Strait Island communities who have been custodians of the natural environment for generations.« *Forico Reconciliation Action Plan January 2021 – June 2022*

4. Legal and Policy Requirements

4.1. Relevant Acts and instruments

The principal environmental obligations for the Forico Long Reach Mill are those legislated under the *Environmental Management and Pollution Control Act 1994*. (EMPCA). Tasmania enacts the requirements under EMPCA through a suite of interrelated legislation which forms a framework for Tasmania's resource management and planning systems, comprising the following:

- *Land Use Planning and Approvals Act 1993;*
- *Resource Planning and Development Commission Act 1997;*
- *Resource Management and Planning Appeal Tribunal Act 1993;*
- *State Policies and Projects Act 1993;*
- *Environmental Management and Pollution Control Act 1994;*
- *Historic Cultural Heritage Act 1995;* and
- *Major Infrastructure Development Approvals Act 1999.*

Other legislative instruments and polices have relevance to operational aspects of the Long Reach Mill, including:

- (Commonwealth) *Biosecurity Act 2015;*
- (Commonwealth) *Export Control Act 2020;*
- (Commonwealth) *Maritime Transport and Offshore Facilities Security Act 2003;*
- *Roads and Jetties Act 1935;*
- *Marine-related Incidents (MARPOL Implementation) Act 2020;*
- *Plant Quarantine Act 1997;*
- *Weed Management Act 1999;*
- *Vermin Control Act 2000;*
- Tasmanian policy under the State Policies and Projects Act 1993 including:
    - *Tasmanian Coastal Policy 1996;*
    - *State Policy on Water Quality Management 1997;* and
    - *National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended May 2013.* Note: National Environment Protection Measures (NEPMs) are automatically adopted as State Policies under section 12A.
- Tasmanian Environment Protection Policies (EPPs are made under section 96K of EMPCA) and include:
    - *Environment Protection Policy (Air Quality) 2004;* and
    - *Environment Protection Policy (Noise) 2009.*

The Long Reach Mill's main regulatory instrument is *Environment Protection Notice (EPN) No. 7968*/4. The EPN is issued by the EPA Director under EMPCA to Forico Pty Limited as the 'responsible person' for the Long Reach Mill's activity.

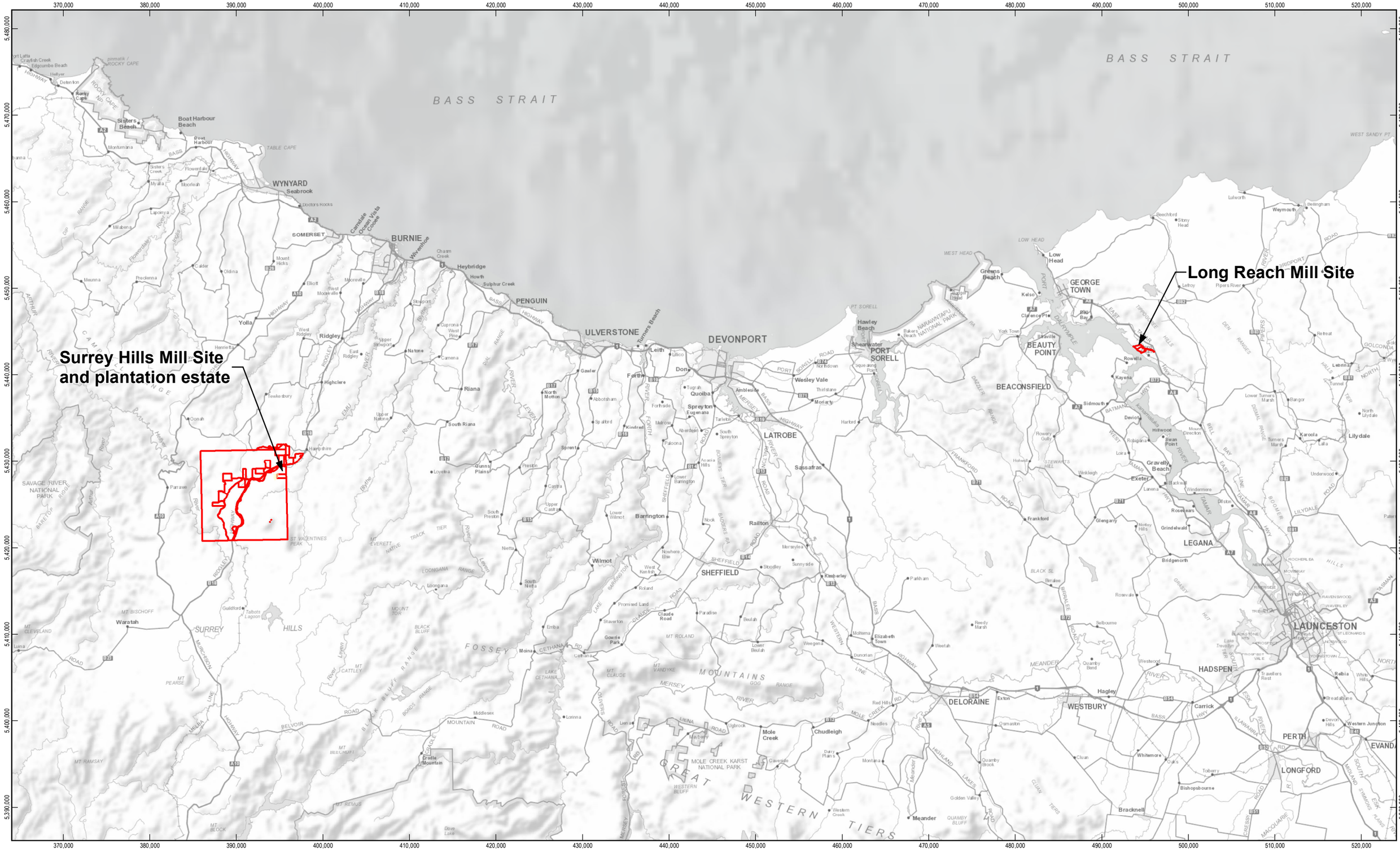
The EPN prescribes site specific requirements, which amongst other matters includes:

- Maximum scale or activity level, through an annual production limit;
- Monitoring and reporting requirements (production, by-product wastes, noise, sewage, wastewater and surface water);
- Monitoring sampling points;
- Emission qualitative limits (Sewage and waste water); and
- Ambient noise limits, relating to the activity and locations for testing.

4.2. Proceedings and infringements

In relation to the Long Reach Mill activity, Forico did not incur any of the following during the three year reporting period to 30/6/2022:

- Proceedings (prosecutions) issued under Tasmanian or Commonwealth environmental legislation, or the environmental provisions of other legislation;
- Infringement notices issued under EMPCA; or
- Enforcement action taken under any other Tasmanian or Commonwealth environmental legislation, the environmental provisions of other legislation, or the environmental provision of council by-laws.



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Map Projection: Transverse Mercator
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Forico Operational Mill Site

GHD

Forico Public Environmental Report
Surrey Hills Mill Site

Job Number	12547848
Revision	A
Date	22 Jul 2021

Forico Mill Locations

Figure 3

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5. Long Reach Mill Operations

5.1. Site description

The property for the Long Reach Mill site is located is at 3523 East Tamar Highway, Long Reach, property title 136962/1 and 136962/2 (refer Figure 3). The area is zoned General Industrial under the Tasmanian Interim Planning Scheme 2013. The site is located approximately 40 km North of Launceston in the northeast of Tasmania, the surrounding area is dominated by plantation forest and rural resource zones. The nearest residential zone is housing in Rowella, part of the West Tamar Precinct which is on the opposite side of the adjacent River Tamar. There is a Rural Living zone approximately 3.5km west of the site, however there is residential housing outside of this zone located approximately 1.5km west of the site in the Rural Resource zone.

The site consists of the Long Reach Mill Industrial site, and the port and marine export wharf which adjoins the site.

Under current wood supply and product demand conditions, production at the site operates 17 hours a day Monday to Thursday and 12 hours on a Friday. The scale of operation is currently regulated to a maximum production quantity of 1,000,000 tonnes of product per annum. Product is sourced from Forico's managed plantation estate, dispersed across the northern half of Tasmania (managed by Forico's Land Management and Plantation Performance Teams). The estate is dominated by exotic species, mostly *Eucalyptus nitens*, which serves as the primary export product from the Long Reach Mill site, with a smaller proportion of *Eucalyptus globulus* and *Pinus radiata*.

The Long Reach Mill site is located on a westerly-sloped landform at an elevation of 50 m. The Long Reach site is surrounded by dense, dry sclerophyll bushland to the North and East, and the River Tamar to the South and West. The climate of the site is described as temperate, with a median rainfall of 814 mm per annum. Rainfall is slightly higher in winter periods with an average of 98 mm in July and lower in summer periods with an average of 46 mm in January/February. Annual temperature averages range between 17.6 and 8.6 degree Celsius for the site.

The geology of the site is described as Jurassic Dolerite over Basalt (tholeiitic to alkalic). Sediments are predominantly comprised of sandy clay and weathered varieties (silty and baked/dark brown clays). Surface soils are typically strongly weathered clay silts or silty clays, with gravelly (dolerite comprised) varieties of these present.

5.2. Site activity profile

Woodchip Production Process

Forico's woodchip production process is defined as a vertically integrated process that functions as a 'from seed to port' system.

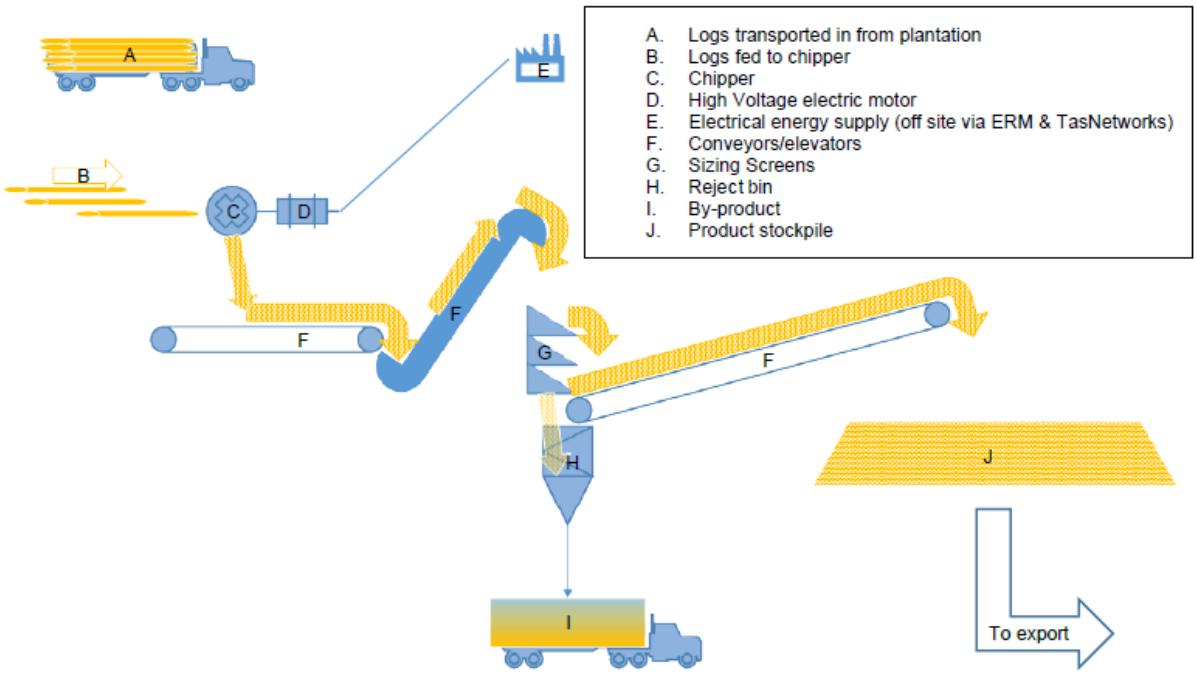
The process involves the culturing and management of hardwood production trees over an approximately 15 year grow out phase and softwood production trees for approximately 28 years. Trees are then harvested, de-barked, and transported to Forico processing facilities. Logs are mechanically chipped to a form that complies with product technical specifications for chip form and size to meet market requirements and suitability for bulk shipping transport.

Figure 4 Feeding logs onto to the chipper conveyor

Site Material Flows

The scope of Forico's processing flow includes the input of raw materials (comprised of debarked logs in round form), processing into the final product of uniform size as bulk wood chips. Residual by-products mostly comprise wood particles that are either too small (fines) or too large (reject chips) in relation to customer specifications (see Figure 5).

Figure 5 Forico conceptual process flow



Key Activities

The facility currently averages a production level of 45,000 (t) of product per month. Product is exported from a TasPorts owned wharf facility at the Long Reach Mill site (title reference 128436/1). Transport of logs into the mill site is currently undertaken by external contractors.

The Long Reach facility currently handles Timberlink Australia's softwood chips for export, stockpiling approximately 12,000 tonnes per month and loading up to 3 vessels per year.

Access into the site is limited through a staffed weighbridge, with site security provided during the times when the Mill is closed. Incoming trucks are weighed in, with the log source recorded and correlated with weighbridge data on accepted supply areas utilising LOGR, a digital system for managing harvesting, haulage and weighbridge operations.

De-barked logs in round form are unloaded onto the log yard using a Wagner L90 loader and temporarily stockpiled on hardstand areas prior to transport to the chipping area. Logs are brought into the chipper area, then fed into the chipping line. Chips are moved via conveyors to sizing screens, separating the product into chips for export, residual bark, and fines. Contaminated chips are stockpiled for use in landscaping applications, with bark and fines stockpiled separately for various reuse applications.

Reuse applications and process wastes are discussed further in Section 6.2.

5.3. Level of activity for reporting period

Activity level metrics for the monitoring period are tabulated below for annual totals of chip production and energy.

Table 1 Annual Totals (tonnes) for hardwood chip production, Long Reach Mill for the period 1 July 2019 - 30 June 2022

Output	2021-2022	2020-2021	2019-2020
Total Chip Production* (t)	591,459	405,032	661,193

** Condition Q1 of EPN 7968/4 regulates the scale of the activity to 1 million tonnes per year of woodchips produced.*

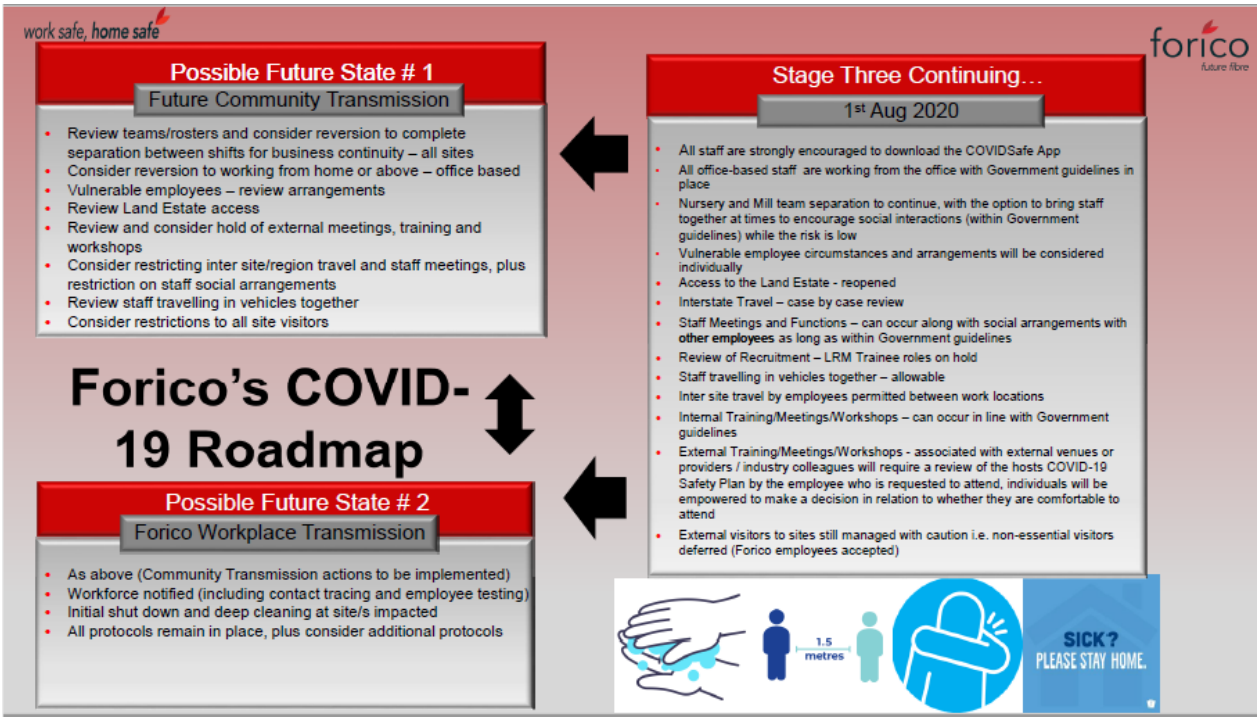
Table 2 Annual Totals (source unit and GJ) for energy consumption, Long Reach Mill for the period 1 July 2019 - 30 June 2022

Output	2021-2022	2020-2021	2019-2020
Electrical KWh / GJ)	3,612,558 / 13,005.2	2,789,411 / 10,041.9	3,585,809 / 12,908.9
Diesel fuel (L / GJ)	181,188 / 6,993.9	287,728 / 11,106.3	296,902 / 11,460.4
Total (GJ)	19,999.1	21,148.2	24,369.3

5.4. Operational impacts of COVID-19

From the commencement of the general national response in March 2020, it has been a challenging task to operate the Forico Long Reach Mill given the context of a global pandemic. Forico's initial response included developing and operating under a business wide plan developed by a Pandemic Response Committee in the form of a 'Return to Work Roadmap', commencing in August 2020. The roadmap provided key responses to be enacted, along with precautionary measures both within both the Long Reach site and between the site and other elements of Forico's business activities. The forest industry was classified as an 'essential service' under State protocols during this time allowing the Long Reach Mill site to continue operations during community 'shutdowns' implemented in response to the pandemic.

Figure 6 *Forico COVID-19 roadmap*



5.5. Operating hours

In the absence of a shipping vessel at berth, the Long Reach Mill site operates on a conventional five-day week basis, with Dayshift working eight hour shifts per day Monday to Friday and Afternoon shift Monday to Thursday. After 2pm Friday, the site receives log deliveries only. When a vessel is at berth and loading, the site operates on a 24-hour basis 7 days a week. Maintenance is scheduled on a weekly basis. Transport of woodchips to site from the nearby Timberlink sawmill is undertaken by a transport contractor engaged by Timberlink. Delivery of logs is undertaken by forestry contractors, most of which are engaged by Forico, from 6am to 8pm Monday to Thursday and 6am to 6pm on Friday. The Mill site production operation hours are presented in Table 3.

Table 3 *Operational shift hours*

Day	Operating Hours
Monday	6am -2pm ; 2pm 11pm
Tuesday	6am -2pm ; 2pm 11pm
Wednesday	6am -2pm ; 2pm 11pm
Thursday	6am -2pm ; 2pm 11pm
Friday	6am -6pm
Saturday	Closed
Sunday	Closed

5.6. Site key environmental values

The key environmental values present at the site include:

- Catchments of Bypass Creek[1] and Williams Creek and associated Protected Environmental Values (PEVs);
- River Tamar; and
- Amenity of a rural resource, forestry-based area.

5.7. Description of emissions

The Long Reach Mill activity has a relatively simple environmental 'footprint' when compared to neighbouring heavy industries in the Bell Bay region. Nevertheless, each major environmental aspect and its corresponding actual or potential impact are described below under four emission categories of atmospheric, noise, water and land/soil.

Atmospheric emissions

Emissions of criteria pollutants, such as nitrous oxides (NOx), Particulate Matter (PM_{10}, $PM_{2.5}$) etc are largely related to diesel powered mobile plant and equipment on the Long Reach site. Due to the low intensity of such plant within the site and the dispersive nature of the environment, these aspects are relatively insignificant in the context of the Tamar Valley air shed. A further minor atmospheric emission is metal fume associated with casting metal babbitts onto chipper knives in the site's knife sharpening room.

Emissions of greenhouse gases are mainly related to mobile plant usage. While greenhouse emissions are a significant matter in themselves, the contribution of the Long Reach site is relatively insignificant within Forico's suite of activities. Readers with an interest in Forico's greenhouse profile can reference Forico's comprehensive annual Natural Capital Reports published on Forico's website (www.forico.com). The Natural Capital Report's Greenhouse section aggregates carbon dioxide equivalent (CO2-e) emissions from across the group and are subject to third party verification processes.

Noise emissions

A key emission for the Long Reach facility is environmental noise, as perceived by the residents of Rowella. Noise emission points include:

- The South Mill Chipper building, emanating from chipper knife blade impact and motor noise; and
- Mobile plant and equipment nominally log trucks, log truck unloading vehicles and tracked plant such as dozers.

The character of noise emissions could be described as a variable and intermittent output in the frequency range of 50 – 1000Hz. The impacts of noise emissions are potential disturbances to the general amenity of residents in the Rowella area.

The Long Reach Mill in its current configuration has minimal capability to vary (i.e., reduce) noise output when operating. Variation in the perception of environmental noise at Rowella can be mostly attributed to variations in atmospheric conditions and the presence or absence of other ambient noise sources.

Water emissions

Process and surface water emissions from the Long Reach Mill activity include emissions from current activities as well as those from past operations in the form of leachates from a disused bark waste landfill. In general, environmentally relevant water emissions from the Long Reach site are a function of rainfall,

[1] This is not a formal name, but rather a legacy ID from prior operations describing a combined natural drainage line, a constructed wetland, and a bypass flume. The waterway concerned is technically un-named.

creating leachate from wood-based stockpiles of product (chip) or wastes (such as a disused landfill), creating subsequent organic enrichment and eutrophication of those stormwaters.

The use of hydrocarbons for lubrication and fuel by mobile plant are required for routine management of the site. However, due to the overall site layout, the location of mobile equipment and fuel storages, effective physical controls and management practices, liquid emissions contaminated by any detectable hydrocarbons is rarely, if ever apparent.

Water emission points are shown in Figure 8. They include:

- A 'clean' stormwater drain, which services the majority of the undeveloped or otherwise low risk areas of the Long Reach Mill site that drains directly to the River Tamar with no physical controls;
- A small sewage outfall from an on-site 'Bio-Cycle' plant;
- An overflow outfall from the final treatment pond (Pond 9) on the southern corner of the South Mill site;
- An indirect release point of surface and /or ground waters via an unnamed and heavily modified waterway shown in Figure 8 as 'Bypass Creek'; and
- A wetland overflow via a rip rap and concrete flume pathway, entering the lower section of Bypass Creek just before it enters the River Tamar.

The management objective of the Pond 9 overflow outfall points is to eliminate the occurrence of any direct outflow of the liquor that is directed to and held by Pond 9. Nevertheless, overflows could occur, particularly because of (1) a failure or other non-availability of pumping infrastructure that is in place to transfer liquors from Pond 9 and/or (2) a deluge rainfall event that exceeds the capacity of the pumping system to transfer liquor prior to overflow levels being reached.

Consequently, the Long Reach Mill's management practice is to transfer and dispose of most organically enriched Pond 9 liquors via an irrigation network, which can then lead to a subsequent indirect surface water outflow via Bypass Creek. In effect, liquors captured by the combined drainage network, including most on-site detention and holding ponds, are actively diverted (pumped) to irrigation as a form of bio-physical water treatment.

A small fraction of liquor transferred from Pond 9 is not directed to irrigation but instead directed to a constructed wetland. This same wetland also passively receives surface water from a small catchment on the southern sector of the South Mill site. The wetland acts as a form of bio-physical treatment for Pond 9 liquors, with any overflow from that wetland thereafter entering Bypass Creek via a concrete flume.

Water released via the Bypass Creek exhibits a significantly improved overall quality than if it were released directly via either overflow outfalls. This mitigates impacts on the River Tamar that would otherwise likely include:

- Eutrophication via loading of dissolved nitrogen and phosphorous nutrient species;
- Localised oxygen depletion or broader scale respiratory stresses via organic enrichment; and
- Aesthetic implications and water column light attenuation via the release of a dark coloured liquor.

Finally, the small treated sewage outfall is not a significant emission point in the context of the River Tamar. It is nonetheless maintained, monitored, regulated and reported below for verification purposes.

Land/soil Emissions

Contamination of soils and/or land is mainly related to past practices and uses of the Long Reach Mill site, rather than current operations. Two aspects are apparent as follows:

- Localised hydrocarbon contamination sourced from legacy hydrocarbon storage or dispensing infrastructure; and

- Localised disturbance of soil chemistry (sodicity/salinity/eutrophication) emanating from a legacy bark disposal area.

Legacy hydrocarbon contamination includes areas on the North Mill site that were identified, investigated, but not yet finalised as being or not being significantly contaminated, under a *Detailed Site Investigation* (DSI) process described in the previous public report. There are also areas that have been identified as potentially contaminated, but not sampled for verification because they are still under active use or potentially required for future development(s) on either the North or South mill sites.

The localised disturbance of soil chemistry is a function of a bark disposal landfill area used by prior operators that ceased accepting materials in late 1992. During that time, bark was removed from wood on the mill site by a salt-water log wash, rather than the contemporary practice where it is removed mechanically at the point and site of harvest. The underlying salinity issue is related to the salt-water used at that time. This aspect and legacy impact has minimal implication to environmental values or industrial land use, but does minimise opportunity for successful and ongoing bio-remediation of the former landfill area.

6. Environmental Performance

6.1. Environment related procedural or process changes

6.1.1. 2021-2022 reporting period

No environmentally related process or procedural changes occurred during this reporting period.

6.1.2. 2020-2021 reporting period

Two environmentally relevant events of process improvement occurred at the Long Reach Mill site during the 2020/2021 reporting period. These were:

- Completion of retaining walls for improved bank stability as opportunities for improvement after evidence of bank slippage was identified; and
- Installation of a re-fuelling area at the chip stockpile. The new re-fuelling pad includes drainage to the triple interceptor already in this area (Figure 7).

Figure 7 Refuelling station at chip stockpile

6.1.3. 2019-2020 reporting period

Two environmentally related process changes occurred during this reporting period:

- Establishment of telemetric links to three critically important pumps within the drainage system: Pond 4 pump and the leachate transfer pump (both of which feed into pond 9), and the irrigation transfer pump that draws down Pond 9. Establishing these telemetric links enabled earlier detection of any issues with the pumps, resulting in a faster response time.
- The Company's graduate chemist was trained in environmental field sampling protocols consistent with the requirements of Condition M1 of EPN 7968/4.

6.2. Generation and management of solid and liquid waste

The Long Reach Mill generates two classes of waste stream:

- Wood based process material by-products, including fines, reject chips and bark; and
- Non-process wastes, such as oils, packaging, scrap metal etc.

By-products are detailed here to align with the definition of 'waste' under EMPCA.

Data collected on waste disposal for the full reporting period are provided below as annual totals. Veolia Environmental Services (Aust) Pty Ltd are the main non-process waste service provider for the Long Reach Mill site.

Waste disposal metrics for the full reporting period are provided in tables below as annual totals.

6.2.1. Process waste (by-products)

Wood based by-products include fines, reject chips and bark. Fines are the most significant by-product waste by volume and are segregated at the screening phase of the chip production process. The reject chips can be generated at any time due to suspected contamination, sacrificial use for bulk product handling, biodegradation etc. Bark is a generic term that refers to miscellaneous woody debris generated, mostly by log handling. This is a minor waste stream as true log de-barking is undertaken at point of harvest in the forest estate and so does not occur on the Long Reach Mill site.

Annual totals of major wood-based waste streams are summarised below in Table 4. These include fines, bark, and reject chips. Table 5 provides data on the end destination of process wastes

Table 4 Total wood-based process waste generated per annum

Wood Process Waste	2021-2022 (tonnes)	2020-2021 (tonnes)	2019-2020 (tonnes)
Total waste fines generation	15,391	9,854	21,055
Total waste bark generation	3,638	2,092	3,138
Total waste reject chip generation	1,030	580	1,111

Table 5 Wood waste destination for the nominated reporting periods

Wood Process Waste	2021/2022 (tonnes)	2020/2021 (tonnes)	2019/2020 (tonnes)
Fines to Stockpile	2,099	0	11,085
Fines to Reuse (Direct Off-Site)	13,292	9,854	9,970
Fines to Reuse (Off-Site from Stockpile)	3,815	3,522	6,000
Total Fines disposed off-site	17,107	13,376	15,969
Bark Direct Off-Site	3,638	2,092	3,138
Waste Chips Direct Off-Site	1,030	580	1,111

Forico intends to continue to assess options for opportunities to progress supply agreements for the reuse of process wastes during the next reporting period (2022-2023).

6.2.2. Non-process material wastes

Non-process wastes (solid and liquid) include products such as oils, mixed solid waste, and hydrocarbon contaminated materials. Waste disposal metrics for the reporting period are provided below as annual totals of both liquid and solid waste. Scrap metal is measured in tonnes generated over each reporting year. There was a significant increase in the reporting year 2020-2021 due to the removal of redundant equipment in the main mill building. General mixed solid waste is disposed of at the Remount Road Landfill in Launceston. Waste contaminated with oil and oily water is disposed of at the Veolia licensed facility. Annual totals of non-process wastes are shown in Table 6.

Table 6 Annual totals (tonnes) of key non-processing waste metrics.

Material Description	2021/2022 (tonnes)	2020/2021 (tonnes)	2019/2020 (tonnes)
Scrap Metal for processing and recycling	5.9	196.0	6.3
General Solid Waste to Launceston Waste Centre	15.6	12.7	12.3
Oily contaminated Solids	-	0.9	-

Material Description	2021/2022 (tonnes)	2020/2021 (tonnes)	2019/2020 (tonnes)
Hydrocarbon/Water Mixture	0.6	0.2	-

6.2.3. Controlled and special waste

Veolia are engaged to handle and accept controlled waste substances (including general landfill waste and waste oils) for the Long Reach Mill site. A consolidated summary of the Long Reach Mill site-controlled waste disposal is provided below in Table 7.

Veolia operate a Liquid Treatment Plant for waste oil recovery which itself is regulated under EPN 9596/1. Veolia are registered waste handlers, holding Certificate of Registration No. CWTEMP129TA.

Table 7 Controlled waste disposal summary

Material Description	2021-2022	2020-2021	2019-2020
Asbestos Containing Material (t)	0.9	9.2	-
Oil Rec/Rem (L)	-	150.0	-
End of Life Tyres (units)	4.0	27.0	-

A total of 10.1 tonnes of Asbestos Containing Material (ACM) were removed from the site over the three year reporting period.

The South Mill site is inspected annually for the condition and any hazards relating to ACM. Any significant changes to the condition or make-up of the ACM are noted and recorded in the on-site Asbestos Register. Inspections were conducted at the Long Reach site in September 2020 and June 2022, with no required actions for this year.

End of Life Tyres (ELT) were historically stockpiled on the Long Reach Mill site. These are now removed under agreement with Dowling McCarthy Tyres for recycling/disposal by Tyrecycle utilising Barwicks Wholesale & Retail Landscape supplies as their transport agent. Tyres are managed in accordance with Tasmanian regulatory requirements. For the reporting period of 2019-2020 there were no tyre disposal occurrences. In 2020-21, Forico disposed of 3 x trailer tyres, 16 x ute tyres, 2 x drive and 2 x steer tyres for the Wagner L90 and 4 x bobcat tyres. For the most recent 2021-2022 reporting period, 2 x drive tyres for the Wagner L90 and 2 x Ute tyres were disposed of from the site.

6.2.4. Re-use/waste minimisation initiatives

The Long Reach Mill staff seek to continually optimise production processes to reduce total process waste. Forico has several ongoing agreements with contractors that extract waste fines on a monthly basis. This includes removal to pre-approved depots or general primary industry users. A total of 17,107 tonnes of waste fines were removed from the Long Reach site by licensed contractors during the 2021/2022 reporting period, with an average truck payload mass of 20.4 tonnes consigned and removed from the site. All material was supplied for reuse. All reject chip and bark wastes are currently collected by general primary industry users in proximity to the Mill site. See Table 5 for a summary of wood-waste reuse data.

6.3. Environmental incidents or incidents of non-compliance

6.3.1. 2021-2022 reporting period

Two non-trivial incidents occurred in the most recent reporting period.

- On the 17/07/2022, a high pond level alert email was received overnight at 0240hrs. Pond overflow from level data appears to have occurred at 0320 hrs and the Site Manager was despatched to site to inspect pond level at 0800, found to be overflowing weir. Mechanical tradesperson called to site to assist with investigation of pump issues. Pump flow checked and found to be significantly low at 40 LPM. Pipework inspected and flow issues investigated with pumps. Swapped to back up pump with no improvement, determined as blocked suction line. Pumps allowed to backflush, reprime and brought back online at 1215hrs with normal flow rates observed visually at discharge and on flow rate gauge. EPA notified and ICAM investigation conducted, rectification actions implemented. Investigation actions supplied to EPA; and
- On the 10/09/2021 a phone call was received from EPA Environmental Officer that they had received a light pollution complaint from a resident at Kayena. Complainant described lighting from Long Reach Mill site was glaring directly into their residence, and that they can see 2 white and 2 yellow lights. Site Manager followed up with investigation of site lighting and redirected lighting where possible without compromising safety requirements for working areas. EPA provided with summary report on completed actions on the 29/11/2021.

6.3.2. 2020-2021 reporting period

No environmentally related incidents directly relevant to the Long Reach Mill activity were recorded during the reporting year. There were no incidents of non-compliance to the conditions of EPN 7968/4 relating to the activity identified or recorded for the reporting year.

Four minor environmental incidents/events occurred. These were minor oil spill events whereby the total loss of material was <100L, as described below:

- A hydraulic fitting failed on a log truck during a folding up operation – spill of approx. 5L contained with fines and disposed in hydrocarbon bin;
- L90 Wagner ruptured return transmission line losing approx. 50L - oil spill contained with fines and disposed of in hydrocarbon bin;
- Broken piece of log hit and damaged transmission fitting on a Wagner L90S causing oil loss of < 5L - contained with fines and disposed of in hydrocarbon bin; and
- Oil filter detached from Dozer causing oil loss of < 5L – contaminated chips disposed of in hydrocarbon waste bin.

No product/chip spills occurred (onsite or during transit) during the reporting period.

6.3.3. 2019-2020 reporting period

Two non-trivial incidents occurred in this monitoring period.

- Pond 4 pump boiled 10/12/2019. The Pond 4 pump ran dry and boiled the mechanical seal in the pump. Immediate investigation determined that the float control on the pump was faulty,

preventing shut off. Subsequent preventative actions included adding telemetry links to the Pond 4 pump and two other critically important pumps relating to wastewater handling; and

- Contacted by email by a resident of West Bay Road, Rowella, who reported recent night time disturbance due to noise and vibration (20/5/2020).

Trivial recorded environmental incidents included two minor incidents of hydrocarbon spills:

- Hydraulic oil spill from the site's Wagner L90 mobile plant 20/1/2020; and
- Hydraulic oil spill from the site's 470 loader mobile plant 27/4/2020.

7. Environmental Monitoring Results

7.1. Monitoring Requirements and Timeframes

The Long Reach Mill is required to submit an annual report detailing the monitoring results of the following aspects of site operations as a requirement of EPN 7968/4. Site water monitoring currently operates through three monitoring sub-programs:

- Surface water discharge monitoring (Surface water/process water runoff sampling at the Pond 9 overflow weir and the Wetland rip-rap overflow drain);
- Surface water monitoring of the receiving environment (Bypass Creek); and
- Treated sewage wastewater monitoring from sewage treatment plant (STP (discharge) Monitoring Point and STP Polishing Pond (non-discharge)).

The requirements of these conditions are detailed below:

Table 8 Monitoring requirements under EPN

Monitoring Point	Parameters	Frequency
Sewage Treatment Plant Discharge Monitoring (M2)		
South Mill STP monitoring Point (or South Mill STP polishing pond in the event of insufficient flow)	BOD (maximum concentration 40 mg/L) TSS (maximum concentration 60 mg/L) Enterococci (maximum concentration 200 cfu / 100 mL)	Quarterly. Note that at times when flow at STPMP weir is insufficient for sampling, a grab sample from Polishing Pond is used to assess health of STP rather than regulatory compliance for discharge
Wastewater Discharge Monitoring (M3)		
Monitoring points are:		
• Long Reach Pond 9 Overflow Weir	pH, TPH, BOD, TSS, Conductivity	Quarterly (when flowing during sampling event)
• Wetland Rip Rap Overflow	pH, TPH, BOD, TSS, Conductivity	Quarterly (when flowing during sampling event)
Bypass Creek Monitoring (M4)		
Bypass Creek v-notch weir Monitoring Point	COD, TP, TN, Conductivity	Quarterly Monthly

Figure 8 *Long Reach Mill Water Monitoring Locations Map*

7.2. Water Monitoring

Water monitoring at the Long Reach Mill is currently undertaken at up to three separate sites (depending on flow) identified as surface water collection zones or wastewater monitoring locations. As per conditions M2, M3 and M4, water monitoring at the Long Reach Site includes:

- Sewage treatment plant discharge monitoring;
- Site wastewater discharge monitoring; and
- Bypass Creek surface water monitoring.

Sampling sites are consistent with previously reported monitoring periods and are identified on Figure 8.

7.2.1. Sewage Treatment Plant (STP) monitoring

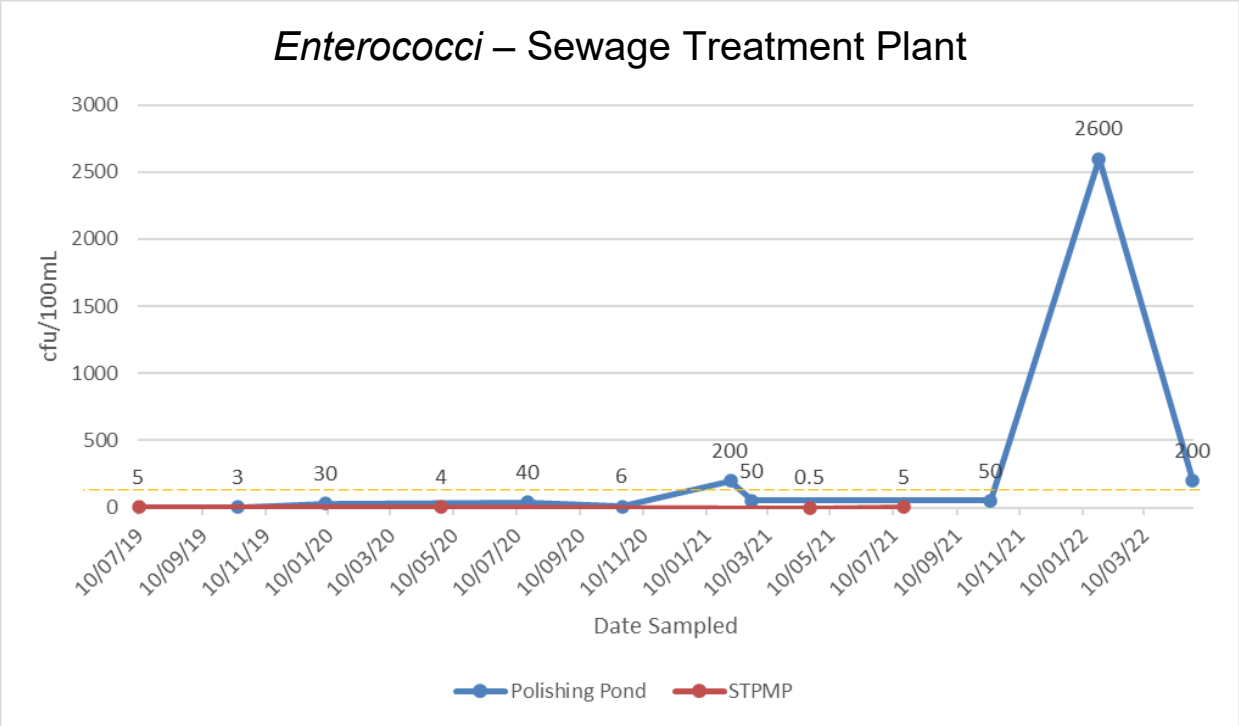
Monitoring of treated sewage wastewater exiting the South Mill STP is conducted on a quarterly basis. Samples are collected from the Long Reach Sewage Treatment Plant's monitoring point (STPMP), or if there is insufficient flow to sample, from within the polishing pond. The STPMP's key sampling site is the v-notch weir at the outlet of the polishing pond. The treated wastewater that flows from the polishing pond is that which is monitored for compliance, as this represents the discharge water that flows into the River Tamar. Whereas water from within the pond is not assessed for compliance as it is not an emission *per se*. Non-discharge samples are instead used to monitor the health of the STP itself for management purposes (where excursions will initiate non-routine inspection of the STP equipment and potentially resampling), but are nevertheless reported.

The samples are analysed for three regulated wastewater quality indicators as per the requirements of EPN 7968/4, including *Enterococci*, Biochemical Oxygen Demand 5-day (BOD_5) and Total Suspended Solids (TSS). Samples collected at the sewage treatment monitoring point (STMP) are assessed for compliance to applicable discharge limits defined under EPN 7968/4 (Condition EF5).

Due to lack of flow, only one sample round was taken at the STPMP in the most recent 2021-2022 reporting period. This sample was collected on 20 July 2021, with the remaining quarterly samples being taken from the polishing pond. Monitoring at the Polishing Pond adhered to the quarterly schedule.

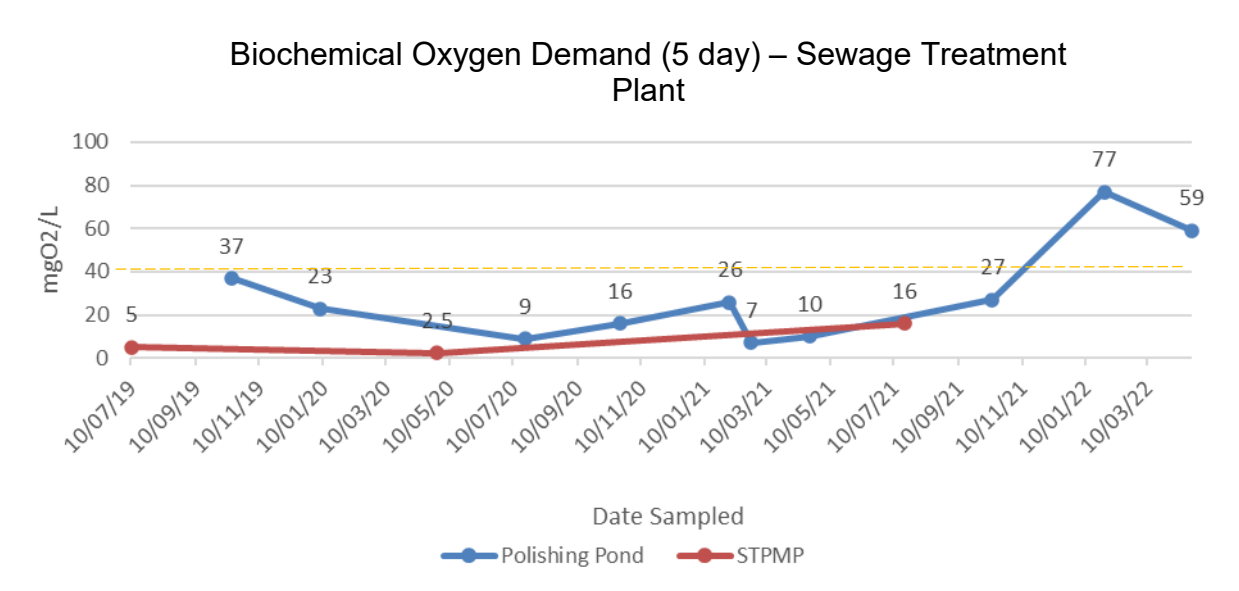
The results of the monitoring from the South Mill STPMP and Polishing Pond during the three reporting periods are presented below in Figures 9, 10 and 11.

Figure 9 *Enterococci levels (cfu 100/ml) (2019-2021) - South Mill STP Polishing Pond and STP Monitoring Point (STPMP)*



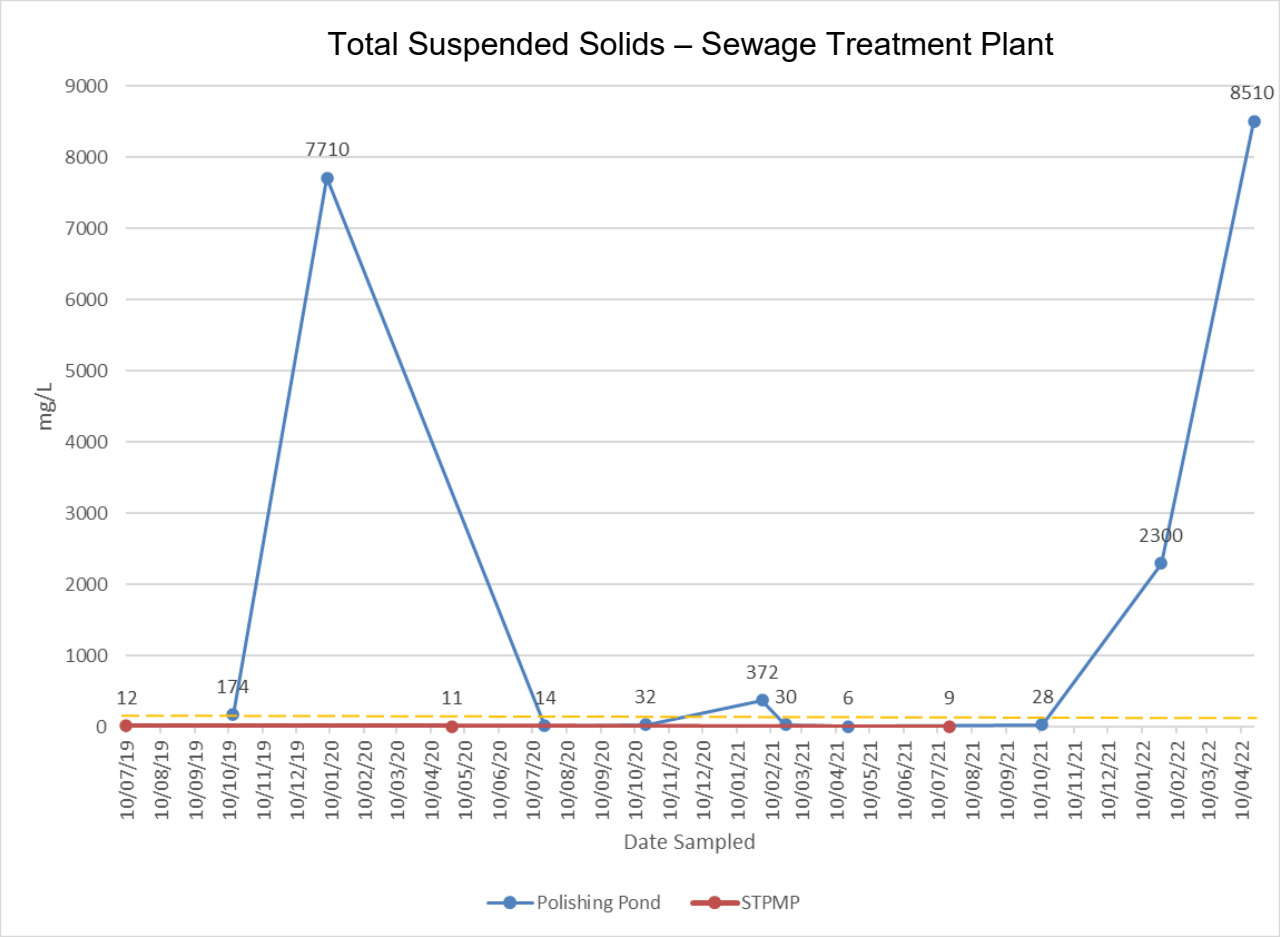
As noted above, if flow at the STPMP weir was insufficient to sample, then a sample was taken instead from within the Polishing Pond. Data labels represent LOR adjusted values. Orange dashed line represents maximum concentration or range specified in condition EF5 of EPN 7968/4.

Figure 10 *BOD levels (5-day demand) (mg O2/L) (2019-2021) - South Mill STP Polishing Pond and STP Monitoring Point (STPMP)*



If flow at the STPMP weir was insufficient to sample, then a sample was taken instead from within the Polishing Pond. Data labels represent LOR adjusted values. Orange dashed line represents maximum concentration or range specified in condition EF5 of EPN 7968/4.

Figure 11 Total Suspended Solids (TSS) (mg/L) (2019-2021) - South Mill STP Polishing Pond and STP Monitoring Point (STPMP)



If flow at the STPMP weir was insufficient to sample, then a sample was taken instead from within the Polishing Pond. Data labels represent LOR adjusted values. Orange dashed line represents maximum concentration or range specified in condition EF5 of EPN 7968/4.

7.2.2. Interpretation of STP monitoring results

Samples obtained from within the Polishing Pond during periods of prolonged insufficient flow indicate three instances of *Enterococci* levels at or above the regulatory threshold value (200 cfu/100ml), including an exceedance of 2600 cfu/100 ml on 25 Jan 2022. At each incidence of a high reading, on receipt of the results site management were requested to take prompt action to verify functioning of all elements of the STP system. Thereafter, recorded levels reduced by the time of the next monitoring event, indicating the treatment system's efficacy had indeed recovered. It should be noted that results from the alternate location are considered an assessment of STP health rather than regulatory compliance for discharge.

Biochemical Oxygen Demand 5 Day (BOD_5) showed no exceedances at the STPMP above the compliance discharge thresholds supplied as per Condition EF5 of EPN 7968/4 for the reporting period (40 mgO_2/L). Samples obtained from within the Polishing Pond during periods of insufficient flow for discharge sampling generally indicate the treatment system's efficacy for that aspect, though exceedances were recorded on 27 Jan 2022 and 21 April 2022.

Total Suspended Solids (TSS) showed no excursions above the compliance discharge threshold (60 mg/L) at site STPMP supplied in Condition EF5 of EPN 7968/4 for the reporting period. Samples were primarily obtained from within the Polishing Pond over the reporting period, because of no flow of the pond weir. Exceedances were observed in the polishing pond on four occasions: 7 Jan 2020 (7710 mg/L),

2 Jan 2021 (372 mg/L), 27 Jan 2022 (2300 mg/L, and 21 April 2022 (8510 mg/L). These samples were noted to be associated with in-pond algal blooms at the time of sampling. Therefore, they are not likely to be reflective of total solids emanating from the waste treatment plant. This phenomenon was also noted during the previous reporting period, and levels reduced again by the next quarterly monitoring event.

7.2.3. Wastewater and surface water monitoring

Quarterly sampling of surface waters from the Pond 9 overflow weir, and the wetland rip rap overflow, are taken when surface water flow is sufficient for extractive samples to be collected and field instruments to be covered by water. Extracted samples are tested for Total Petroleum Hydrocarbons (TPH), Biological Oxygen Demand (BOD_5) and Total Suspended Solids (TSS). Conductivity and pH are measured by field instrument. Conductivity is measured as a general indicator of water salinity. The set of monitoring data from these locations is regularly reviewed to monitor the Long Reach Mill surface water discharge and periodically evaluate compliance with the EPN.

During the current reporting period, surface water monitoring was undertaken at the Bypass Creek V-notch Weir on a monthly basis.

Monitoring of wastewater discharge was primarily undertaken at the wetland rip rap overflow, with the first round of sampling conducted 10 July 2019, and on an ongoing quarterly basis. No samples were taken from the Pond 9 Overflow Weir during the 2021/2022 reporting period as it was not observed to be flowing during any of the sampling events. It should be noted that one operational objective of the site's management is that Pond 9 should not overflow, where excess Pond 9 liquor is instead diverted to irrigation.

Figure 12 Conductivity at Surface Water Sampling Sites (µS/cm) (2019-2022) - Bypass Creek V-notch Weir and Wetland Rip Rap Overflow

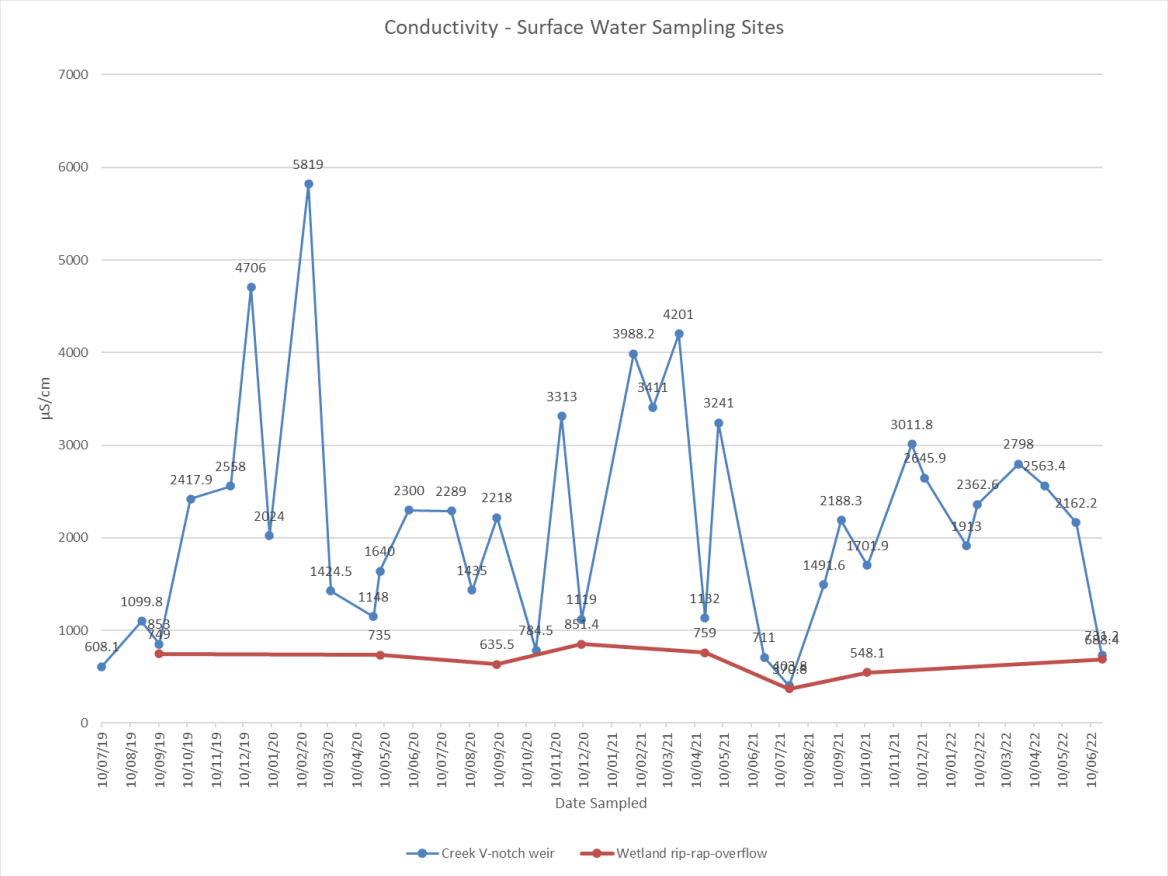


Figure 13 Biological Oxygen Demand$_5$) at Surface Water Sampling Sites (mg O_2/L) - Bypass Creek V-notch Weir

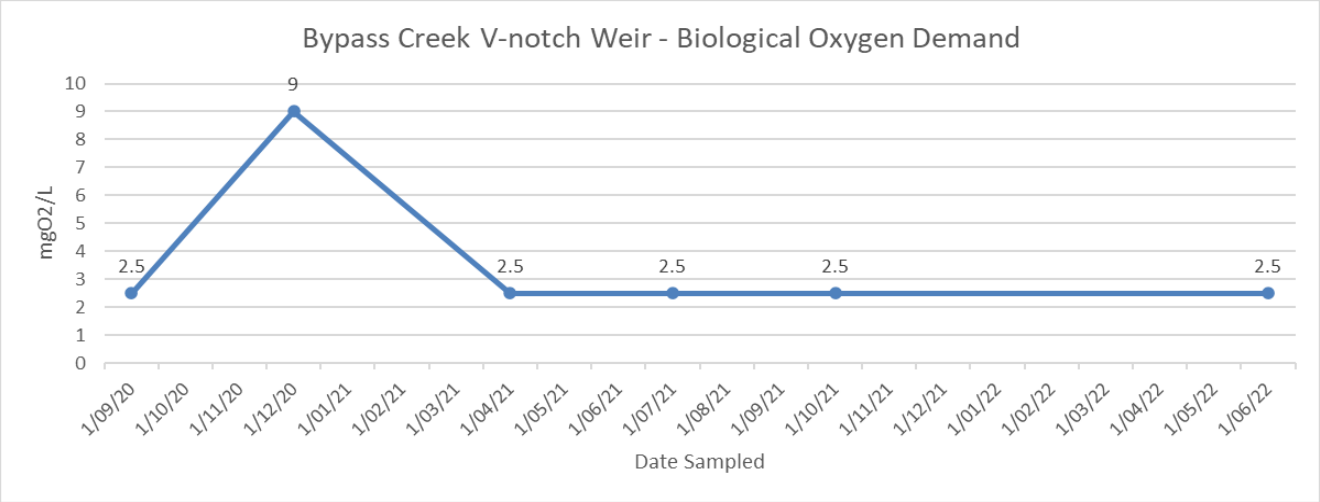
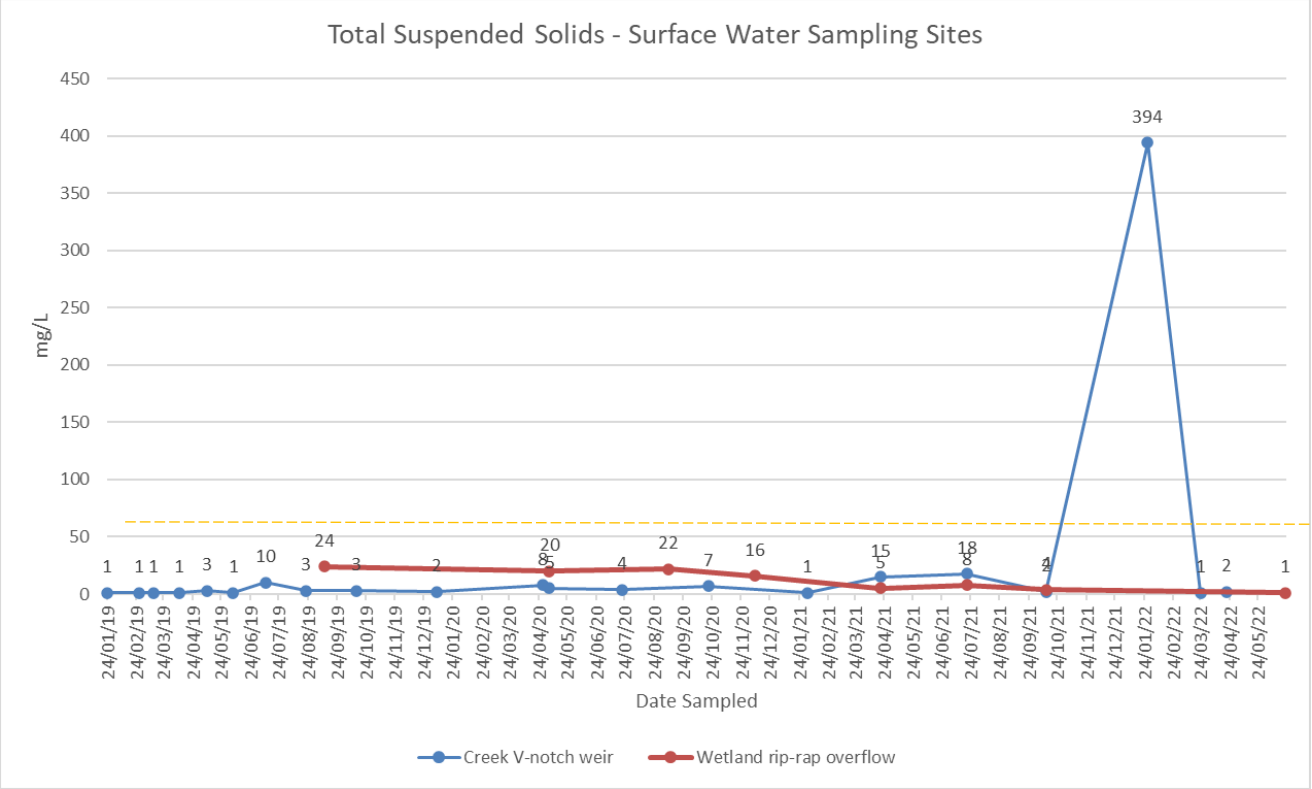
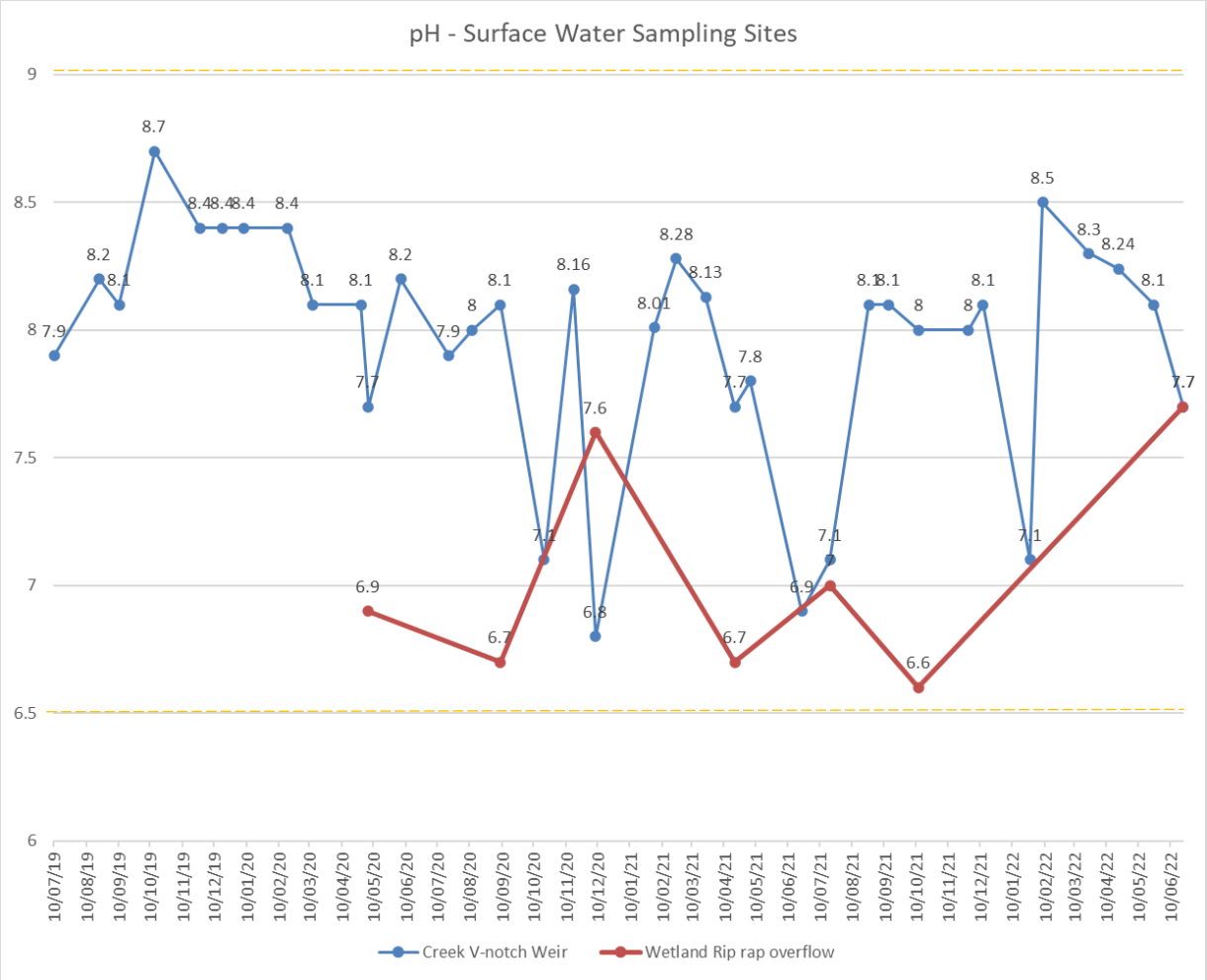


Figure 14 Total Suspended Solids at Surface Water Sampling Sites (mg/L) - Bypass Creek V-notch Weir and Wetland Rip Rap Overflow



Orange dashed line represents maximum concentration or range specified in condition EF5 of EPN 7968/4.

Figure 15 *pH at Surface Water Sampling Sites (2019-2021) - Bypass Creek V-notch Weir and Wetland Rip Rap Overflow*

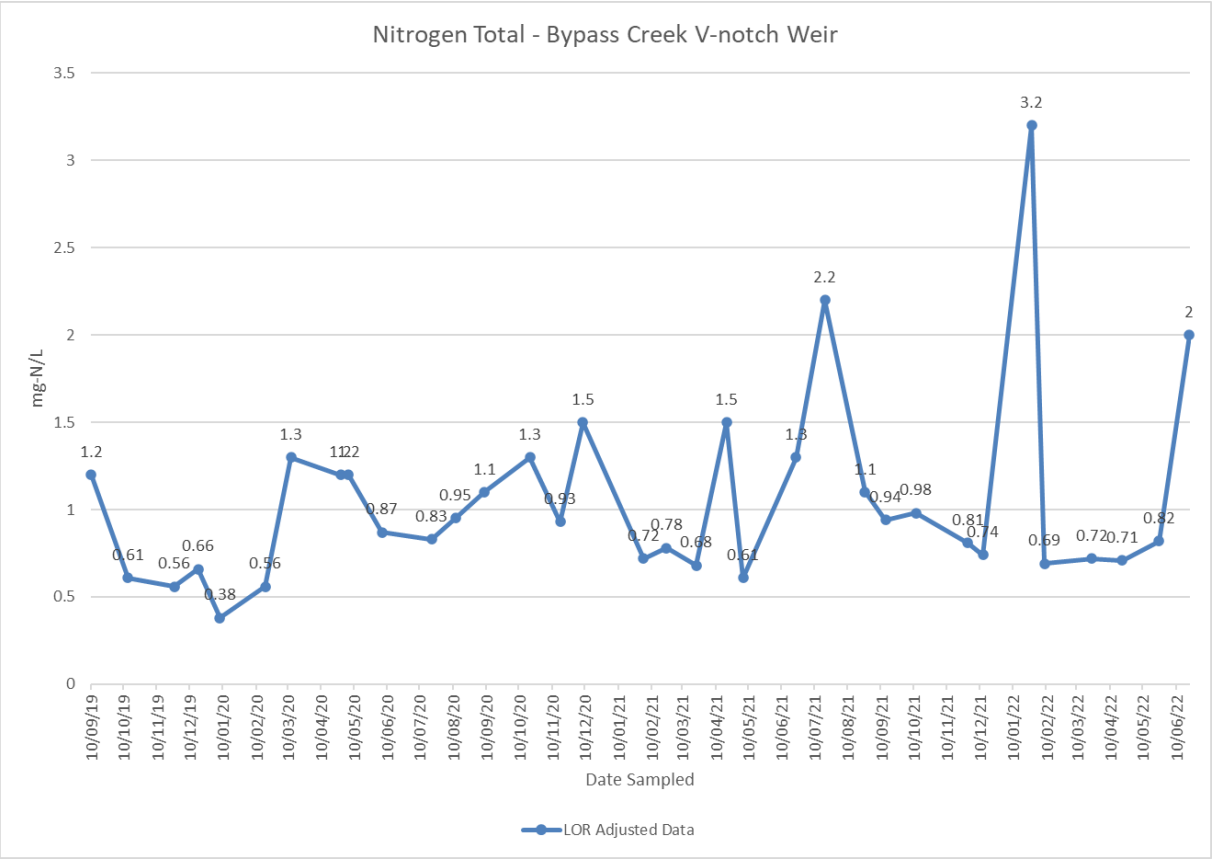


Orange dashed lines represent upper and lower range for Wetland Rip Rap Overflow only.

Table 9 *Total Petroleum Hydrocarbon (TPH) - quarterly sampling of wastewater discharge collected from Wetland Rip Rap Overflow monitoring location*

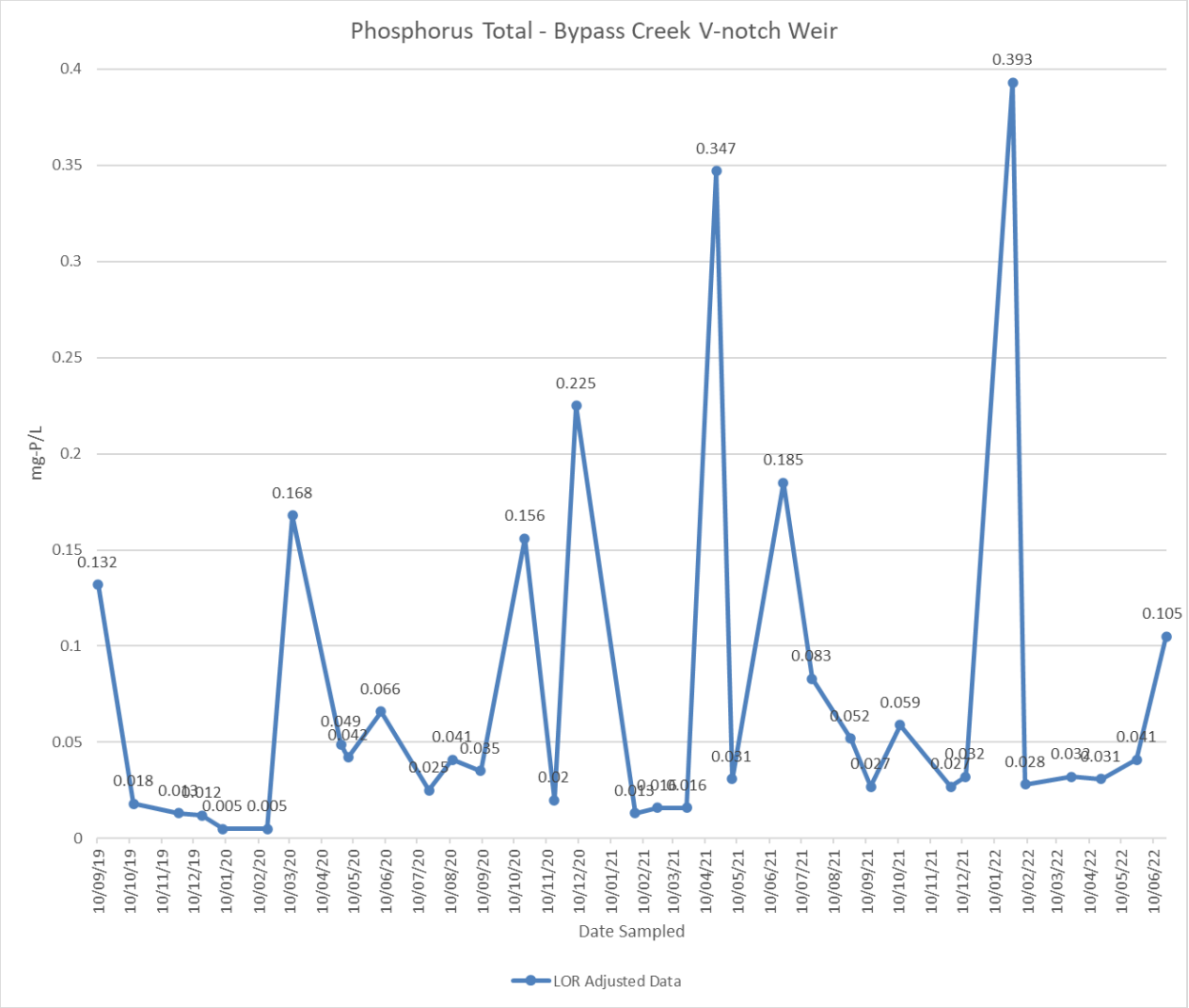
Date Sampled	Sample Site	Analyte	Value (µg/L)	LOR Adjusted Data (µg/L)
10/09/19	Wetland rip rap overflow	TPH	<100	50
5/05/20	Wetland rip rap overflow	TPH	<100	50
8/09/20	Wetland rip rap overflow	TPH	320	320
8/12/20	Wetland rip rap overflow	TPH	<100	50
20/04/21	Wetland rip rap overflow	TPH	<100	50
20/07/21	Wetland rip rap overflow	TPH	<100	50
12/10/21	Wetland rip rap overflow	TPH	150	150
22/06/22	Wetland rip rap overflow	TPH	<100	50

Figure 16 Nitrogen (Total) at Surface Water Sampling Sites



Data labels represent LOR adjusted values.

Figure 17 Phosphorus (Total) at Surface Water Sampling Sites



Red dotted line denotes the previous and current reporting periods. Data values represent LOR adjusted values.

7.2.4. Interpretation of water monitoring results

Fluctuations in the recorded Conductivity monitoring correspond with an annual dilution effect of higher winter flows and periods of low flow (Figure 12). Peaks in Conductivity correspond with low flows between November and March, and troughs correspond with higher total rainfall and greater dilution. The results are also consistent in data recorded from the wetland rip rap overflow and the Bypass Creek v-notch weir.

Reported values of the regulated parameters; Biological Oxygen Demand (BOD_5), pH, and Total Petroleum Hydrocarbons (TPH), recorded in wastewater discharges were within compliance thresholds supplied in Condition EF5 of EPN 7968/4 (Figure13, Figure 15, Table 9).

Samples collected on a monthly basis for the reporting period commencing July 2020 were analysed for Total Nitrogen and Total Phosphorus in Bypass Creek (Figure 16 and Figure 17).

Recorded Total Nitrogen values ranged from minimum 0.38 mg/L to maximum 3.2 mg/L, with the mean value 1.05 mg/L, and a median value of 0.9 mg/L. This compares to default guideline values of 0.260 mg/L (median) and 0.673 mg/L (80th percentile) as the full year (Slightly to Moderately Disturbed (SMD) aquatic ecosystem Default Guideline Value (DGV) for the Tamar Estuary Catchment, published by EPA Tasmania).

Phosphorus values ranged from minimum 0.005 mg/L to a maximum 0.393 mg/L, with an average value of 0.0744 mg/L and a median value of 0.034 mg/L. This compares to default guideline values of 0.009 mg/L (median) and 0.013 mg/L (80th percentile) as the full year Slightly to Moderately Disturbed (SMD) aquatic ecosystem Default Guideline Value (DGV) for the Tamar Estuary Catchment, published by EPA Tasmania.

Monthly field measurements were taken for pH in Bypass Creek during the reporting period (Figure 15). The values ranged from a minimum of 6.8 to a maximum 8.7, with the median value being 8.1. Quarterly measurements were taken at the Wetland Rip Rap Overflow (when flow was sufficient), where values ranged from a minimum of 6.6 to a maximum of 7.79, with a mean of 7.12 and a median of 6.95. This falls within the range of 6.5 – 9 as specified in condition EF5 of EPN 7968/4 and are consistent with the levels observed in prior reports.

8. Hazardous Substances

All lubrication and hydraulic oils are stored within the enclosed hazardous goods storage facility, providing adequate security to contain any spillages as per conditions H1, H2,H3 & H4 of EPN 7968/4 (See Figure 18). There is an oil and fuel spill recovery kit within the storage facility, and a waste bin for oily wastes, including clean up materials from a minor spillage event. Waste such as oily rags are stored in a separate bin for disposal through a licenced waste contractor. Used oil containers are also stored in the oil storage facility for collection from the supply companies.

Fuels, oils, and chemicals are carefully managed to ensure risk of spillage is minimised. The Mill Site features bunded containment areas. Hardstand areas surrounding containment areas feature triple-interceptor drains that in the event of spillage, all material is captured and drained to a sump so as not to contaminate soil or water. No breaches of limits specified in conditions H1, H2, H3 or H4 have occurred during the current monitoring period.

Figure 18 ***Long Reach Mill hazardous goods store***

9. Atmospheric Emissions

As previously noted in Section 5.7, other than noise, the Long Reach Mill facility has a relatively benign or insignificant emission profile regarding atmospheric emissions.

Dust emissions are not significant at the site given the use of well-maintained hard stand areas. There is some dust generation as a result of the wood chipping process, and particularly from wind blowing fine particulates from the woodchip and fines stockpiles. This is not a significant environmental hazard within the surrounding area and is contained to site. There is also potential to create dust through the transport of woodchips and fines. It is a regulatory requirement that trucks leaving the mill site utilise effective covers to prevent product spillage or dust (Condition A1 of EPN 7968/4). Measures as implemented at the site are to:

- Minimise impacts on staff from dust emissions;
- Implement on site traffic and operational controls to prevent unnecessary dust generation;
- Limit vehicles to specified routes around the site and ensure adherence to speed limits;
- Dust masks are available for staff needing to work outside in windy conditions;
- Use dust suppression techniques (such as watering) to maintain moist conditions on exposed areas, stockpiles and unsealed roadways when necessary; and
- All vehicles carrying loads of materials which may blow or spill (e.g. woodchips and fines) use effective control measures such as tarpaulins or load dampening.

Noise Monitoring

An environmental noise survey examining noise levels in the Rowella receiving environment emanating from Long Reach Chip Mill was undertaken from late June 2022 to the beginning of July 2022. The survey followed an approved protocol and was conducted by the same expert noise consultant (Tarkarri Engineering) that has provided surveys for Forico's previous public report.

The outcome of the most recent survey was to conclude that the Long Reach Mill facility did not breach the noise regulatory regime detailed in EPN 7968/4. The executive summary of the report stated:

"Tarkarri Engineering was commissioned to conduct an environmental noise survey of Forico's Long Reach chip mill. Measurements were conducted between 29[2] June and 1 July 2022.

No breach of Forico's EPN noise emission limits was measured during the survey. Where noise levels exceeded EPN limits, the noise environment was typically dominated by local sources including traffic, rustling leaves (generated by wind movement through foliage) and insect and bird activity."

Given that noise monitoring and interpretation is a highly technical process, with voluminous measurement data and statistics the reader is referred to the full report which is attached as Appendix C to this report.

[2] The date given in the executive summary is an error. The noise survey was in fact conducted between 20 June and 1 July.

10. Register of Public Complaints

Forico maintains and tracks the views of the various stakeholders to the business. One element of that is a register of any complaints. Complaints relating to the operations of the Long Reach Mill's activity for the reporting period are provided below:

10.1. 2021-2022 reporting period

- On the 10/09/2021 a phone call was received from EPA Environmental officer that they had received a light pollution complaint from a resident at Kayena. Complainant described lighting from Long Reach Mill site was glaring directly into their residence, and that they can see 2 white and 2 yellow lights. Site Manager followed up with investigation of site lighting and redirected lighting where possible without compromising safety requirements for working areas. EPA provided with summary report on completed actions on the 29/11/2021. EPA correspondence received17/12/2022 stating that they were satisfied with actions.

10.2. 2020-2021 reporting period

- On 28/09/2020 at 14:52, Biosecurity Tasmania (BT) contacted via phone to inform Forico that Pampas grass was identified at the Long Reach site. Forico provided information on the weed control program in place. BT offered assistance to acquire a permit to Transport Weed Material if required. A follow up email was received confirming the offers of assistance, including a map identifying the location of plants. Forico values the ongoing working relationship in regional efforts to identify and control or eradicate weeds;
- On 30/03/2021 at 16:33 a concerned business owner contacted Forico concerning smoke that was seen emanating from the site. The concern related to the risk that smoke can potentially taint the grapes of their vineyard. Forico had planned a fuel reduction burn based on favourable wind/weather conditions and conducted under an approved planned burn for the management of fuel reduction to mitigate risk of wildfire and for protection of assets in consultation with Tas Fire Service. The business owner requested that in future burn-off activities would be communicated, All Forico planned burns are listed and available on Forico website https://forico.com.au/forest-activities. The individual made contact again on 31/03/2021 at 17:01 to enquire if more burning had occurred or was scheduled. Concern was also expressed regarding burning activities should the winds shift to an easterly direction. No smoke impact was observed across the river during burning activities, which were completed prior to the discussion. This also resulted in positive discussion with Wine Tasmania and strategy to improve communication on future burns and their timing; and
- On 19/04/2021 at 16:00 a phone call was received from a neighbour stating there was burnt land and damaged property as a result of fuel reduction burns conducted 30-31 March. The burn plan was reviewed and a site inspection conducted on 20/4/21, confirming that there had been no encroachment on the neighbouring land. The complainant was satisfied that this was correct, and that there had been an error in their boundary identification. The complaint was resolved.

No complaints were lodged by public or business entities regarding operational noise. Operational noise emission limits are currently regulated for the site as per Condition N1 of EPN 7968/4. The Long Reach Mill is required to submit the results of a noise survey every three years (as per Condition N2). The last survey was completed in 2019 and an updated noise assessment is not required during the current review period.

10.3. 2019-2020 reporting period

- On 20/05/2020, contact was made via email by a resident of West Bay Road, Rowella, who reported disturbance by noise and vibration at night. In response, the Long Reach Site Manager contacted the person by phone, and through establishing the timing of the events, it was determined that the disturbance was as a result of the vessel Daio Southern Cross berthing at the Long Reach South Mill wharf. The resident was informed of this and was requested to contact the Site Manager directly if further disturbances were noted. The resident again made contact on 30/05/2020, with the disturbance determined to be the berthing of the vessel MV Forest Venus. The resident was satisfied with these explanations for the disturbance and has the Site Manager's contact details in the event of further concern.

11. Environmental Commitment Performance

A summary of commitments proposed by Forico at the Long Reach Mill site in the current and previous reporting periods is presented below.

Due to a stall on capital projects initiated during the COVID-19 Pandemic Response, and subsequent delays to general business conditions, progress on commitments to improve environmental performance in 2021-2022 were largely halted at the Long Reach Mill site. Forico intend to progress with the commitments proposed previously in the next review period.

11.1. 2021-2022 reporting period

Table 10 Forico Commitments for 2021/2022

Commitment target	Status	Progress commentary
Detailed chipper line plan to improve energy efficiency and minimise noise emissions and waste generation.	Ongoing	Forico intend to assess and upgrade chipper infrastructure for improvements in chipper efficiency and waste production at the Long Reach Mill. During the next reporting period, Forico plan to progress this conceptual upgrade to the detailed design stage. Director will be consulted prior to commissioning works in accordance with the principles of G3 on Final Investment Decision approval. Improvements will be installed over a 2–3-year project lifespan, following the results of a vendor analysis and budgeting review.
Reduce the onsite storage of process off-takes / fines	Ongoing	Forico have made significant progress on this issue with the sites highest tonnage of fines disposed directly off site in the current reporting period (17,107 tonnes for 2021-2022). A further 3,815 tonnes have been removed from the site stockpile and transported to reuse partners. The key reuse partners are: • Carey's Mulch, • Powranna Feedlots, and • Resources Australasia. Forico have identified that the fines stockpile volume will continue to be reduced through ongoing efforts to identify beneficial reuse options.
Installation of modern drainage infrastructure and supporting ancillaries to reduce the risk of leachate entering the River Tamar.	Ongoing	Whilst leachate pit upgrades and the ancillary pump infrastructure will contain most process waters, on-site surface water drainage is limited and there is potential for leachate loss into the River Tamar. The extent of these impacts and the predicted total potential loss was explored in a review of onsite drainage (GHD, 2019). This project has been included for completion in budgeted capital upgrades for 22-23

11.2. 2020-2021 reporting period

Table 11 Forico Commitments for 2020/2021

Commitment target	Status	Progress commentary
Installation of modern drainage infrastructure and supporting ancillaries to reduce the risk of leachate entering the River Tamar.	Ongoing	Whilst leachate pit upgrades and the ancillary pump infrastructure will contain most process waters, on-site surface water drainage is limited and there is potential for leachate loss into the River Tamar. The extent of these impacts and the predicted total potential loss is explored in a review of onsite drainage (GHD, 2019). The works did not commence during this reporting period, but a cost-effective concept for drainage and transfer of leachate liquor around the main Eucalypt stockpile area are planned for further investigation in the next reporting period.
Detailed chipper line plan	Ongoing	Forico intend to assess and upgrade chipper infrastructure for improvements in chipper efficiency and waste production at the Long Reach Mill. During the next reporting period, Forico plan to progress this upgrade to the detailed design stage. Improvements will be installed over a 2–3-year project lifespan, following the results of a vendor analysis and budgeting review.
Process off-takes on fines/total onsite fines storage	Ongoing	Forico have made significant progress on this issue with no process waste (fines) from this reporting period being stockpiled on site. All fines produced (approximately 9854 tonnes) have been transported to pre-approved depots for reuse applications, in addition, a further 3,522 tonnes have been removed from the site stockpile and transported to reuse partners. The key reuse partners are: • Carey's Mulch, • Powranna Feedlots, and • Resources Australasia. Forico have identified that the fines stockpile volume will continue to be reduced through ongoing efforts to identify beneficial reuse options.

11.3. 2019-2020 reporting period

Table 12 Forico Commitments for 2019/2020.

Commitment target	Status	Progress commentary
Re-examine drainage potions for peak flow leachate containment at the Long Reach South Mill wharf	Ongoing	Further work to the site's drainage infrastructure will be undertaken during the 2020/2021 year, by revising a detailed engineering design that was developed during the 2019/2020 year. The focus for this project remains, that being to improve the capacity of the existing drainage around the main Eucalypt Chip piles to capture and transfer chip leachate liquor under short term high rainfall scenarios. The 2019/2020 design was not proceeded with due to budget constraints. Nevertheless, the Company's intention is now to refine the 2019/2020 design to a more cost-effective concept and proceed on to regulatory review (in accordance with Condition G3 of EPN 7968/4) and implementation in the 2020/2021 year.

Commitment target	Status	Progress commentary
Detailed planning for a new chipper line. Objectives to include: Minimise waste. Minimise Noise. Optimise energy efficiency. Improve chip quality	Ongoing	The Long Reach Mill's chipper(s) will be subject to further detailed engineering studies during 2020/2021 to address the planned installation of new chipper infrastructure on the site. The Company has recently employed a dedicated Project Engineer to take carriage of the project through a more detailed phase of the development, leading on to regulatory review (in accordance with Condition G3 of EPN 7968/4).
Undertake a competitive bidding process to secure longer term off-take arrangements for the Long Reach Mill's fines waste stream.	Ongoing	-

Appendix A

Forico Environmental Sustainability Policy

ENVIRONMENTAL SUSTAINABILITY POLICY

1 Purpose

Forico Pty Limited (Forico) is a forest industry company that is committed to sustainability, including responsible environmental management throughout all our business activities in Tasmania. We believe that when we plant a seed, we are growing a valuable wood fibre resource for our future community's use and wherever possible, doing this with minimal impact and overall environmental benefit.

Our environmental aspiration is to provide overall ecosystem benefits from our managed assets and business activities.

2 Scope

Our Environmental Sustainability Policy applies to all aspects of our operations, from Seed to Market.

3 Procedural Principles

Forico will achieve a balance between economic viability, social contribution and environmental and cultural heritage responsibility through:

- **Leadership.** Promoting sound environmental stewardship principles within our own company and encouraging others to do likewise;
- **Best Practice**. Implementing, managing and regularly reviewing a robust integrated business management system that complies with FSC® Certification Scheme, the PEFC recognised RW Certification Scheme and the ISO14001 Certification Scheme, that are routinely audited and verified by expert third parties;
- **Adding Value.** Growing, producing, and processing quality wood fibre products from plantation sources through managing the entire forest estate for sustainable outcomes;
- **Low impact.** Protecting the environment, preventing pollution, the avoidable generation of waste, and optimising energy use throughout our chain of production and processing from a life cycle perspective;
- **Conservation**. Identifying, maintaining and enhancing natural forest for ecosystem services;
- **Meaningful communication.** Proactively engaging and communicating in an open and transparent fashion with interested and affected stakeholders;
- **Competent workforce.** Ensuring our employees have adequate resources and appropriate skills through targeted training and awareness programs;
- **Shared Responsibility.** Ensuring our suppliers and contractors share Forico's commitment to sustainability and responsible environmental management and are similarly trained and aware;
- **Challenging Ourselves.** Setting challenging objectives and targets to address any significant environmental aspects, compliance obligations, and other identified risks and opportunities that may arise through our commitment to continual improvement to enhance our environmental performance; and

- **Compliance.** Complying with all relevant legislation, regulatory frameworks, permits, codes of practice and our other voluntary commitments.

4 Definitions

RW:	Responsible Wood.
FSC®:	Forest Stewardship Council.
ISO14001:	A family of internationally recognised standards for environmental management systems that is applicable to any business or organisation, regardless of size, location or income.
PEFC:	Program for the Endorsement of Forest Certification Schemes.

5 References

- Forico website (www.forico.com.au).
- Forico Forest Management Plan.

Checked and Confirmed Compliance with Statutory Requirements ☒

Authorisation:	Board Approval ☒ CEO Approval ☐ Other ☐
Name and Signature: **Director/Chief Executive Officer**	Name: Bryan Hayes Signature: 
Date:	17 September 2019
Date to be Reviewed:	September 2021

Appendix B

Certificate of Approval for AS/NZS IS0-14001-2016

Certificate of Approval

This certificate confirms that the company below complies with the following standard:

Company Name	**Forico Pty Limited**		
Company Other Name			
Client ID	**105079**	*Scheme*	**Environmental Management Systems Scheme**
Certification Standard	**AS/NZS ISO 14001-2016: Environmental management systems - Requirements with guidance for use**		
Scope of Certification	**Forest management and mill processing activities in Tasmania over which Forico Pty Limited has management control. This includes planning and management of: office functions, laboratory wood quality testing, nursery and tree improvement operations, plantation planning, establishment, maintenance, roading and timber harvesting, mill processing, stockpiling and shiploading of forest products. Natural vegetation within forest estate will be managed for non-wood production environmental values.**		
Type of Certification	**Management System**		

CERTIFICATE DATES:

Original / Initial	**28/07/2018**	*Last Certificate update*	**10/07/2021**
Certification / Re Certification	**26/06/2021**	*Expiry*	**9/07/2024**
Last Certification Decision	**10/07/2021**		

Please refer to Page 2 for Approved Sites

The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification. This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions. This Certificate of Approval remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654

Certification Manager

Unique Certificate Code: 541931F949D48863CA258705000EB5CA

- continued from Page 1

APPROVED COMPANY/SITE ADDRESS (ES):

16 Techno Park Drive Kings Meadows TAS 7250 Australia
Nursery: McKays Road, Somerset TAS 7322 Australia
Regional office: 15-17 Circular Road East Ridgely TAS 7321 Australia
Long Reach Mill. East Tamar Highway Long Reach TAS 7253 Australia
Surrey Hills Mill. 2753 Ridgley Highway Hampshire TAS 7231 Australia

Certification Manager

Appendix C

Long Reach chip mill environmental noise survey 2022

FORICO Pty Ltd

Long Reach chip mill environmental noise survey 2022

Report No. 5667_AC_R_R1

TARKARRI ENGINEERING PTY LTD
PO Box 506
Kings Meadows TAS 7249

August 2022

Tarkarri Engineering

Air Quality • Acoustics • Environment • Vibration

DOCUMENT CONTROL

FORICO PTY LTD
LONG REACH CHIP MILL
ENVIRONMENTAL NOISE SURVEY
2022

Report No.
5667_AC_R_R1
Prepared for
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Author	Aaron Ailwood Engineer	Date: 9 August 2022
Review	Alex McLeod Director / Principal Consultant	Date: 16 August 2022

Revision History

Revision No.	Date Issued	Reason/Comments
1	17 August 2022	correction

Distribution

Copy No._____	Revision No.	Location
1	1	Project/Client File
2	1	Client
3	1	Tarkarri Engineering Library

Keywords environmental noise, dBA, L_{Aeq}, ambient, tone, L_{A90}, background

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List of figures

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References

[1] Tarkarri Engineering report 5112_AC_R_Forico – Long Reach chip mill environmental noise survey 2018

[2] Tarkarri Engineering report 5233_AC_R_Forico – Long Reach chip mill environmental noise survey 2019

Executive Summary

Tarkarri Engineering was commissioned to conduct an environmental noise survey of Forico's Long Reach chip mill. Measurements were conducted between 29 June and 1 July 2022.

No breach of Forico's EPN noise emission limits was measured during the survey. Where noise levels exceeded EPN limits, the noise environment was typically dominated by local sources including traffic, rustling leaves (generated by wind movement through foliage) and insect and bird activity.

1 Introduction

Tarkarri Engineering was commissioned by Forico to conduct an environmental noise survey of their Long Reach chip mill (LRCM) to meet the general requirements of condition N2 of Environmental Protection Notice (EPN) 7968/3. This report presents the results of this survey carried out during the period 20 June and 1 July 2022 and is written to meet the general requirements of condition N3(5) of the EPN.

2 Site description

The Long Reach chip mill is located on the southern side of the East Tamar Highway (Hwy) on land between the Hwy and the Tamar River. To the north and north-east of the site the land rises steeply into the Tipogoree foothills while to the south and south-west, across the Tamar River, is the rural area of Rowella where several noise sensitive premises are located, the closest being approx. 1.35 km from the current chipper building. Further to the north-west is the Bell Bay industrial area and Tamar Valley Power Station (TVPS).

Six environmental noise measurement positions were utilised for observed measurements, with a seventh position selected for extended unobserved measurements. The locations were as used in the 2018 and 2019 surveys of the LRCM[1][2].

Table 2-1 provides location details for the survey positions and Figure 2-1 presents an aerial view of the LRCM and its surrounds with the survey positions marked.

Environmental noise measurement positions		
Number	Location	Coordinates (MGA94, Zone 55 G)
2	North Rowella	492193 E / 5443011 N
3	Westwood Road	490591 E / 5442561 N
4	Westwood and Rowella Roads	491692 E / 5442038 N
5	Mid Rowella	492931 E / 5442302 N
6	South Rowella	493462 E / 5441199 N
7	Rowella Hall	491600 E / 5440590 N
SLM	Long Reach chip mill viewing platform	494457 E / 5442991 N

Noise sensitive locations.

Table 2-1: Measurement locations.

Figure 2-1: Aerial view of LRCM and surrounds with environmental noise survey positions marked.

3 EPN noise emission limits

The following is stated under condition N1 of EPN No. 7968/4:-

N1 Noise emission limits

1. Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:

   2.1 50 dBA between the hours of 0800 and 1800 (*day time*);
   2.2 45 dBA between the hours of 1800 and 2200 (*evening time*); and
   2.3 40 dBA between the hours of 2200 and 0800 (*night time*).

2. Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, for the appropriate time of day, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).
3. The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified by the director.
4. Measured noise levels are to be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the *Tasmanian Noise Measurement Procedures Manual*.
5. All methods of measurement must be in accordance with the *Tasmanian Noise Measurement Procedures Manual*, issued by the Director.

4 Instrumentation

The following instrumentation was used during the survey: -

- Remote environmental noise monitoring system with Larson Davis 831C s/n 10656.
- Environmental noise analyser Larson Davis 831 s/n 1169.
- Spectrum analyser Larson Davis 831C s/n 11832.
- Acoustic Calibrator CA250 s/n 2706.

All instruments were field calibrated prior to use and wind socks were used on microphones for all measurements.

5 Noise measurements

Observed 10-minute measurements were obtained over a 30-minute period at each of the six locations during the day, evening and night. This data has been summarised and averaged measurements presented for each location. Relevant observations have also been noted. All 10-minute observed data is presented in Appendix 1.

An extended unobserved measurement was obtained at the SLM position and a graph showing the main 10-minute statistical data is provided as follows:

- L_{Aeq}
- L_{A10}
- L_{A90}

For sake of clarity the other 5 data sets are not shown in this graph.

Spectral data was obtained at each observed measurement location and is shown graphically for each position in two data sets as follows:

- 1/3-octave band spectra
- Narrow band data 0 to 1000 Hz (0.15625 Hz resolution)

Where appropriate, significant tones generated at the LRCM have been marked in these spectra and potential sources noted.

The following abbreviations are used in the data tables presented in the following subsections:-

- LRCM: Long Reach Chip Mill
- LF: low frequency
- NBRA: Narrow band reversing alarm

5.1 Position 2 – North Rowella

Position 2 is approx. 2 km west of the LRCM on the opposite bank of the Tamar River in Rowella.

Day L_{Aeq} levels were elevated by birds/insects and nearby tractor operation in the surrounding vineyard. Background (L_{A90}) levels were controlled by insect activity. Noise emissions from the LRCM with the chipper were audible during the day when the tractor was distant to the monitoring station.

During the evening and night insect activity controlled L_{Aeq} levels with nearby livestock, sheep and cows audible. Chipper activity and log impacts from the Wagner loader stockpiling unloaded logs in the LRCM were audible during the evening while the loader's NBRA was also audible during the night.

Figure 5-1: Position 2 (archive photo).

2 – North Rowella												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	30 June	12:05	58.1	38.1	77.7	68.9	62.9	46.7	42.4	39.2	Clear Gentle E breeze	External: Tractor Insects/birds LRCM: Chipper Loader
Evening	30 June	21:23	34.3	27.3	54.9	41.2	36.4	32.5	30.0	28.4	Clear Calm	External: Insects/birds LRCM: Chipper Loader
Night	30 June	22:02	34.5	26.2	60.4	43.4	35.5	31.7	29.2	27.6	Clear Calm	External: Insects/birds LRCM: Chipper Loader

Table 5-1: Position 2 Ln-statistics.

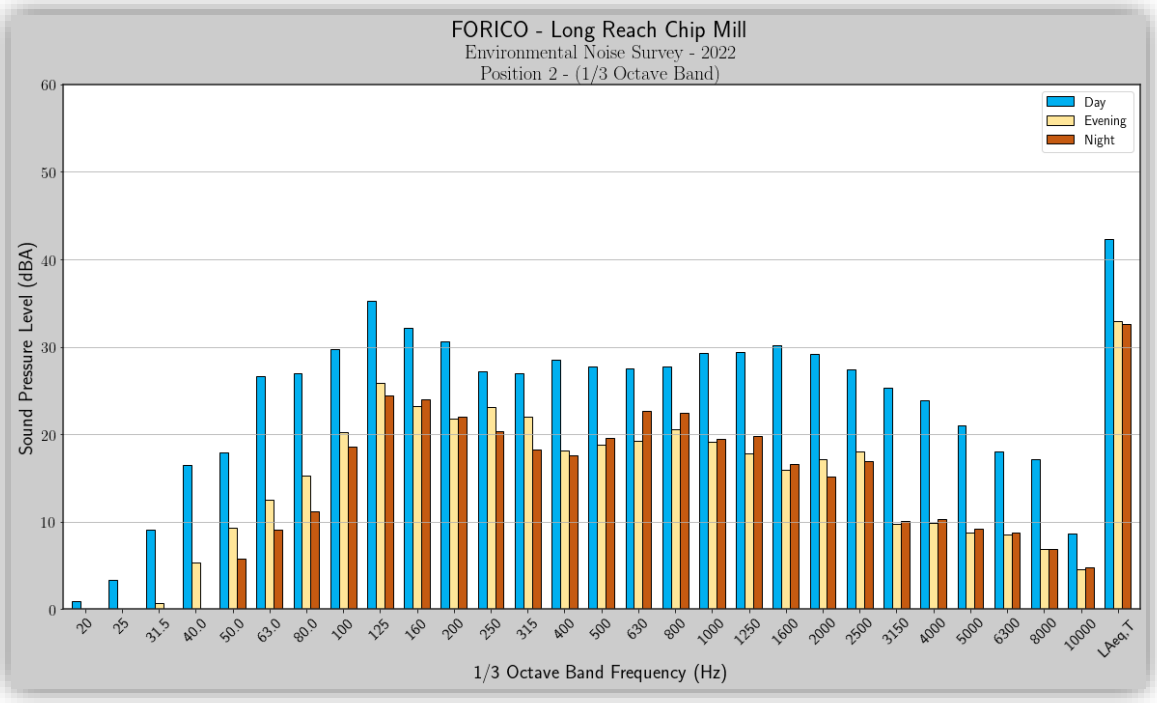


Figure 5-2: Position 2, 1/3-octave band spectrum.

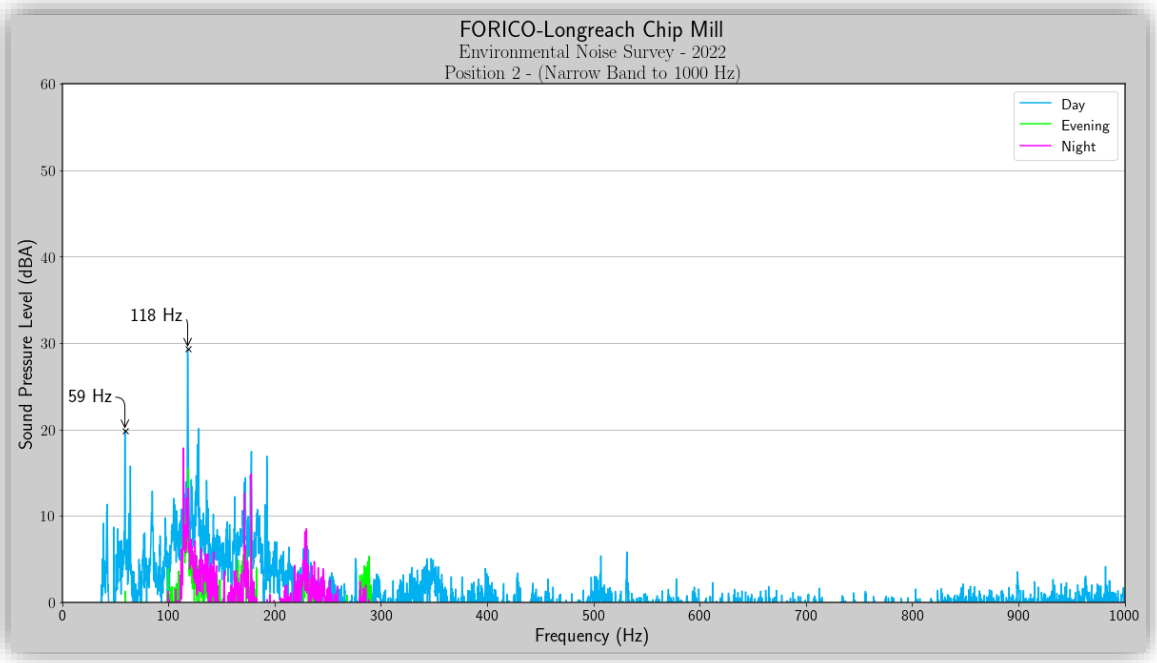


Figure 5-3: Position 2, narrow band spectrum 0 – 1000 Hz.

5.2 Position 3 – Westwood Rd

Position 3 is located on Westwood Rd, Rowella, approx. 3.6 km west south-west of the LRCM.

The day noise environment consisted of infrequent local traffic, light plane, distant voices and livestock. Insect activity controlled background levels. The LRCM was faintly audible during periods of no breeze.

During the evening, industrial activity from Bell Bay was clearly audible with bird and insect activity controlling background levels.

During the night bird activity became less frequent as did local traffic. Distant traffic along the East Tamar Highway was occasionally audible with the noise environment comparable to the evening period. LRCM was not audible.

Figure 5-4: Position 3 (archive photo).

3 – Westwood Rd												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	29 Jun	19:28	44.1	29.7	62.9	54.5	43.2	35.4	32.5	30.7	Clear Gentle SW breeze	External: Insects/birds Air compressor Local traffic Industrial activity Light plane LRCM: Faintly audible
Evening	29 June	19:50	41.7	28.3	65.4	49.0	37.6	32.5	30.4	29.4	Partly cloudy Gentle NW breeze	External: Insects/birds Industrial activity Fauna Livestock Local traffic LRCM: Faintly audible

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	30 June	23:40	35.5	29.8	52.7	42.1	37.5	34.4	32.4	31.1	Cloudy Light NW breeze	External: Insects/birds Industrial activity Livestock Air compressor LRCM: Not audible

Table 5-2: Position 3 Ln-statistics.

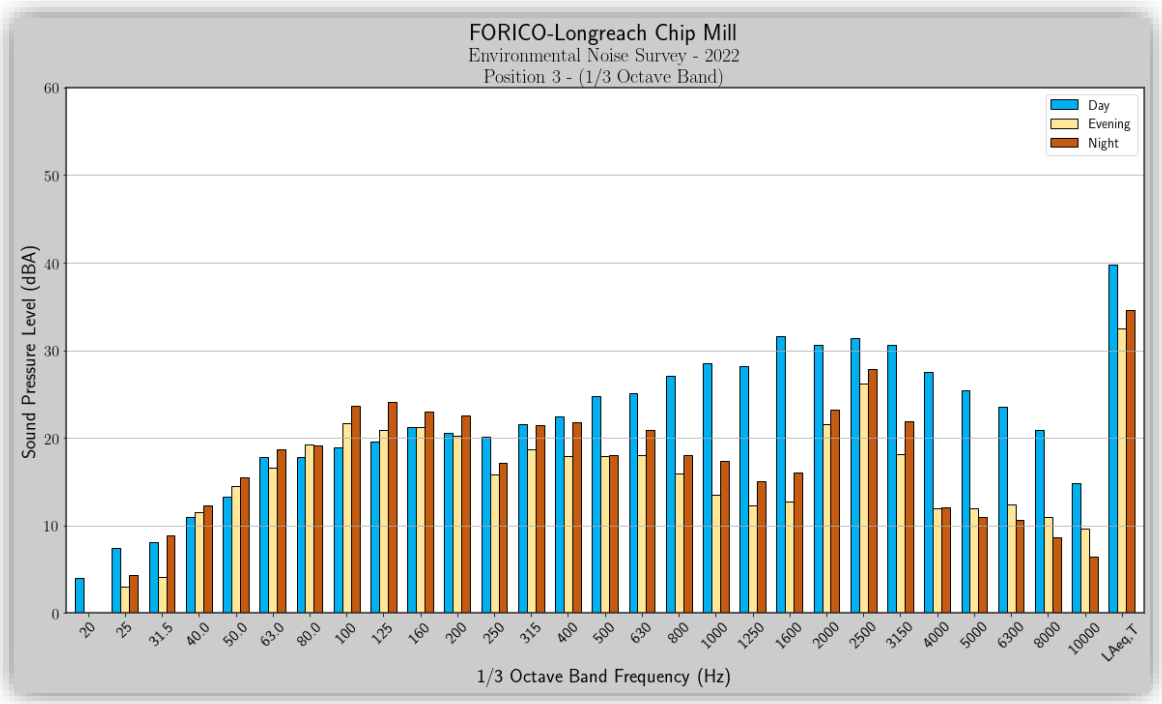


Figure 5-5: Position 3, 1/3-octave band spectrum.

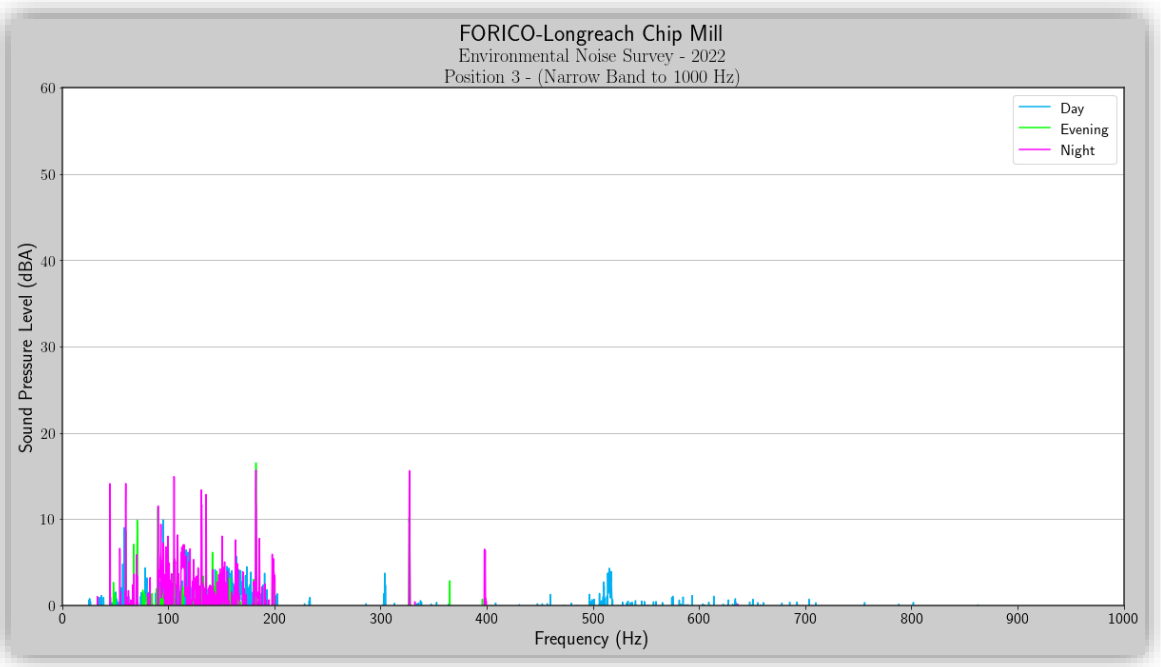


Figure 5-6: Position 3, narrow band spectrum 0 – 1000 Hz.

5.3 Position 4 – Westwood Rd and Rowella Rd

Position 4 is located at the corner of Westwood Rd and Rowella Rd, Rowella, approx. 2.7 km south-west of the LRCM.

Day measurements were elevated by local traffic with bird activity and infrequent air blasts also audible. Insect and bird activity controlled background noise levels. The LRCM was audible in the day during combined breaks in wind and traffic.

During the evening and night, insect and frog activity was dominant and controlled the noise environment. The Industrial noise from Bell Bay was the dominant industrial noise source and the LRCM was not audible.

Figure 5-7: Position 4 (archive photo).

4 – Westwood Rd and Rowella Rd												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day*	30 June	13:18	43.9	30.3	62.7	55.9	46.7	36.9	33.1	31.1	Clear Gentle E breeze	External: Local traffic Insects/Birds Leaf rustle Tractor Plane LRCM: Chipper
Evening	29 June	20:17	38.2	29.5	60.6	48.4	39.8	33.7	31.7	30.6	Clear Calm	External: Insects/Frogs Transformer hum BBIP LRCM: Not audible

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	29 June	23:50	39.4	31.8	56.9	48.9	39.4	35.5	33.7	32.7	Cloudy Light NW breeze	External: Insects/Frogs Transformer hum Traffic (local) BBIP LRCM: Not audible

* First interval excluded from average due to voices and frequent nearby vehicle pass by events.

Table 5-3: Position 4 Ln-statistics.

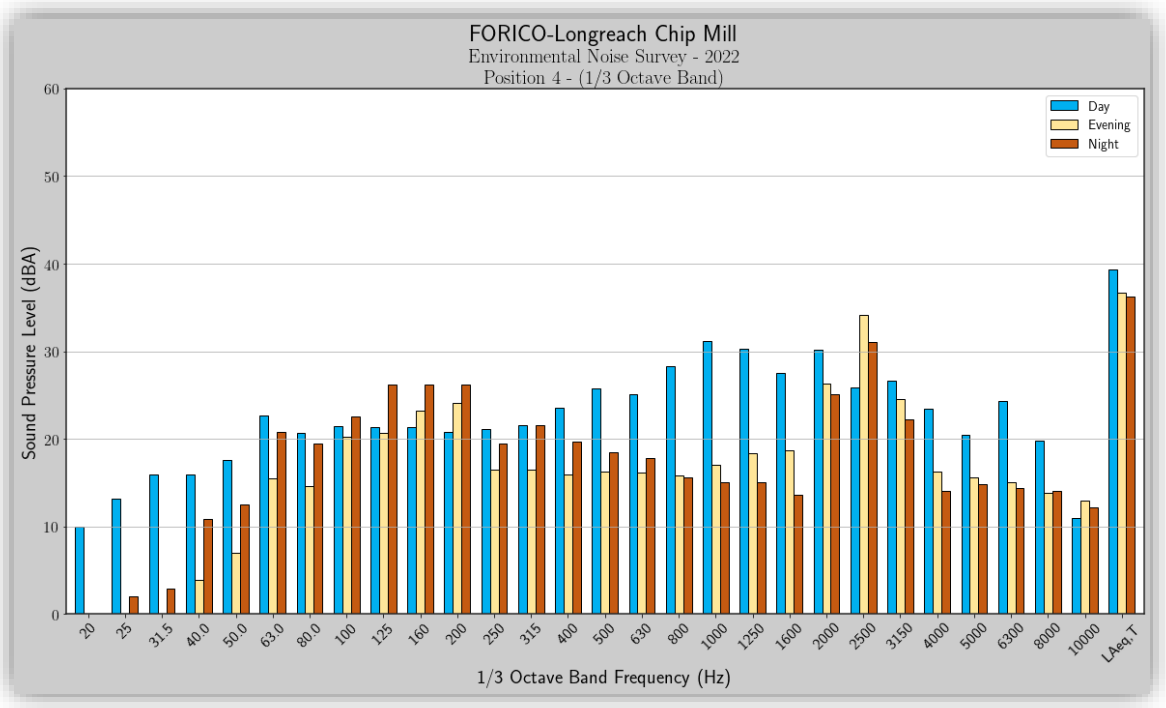


Figure 5-8: Position 4, 1/3-octave band spectrum.

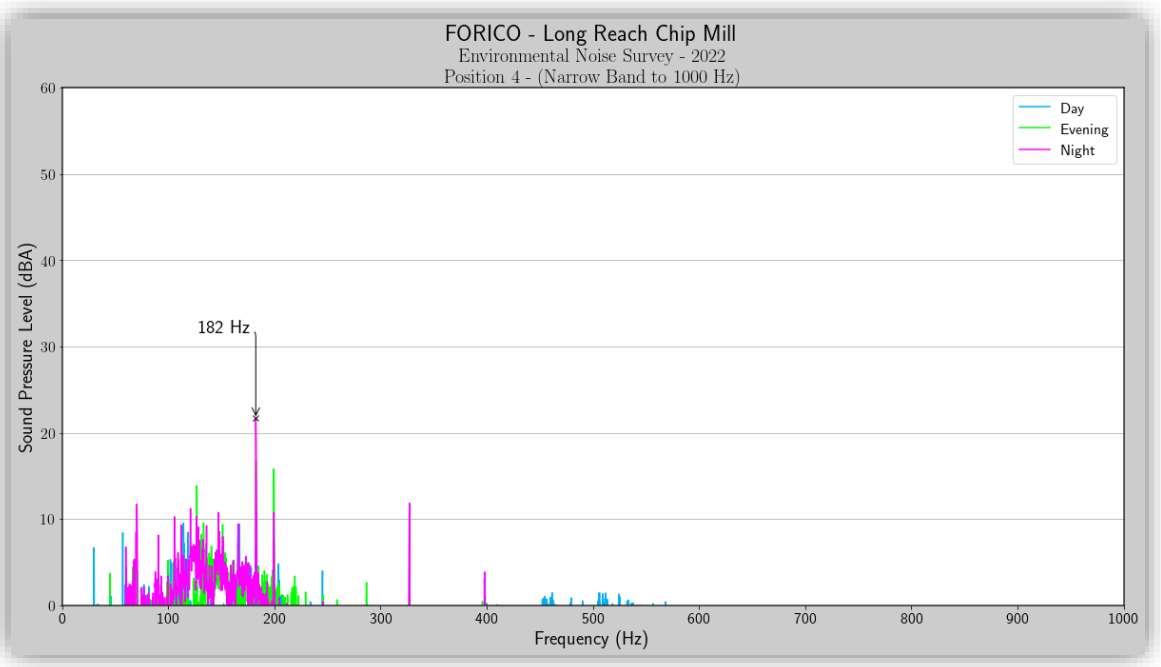


Figure 5-9: Position 4, narrow band spectrum 0 – 1000 Hz.

5.4 Position 5 – Mid Rowella

Position 5 is in Rowella approx.1.5 km south-west of the LRCM on the opposite bank of the Tamar River and is the closest measurement point to the mill.

Day measurements were controlled by insect activity along with activity from the Bell Bay area. The LRCM chipper was audible in the absence of wind gusts.

During the evening and night insects continued to control background noise levels with noise from Bell Bay increasing towards the end of the night measurement period. The chipper was clearly audible during both periods as were the Wagner loader, and logging truck engines.

Figure 5-10: Position 5 (archive photo).

5 – Mid Rowella												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day*	29 June	13:10	40.8	34.0	61.3	50.7	41.2	38.6	36.5	35.3	Clear NW breeze	External: Insects/Birds Industrial noise Vehicle(local) Hwy traffic LRCM: Chipper (Faint)
Evening	29 June	20:48	39.8	34.3	65.3	45.6	40.3	38.0	36.4	35.2	Clear Gentle NW breeze	External: Industrial noise Insects/Birds Tractor Leaf Rustle LRCM: Chipper Log Trucks

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	30 June	22:49	38.8	28.7	61.0	48.5	39.0	35.6	32.8	30.9	Clear Calm	External: Industrial noise Insects/Birds Livestock Local fauna LRCM: Chipper Loader

* First interval excluded from average due to significant vehicle pass by events.

Table 5-4: Position 5 Ln-statistics.

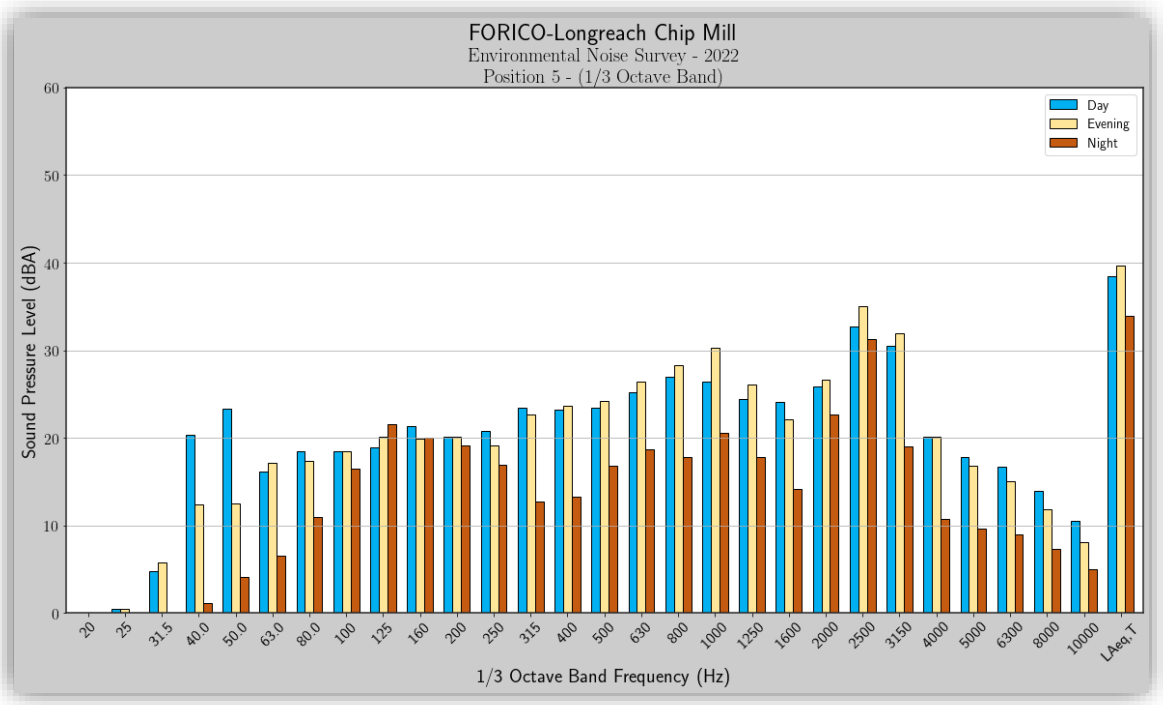


Figure 5-11: Position 5, 1/3-octave band spectrum.

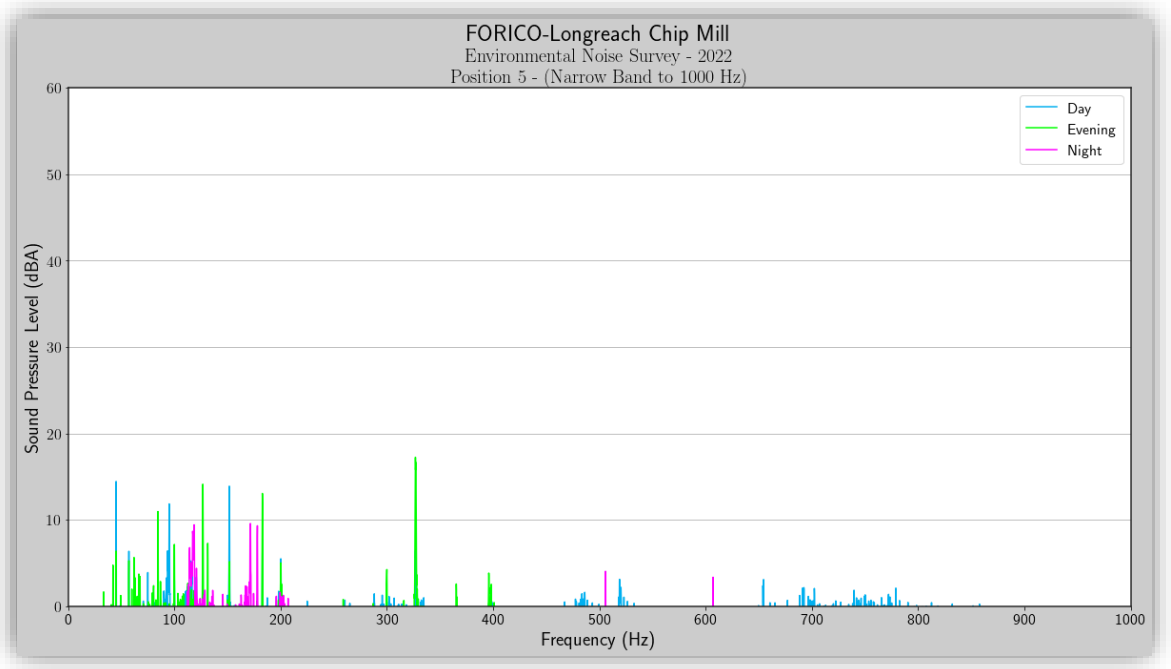


Figure 5-12: Position 5, narrow band spectrum 0 – 1000 Hz.

5.5 Position 6 – South Rowella

Position 6 is located at the eastern end of Rowella Rd, Rowella, approx. 1.9 km south south-west of the LRCM.

The day noise environment at position 6 was dominated by local bird and dog activity with distant traffic along the east Tamar Highway and nearby leaf rustle contributing to background levels.

During the evening and night, noise emissions from the LRCM became a significant component of the noise environment. The chipper and Wagner loader's engine was audible from the plant during these periods. Local noise from Insect activity and nearby rustling of leaves also contributed to measured levels while infrequent local traffic elevated L_{Aeq} levels.

Figure 5-13: Position 6 (archive photo).

6 – South Rowella												
Period	Date	Time	LAeq	LAmax	LAmin	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	30 June	11:13	44.3	33.3	66.9	55.2	42.8	37.8	35.3	34.2	Calm Gentle NW breeze	External: Dog barking Leaf rustle Birds/Insects Local traffic LRCM: Chipper
Evening	29 June	18:43	46.2	34.6	73.8	55.3	43.6	38.4	36.6	35.5	Partly Cloudy Light NE breeze	External: Dog barking Leaf rustle Birds/Insects Local traffic LRCM: Chipper Loader

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	29 June	22:37	48.7	34.8	72.6	60.1	46.8	38.7	36.9	36.0	Mostly Clear Light breeze	External: Leaf rustle Birds/Insects Aircraft LRCM: Chipper Loader

Table 5-5: Position 6 Ln-statistics.

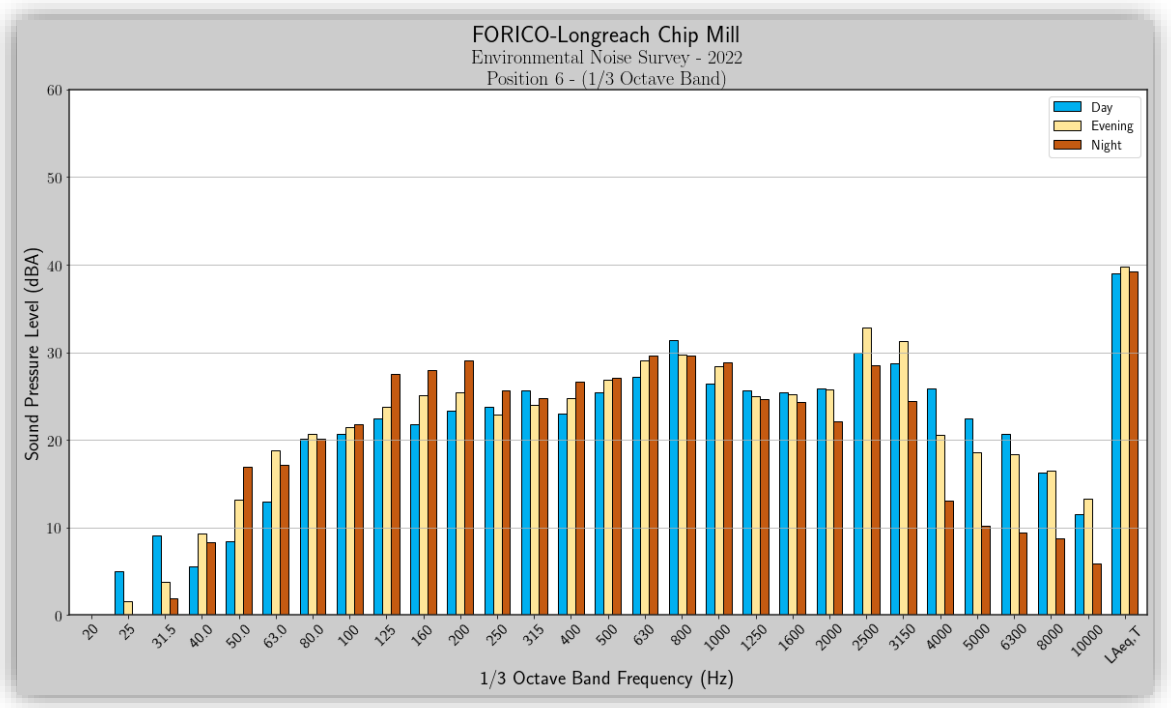


Figure 5-14: Position 6, 1/3-octave band spectrum.

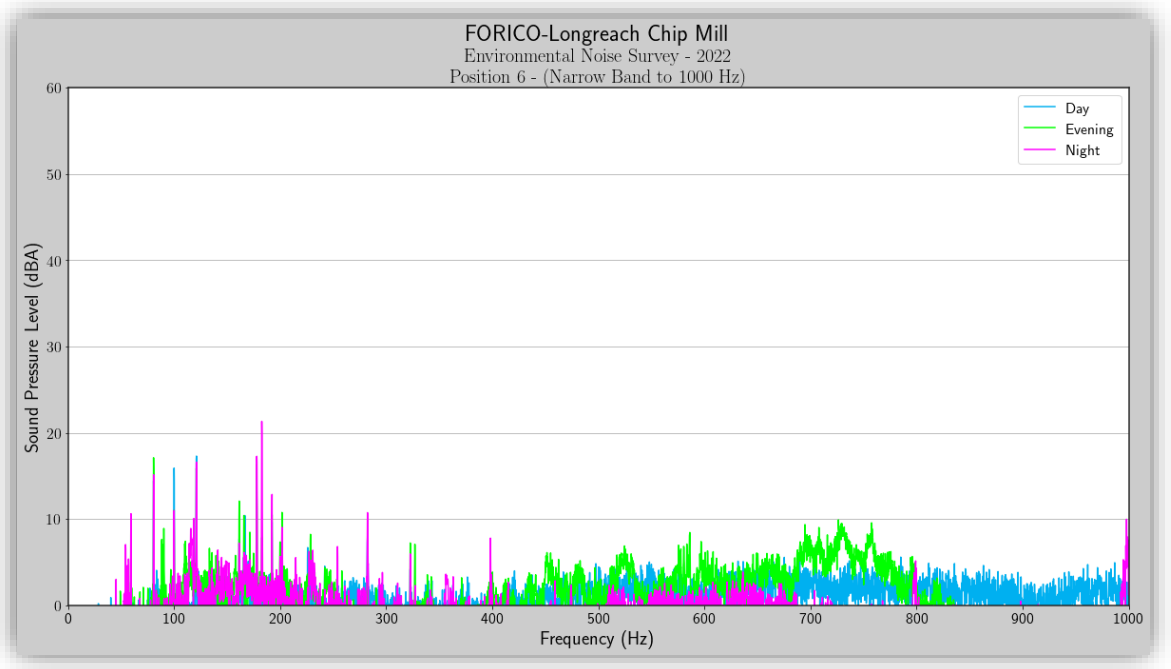


Figure 5-15: Position 6, narrow band spectrum 0 – 1000 Hz.

5.6 Position 7 –Rowella Hall

Position 7 is located at the Rowella Hall, Rowella Rd, Rowella, approx. 3.6 km south-west of the LRCM.

Noise immission levels at this location were dominated by local sources, in particular insect activity and infrequent local traffic. Background noise was controlled by emissions from Bell Bay during the evening and night with the chipper not audible.

Figure 5-16: Position 7 (archive photo).

7 –Rowella Hall												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	20 Mar	15:50	46.7	35.2	65.0	60.6	45.6	39.5	37.3	36.2	Clear Light SE breeze	External: Industrial noise Insects/Birds Wind chimes Traffic Lawn Mower LRCM: Audible
Evening	20 Mar	21:30	36.1	28.6	56.1	44.3	35.6	31.9	30.4	29.4	Mostly Cloudy Light breeze	External: BBIP Insects Wind chimes Traffic LRCM: Not Audible

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	20 Mar	22:00	32.1	27.3	51.2	39.0	33.5	30.9	29.4	28.4	Mostly Cloudy Light NW breeze	External: BBIP Insects Wind Chimes Distant Traffic LRCM: Not Audible

Table 5-6: Position 7 Ln-statistics.

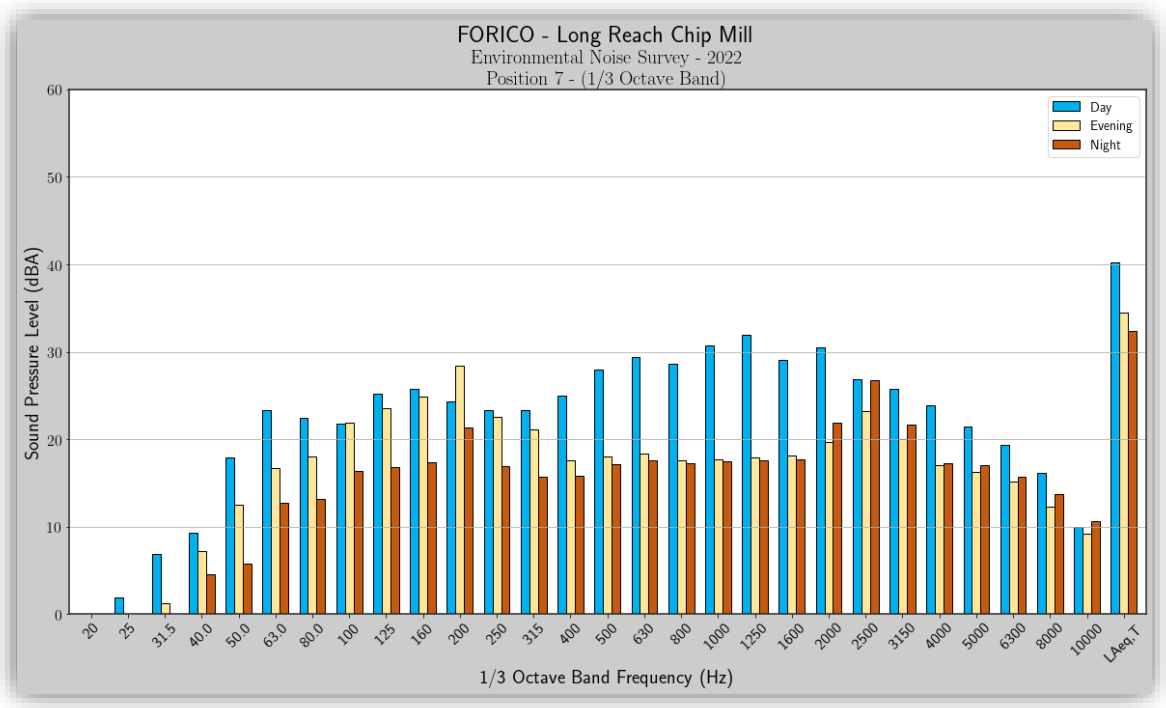


Figure 5-17: Position 7, 1/3-octave band spectrum.

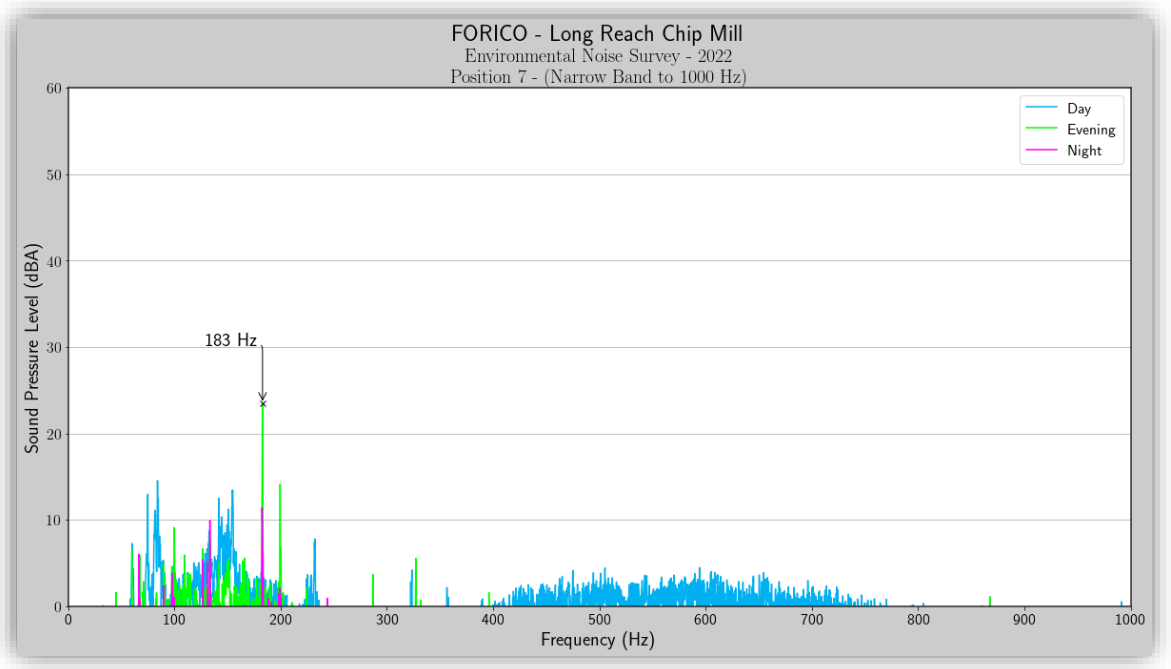


Figure 5-18: Position 7, narrow band spectrum 0 – 1000 Hz.

5.7 SLM position – Extended unobserved measurements

The SLM position is located adjacent to the old viewing platform at the LRCM.

Monitoring at this location provides temporal information on noise emission generation at the mill. The periods where observed measurements were conducted are highlighted in yellow on the graph in Figure 5-20. When the chipper was in operation L_{Aeq} and L_{A10} levels were typically at and above 70 dBA respectively, consistent with previous environmental noise surveys.

Figure 5-19: SLM position (archive photo).

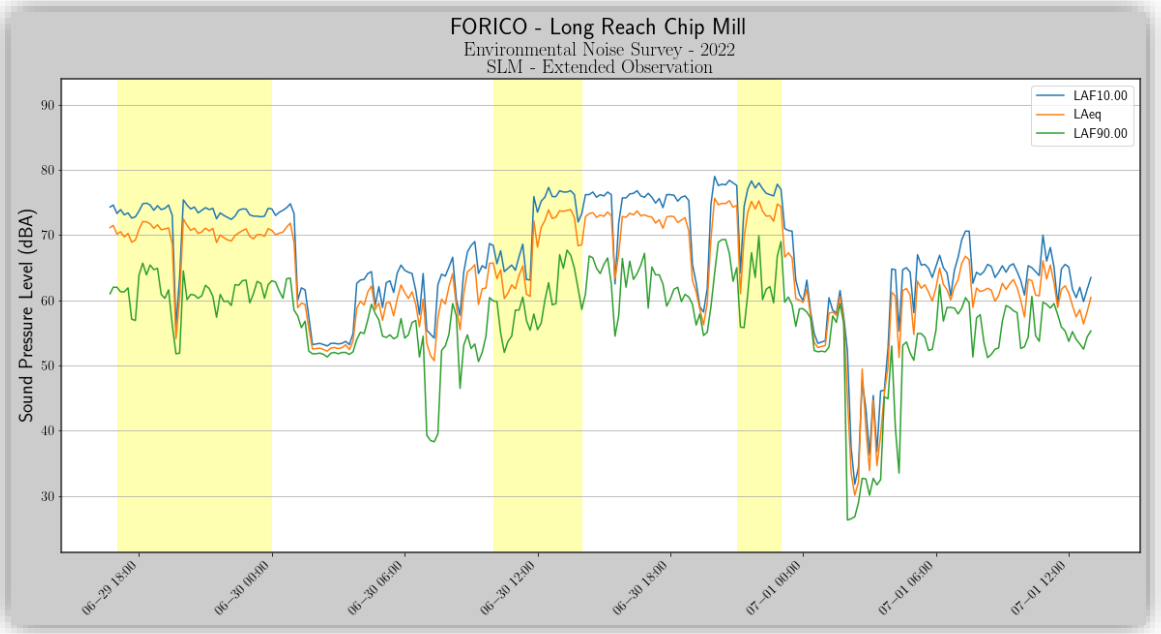


Figure 5-20: SLM position, extended unobserved Ln-statistics (March).

6 Discussion of results

Table 6-1 presents a summary of measured levels presented in section 5 of this report with assessment against the mill's EPN noise emission limits (applicable under condition N1(2), from 1 September 2015). Comments are also provided on the key features of the measured noise levels that relate to the assessment of potential breaches of the EPN limits. Measured levels that are potentially breaching these conditions are highlighted in pink.

Adjustments for impulsiveness and modulation were considered not relevant in this assessment (a relatively constant chipper feed was such that it was considered that the noise was not impulsive). Excessive low frequency and tonal adjustments are not applied here as noise emission from sources associated with the Bell Bay industrial area are strong contributors to these noise characteristics and it was not possible to separate their contribution from the measured numbers.

Summary results						
Site	Period	Average $L_{Aeq,10min}$ (dBA)	Average $L_{A90,10min}$ (dBA)	EPN Limit (dBA)	Potential Breach	Comment
2	Day	58.1	42.4	50	No	L_{Aeq} elevated by local sources
	Evening	34.3	30.0	45	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Night	34.5	29.2	40	No	
3	Day	44.1	32.5	50	No	L_{Aeq} levels not in excess of EPN noise emission limit.
	Evening	41.7	30.4	45	No	LRCM not audible
	Night	35.5	32.4	40	No	L_{Aeq} levels not in excess of EPN noise emission limit.
4	Day	43.9	33.1	50	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Evening	38.2	31.7	45	No	
	Night	39.4	33.7	40	No	
5	Day	40.8	36.5	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	39.8	36.4	45	No	
	Night	38.8	32.8	40	No	
6	Day	44.3	35.3	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	46.2	36.6	45	No	L_{Aeq} elevated by local sources
	Night	48.7	36.9	40	No	
7	Day	46.7	37.3	50	No	L_{Aeq} levels not in excess of EPN noise emission limit.
	Evening	36.1	30.4	45	No	LRCM not audible
	Night	32.1	29.4	40	No	LRCM not audible

Potential breach of EPN noise emission limits.

Table 6-1: Summary table of survey results.

7 Conclusions

1. An environmental noise survey of the LRCM was conducted by Tarkarri Engineering between 29 June and 1 July 2022. All measurement were taken in accordance with the *Tasmanian Noise Measurement Procedures Manual* and measurement positions from previous surveys[1][2] were utilised.
2. No potential breaches of Forico's EPN noise emission limits occurred during the survey
3. The noise environment at most locations was dominated by local sources including traffic, leaf rustle (generated by wind movement through foliage), insect and bird activity.

   NB: As has been noted in previous environmental noise survey reports[1][2] there are residential locations that adjoin the Tamar River near positions 5 and 6 that may have greater exposure to noise from the LRCM than the locations surveyed here. Access to these locations during the survey was not possible.

8 Appendix

Observed environmental noise data.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
2	Day	30-Jun-22	12:05	0:10:00	61.9	37.3	78.8	73.5	67.0	48.0	39.8	38.4
2	Day	30-Jun-22	12:15	0:10:00	62.5	39.9	78.9	73.4	67.4	50.9	48.4	41.2
2	Day	30-Jun-22	12:25	0:10:00	50.1	37.0	75.5	59.8	54.3	41.1	39.1	38.0
				Average	58.1	38.1	77.7	68.9	62.9	46.7	42.4	39.2
2	Evening	30-Jun-22	21:23	0:10:00	35.5	26.9	60.6	44.5	37.7	32.1	29.7	28.1
2	Evening	30-Jun-22	21:33	0:10:00	33.2	27.2	54.0	38.6	35.3	32.2	29.5	28.1
2	Evening	30-Jun-22	21:43	0:10:00	34.2	27.9	50.2	40.6	36.3	33.3	30.7	29.1
				Average	35.5	26.9	60.6	44.5	37.7	32.1	29.7	28.1
2	Night	30-Jun-22	22:02	0:10:00	35.5	27.0	59.7	44.9	36.9	32.6	30.0	28.5
2	Night	30-Jun-22	22:12	0:10:00	33.7	25.8	60.0	42.2	34.4	31.2	28.7	27.1
2	Night*	30-Jun-22	22:22	0:10:00	34.2	25.8	61.4	43.0	35.3	31.4	28.8	27.3
				Average	34.5	26.2	60.4	43.4	35.5	31.7	29.2	27.6

Table A2 – Position 2 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
3	Day	30-Jun-22	12:44	0:10:00	47.8	28.7	65.9	61.3	47.1	35.0	32.4	29.6
3	Day	30-Jun-22	12:54	0:10:00	46.6	30.9	71.1	55.6	41.2	36.0	33.1	31.8
3	Day	30-Jun-22	1:04	0:10:00	38.0	29.5	51.6	46.7	41.4	35.3	32.1	30.6
				Average	44.1	29.7	62.9	54.5	43.2	35.4	32.5	30.7
3	Evening	29-Jun-22	19:28	0:10:00	35.4	28.5	60.6	44.3	37.2	32.6	30.6	29.6
3	Evening	29-Jun-22	19:38	0:10:00	33.9	28.9	52.3	41.4	34.9	32.7	30.8	29.8
3	Evening	29-Jun-22	19:48	0:10:00	55.8	27.5	83.2	61.3	40.7	32.3	29.8	28.7
				Average	41.7	28.3	65.4	49.0	37.6	32.5	30.4	29.4
3	Night	29-Jun-22	23:15	0:10:00	35.2	29.4	53.5	41.5	37.9	33.8	31.8	30.7
3	Night*	29-Jun-22	23:25	0:10:00	35.6	30.5	53.1	42.6	36.9	34.5	32.8	31.6
3	Night	29-Jun-22	23:35	0:10:00	35.8	29.5	51.4	42.3	37.7	34.8	32.5	31.0
				Average	35.5	29.8	52.7	42.1	37.5	34.4	32.4	31.1

Table A3 – Position 3 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
4	Day*	30-Jun-22	13:18	0:10:00	53.7	31.3	75.4	66.5	57.3	42.6	35.4	32.8
4	Day	30-Jun-22	13:28	0:10:00	47.8	30.8	67.7	60.1	51.3	38.3	33.6	31.6
4	Day	30-Jun-22	13:38	0:10:00	39.9	29.7	57.7	51.7	42.0	35.5	32.5	30.5
				Average*	43.9	30.3	62.7	55.9	46.7	36.9	33.1	31.1
* First measurement excluded from average due to local traffic noise.												
4	Evening	29-Jun-22	20:17	0:10:00	41.2	28.5	65.7	53.5	42.7	33.6	31.0	29.7
4	Evening	29-Jun-22	20:27	0:10:00	35.3	29.5	55.0	42.7	37.4	33.7	31.8	30.8
4	Evening	29-Jun-22	20:37	0:10:00	38.0	30.5	61.1	49.1	39.4	33.9	32.2	31.3
				Average	38.2	29.5	60.6	48.4	39.8	33.7	31.7	30.6
4	Night	29-Jun-22	23:50	0:10:00	37.2	31.7	54.7	44.5	39.3	35.8	33.9	32.7
4	Night	30-Jun-22	00:00	0:10:00	35.9	31.3	48.9	42.3	37.8	34.9	33.0	32.1
4	Night	30-Jun-22	00:10	0:10:00	45.0	32.3	66.9	60.0	41.2	35.9	34.3	33.4
				Average	39.4	31.8	56.9	48.9	39.4	35.5	33.7	32.7

Table A4 – Position 4 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
5	Day*	29-Jun-22	17:04	0:10:00	58.0	35.0	76.6	73.4	47.4	39.0	37.3	36.2
5	Day	29-Jun-22	17:14	0:10:00	41.7	33.3	61.7	54.0	41.4	38.6	35.8	34.3
5	Day	29-Jun-22	17:24	0:10:00	39.8	34.8	60.9	47.3	40.9	38.6	37.2	36.2
				Average*	40.8	34.0	61.3	50.7	41.2	38.6	36.5	35.3
* First interval excluded from average due to local traffic noise												
5	Evening	29-Jun-22	18:00	0:10:00	36.0	39.3	35.2	64.4	43.4	40.0	38.5	37.3
5	Evening	29-Jun-22	18:10	0:10:00	36.5	39.9	35.1	62.7	46.5	41.0	38.9	37.4
5	Evening	29-Jun-22	18:20	0:10:00	35.5	40.3	32.7	68.9	46.8	39.9	36.6	34.4
				Average	36.0	39.8	34.3	65.3	45.6	40.3	38.0	36.4
5	Night	30-Jun-22	22:40	0:10:00	35.1	27.2	58.1	42.5	37.2	33.3	30.8	28.7
5	Night	30-Jun-22	22:50	0:10:00	37.5	27.3	58.2	47.0	38.7	35.7	32.0	29.7
5	Night	30-Jun-22	23:00	0:10:00	43.7	31.8	66.6	56.0	41.2	37.8	35.5	34.2
				Average	38.8	28.7	61.0	48.5	39.0	35.6	32.8	30.9

Table A5 – Position 5 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
6	Day	30-Jun-22	11:13	0:10:00	42.4	32.6	60.6	55.6	43.0	37.0	34.5	33.6
6	Day	30-Jun-22	11:23	0:10:00	40.4	34.3	64.0	48.8	41.1	38.2	36.2	35.2
6	Day	30-Jun-22	11:33	0:10:00	50.0	33.0	76.0	61.3	44.2	38.3	35.2	33.8
				Average	44.3	33.3	66.9	55.2	42.8	37.8	35.3	34.2
6	Evening	29-Jun-22	18:43	0:10:00	46.0	34.9	74.8	50.8	42.3	38.3	36.8	35.8
6	Evening*	29-Jun-22	18:53	0:10:00	50.8	35.3	75.4	65.2	44.9	39.0	37.1	36.2
6	Evening	29-Jun-22	19:03	0:10:00	41.9	33.7	71.1	50.0	43.6	38.0	35.8	34.6
				Average	46.2	34.6	73.8	55.3	43.6	38.4	36.6	35.5
6	Night	29-Jun-22	22:37	0:10:00	42.3	34.7	66.6	50.9	42.4	39.1	37.3	36.2
6	Night	29-Jun-22	22:47	0:10:00	50.1	34.9	74.6	62.3	41.0	38.7	37.1	36.0
6	Night	29-Jun-22	22:57	0:10:00	53.7	34.8	76.5	67.0	57.0	38.3	36.4	35.7
				Average	48.7	34.8	72.6	60.1	46.8	38.7	36.9	36.0

Table A6 – Position 6 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
7	Day	30-Jun-22	10:33	0:10:00	47.7	66.3	34.8	60.4	47.7	42.2	38.1	36.3
7	Day	30-Jun-22	10:43	0:10:00	46.2	63.3	34.7	57.6	47.5	41.5	37.7	35.9
7	Day	30-Jun-22	10:53	0:10:00	43.5	66.7	34.8	54.7	45.4	39.0	36.6	35.6
				Average	45.8	65.4	34.8	57.6	46.9	40.9	37.5	35.9
7	Evening	29-Jun-22	21:16	0:10:00	41.6	29.2	65.1	51.4	37.5	32.4	30.7	29.8
7	Evening*	29-Jun-22	21:26	0:10:00	33.2	28.2	55.7	41.1	34.7	31.2	29.7	28.9
7	Evening*	29-Jun-22	21:36	0:10:00	33.3	28.5	47.4	40.4	34.7	32.2	30.9	29.5
				Average	36.1	28.6	56.1	44.3	35.6	31.9	30.4	29.4
7	Night	29-Jun-22	22:00	0:10:00	31.0	26.5	50.8	38.2	32.4	29.8	28.3	27.3
7	Night	29-Jun-22	22:10	0:10:00	32.0	27.5	48.1	38.6	33.4	31.2	29.7	28.9
7	Night	29-Jun-22	22:20	0:10:00	33.2	27.9	54.6	40.3	34.7	31.6	30.2	29.1
				Average	32.1	27.3	51.2	39.0	33.5	30.9	29.4	28.4

Table A7 – Position 7 observed environmental noise measurements.

Appendix D

Environment Protection Notice (EPN) 7968/4

ENVIRONMENT PROTECTION NOTICE No. 7968/4

Issued under the *Environmental Management and Pollution Control Act 1994*

Issued to: **FORICO PTY LIMITED**
ACN 169 204 059
16 TECHNO PARK DRIVE
KINGS MEADOWS TAS 7249

Environmentally Relevant Activity: **The operation of a woodchip mill (ACTIVITY TYPE: Woodchip Mills)**
LONG REACH CHIP MILL, 3523 EAST TAMAR HIGHWAY
LONG REACH TAS 7253

GROUNDS

I, Cindy Ong, Delegate for the Director, Environment Protection Authority, being satisfied in accordance with section 44(1)(d) of the *Environmental Management and Pollution Control Act 1994* (EMPCA) that in relation to the above-mentioned environmentally relevant activity that it is desirable to vary the conditions of a permit (see table below) hereby issue this environment protection notice to the above-mentioned person as the person responsible for the activity.

Permit No.	Date Granted	Granted By
3370	19 October 1995	Director of Environmental Management
3428	04 August 1993	Director of Environmental Control

PARTICULARS

The particulars of the grounds upon which this notice is issued are:

1 The Permit conditions need to be varied to reflect updated terminology and regulatory practice, to reflect continuous improvement consistent with the objectives of EMPCA and/or to clarify the meaning of the conditions.

2 The conditions in permits (see table above) have been varied simultaneously because the activities can be viewed as forming one integrated activity under section 44(9) of the EMPCA.

3 It is necessary to remove conditions G1, G4, G5, A1, M2 and S1 of Permit No. 3370 and conditions G1, G4, V1, M2 , S1 and S2 of Permit No. 3428 because they detail requirements that have been fulfilled and/or are no longer required.

4 The Permit conditions refer to The Environment Protection Act 1973 which has been repealed and replaced by the EMPCA. It is necessary to vary condition(s) to remove references to the repealed Act.

5 It is necessary to add a condition requiring notification of the Director prior to the change in

responsible person for the activity so that the Director is aware of changes to the person responsible for environmental management of the activity.

6 Conditions are needed to bring the Permits into accordance with the development and planning requirements under the EMPCA and the Land Use and Planning Approvals Act 1993.

7 A condition requiring notification of a change of ownership of The Land is needed because this Notice may affect title to land and the new owner's interests may be affected by pollutants emitted or disturbed by the activity.

8 It is necessary to add a condition requiring the submission of a publicly available Annual Environmental Review to inform the Director and the public of the environmental performance of the activity.

9 It is necessary to add a condition requiring a public complaints register to be maintained so that the Director can appraise the frequency and characteristics of complaints which may indicate nuisance, should any complaints be received.

10 The Permits do not contain conditions in relation to prohibiting the open burning of wood waste. It is necessary to add a condition to prohibit opening burning of wood waste to control atmospheric emissions from the activity.

11 It is necessary to add conditions to ensure effective management measures are in place to control effluent emissions from The Land to prevent environmental nuisance.

12 The Permits do not have specific and measureable limits for effluent quality for water being discharged from The Land. Conditions are needed to control emissions from the activity and to impose limits upon those emissions to reflect current State Policies or Environment Protection Policies.

13 Conditions are required to ensure that infrastructure to manage water traversing and discharged from The Land is installed and maintained in order to minimise release of sediment entrained in stormwater.

14 The Permits do not contain conditions in relation to dealing with environmentally hazardous substances. Environmentally hazardous substances are likely to be stored and handled on The Land and current best practice environmental management takes into account the storage and handling of environmentally hazardous substances.

15 The Permits do not have conditions requiring the provision of spill kits. It is desirable to add a condition requiring provision, in suitable locations, of spill kits appropriate for the environmental hazardous substances held on The Land for use in any incident to minimise the emission of a pollutant into the environment.

16 It is necessary to add a condition to require the establishment and maintenance of an inventory of environmentally hazardous substances so that the potential environmental harm arising from any escape of such substances into the environment can be properly assessed and/or responded to.

17 Monitoring and reporting requirements set out in the Permit conditions need to be varied to reflect current best practice environmental management and to require accurate measurement

DEFINITIONS

Unless the contrary appears, words and expressions used in this Notice have the meaning given to them in Schedule 1 of this Notice and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Notice, the EMPCA prevails to the extent of the inconsistency.

REQUIREMENTS

The person responsible for the activity must comply with the varied permit conditions as set out in Schedule 2 of this Notice.

INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

PENALTIES

If a person bound by an environment protection notice contravenes a requirement of the notice, that person is guilty of an offence and is liable on summary conviction to a penalty not exceeding 1000 penalty units in the case of a body corporate or 500 penalty units in any other case (at the time of issuance of this Notice one penalty unit is equal to $168.00).

NOTICE TAKES EFFECT

This notice takes effect on the date on which it is served upon you.

APPEAL RIGHTS

You may appeal to the Appeal Tribunal against this notice, or against any requirement contained in the notice, within 14 days from the date on which the notice is served, by writing to:

The Chairperson
Resource Management and Planning Appeal Tribunal
GPO Box 2036
Hobart TAS 7001

Signed: _____

DELEGATE FOR THE DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Date: 22/8/2019

of emissions and their impact upon the receiving environment and to consistently inform the Director of the results of monitoring.

18 It is desirable to vary the conditions setting noise emission limits to minimise environmental nuisance and manage noise emissions, in accordance with the Environment Protection Policy (Noise) 2009.

19 It is necessary to add conditions to monitor noise emissions from the activity to minimise environmental nuisance.

20 It is necessary to add a condition to ensure log handling activities are managed to minimise environmental nuisance.

21 It is necessary to vary a condition requiring notification of the likely permanent cessation of the activity so that the Director has sufficient time in which to ensure that appropriate measures are in place to minimise environmental harm arising from the permanent cessation of the activity.

22 It is necessary to add requirements for ensuring that when decommissioning is undertaken, it is done in a manner to minimise environmental harm.

23 The Permits do not contain conditions in relation to the adequate management of the activity and/or The Land should the activity temporarily suspend operations. It is necessary to add a condition requiring management of the activity during temporarily suspended operations.

Table Of Contents

Attachments

DELEGATE FOR THE DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY Date of issue: 22 AUG 2019

Schedule 1: Definitions

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity

Authorized Officer means an authorized officer under section 20 of EMPCA

Control Location (Noise) means a location chosen to represent the general ambient sound without contribution from noise sources at the activity.

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

Decommissioning and Rehabilitation Plan means the *Forico Long Reach Mill and Export Terminal* Decommissioning *and Rehabilitation Plan February 2016* and includes any amendment to or substitution of this document(s), approved in writing by the Director.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan.

EMPCA means the *Environmental Management and Pollution Control Act 1994*.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils and chemicals.

Noise Sensitive Premises means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

Nominated bypass creek monitoring point means the location at the v-notch weir in Bypass Creek downstream of the irrigation system and wetlands overflow, as delineated in Attachment 3.

Nominated Sewage Treatment Plant Monitoring Point means the location at the input to the effluent pipeline from the South Mill sewage treatment plant, as delineated in Attachment 3.

Nominated wastewater monitoring points means the inlet to the nominated Treated Wastewater Outfall and the discharge point from the constructed wetland rip-rap overflow as delineated in Attachment 3.

North Mill means the portion of The Land delineated in Attachment 1, and covered by Title Reference 136962/1.

North Mill's Pond system means the system of ponds identified in Attachment 2 of this Notice.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Reporting Period means the 12 months ending on 30 June of each year.

Sewage Treatment Plant means the sewage treatment plant shown in Attachment 3 of this Notice.

South Mill means the portion of The Land delineated in Attachment 1, and covered by Title Reference 136962/2.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Tasmanian Noise Measurement Procedures Manual means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

1 The map shown in Attachment 1 - The Land; and

2 Certificate of Title References 136962/1, 136962/2 and 128436/1.

Waste has the meaning ascribed to it in Section 3 of EMPCA.

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

Wood Waste means any planings, shavings, sawdust, woodfibre and dockings produced by the activity, but does not include treated timber or timber contaminated with other wastes.

Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits

1 The activity must not exceed the following limits :

1.1 1,000,000 tonnes per year of product.

General

G1 Access to and awareness of conditions and associated documents

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G2 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G3 No changes without approval

1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:

1.1 a change to a process used in the course of carrying out the activity; or

1.2 the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or

1.3 a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G5 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G6 Annual Environmental Review

1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:

1.1 a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;

1.2 subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;

1.3 details of environment-related procedural or process changes that have been implemented during the reporting period;

1.4 a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;

1.5 details of all non-trivial environmental incidents and/or incidents of non compliance with these conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;

1.6 a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;

1.7 identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPEMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;

1.8 a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;

1.9 a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and

1.10 a summary of any community consultation and communication undertaken during the reporting period.

G7 Complaints register

1 A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:

1.1 the date and time at which the complaint was received;

1.2 contact details for the complainant (where provided);

1.3 the subject matter of the complaint;

1.4 any investigations undertaken with regard to the complaint; and

1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.

2 Complaint records must be maintained for a period of at least 3 years.

Atmospheric

A1 Covering of vehicles
Vehicles carrying loads containing material which may blow or spill must be equipped with effective control measures to prevent the escape of the materials from the vehicles when they leave The Land or travel on public roads. Effective control measures may include tarpaulins or load dampening.

A2 Dust emissions from traffic areas
Dust emissions from areas of The Land used by vehicles must be limited or controlled by dampening or by other effective measures.

A3 Storage stockpiles
Product storage stockpiles on The Land must be contoured and maintained so as to minimise loss of windblown chips and fine particles of wood fibre.

A4 Restrictions for burning on-site
Unless otherwise approved in writing by the Director, burning of sawdust, wood chips and other wood wastes must not be undertaken on The Land except in a boiler approved for this purpose.

Effluent

EF1 North Mill process water and stormwater

1 All process water from the North Mill and stormwater from the contaminated stormwater catchment area of the North Mill, as shown in Attachment 2 of this Notice, must be directed to the North Mill's Pond system prior to transfer to the South Mill's wastewater treatment facilities, excluding uncontaminated stormwater from:

1.1 the main car park area and roofs of the technical service buildings; and

1.2 the area immediately to the east and southeast of the North Mill log yard.

EF2 South Mill process water and stormwater

1 In addition to the wastewater collected from the North Mill, all process water and stormwater from the South Mill must be treated in the South Mill wastewater treatment facilities prior to discharge to the River Tamar, excluding:

1.1 runoff from the former bark disposal area which is directed to the River Tamar via Bypass Creek that drains that area; and

1.2 uncontaminated stormwater collected from the area immediately to the northeast of the South Mill logyard.

EF3 Sewage treatment
All untreated sewage from the North Mill must be pumped via the North Mill sewage transfer system to the South Mill sewage treatment plant. All untreated sewage from the South Mill, excluding sewage from the wharf facility and the visitor centre, which in each case must be directed to nearby septic tanks, must also be directed to the South Mill sewage treatment plant.

EF4 Treated wastewater and sewage discharge points

1 Treated effluent must not be discharged other than via the purpose-built discharge drains, pipelines and submarine outfall facilities emanating from the final polishing pond of the South Mill's sewage treatment plant.

2 Wastewater must not be discharged other than via the purpose-built discharge drains, pipelines and submarine outfall facilities from the final wastewater treatment pond or from the constructed wetland rip rap overflow, located on the South Mill.

3 Pollutants must not be hosed or otherwise released into stormwater or other drains that do not lead to an appropriate treatment facility.

EF5 Discharge limits

The concentration in the water discharged from the nominated discharge points of a pollutant specified in Column 1 must not exceed the limit specified in Column 2 in respect of that pollutant

Column 1: Specified Substance	Column 2: Maximum Concentration or range
Biochemical Oxygen Demand	40 mg/L
Total Suspended Solids	60 mg/L
Total Petroleum Hydrocarbons	10 mg/L
pH	6.5-9.0
Enterococci	200 cfu per 100mL

EF6 Maintenance of settling ponds

Sediment settling ponds must be periodically cleaned out to ensure that the pond design capacity is maintained. Sediment removed during this cleaning must be securely deposited such that sediment will not be transported off The Land by surface run-off.

Hazardous Substances

H1 Storage and handling of hazardous materials

1 Unless otherwise approved in writing by the Director, all environmentally hazardous materials, including chemicals, fuels, and oils, stored on The Land in volumes exceeding 250 litres must be stored and handled in accordance with the following:

1.1 Any storage facility must be contained within a spill collection bund with a net capacity of whichever is the greater of the following:

1.1.1 at least 110% of the combined volume of any interconnected vessels within that bund; or

1.1.2 at least 110% of the volume of the largest storage vessel; or

1.1.3 at least 25% of the total volume of all vessels stored in that spill collection bund; or

1.1.4 the capacity of the largest tank plus the output of any firewater system over a twenty minute period.

1.2 All activities that involve a significant risk of spillages, including the loading and unloading of bulk materials, must take place in a bunded containment area or on a transport vehicle loading apron.

1.3 Bunded containment areas and transport vehicle loading aprons must:

1.3.1 be made of materials that are impervious to any environmentally hazardous material stored within the bund;

1.3.2 be graded or drained to a sump to allow recovery of liquids;

1.3.3 be chemically resistant to the chemicals stored or transferred;

1.3.4 be designed and managed such that any leakage or spillage is contained within the bunded area (including where such leakage emanates vertically higher than the bund wall);

1.3.5 be designed and managed such that the transfer of materials is adequately controlled by valves, pumps and meters and other equipment wherever practical. The equipment must be adequately protected (for example, with bollards) and contained in an area designed to permit recovery of any released chemicals;

1.3.6 be designed such that chemicals which may react dangerously if they come into contact have measures in place to prevent mixing; and

1.3.7 be managed such that the capacity of the bund is maintained at all times (for example, by regular inspections and removal of obstructions).

H2 Hazardous materials (< 250 litres)

1 Unless otherwise approved in writing by the Director, each environmentally hazardous material, including chemicals, fuels and oils, stored on The Land in discrete volumes not exceeding 250 litres, but not including discrete volumes of 25 litres or less, must be stored within bunded containment areas or spill trays which are designed and maintained to contain at least 110% of the volume of the largest container.

2 Bunded containment areas and spill trays must be made of materials that are impervious to any environmentally hazardous materials stored within the bund or spill tray.

H3 Spill kits

Spill kits appropriate for the types and volumes of materials handled on The Land must be kept in appropriate locations to assist with the containment of spilt environmentally hazardous materials.

H4 Inventory of hazardous materials

An inventory must be kept of all environmentally hazardous materials stored and handled on The Land. The inventory must specify the location of storage facilities and the maximum quantities of each environmentally hazardous material likely to be kept in storage and must include safety data sheets for those environmentally hazardous materials.

Monitoring

M1 Samples and measurements for monitoring purposes

1 Any sample or measurement required under these conditions must be taken and processed in accordance with the following:

1.1 sampling and measuring must be undertaken by a person with appropriate training, experience, and knowledge of the relevant procedure;

1.2 the integrity of samples must be preserved prior to delivery to a laboratory;

1.3 sample analysis or measurement must be conducted by a laboratory or testing facility accredited by the National Association of Testing Authorities (NATA), or a laboratory or testing facility approved in writing by the Director, for the specified test;

1.4 details of methods employed in taking samples and measurements and results of sample analysis, and measurements must be retained for at least three (3) years after the date of collection; and

1.5 sampling and measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years.

M2 Sewage treatment plant discharge monitoring

Representative samples must be collected from the nominated sewage treatment plant monitoring point, as shown in Attachment 3, and must be analysed for the parameters specified in Column 1 and reported in the units specified in Column 2 at the frequency specified in Column 3. In the event that there is insufficient flow to obtain a sample the polishing pond must be sampled to give an indication of the health of the system. The polishing pond is not considered to be a discharge point.

Column 1 Specified Substances	Column 2 Units	Column 3 Frequency
Biochemical Oxygen Demand	mg/L	Quarterly
Total Suspended Solids	mg/L	Quarterly
Enterococci	CFU/100mL	Quarterly

M3 Wastewater discharge monitoring

Representative samples must be collected from the nominated wastewater monitoring points, as shown in Attachment 3, and must be analysed for the parameters specified in Column 1 and reported in the units specified in Column 2 at the frequency specified in Column 3.

Column 1: Specified Substance	Column 2: Units	Column 3: Frequency
Biological Oxygen Demand	mg/L	Quarterly (only if discharging)
Total Suspended Solids	mg/L	Quarterly (only if discharging)
pH	units	Quarterly (only if discharging)
Total Petroleum Hydrocarbons	mg/L	Quarterly (only if discharging)
Conductivity	µS/cm	Quarterly (only if discharging)

M4 Bypass Creek monitoring

Representative samples must be collected from the nominated Bypass Creek monitoring point, as shown in Attachment 3, and must be analysed for the parameters specified in Column 1 and reported in the units specified in Column 2 at the frequency specified in Column 3.

Column 1 Specified Substances	Column 2 Units	Column 3 Frequency
Chemical Oxygen Demand	mg/L	Quarterly
Total Suspended Solids	mg/L	Quarterly
pH	units	Monthly
Total Phosphorus	mg/L	Monthly
Total Nitrogen	mg/L	Monthly
Conductivity	µS/cm	Monthly

M5 Investigation monitoring

1 In the event that any of the discharge limits specified in this Notice are exceeded:

1.1 The Director must be notified within 24 hours of the person responsible becoming aware of the exceedance;

1.2 A report must be forwarded to the Director within 30 days of becoming aware of the exceedance. The report must include, but not necessarily be limited to, the following:

1.2.1 the reported concentration;

1.2.2 an explanation as to why the discharge limit was exceeded;

1.2.3 the results of re-sampling of the nominated monitoring point/s at which the exceedance was recorded; and

1.2.4 strategies to limit the concentration to less than the discharge limit.

1.3 The strategies, as amended from time to time with the approval of the Director, must be implemented.

Noise Control

N1 Noise emission limits

1 Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:

1.1 50 dB(A) between 0700 hours and 1800 hours (Day time); and

1.2 45 dB(A) between 1800 hours and 2200 hours (Evening time); and

1.3 40 dB(A) between 2200 hours and 0700 hours (Night time).

2 Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).

3 The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.

4 Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.

5 All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

N2 Noise survey requirements

1 Unless otherwise approved by the Director, a noise survey must be carried out:

1.1 recurrently, with no longer than 3 years since the previous survey.

N3 Noise survey method and reporting requirements

1 Noise surveys must be undertaken in accordance with a survey method approved in writing by the Director, as may be amended from time to time with written approval of the Director.

2 Without limitation, the survey method must address the following:

2.1 measurements must be carried out at day, evening and night times (where applicable) at each location; and

2.2 measurement locations, and the number thereof, must be specified, with one location established as a control location (noise).

3 Measurements and data recorded during the survey must include:

3.1 operational status of noise producing equipment and throughput of the activity;

3.2 subjective descriptions of the sound at each location;

3.3 details of meteorological conditions relevant to the propagation of noise;

3.4 the equivalent continuous (L_{eq}) and L_1, L_{10}, L_{50}, L_{90} and L_{99} A-weighted sound pressure levels measured over a period of 10 minutes or an alternative time interval approved by the Director;

3.5 one-third octave spectra over suitably representative periods of not less than 1 minute; and

3.6 narrow-band spectra over suitably representative periods of not less than 1 minute.

4 A noise survey report must be forwarded to the Director within 30 days from the date on which the noise survey is completed.

5 The noise survey report must include the following:

5.1 the results and interpretation of the measurements required by these conditions;

5.2 a map of the area surrounding the activity with the boundary of The Land, measurement locations, and noise sensitive premises clearly marked on the map;

5.3 any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and

5.4 recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

N4 Log drops

Logs being unloaded from a vehicle and/or stockpile must not be dropped directly onto the ground.

Rehabilitation

R1 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

R2 Decommissioning and Rehabilitation Plan

1 Unless otherwise approved in writing by the Director, a revised Decommissioning and Rehabilitation Plan (DRP) must be submitted to the Director for approval:

1.1 when changes to the conduct of the activity are to occur that will result in significant changes to decommissioning and rehabilitation obligations; and

1.2 within 30 days of the Director being notified of the likely cessation of operations; and

1.3 where required by notice in writing, by a date specified in writing by the Director.

2 The DRP must be prepared in accordance with guidelines issued by the Director. If no guidelines have been issued by the Director the measures described in this plan must include, but should not necessarily be limited to, the following:

2.1 completion of a site history, site contamination assessment and contamination remediation plan (including consideration of groundwater);

2.2 removal of all equipment, structures and waste materials unless they are considered by the Director to be beneficial to a future use of The Land;

2.3 grading and levelling/recontouring and revegetating (or other approved method of soil stabilisation) of the surface of the disturbed area;

2.4 management of drainage on The Land so as to reduce erosion and prevent release of a pollutant from The Land;

2.5 maintenance of the rehabilitated area for a period of not less than three years from the date of cessation of operations;

2.6 an itemised estimate of the costs of carrying out the works listed in the DRP and a statement of how these costs will be provided for; and

2.7 any other detail requested in writing by the Director.

R3 Rehabilitation following cessation

1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:

1.1 stabilisation of any land surfaces that may be subject to erosion;

1.2 removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and

1.3 decommissioning of any equipment that has not been removed.

2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

R4 Temporary suspension of activity

1 Within 30 days of becoming aware of any event or decision which is likely to give rise to the temporary suspension of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to suspend or has suspended.

2 During temporary suspension of the activity:

2.1 The Land must be managed and monitored by the person responsible for the activity to ensure that emissions from The Land do not cause serious environmental harm, material environmental harm or environmental nuisance; and

2.2 If required by the Director a Care and Maintenance Plan for the activity must be submitted, by a date specified in writing by the Director, for approval. The person responsible must implement the approved Care and Maintenance Plan, as may be amended from time to time with written approval of the Director.

3 Unless otherwise approved in writing by the Director, if the activity on The Land has substantially ceased for 2 years or more, rehabilitation of The Land must be carried out in accordance with the requirements of these conditions as if the activity has permanently ceased.

Schedule 3: Information

Legal Obligations

LO1 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO2 Storage and handling of dangerous goods, explosives and dangerous substances

1 The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:

1.1 *Work Health and Safety Act 2012* and subordinate regulations;

1.2 *Explosives Act 2012* and subordinate regulations; and

1.3 *Dangerous Goods (Road and Rail Transport) Act 2010* and subordinate regulations.

LO3 Controlled waste transport

Transport of controlled wastes to and from The Land must be undertaken only by persons authorised to do so under EMPCA or subordinate legislation.

Other Information

OI1 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning 1800 005 171 (a 24-hour emergency telephone number).

OI2 Waste management hierarchy

1 Wastes should be managed in accordance with the following hierarchy of waste management:

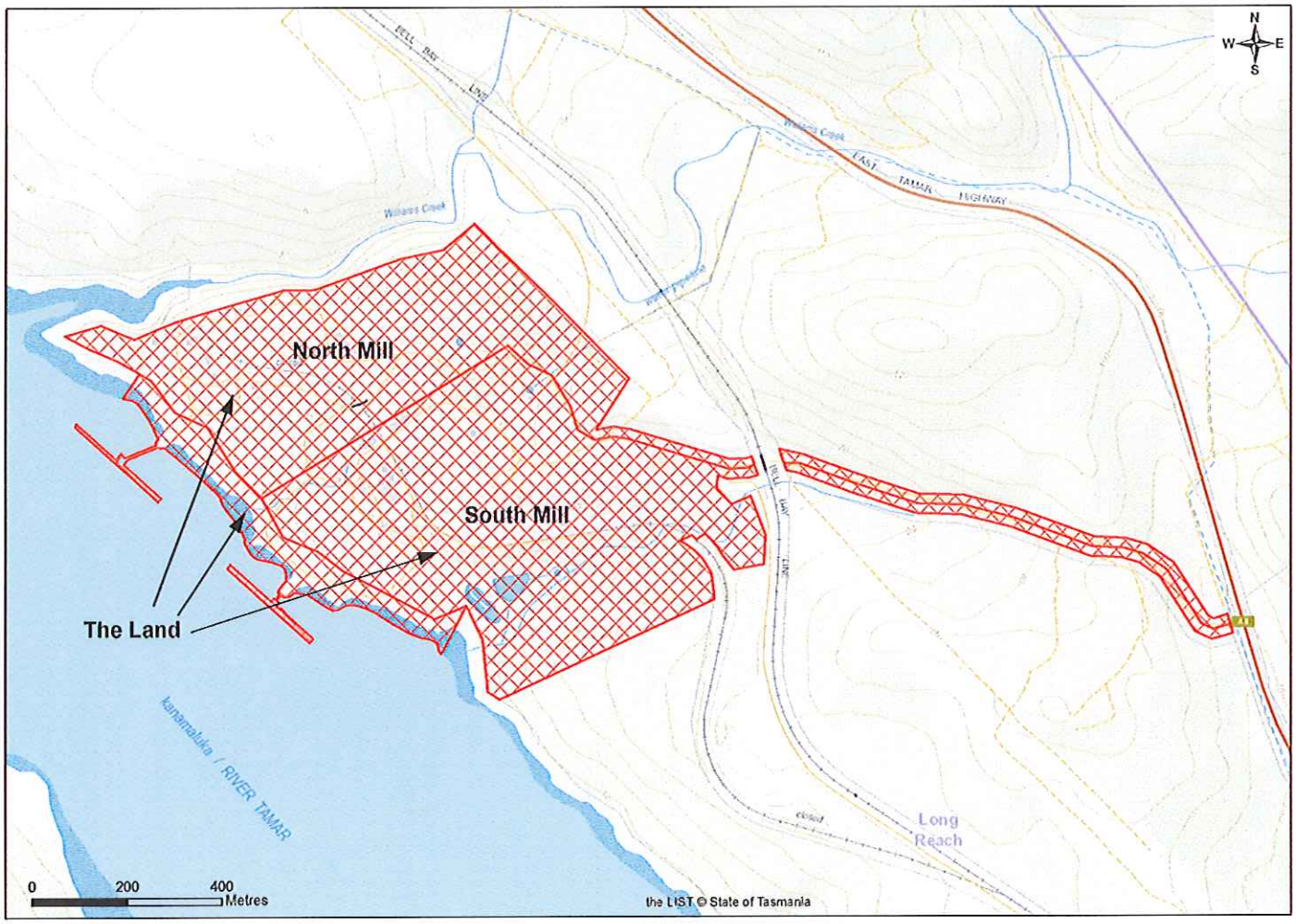
1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;

1.2 waste should be re-used or recycled to the maximum extent that is practicable; and

1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

ATTACHMENT 1

The Land



DIRECTOR, ENVIRONMENTAL PROTECTION AUTHORITY

Date of issue: 22 AUG 2019

ATTACHMENT 2
North Mill Water Drainage Plan

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Date of issue 22 AUG 2019

ATTACHMENT 3
Monitoring Locations Map

DIRECTOR, ENVIRONMENTAL PROTECTION AUTHORITY

Date of issue: 22 AUG 2019

ghd.com

→ The Power of Commitment

Appendix A

Forico Environmental Sustainability Policy

ENVIRONMENTAL SUSTAINABILITY POLICY

1 Purpose

Forico Pty Limited (Forico) is a forest industry company that is committed to sustainability, including responsible environmental management throughout all our business activities in Tasmania. We believe that when we plant a seed, we are growing a valuable wood fibre resource for our future community's use and wherever possible, doing this with minimal impact and overall environmental benefit.

Our environmental aspiration is to provide overall ecosystem benefits from our managed assets and business activities.

2 Scope

Our Environmental Sustainability Policy applies to all aspects of our operations, from Seed to Market.

3 Procedural Principles

Forico will achieve a balance between economic viability, social contribution and environmental and cultural heritage responsibility through:

- **Leadership.** Promoting sound environmental stewardship principles within our own company and encouraging others to do likewise;
- **Best Practice**. Implementing, managing and regularly reviewing a robust integrated business management system that complies with FSC® Certification Scheme, the PEFC recognised RW Certification Scheme and the ISO14001 Certification Scheme, that are routinely audited and verified by expert third parties;
- **Adding Value.** Growing, producing, and processing quality wood fibre products from plantation sources through managing the entire forest estate for sustainable outcomes;
- **Low impact.** Protecting the environment, preventing pollution, the avoidable generation of waste, and optimising energy use throughout our chain of production and processing from a life cycle perspective;
- **Conservation**. Identifying, maintaining and enhancing natural forest for ecosystem services;
- **Meaningful communication.** Proactively engaging and communicating in an open and transparent fashion with interested and affected stakeholders;
- **Competent workforce.** Ensuring our employees have adequate resources and appropriate skills through targeted training and awareness programs;
- **Shared Responsibility.** Ensuring our suppliers and contractors share Forico's commitment to sustainability and responsible environmental management and are similarly trained and aware;
- **Challenging Ourselves.** Setting challenging objectives and targets to address any significant environmental aspects, compliance obligations, and other identified risks and opportunities that may arise through our commitment to continual improvement to enhance our environmental performance; and

- **Compliance.** Complying with all relevant legislation, regulatory frameworks, permits, codes of practice and our other voluntary commitments.

4 Definitions

RW:	Responsible Wood.
FSC®:	Forest Stewardship Council.
ISO14001:	A family of internationally recognised standards for environmental management systems that is applicable to any business or organisation, regardless of size, location or income.
PEFC:	Program for the Endorsement of Forest Certification Schemes.

5 References

- Forico website (www.forico.com.au).
- Forico Forest Management Plan.

Checked and Confirmed Compliance with Statutory Requirements ☒

Authorisation:	Board Approval ☒ CEO Approval ☐ Other ☐
Name and Signature: **Director/Chief Executive Officer**	Name: Bryan Hayes Signature: 
Date:	17 September 2019
Date to be Reviewed:	September 2021

Appendix B

Certificate of Approval for AS/NZS IS0-14001-2016

Certificate of Approval

This certificate confirms that the company below complies with the following standard:

Company Name	**Forico Pty Limited**		
Company Other Name			
Client ID	**105079**	*Scheme*	**Environmental Management Systems Scheme**
Certification Standard	**AS/NZS ISO 14001-2016: Environmental management systems - Requirements with guidance for use**		
Scope of Certification	**Forest management and mill processing activities in Tasmania over which Forico Pty Limited has management control. This includes planning and management of: office functions, laboratory wood quality testing, nursery and tree improvement operations, plantation planning, establishment, maintenance, roading and timber harvesting, mill processing, stockpiling and shiploading of forest products. Natural vegetation within forest estate will be managed for non-wood production environmental values.**		
Type of Certification	**Management System**		

CERTIFICATE DATES:

Original / Initial	**28/07/2018**	*Last Certificate update*	**10/07/2021**
Certification / Re Certification	**26/06/2021**	*Expiry*	**9/07/2024**
Last Certification Decision	**10/07/2021**		

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- continued from Page 1

APPROVED COMPANY/SITE ADDRESS (ES):

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Nursery: McKays Road, Somerset TAS 7322 Australia
Regional office: 15-17 Circular Road East Ridgely TAS 7321 Australia
Long Reach Mill. East Tamar Highway Long Reach TAS 7253 Australia
Surrey Hills Mill. 2753 Ridgley Highway Hampshire TAS 7231 Australia

Certification Manager

Appendix C

Long Reach chip mill environmental noise survey 2022

FORICO Pty Ltd

Long Reach chip mill environmental noise survey 2022

Report No. 5667_AC_R_R2

TARKARRI ENGINEERING PTY LTD
PO Box 506
Kings Meadows TAS 7249

February 2023

Tarkarri Engineering

Air Quality • Acoustics • Environment • Vibration

DOCUMENT CONTROL

FORICO PTY LTD
LONG REACH CHIP MILL
ENVIRONMENTAL NOISE SURVEY
2022

Report No.
5667_AC_R_R2
Prepared for
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Review	Alex McLeod Director / Principal Consultant	Date: 16 August 2022

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Revision No.	Date Issued	Reason/Comments
1	17 August 2022	correction
2	24 February 2023	correction

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1	2	Project/Client File
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Keywords environmental noise, dBA, L_{Aeq}, ambient, tone, L_{A90}, background

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References

[1] Tarkarri Engineering report 5112_AC_R_Forico – Long Reach chip mill environmental noise survey 2018

[2] Tarkarri Engineering report 5233_AC_R_Forico – Long Reach chip mill environmental noise survey 2019

Executive Summary

Tarkarri Engineering was commissioned to conduct an environmental noise survey of Forico's Long Reach chip mill. Measurements were conducted between 29 June and 1 July 2022.

No breach of Forico's EPN noise emission limits was measured during the survey. Where noise levels exceeded EPN limits, the noise environment was typically dominated by local sources including traffic, rustling leaves (generated by wind movement through foliage) and insect and bird activity.

1 Introduction

Tarkarri Engineering was commissioned by Forico to conduct an environmental noise survey of their Long Reach chip mill (LRCM) to meet the general requirements of condition N2 of Environmental Protection Notice (EPN) 7968/4. This report presents the results of this survey carried out during the period 20 June and 1 July 2022 and is written to meet the general requirements of condition N3(5) of the EPN.

2 Site description

The Long Reach chip mill is located on the southern side of the East Tamar Highway (Hwy) on land between the Hwy and the Tamar River. To the north and north-east of the site the land rises steeply into the Tipogoree foothills while to the south and south-west, across the Tamar River, is the rural area of Rowella where several noise sensitive premises are located, the closest being approx. 1.35 km from the current chipper building. Further to the north-west is the Bell Bay industrial area and Tamar Valley Power Station (TVPS).

Six environmental noise measurement positions were utilised for observed measurements, with a seventh position selected for extended unobserved measurements. The locations were as used in the 2018 and 2019 surveys of the LRCM[1][2].

Table 2-1 provides location details for the survey positions and Figure 2-1 presents an aerial view of the LRCM and its surrounds with the survey positions marked.

Environmental noise measurement positions		
Number	Location	Coordinates (MGA94, Zone 55 G)
2	North Rowella	492193 E / 5443011 N
3	Westwood Road	490591 E / 5442561 N
4	Westwood and Rowella Roads	491692 E / 5442038 N
5	Mid Rowella	492931 E / 5442302 N
6	South Rowella	493462 E / 5441199 N
7	Rowella Hall	491600 E / 5440590 N
SLM	Long Reach chip mill viewing platform	494457 E / 5442991 N

Noise sensitive locations.

Table 2-1: Measurement locations.

Figure 2-1: Aerial view of LRCM and surrounds with environmental noise survey positions marked.

3 EPN noise emission limits

The following is stated under condition N1 of EPN No. 7968/4:-

N1 Noise emission limits

1. Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:

    2.1 50 dBA between the hours of 0800 and 1800 (*day time*);
    2.2 45 dBA between the hours of 1800 and 2200 (*evening time*); and
    2.3 40 dBA between the hours of 2200 and 0800 (*night time*).

2. Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, for the appropriate time of day, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).
3. The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified by the director.
4. Measured noise levels are to be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the *Tasmanian Noise Measurement Procedures Manual*.
5. All methods of measurement must be in accordance with the *Tasmanian Noise Measurement Procedures Manual*, issued by the Director.

4 Instrumentation

The following instrumentation was used during the survey: -

- Remote environmental noise monitoring system with Larson Davis 831C s/n 10656.
- Environmental noise analyser Larson Davis 831 s/n 1169.
- Spectrum analyser Larson Davis 831C s/n 11832.
- Acoustic Calibrator CA250 s/n 2706.

All instruments were field calibrated prior to use and wind socks were used on microphones for all measurements.

5 Noise measurements

Observed 10-minute measurements were obtained over a 30-minute period at each of the six locations during the day, evening and night. This data has been summarised and averaged measurements presented for each location. Relevant observations have also been noted. All 10-minute observed data is presented in Appendix 1.

An extended unobserved measurement was obtained at the SLM position and a graph showing the main 10-minute statistical data is provided as follows:

- L_{Aeq}
- L_{A10}
- L_{A90}

For sake of clarity the other 5 data sets are not shown in this graph.

Spectral data was obtained at each observed measurement location and is shown graphically for each position in two data sets as follows:

- 1/3-octave band spectra
- Narrow band data 0 to 1000 Hz (0.15625 Hz resolution)

Where appropriate, significant tones generated at the LRCM have been marked in these spectra and potential sources noted.

The following abbreviations are used in the data tables presented in the following subsections:-

- LRCM: Long Reach Chip Mill
- LF: low frequency
- NBRA: Narrow band reversing alarm

5.1 Position 2 – North Rowella

Position 2 is approx. 2 km west of the LRCM on the opposite bank of the Tamar River in Rowella.

Day L_{Aeq} levels were elevated by birds/insects and nearby tractor operation in the surrounding vineyard. Background (L_{A90}) levels were controlled by insect activity. Noise emissions from the LRCM with the chipper were audible during the day when the tractor was distant to the monitoring station.

During the evening and night insect activity controlled L_{Aeq} levels with nearby livestock, sheep and cows audible. Chipper activity and log impacts from the Wagner loader stockpiling unloaded logs in the LRCM were audible during the evening while the loader's NBRA was also audible during the night.

Figure 5-1: Position 2 (archive photo).

2 – North Rowella												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	30 June	12:05	58.1	38.1	77.7	68.9	62.9	46.7	42.4	39.2	Clear Gentle E breeze	External: Tractor Insects/birds LRCM: Chipper Loader
Evening	30 June	21:23	34.3	27.3	54.9	41.2	36.4	32.5	30.0	28.4	Clear Calm	External: Insects/birds LRCM: Chipper Loader
Night	30 June	22:02	34.5	26.2	60.4	43.4	35.5	31.7	29.2	27.6	Clear Calm	External: Insects/birds LRCM: Chipper Loader

Table 5-1: Position 2 Ln-statistics.

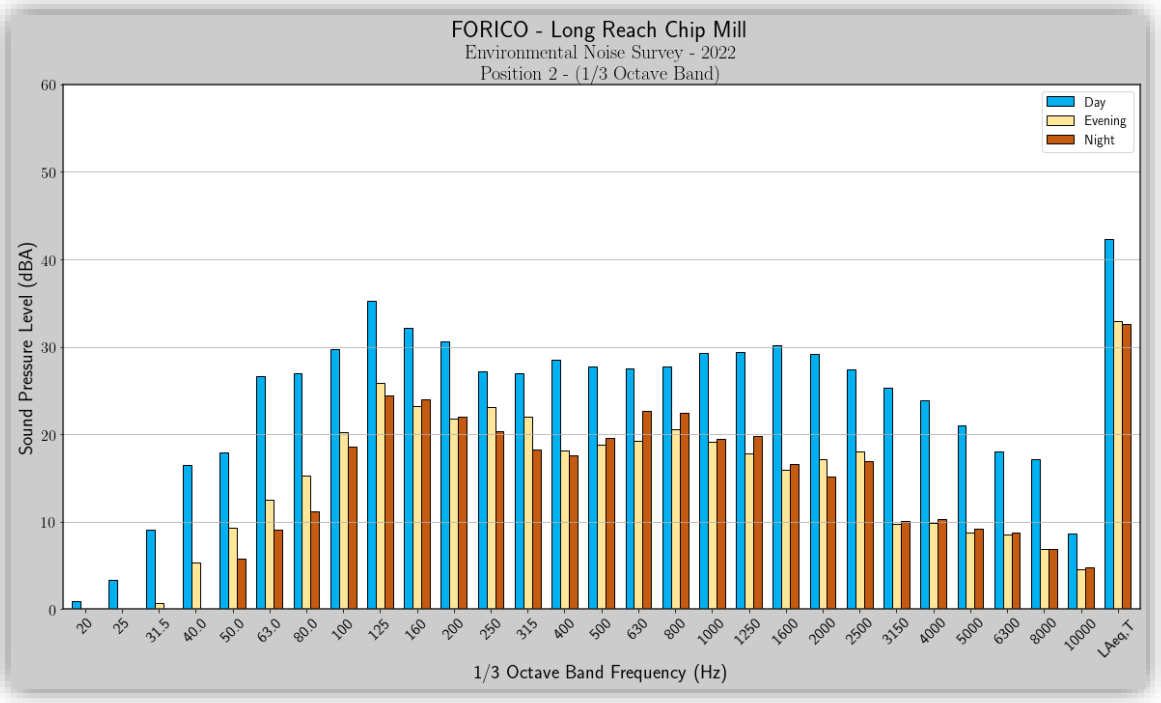


Figure 5-2: Position 2, 1/3-octave band spectrum.

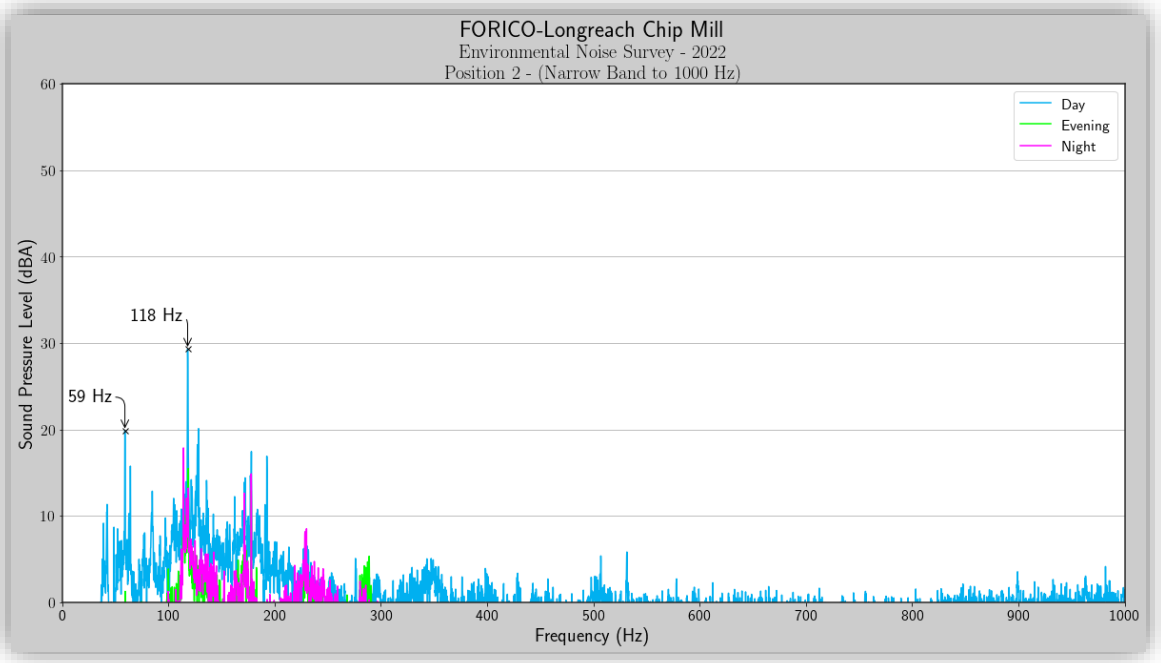


Figure 5-3: Position 2, narrow band spectrum 0 – 1000 Hz.

5.2 Position 3 – Westwood Rd

Position 3 is located on Westwood Rd, Rowella, approx. 3.6 km west south-west of the LRCM.

The day noise environment consisted of infrequent local traffic, light plane, distant voices and livestock. Insect activity controlled background levels. The LRCM was faintly audible during periods of no breeze.

During the evening, industrial activity from Bell Bay was clearly audible with bird and insect activity controlling background levels.

During the night bird activity became less frequent as did local traffic. Distant traffic along the East Tamar Highway was occasionally audible with the noise environment comparable to the evening period. LRCM was not audible.

Figure 5-4: Position 3 (archive photo).

3 – Westwood Rd												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	29 Jun	12:44	44.1	29.7	62.9	54.5	43.2	35.4	32.5	30.7	Clear Gentle SW breeze	External: Insects/birds Air compressor Local traffic Industrial activity Light plane LRCM: Faintly audible
Evening	29 June	19:28	41.7	28.3	65.4	49.0	37.6	32.5	30.4	29.4	Partly cloudy Gentle NW breeze	External: Insects/birds Industrial activity Fauna Livestock Local traffic LRCM: Faintly audible

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	29 June	23:16	35.5	29.8	52.7	42.1	37.5	34.4	32.4	31.1	Cloudy Light NW breeze	External: Insects/birds Industrial activity Livestock Air compressor LRCM: Not audible

Table 5-2: Position 3 Ln-statistics.

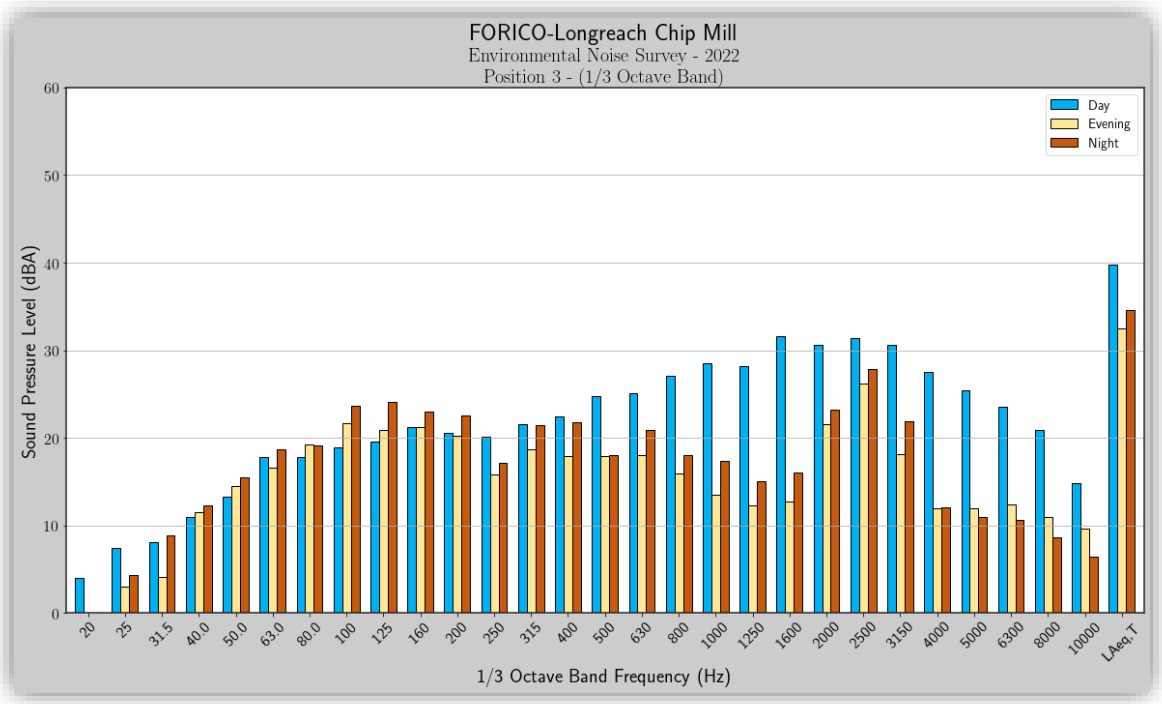


Figure 5-5: Position 3, 1/3-octave band spectrum.

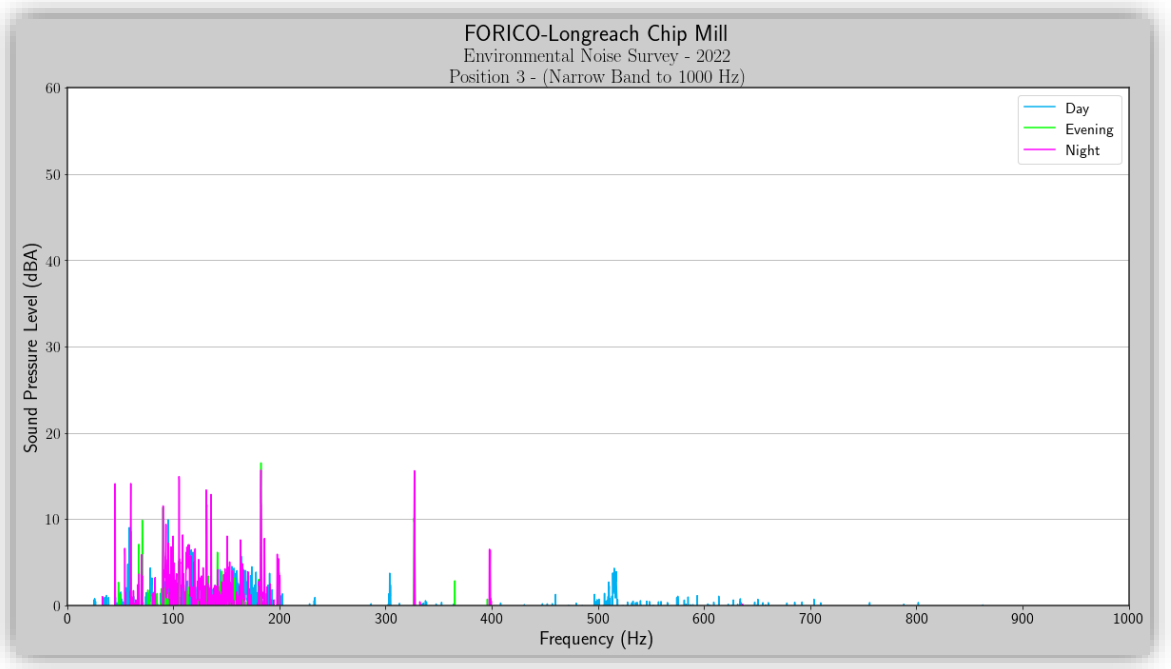


Figure 5-6: Position 3, narrow band spectrum 0 – 1000 Hz.

5.3 Position 4 – Westwood Rd and Rowella Rd

Position 4 is located at the corner of Westwood Rd and Rowella Rd, Rowella, approx. 2.7 km south-west of the LRCM.

Day measurements were elevated by local traffic with bird activity and infrequent air blasts also audible. Insect and bird activity controlled background noise levels. The LRCM was audible in the day during combined breaks in wind and traffic.

During the evening and night, insect and frog activity was dominant and controlled the noise environment. The Industrial noise from Bell Bay was the dominant industrial noise source and the LRCM was not audible.

Figure 5-7: Position 4 (archive photo).

4 – Westwood Rd and Rowella Rd												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day*	30 June	13:18	43.9	30.3	62.7	55.9	46.7	36.9	33.1	31.1	Clear Gentle E breeze	External: Local traffic Insects/Birds Leaf rustle Tractor Plane LRCM: Chipper
Evening	29 June	20:17	38.2	29.5	60.6	48.4	39.8	33.7	31.7	30.6	Clear Calm	External: Insects/Frogs Transformer hum BBIP LRCM: Not audible

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	29 June	23:50	39.4	31.8	56.9	48.9	39.4	35.5	33.7	32.7	Cloudy Light NW breeze	External: Insects/Frogs Transformer hum Traffic (local) BBIP LRCM: Not audible

* First interval excluded from average due to voices and frequent nearby vehicle pass by events.

Table 5-3: Position 4 Ln-statistics.

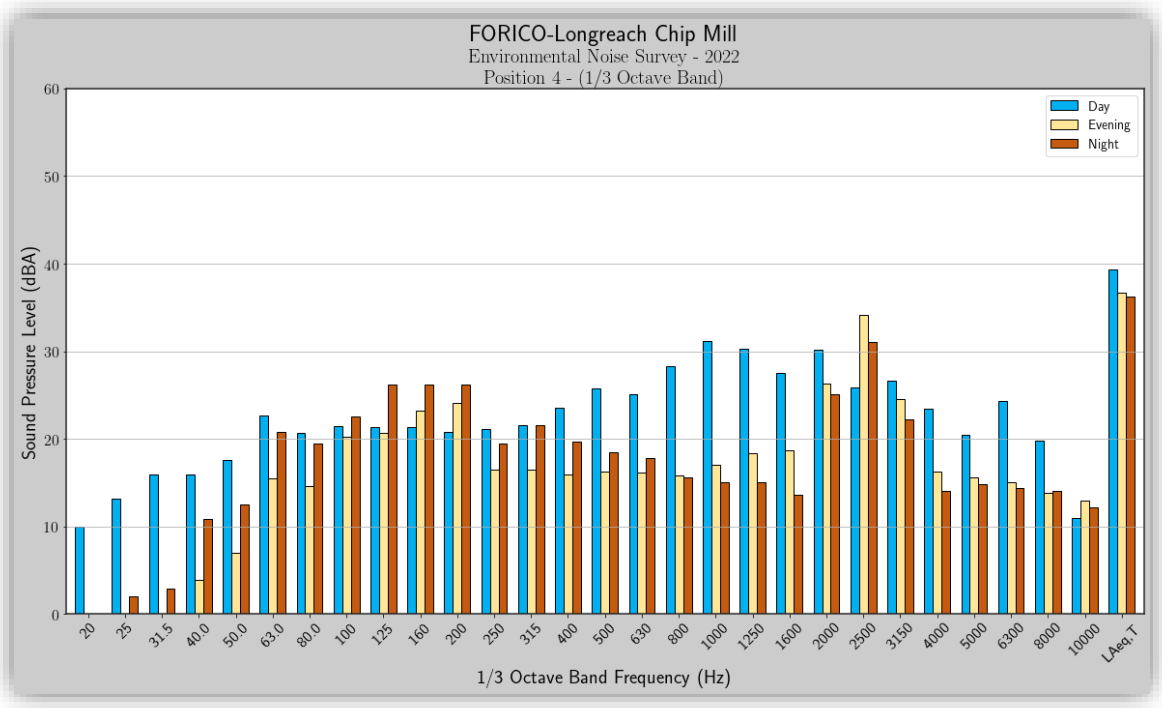


Figure 5-8: Position 4, 1/3-octave band spectrum.

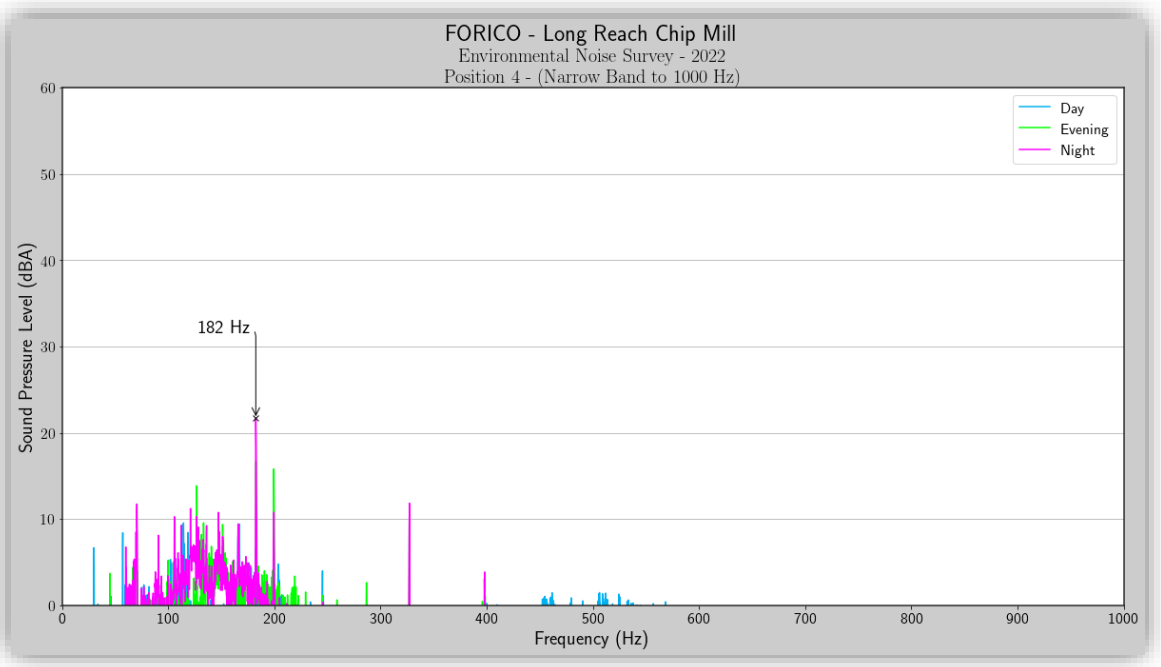


Figure 5-9: Position 4, narrow band spectrum 0 – 1000 Hz.

5.4 Position 5 – Mid Rowella

Position 5 is in Rowella approx.1.5 km south-west of the LRCM on the opposite bank of the Tamar River and is the closest measurement point to the mill.

Day measurements were controlled by insect activity along with activity from the Bell Bay area. The LRCM chipper was audible in the absence of wind gusts.

During the evening and night insects continued to control background noise levels with noise from Bell Bay increasing towards the end of the night measurement period. The chipper was clearly audible during both periods as were the Wagner loader, and logging truck engines.

Figure 5-10: Position 5 (archive photo).

5 – Mid Rowella												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day*	29 June	13:10	40.8	34.0	61.3	50.7	41.2	38.6	36.5	35.3	Clear NW breeze	External: Insects/Birds Industrial noise Vehicle(local) Hwy traffic LRCM: Chipper (Faint)
Evening	29 June	20:48	39.8	34.3	65.3	45.6	40.3	38.0	36.4	35.2	Clear Gentle NW breeze	External: Industrial noise Insects/Birds Tractor Leaf Rustle LRCM: Chipper Log Trucks

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	30 June	22:49	38.8	28.7	61.0	48.5	39.0	35.6	32.8	30.9	Clear Calm	External: Industrial noise Insects/Birds Livestock Local fauna LRCM: Chipper Loader

* First interval excluded from average due to significant vehicle pass by events.

Table 5-4: Position 5 Ln-statistics.

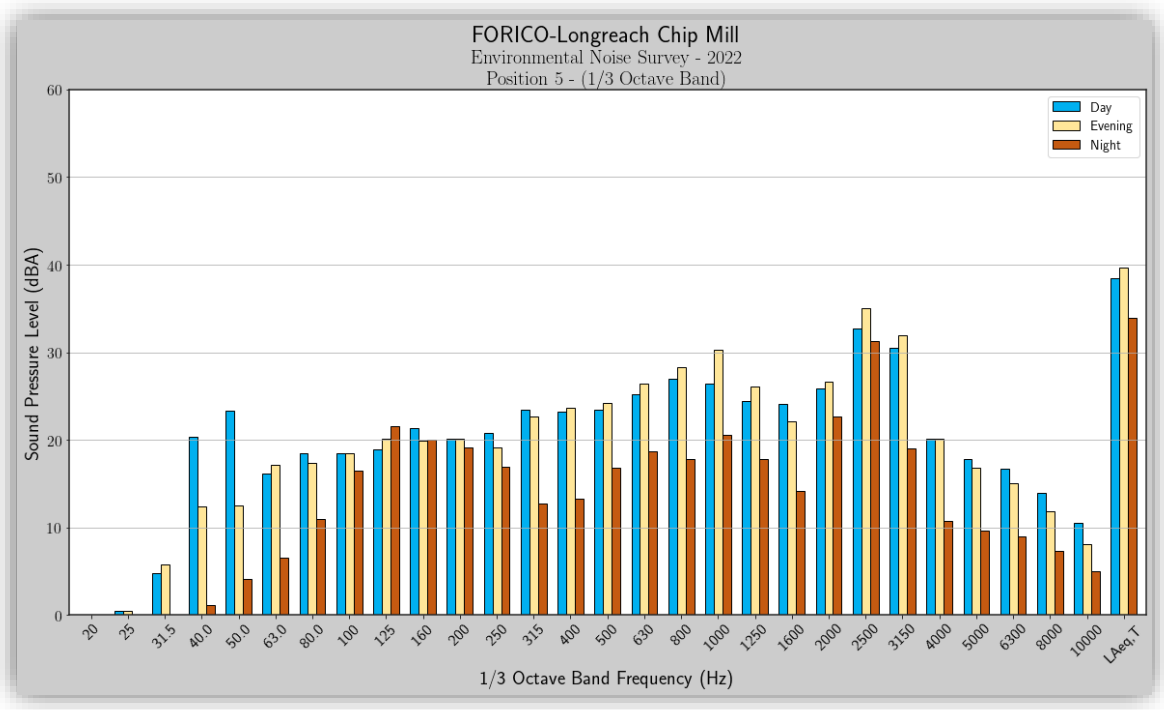


Figure 5-11: Position 5, 1/3-octave band spectrum.

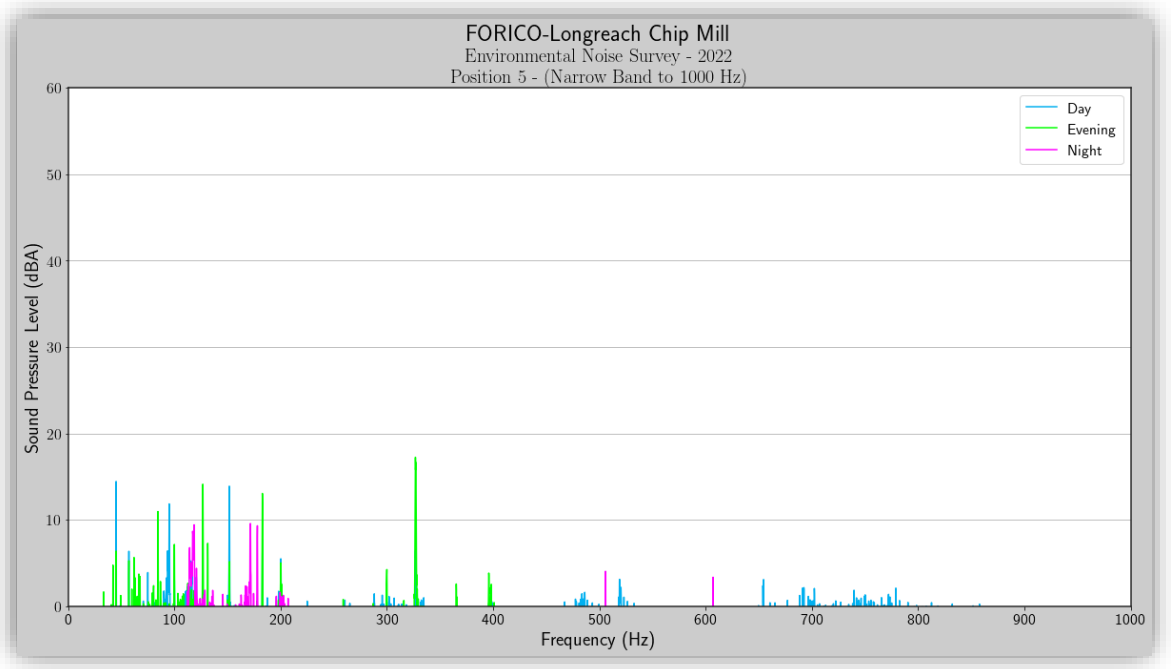


Figure 5-12: Position 5, narrow band spectrum 0 – 1000 Hz.

5.5 Position 6 – South Rowella

Position 6 is located at the eastern end of Rowella Rd, Rowella, approx. 1.9 km south south-west of the LRCM.

The day noise environment at position 6 was dominated by local bird and dog activity with distant traffic along the east Tamar Highway and nearby leaf rustle contributing to background levels.

During the evening and night, noise emissions from the LRCM became a significant component of the noise environment. The chipper and Wagner loader's engine was audible from the plant during these periods. Local noise from Insect activity and nearby rustling of leaves also contributed to measured levels while infrequent local traffic elevated L_{Aeq} levels.

Figure 5-13: Position 6 (archive photo).

6 – South Rowella												
Period	Date	Time	LAeq	LAmax	LAmin	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	30 June	11:13	44.3	33.3	66.9	55.2	42.8	37.8	35.3	34.2	Calm Gentle NW breeze	External: Dog barking Leaf rustle Birds/Insects Local traffic LRCM: Chipper
Evening	29 June	18:43	46.2	34.6	73.8	55.3	43.6	38.4	36.6	35.5	Partly Cloudy Light NE breeze	External: Dog barking Leaf rustle Birds/Insects Local traffic LRCM: Chipper Loader

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	29 June	22:37	48.7	34.8	72.6	60.1	46.8	38.7	36.9	36.0	Mostly Clear Light breeze	External: Leaf rustle Birds/Insects Aircraft LRCM: Chipper Loader

Table 5-5: Position 6 Ln-statistics.

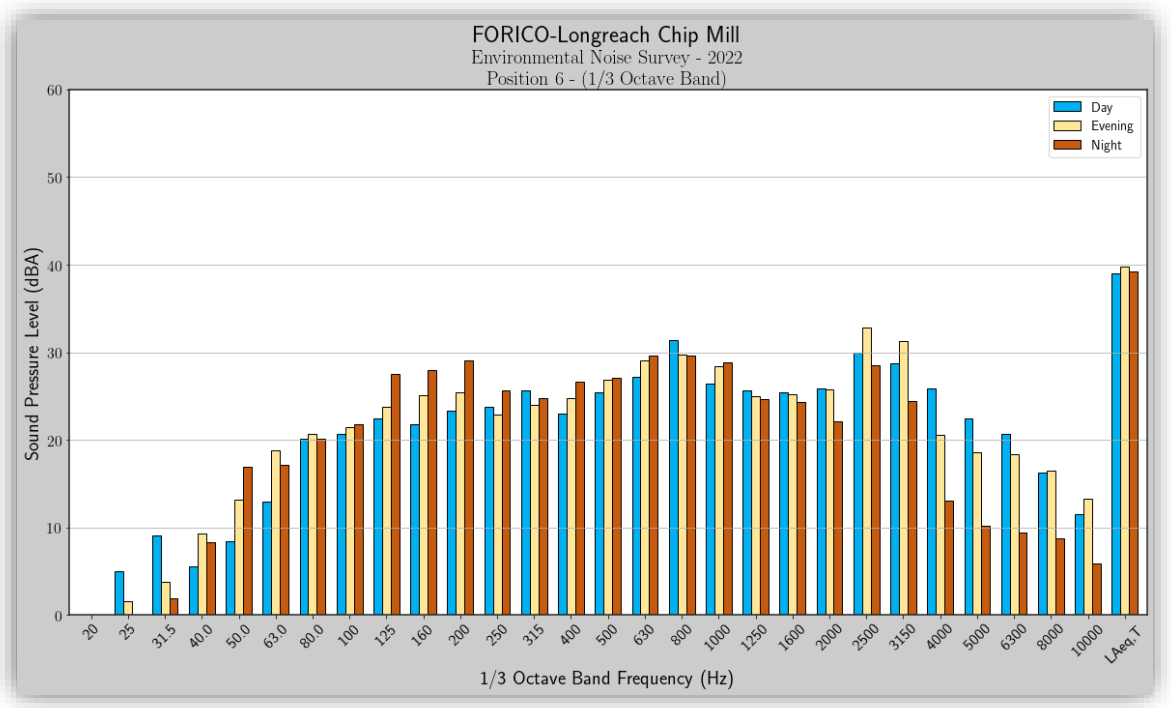


Figure 5-14: Position 6, 1/3-octave band spectrum.

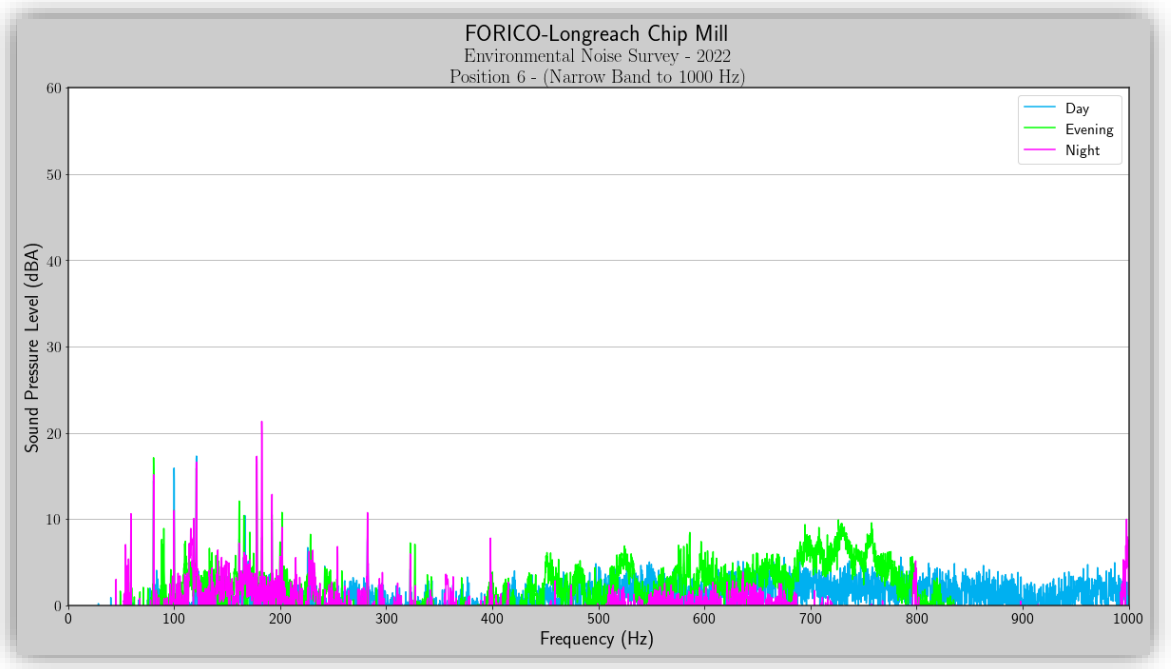


Figure 5-15: Position 6, narrow band spectrum 0 – 1000 Hz.

5.6 Position 7 –Rowella Hall

Position 7 is located at the Rowella Hall, Rowella Rd, Rowella, approx. 3.6 km south-west of the LRCM.

Noise immission levels at this location were dominated by local sources, in particular insect activity and infrequent local traffic. Background noise was controlled by emissions from Bell Bay during the evening and night with the chipper not audible.

Figure 5-16: Position 7 (archive photo).

7 –Rowella Hall												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	30 June	10:33	46.7	35.2	65.0	60.6	45.6	39.5	37.3	36.2	Clear Light SE breeze	External: Industrial noise Insects/Birds Wind chimes Traffic Lawn Mower LRCM: Audible
Evening	29 June	21:16	36.1	28.6	56.1	44.3	35.6	31.9	30.4	29.4	Mostly Cloudy Light breeze	External: BBIP Insects Wind chimes Traffic LRCM: Not Audible

Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Night	29 June	22:00	32.1	27.3	51.2	39.0	33.5	30.9	29.4	28.4	Mostly Cloudy Light NW breeze	External: BBIP Insects Wind Chimes Distant Traffic LRCM: Not Audible

Table 5-6: Position 7 Ln-statistics.

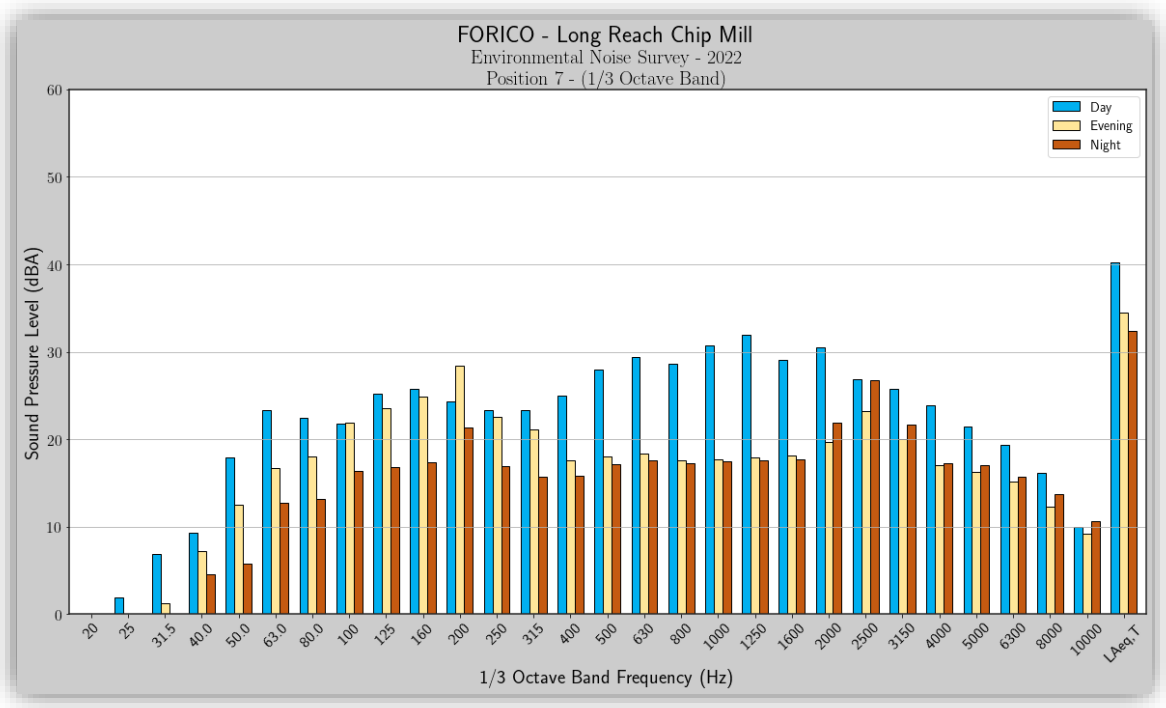


Figure 5-17: Position 7, 1/3-octave band spectrum.

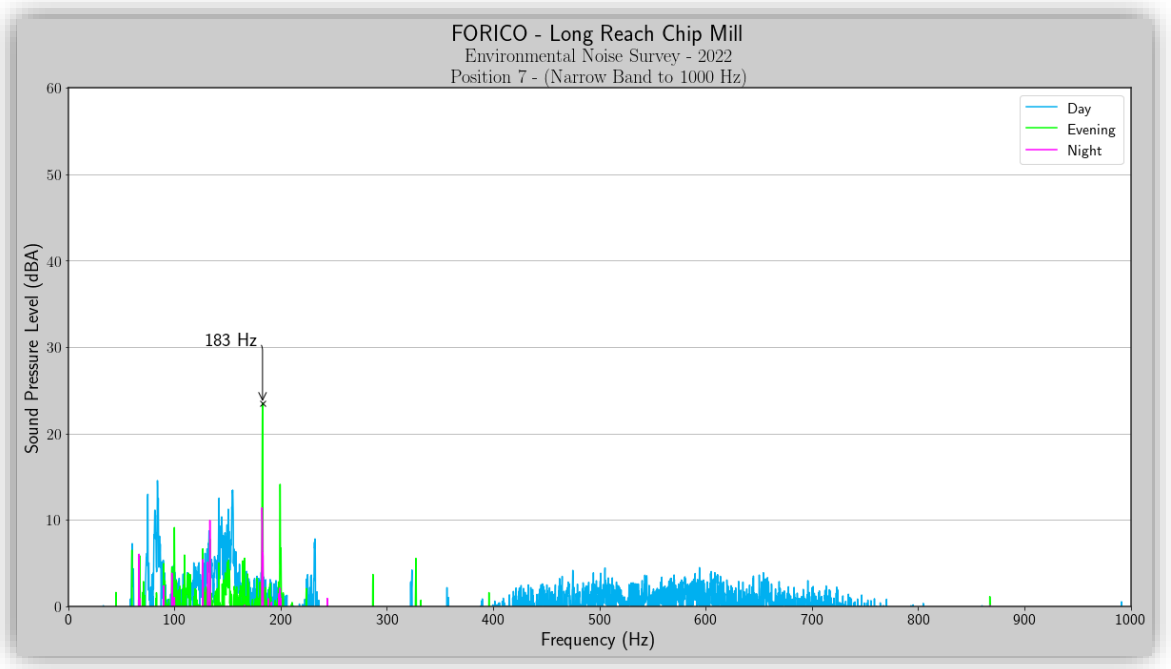


Figure 5-18: Position 7, narrow band spectrum 0 – 1000 Hz.

5.7 SLM position – Extended unobserved measurements

The SLM position is located adjacent to the old viewing platform at the LRCM.

Monitoring at this location provides temporal information on noise emission generation at the mill. The periods where observed measurements were conducted are highlighted in yellow on the graph in Figure 5-20. When the chipper was in operation L_{Aeq} and L_{A10} levels were typically at and above 70 dBA respectively, consistent with previous environmental noise surveys.

Figure 5-19: SLM position (archive photo).

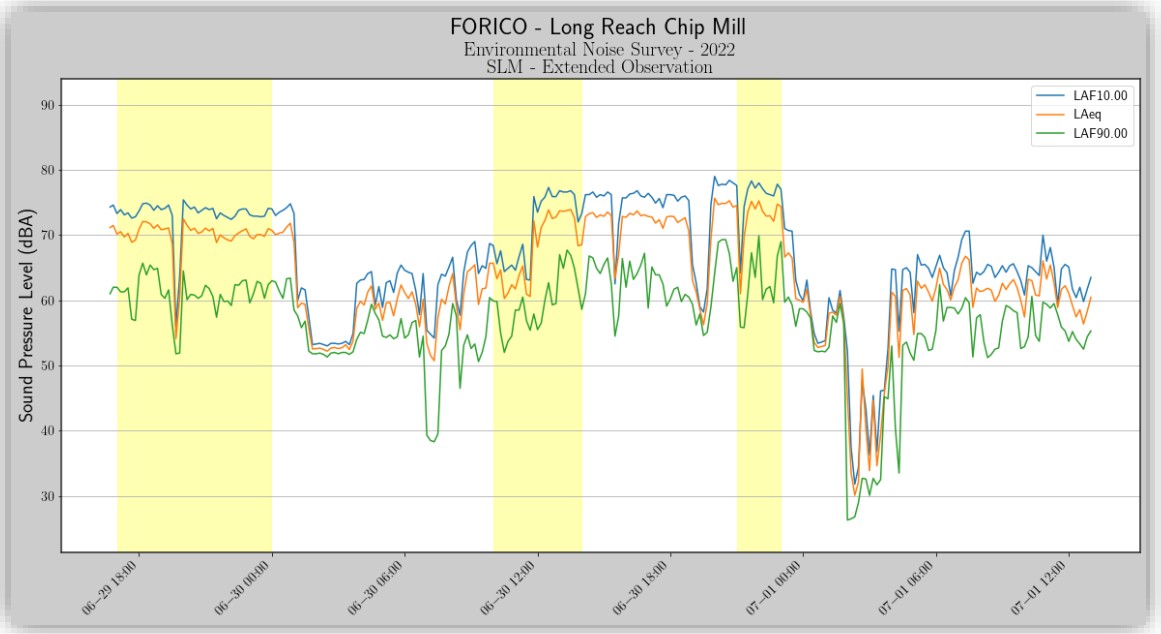


Figure 5-20: SLM position, extended unobserved Ln-statistics (March).

6 Discussion of results

Table 6-1 presents a summary of measured levels presented in section 5 of this report with assessment against the mill's EPN noise emission limits (applicable under condition N1(2), from 1 September 2015). Comments are also provided on the key features of the measured noise levels that relate to the assessment of potential breaches of the EPN limits. Measured levels that are potentially breaching these conditions are highlighted in pink.

Adjustments for impulsiveness and modulation were considered not relevant in this assessment (a relatively constant chipper feed was such that it was considered that the noise was not impulsive). Excessive low frequency and tonal adjustments are not applied here as noise emission from sources associated with the Bell Bay industrial area are strong contributors to these noise characteristics and it was not possible to separate their contribution from the measured numbers.

Summary results						
Site	Period	Average $L_{Aeq,10min}$ (dBA)	Average $L_{A90,10min}$ (dBA)	EPN Limit (dBA)	Potential Breach	Comment
2	Day	58.1	42.4	50	No	L_{Aeq} elevated by local sources
	Evening	34.3	30.0	45	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Night	34.5	29.2	40	No	
3	Day	44.1	32.5	50	No	L_{Aeq} levels not in excess of EPN noise emission limit.
	Evening	41.7	30.4	45	No	LRCM not audible
	Night	35.5	32.4	40	No	L_{Aeq} levels not in excess of EPN noise emission limit.
4	Day	43.9	33.1	50	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Evening	38.2	31.7	45	No	
	Night	39.4	33.7	40	No	
5	Day	40.8	36.5	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	39.8	36.4	45	No	
	Night	38.8	32.8	40	No	
6	Day	44.3	35.3	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	46.2	36.6	45	No	L_{Aeq} elevated by local sources
	Night	48.7	36.9	40	No	
7	Day	46.7	37.3	50	No	L_{Aeq} levels not in excess of EPN noise emission limit.
	Evening	36.1	30.4	45	No	LRCM not audible
	Night	32.1	29.4	40	No	LRCM not audible

Potential breach of EPN noise emission limits.

Table 6-1: Summary table of survey results.

7 Conclusions

1. An environmental noise survey of the LRCM was conducted by Tarkarri Engineering between 29 June and 1 July 2022. All measurement were taken in accordance with the *Tasmanian Noise Measurement Procedures Manual* and measurement positions from previous surveys[1][2] were utilised.
2. No potential breaches of Forico's EPN noise emission limits occurred during the survey
3. The noise environment at most locations was dominated by local sources including traffic, leaf rustle (generated by wind movement through foliage), insect and bird activity.

   NB: As has been noted in previous environmental noise survey reports[1][2] there are residential locations that adjoin the Tamar River near positions 5 and 6 that may have greater exposure to noise from the LRCM than the locations surveyed here. Access to these locations during the survey was not possible.

8 Appendix

Observed environmental noise data.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
2	Day	30-Jun-22	12:05	0:10:00	61.9	37.3	78.8	73.5	67.0	48.0	39.8	38.4
2	Day	30-Jun-22	12:15	0:10:00	62.5	39.9	78.9	73.4	67.4	50.9	48.4	41.2
2	Day	30-Jun-22	12:25	0:10:00	50.1	37.0	75.5	59.8	54.3	41.1	39.1	38.0
				Average	58.1	38.1	77.7	68.9	62.9	46.7	42.4	39.2
2	Evening	30-Jun-22	21:23	0:10:00	35.5	26.9	60.6	44.5	37.7	32.1	29.7	28.1
2	Evening	30-Jun-22	21:33	0:10:00	33.2	27.2	54.0	38.6	35.3	32.2	29.5	28.1
2	Evening	30-Jun-22	21:43	0:10:00	34.2	27.9	50.2	40.6	36.3	33.3	30.7	29.1
				Average	35.5	26.9	60.6	44.5	37.7	32.1	29.7	28.1
2	Night	30-Jun-22	22:02	0:10:00	35.5	27.0	59.7	44.9	36.9	32.6	30.0	28.5
2	Night	30-Jun-22	22:12	0:10:00	33.7	25.8	60.0	42.2	34.4	31.2	28.7	27.1
2	Night*	30-Jun-22	22:22	0:10:00	34.2	25.8	61.4	43.0	35.3	31.4	28.8	27.3
				Average	34.5	26.2	60.4	43.4	35.5	31.7	29.2	27.6

Table A2 – Position 2 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
3	Day	30-Jun-22	12:44	0:10:00	47.8	28.7	65.9	61.3	47.1	35.0	32.4	29.6
3	Day	30-Jun-22	12:54	0:10:00	46.6	30.9	71.1	55.6	41.2	36.0	33.1	31.8
3	Day	30-Jun-22	1:04	0:10:00	38.0	29.5	51.6	46.7	41.4	35.3	32.1	30.6
				Average	44.1	29.7	62.9	54.5	43.2	35.4	32.5	30.7
3	Evening	29-Jun-22	19:28	0:10:00	35.4	28.5	60.6	44.3	37.2	32.6	30.6	29.6
3	Evening	29-Jun-22	19:38	0:10:00	33.9	28.9	52.3	41.4	34.9	32.7	30.8	29.8
3	Evening	29-Jun-22	19:48	0:10:00	55.8	27.5	83.2	61.3	40.7	32.3	29.8	28.7
				Average	41.7	28.3	65.4	49.0	37.6	32.5	30.4	29.4
3	Night	29-Jun-22	23:15	0:10:00	35.2	29.4	53.5	41.5	37.9	33.8	31.8	30.7
3	Night*	29-Jun-22	23:25	0:10:00	35.6	30.5	53.1	42.6	36.9	34.5	32.8	31.6
3	Night	29-Jun-22	23:35	0:10:00	35.8	29.5	51.4	42.3	37.7	34.8	32.5	31.0
				Average	35.5	29.8	52.7	42.1	37.5	34.4	32.4	31.1

Table A3 – Position 3 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
4	Day*	30-Jun-22	13:18	0:10:00	53.7	31.3	75.4	66.5	57.3	42.6	35.4	32.8
4	Day	30-Jun-22	13:28	0:10:00	47.8	30.8	67.7	60.1	51.3	38.3	33.6	31.6
4	Day	30-Jun-22	13:38	0:10:00	39.9	29.7	57.7	51.7	42.0	35.5	32.5	30.5
				Average*	43.9	30.3	62.7	55.9	46.7	36.9	33.1	31.1
* First measurement excluded from average due to local traffic noise.												
4	Evening	29-Jun-22	20:17	0:10:00	41.2	28.5	65.7	53.5	42.7	33.6	31.0	29.7
4	Evening	29-Jun-22	20:27	0:10:00	35.3	29.5	55.0	42.7	37.4	33.7	31.8	30.8
4	Evening	29-Jun-22	20:37	0:10:00	38.0	30.5	61.1	49.1	39.4	33.9	32.2	31.3
				Average	38.2	29.5	60.6	48.4	39.8	33.7	31.7	30.6
4	Night	29-Jun-22	23:50	0:10:00	37.2	31.7	54.7	44.5	39.3	35.8	33.9	32.7
4	Night	30-Jun-22	00:00	0:10:00	35.9	31.3	48.9	42.3	37.8	34.9	33.0	32.1
4	Night	30-Jun-22	00:10	0:10:00	45.0	32.3	66.9	60.0	41.2	35.9	34.3	33.4
				Average	39.4	31.8	56.9	48.9	39.4	35.5	33.7	32.7

Table A4 – Position 4 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
5	Day*	29-Jun-22	17:04	0:10:00	58.0	35.0	76.6	73.4	47.4	39.0	37.3	36.2
5	Day	29-Jun-22	17:14	0:10:00	41.7	33.3	61.7	54.0	41.4	38.6	35.8	34.3
5	Day	29-Jun-22	17:24	0:10:00	39.8	34.8	60.9	47.3	40.9	38.6	37.2	36.2
				Average*	40.8	34.0	61.3	50.7	41.2	38.6	36.5	35.3
* First interval excluded from average due to local traffic noise												
5	Evening	29-Jun-22	18:00	0:10:00	36.0	39.3	35.2	64.4	43.4	40.0	38.5	37.3
5	Evening	29-Jun-22	18:10	0:10:00	36.5	39.9	35.1	62.7	46.5	41.0	38.9	37.4
5	Evening	29-Jun-22	18:20	0:10:00	35.5	40.3	32.7	68.9	46.8	39.9	36.6	34.4
				Average	36.0	39.8	34.3	65.3	45.6	40.3	38.0	36.4
5	Night	30-Jun-22	22:40	0:10:00	35.1	27.2	58.1	42.5	37.2	33.3	30.8	28.7
5	Night	30-Jun-22	22:50	0:10:00	37.5	27.3	58.2	47.0	38.7	35.7	32.0	29.7
5	Night	30-Jun-22	23:00	0:10:00	43.7	31.8	66.6	56.0	41.2	37.8	35.5	34.2
				Average	38.8	28.7	61.0	48.5	39.0	35.6	32.8	30.9

Table A5 – Position 5 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
6	Day	30-Jun-22	11:13	0:10:00	42.4	32.6	60.6	55.6	43.0	37.0	34.5	33.6
6	Day	30-Jun-22	11:23	0:10:00	40.4	34.3	64.0	48.8	41.1	38.2	36.2	35.2
6	Day	30-Jun-22	11:33	0:10:00	50.0	33.0	76.0	61.3	44.2	38.3	35.2	33.8
				Average	44.3	33.3	66.9	55.2	42.8	37.8	35.3	34.2
6	Evening	29-Jun-22	18:43	0:10:00	46.0	34.9	74.8	50.8	42.3	38.3	36.8	35.8
6	Evening*	29-Jun-22	18:53	0:10:00	50.8	35.3	75.4	65.2	44.9	39.0	37.1	36.2
6	Evening	29-Jun-22	19:03	0:10:00	41.9	33.7	71.1	50.0	43.6	38.0	35.8	34.6
				Average	46.2	34.6	73.8	55.3	43.6	38.4	36.6	35.5
6	Night	29-Jun-22	22:37	0:10:00	42.3	34.7	66.6	50.9	42.4	39.1	37.3	36.2
6	Night	29-Jun-22	22:47	0:10:00	50.1	34.9	74.6	62.3	41.0	38.7	37.1	36.0
6	Night	29-Jun-22	22:57	0:10:00	53.7	34.8	76.5	67.0	57.0	38.3	36.4	35.7
				Average	48.7	34.8	72.6	60.1	46.8	38.7	36.9	36.0

Table A6 – Position 6 observed environmental noise measurements.

Position	Period	Date	Time	Duration	$L_{Aeq,10min}$	$L_{Amax,10min}$	$L_{Amin,10min}$	$L_{A1,10min}$	$L_{A10,10min}$	$L_{A50,10min}$	$L_{A90,10min}$	$L_{A99,10min}$
7	Day	30-Jun-22	10:33	0:10:00	47.7	66.3	34.8	60.4	47.7	42.2	38.1	36.3
7	Day	30-Jun-22	10:43	0:10:00	46.2	63.3	34.7	57.6	47.5	41.5	37.7	35.9
7	Day	30-Jun-22	10:53	0:10:00	43.5	66.7	34.8	54.7	45.4	39.0	36.6	35.6
				Average	45.8	65.4	34.8	57.6	46.9	40.9	37.5	35.9
7	Evening	29-Jun-22	21:16	0:10:00	41.6	29.2	65.1	51.4	37.5	32.4	30.7	29.8
7	Evening*	29-Jun-22	21:26	0:10:00	33.2	28.2	55.7	41.1	34.7	31.2	29.7	28.9
7	Evening*	29-Jun-22	21:36	0:10:00	33.3	28.5	47.4	40.4	34.7	32.2	30.9	29.5
				Average	36.1	28.6	56.1	44.3	35.6	31.9	30.4	29.4
7	Night	29-Jun-22	22:00	0:10:00	31.0	26.5	50.8	38.2	32.4	29.8	28.3	27.3
7	Night	29-Jun-22	22:10	0:10:00	32.0	27.5	48.1	38.6	33.4	31.2	29.7	28.9
7	Night	29-Jun-22	22:20	0:10:00	33.2	27.9	54.6	40.3	34.7	31.6	30.2	29.1
				Average	32.1	27.3	51.2	39.0	33.5	30.9	29.4	28.4

Table A7 – Position 7 observed environmental noise measurements.

Appendix D

Environment Protection Notice (EPN) 7968/4

ENVIRONMENT PROTECTION NOTICE No. 7968/4

Issued under the *Environmental Management and Pollution Control Act 1994*

Issued to: **FORICO PTY LIMITED**
ACN 169 204 059
16 TECHNO PARK DRIVE
KINGS MEADOWS TAS 7249

Environmentally Relevant Activity: **The operation of a woodchip mill (ACTIVITY TYPE: Woodchip Mills)**
LONG REACH CHIP MILL, 3523 EAST TAMAR HIGHWAY
LONG REACH TAS 7253

GROUNDS

I, Cindy Ong, Delegate for the Director, Environment Protection Authority, being satisfied in accordance with section 44(1)(d) of the *Environmental Management and Pollution Control Act 1994* (EMPCA) that in relation to the above-mentioned environmentally relevant activity that it is desirable to vary the conditions of a permit (see table below) hereby issue this environment protection notice to the above-mentioned person as the person responsible for the activity.

Permit No.	Date Granted	Granted By
3370	19 October 1995	Director of Environmental Management
3428	04 August 1993	Director of Environmental Control

PARTICULARS

The particulars of the grounds upon which this notice is issued are:

1 The Permit conditions need to be varied to reflect updated terminology and regulatory practice, to reflect continuous improvement consistent with the objectives of EMPCA and/or to clarify the meaning of the conditions.

2 The conditions in permits (see table above) have been varied simultaneously because the activities can be viewed as forming one integrated activity under section 44(9) of the EMPCA.

3 It is necessary to remove conditions G1, G4, G5, A1, M2 and S1 of Permit No. 3370 and conditions G1, G4, V1, M2 , S1 and S2 of Permit No. 3428 because they detail requirements that have been fulfilled and/or are no longer required.

4 The Permit conditions refer to The Environment Protection Act 1973 which has been repealed and replaced by the EMPCA. It is necessary to vary condition(s) to remove references to the repealed Act.

5 It is necessary to add a condition requiring notification of the Director prior to the change in

responsible person for the activity so that the Director is aware of changes to the person responsible for environmental management of the activity.

6 Conditions are needed to bring the Permits into accordance with the development and planning requirements under the EMPCA and the Land Use and Planning Approvals Act 1993.

7 A condition requiring notification of a change of ownership of The Land is needed because this Notice may affect title to land and the new owner's interests may be affected by pollutants emitted or disturbed by the activity.

8 It is necessary to add a condition requiring the submission of a publicly available Annual Environmental Review to inform the Director and the public of the environmental performance of the activity.

9 It is necessary to add a condition requiring a public complaints register to be maintained so that the Director can appraise the frequency and characteristics of complaints which may indicate nuisance, should any complaints be received.

10 The Permits do not contain conditions in relation to prohibiting the open burning of wood waste. It is necessary to add a condition to prohibit opening burning of wood waste to control atmospheric emissions from the activity.

11 It is necessary to add conditions to ensure effective management measures are in place to control effluent emissions from The Land to prevent environmental nuisance.

12 The Permits do not have specific and measureable limits for effluent quality for water being discharged from The Land. Conditions are needed to control emissions from the activity and to impose limits upon those emissions to reflect current State Policies or Environment Protection Policies.

13 Conditions are required to ensure that infrastructure to manage water traversing and discharged from The Land is installed and maintained in order to minimise release of sediment entrained in stormwater.

14 The Permits do not contain conditions in relation to dealing with environmentally hazardous substances. Environmentally hazardous substances are likely to be stored and handled on The Land and current best practice environmental management takes into account the storage and handling of environmentally hazardous substances.

15 The Permits do not have conditions requiring the provision of spill kits. It is desirable to add a condition requiring provision, in suitable locations, of spill kits appropriate for the environmental hazardous substances held on The Land for use in any incident to minimise the emission of a pollutant into the environment.

16 It is necessary to add a condition to require the establishment and maintenance of an inventory of environmentally hazardous substances so that the potential environmental harm arising from any escape of such substances into the environment can be properly assessed and/or responded to.

17 Monitoring and reporting requirements set out in the Permit conditions need to be varied to reflect current best practice environmental management and to require accurate measurement

DEFINITIONS

Unless the contrary appears, words and expressions used in this Notice have the meaning given to them in Schedule 1 of this Notice and in the EMPCA. If there is any inconsistency between a definition in the EMPCA and a definition in this Notice, the EMPCA prevails to the extent of the inconsistency.

REQUIREMENTS

The person responsible for the activity must comply with the varied permit conditions as set out in Schedule 2 of this Notice.

INFORMATION

Attention is drawn to **Schedule 3**, which contains important additional information.

PENALTIES

If a person bound by an environment protection notice contravenes a requirement of the notice, that person is guilty of an offence and is liable on summary conviction to a penalty not exceeding 1000 penalty units in the case of a body corporate or 500 penalty units in any other case (at the time of issuance of this Notice one penalty unit is equal to $168.00).

NOTICE TAKES EFFECT

This notice takes effect on the date on which it is served upon you.

APPEAL RIGHTS

You may appeal to the Appeal Tribunal against this notice, or against any requirement contained in the notice, within 14 days from the date on which the notice is served, by writing to:

The Chairperson
Resource Management and Planning Appeal Tribunal
GPO Box 2036
Hobart TAS 7001

Signed: _____

DELEGATE FOR THE DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Date: 22/8/2019

of emissions and their impact upon the receiving environment and to consistently inform the Director of the results of monitoring.

18 It is desirable to vary the conditions setting noise emission limits to minimise environmental nuisance and manage noise emissions, in accordance with the Environment Protection Policy (Noise) 2009.

19 It is necessary to add conditions to monitor noise emissions from the activity to minimise environmental nuisance.

20 It is necessary to add a condition to ensure log handling activities are managed to minimise environmental nuisance.

21 It is necessary to vary a condition requiring notification of the likely permanent cessation of the activity so that the Director has sufficient time in which to ensure that appropriate measures are in place to minimise environmental harm arising from the permanent cessation of the activity.

22 It is necessary to add requirements for ensuring that when decommissioning is undertaken, it is done in a manner to minimise environmental harm.

23 The Permits do not contain conditions in relation to the adequate management of the activity and/or The Land should the activity temporarily suspend operations. It is necessary to add a condition requiring management of the activity during temporarily suspended operations.

Table Of Contents

Attachments

DELEGATE FOR THE DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY Date of issue: 22 AUG 2019

Schedule 1: Definitions

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity

Authorized Officer means an authorized officer under section 20 of EMPCA

Control Location (Noise) means a location chosen to represent the general ambient sound without contribution from noise sources at the activity.

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

Decommissioning and Rehabilitation Plan means the *Forico Long Reach Mill and Export Terminal* Decommissioning *and Rehabilitation Plan February 2016* and includes any amendment to or substitution of this document(s), approved in writing by the Director.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan.

EMPCA means the *Environmental Management and Pollution Control Act 1994*.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils and chemicals.

Noise Sensitive Premises means residences and residential zones (whether occupied or not), schools, hospitals, caravan parks and similar land uses involving the presence of individual people for extended periods, except in the course of their employment or for recreation.

Nominated bypass creek monitoring point means the location at the v-notch weir in Bypass Creek downstream of the irrigation system and wetlands overflow, as delineated in Attachment 3.

Nominated Sewage Treatment Plant Monitoring Point means the location at the input to the effluent pipeline from the South Mill sewage treatment plant, as delineated in Attachment 3.

Nominated wastewater monitoring points means the inlet to the nominated Treated Wastewater Outfall and the discharge point from the constructed wetland rip-rap overflow as delineated in Attachment 3.

North Mill means the portion of The Land delineated in Attachment 1, and covered by Title Reference 136962/1.

North Mill's Pond system means the system of ponds identified in Attachment 2 of this Notice.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Reporting Period means the 12 months ending on 30 June of each year.

Sewage Treatment Plant means the sewage treatment plant shown in Attachment 3 of this Notice.

South Mill means the portion of The Land delineated in Attachment 1, and covered by Title Reference 136962/2.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Tasmanian Noise Measurement Procedures Manual means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

1 The map shown in Attachment 1 - The Land; and

2 Certificate of Title References 136962/1, 136962/2 and 128436/1.

Waste has the meaning ascribed to it in Section 3 of EMPCA.

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

Wood Waste means any planings, shavings, sawdust, woodfibre and dockings produced by the activity, but does not include treated timber or timber contaminated with other wastes.

Schedule 2: Conditions

Maximum Quantities

Q1 Regulatory limits

1 The activity must not exceed the following limits :

1.1 1,000,000 tonnes per year of product.

General

G1 Access to and awareness of conditions and associated documents

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G2 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G3 No changes without approval

1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or approved in writing by the Director:

1.1 a change to a process used in the course of carrying out the activity; or

1.2 the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or

1.3 a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G5 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G6 Annual Environmental Review

1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:

1.1 a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;

1.2 subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;

1.3 details of environment-related procedural or process changes that have been implemented during the reporting period;

1.4 a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;

1.5 details of all non-trivial environmental incidents and/or incidents of non compliance with these conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;

1.6 a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;

1.7 identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPEMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;

1.8 a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;

1.9 a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and

1.10 a summary of any community consultation and communication undertaken during the reporting period.

G7 Complaints register

1 A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:

1.1 the date and time at which the complaint was received;

1.2 contact details for the complainant (where provided);

1.3 the subject matter of the complaint;

1.4 any investigations undertaken with regard to the complaint; and

1.5 the manner in which the complaint was resolved, including any mitigation measures implemented.

2 Complaint records must be maintained for a period of at least 3 years.

Atmospheric

A1 Covering of vehicles
Vehicles carrying loads containing material which may blow or spill must be equipped with effective control measures to prevent the escape of the materials from the vehicles when they leave The Land or travel on public roads. Effective control measures may include tarpaulins or load dampening.

A2 Dust emissions from traffic areas
Dust emissions from areas of The Land used by vehicles must be limited or controlled by dampening or by other effective measures.

A3 Storage stockpiles
Product storage stockpiles on The Land must be contoured and maintained so as to minimise loss of windblown chips and fine particles of wood fibre.

A4 Restrictions for burning on-site
Unless otherwise approved in writing by the Director, burning of sawdust, wood chips and other wood wastes must not be undertaken on The Land except in a boiler approved for this purpose.

Effluent

EF1 North Mill process water and stormwater

1 All process water from the North Mill and stormwater from the contaminated stormwater catchment area of the North Mill, as shown in Attachment 2 of this Notice, must be directed to the North Mill's Pond system prior to transfer to the South Mill's wastewater treatment facilities, excluding uncontaminated stormwater from:

1.1 the main car park area and roofs of the technical service buildings; and

1.2 the area immediately to the east and southeast of the North Mill log yard.

EF2 South Mill process water and stormwater

1 In addition to the wastewater collected from the North Mill, all process water and stormwater from the South Mill must be treated in the South Mill wastewater treatment facilities prior to discharge to the River Tamar, excluding:

1.1 runoff from the former bark disposal area which is directed to the River Tamar via Bypass Creek that drains that area; and

1.2 uncontaminated stormwater collected from the area immediately to the northeast of the South Mill logyard.

EF3 Sewage treatment
All untreated sewage from the North Mill must be pumped via the North Mill sewage transfer system to the South Mill sewage treatment plant. All untreated sewage from the South Mill, excluding sewage from the wharf facility and the visitor centre, which in each case must be directed to nearby septic tanks, must also be directed to the South Mill sewage treatment plant.

EF4 Treated wastewater and sewage discharge points

1 Treated effluent must not be discharged other than via the purpose-built discharge drains, pipelines and submarine outfall facilities emanating from the final polishing pond of the South Mill's sewage treatment plant.

2 Wastewater must not be discharged other than via the purpose-built discharge drains, pipelines and submarine outfall facilities from the final wastewater treatment pond or from the constructed wetland rip rap overflow, located on the South Mill.

3 Pollutants must not be hosed or otherwise released into stormwater or other drains that do not lead to an appropriate treatment facility.

EF5 Discharge limits

The concentration in the water discharged from the nominated discharge points of a pollutant specified in Column 1 must not exceed the limit specified in Column 2 in respect of that pollutant

Column 1: Specified Substance	Column 2: Maximum Concentration or range
Biochemical Oxygen Demand	40 mg/L
Total Suspended Solids	60 mg/L
Total Petroleum Hydrocarbons	10 mg/L
pH	6.5-9.0
Enterococci	200 cfu per 100mL

EF6 Maintenance of settling ponds

Sediment settling ponds must be periodically cleaned out to ensure that the pond design capacity is maintained. Sediment removed during this cleaning must be securely deposited such that sediment will not be transported off The Land by surface run-off.

Hazardous Substances

H1 Storage and handling of hazardous materials

1 Unless otherwise approved in writing by the Director, all environmentally hazardous materials, including chemicals, fuels, and oils, stored on The Land in volumes exceeding 250 litres must be stored and handled in accordance with the following:

1.1 Any storage facility must be contained within a spill collection bund with a net capacity of whichever is the greater of the following:

1.1.1 at least 110% of the combined volume of any interconnected vessels within that bund; or

1.1.2 at least 110% of the volume of the largest storage vessel; or

1.1.3 at least 25% of the total volume of all vessels stored in that spill collection bund; or

1.1.4 the capacity of the largest tank plus the output of any firewater system over a twenty minute period.

1.2 All activities that involve a significant risk of spillages, including the loading and unloading of bulk materials, must take place in a bunded containment area or on a transport vehicle loading apron.

1.3 Bunded containment areas and transport vehicle loading aprons must:

1.3.1 be made of materials that are impervious to any environmentally hazardous material stored within the bund;

1.3.2 be graded or drained to a sump to allow recovery of liquids;

1.3.3 be chemically resistant to the chemicals stored or transferred;

1.3.4 be designed and managed such that any leakage or spillage is contained within the bunded area (including where such leakage emanates vertically higher than the bund wall);

1.3.5 be designed and managed such that the transfer of materials is adequately controlled by valves, pumps and meters and other equipment wherever practical. The equipment must be adequately protected (for example, with bollards) and contained in an area designed to permit recovery of any released chemicals;

1.3.6 be designed such that chemicals which may react dangerously if they come into contact have measures in place to prevent mixing; and

1.3.7 be managed such that the capacity of the bund is maintained at all times (for example, by regular inspections and removal of obstructions).

H2 Hazardous materials (< 250 litres)

1 Unless otherwise approved in writing by the Director, each environmentally hazardous material, including chemicals, fuels and oils, stored on The Land in discrete volumes not exceeding 250 litres, but not including discrete volumes of 25 litres or less, must be stored within bunded containment areas or spill trays which are designed and maintained to contain at least 110% of the volume of the largest container.

2 Bunded containment areas and spill trays must be made of materials that are impervious to any environmentally hazardous materials stored within the bund or spill tray.

H3 Spill kits

Spill kits appropriate for the types and volumes of materials handled on The Land must be kept in appropriate locations to assist with the containment of spilt environmentally hazardous materials.

H4 Inventory of hazardous materials

An inventory must be kept of all environmentally hazardous materials stored and handled on The Land. The inventory must specify the location of storage facilities and the maximum quantities of each environmentally hazardous material likely to be kept in storage and must include safety data sheets for those environmentally hazardous materials.

Monitoring

M1 Samples and measurements for monitoring purposes

1 Any sample or measurement required under these conditions must be taken and processed in accordance with the following:

1.1 sampling and measuring must be undertaken by a person with appropriate training, experience, and knowledge of the relevant procedure;

1.2 the integrity of samples must be preserved prior to delivery to a laboratory;

1.3 sample analysis or measurement must be conducted by a laboratory or testing facility accredited by the National Association of Testing Authorities (NATA), or a laboratory or testing facility approved in writing by the Director, for the specified test;

1.4 details of methods employed in taking samples and measurements and results of sample analysis, and measurements must be retained for at least three (3) years after the date of collection; and

1.5 sampling and measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years.

M2 Sewage treatment plant discharge monitoring

Representative samples must be collected from the nominated sewage treatment plant monitoring point, as shown in Attachment 3, and must be analysed for the parameters specified in Column 1 and reported in the units specified in Column 2 at the frequency specified in Column 3. In the event that there is insufficient flow to obtain a sample the polishing pond must be sampled to give an indication of the health of the system. The polishing pond is not considered to be a discharge point.

Column 1 Specified Substances	Column 2 Units	Column 3 Frequency
Biochemical Oxygen Demand	mg/L	Quarterly
Total Suspended Solids	mg/L	Quarterly
Enterococci	CFU/100mL	Quarterly

M3 Wastewater discharge monitoring

Representative samples must be collected from the nominated wastewater monitoring points, as shown in Attachment 3, and must be analysed for the parameters specified in Column 1 and reported in the units specified in Column 2 at the frequency specified in Column 3.

Column 1: Specified Substance	Column 2: Units	Column 3: Frequency
Biological Oxygen Demand	mg/L	Quarterly (only if discharging)
Total Suspended Solids	mg/L	Quarterly (only if discharging)
pH	units	Quarterly (only if discharging)
Total Petroleum Hydrocarbons	mg/L	Quarterly (only if discharging)
Conductivity	µS/cm	Quarterly (only if discharging)

M4 Bypass Creek monitoring

Representative samples must be collected from the nominated Bypass Creek monitoring point, as shown in Attachment 3, and must be analysed for the parameters specified in Column 1 and reported in the units specified in Column 2 at the frequency specified in Column 3.

Column 1 Specified Substances	Column 2 Units	Column 3 Frequency
Chemical Oxygen Demand	mg/L	Quarterly
Total Suspended Solids	mg/L	Quarterly
pH	units	Monthly
Total Phosphorus	mg/L	Monthly
Total Nitrogen	mg/L	Monthly
Conductivity	µS/cm	Monthly

M5 Investigation monitoring

1 In the event that any of the discharge limits specified in this Notice are exceeded:

1.1 The Director must be notified within 24 hours of the person responsible becoming aware of the exceedance;

1.2 A report must be forwarded to the Director within 30 days of becoming aware of the exceedance. The report must include, but not necessarily be limited to, the following:

1.2.1 the reported concentration;

1.2.2 an explanation as to why the discharge limit was exceeded;

1.2.3 the results of re-sampling of the nominated monitoring point/s at which the exceedance was recorded; and

1.2.4 strategies to limit the concentration to less than the discharge limit.

1.3 The strategies, as amended from time to time with the approval of the Director, must be implemented.

Noise Control

N1 Noise emission limits

1 Noise emissions from the activity when measured at any noise sensitive premises in other ownership and expressed as the equivalent continuous A-weighted sound pressure level must not exceed:

1.1 50 dB(A) between 0700 hours and 1800 hours (Day time); and

1.2 45 dB(A) between 1800 hours and 2200 hours (Evening time); and

1.3 40 dB(A) between 2200 hours and 0700 hours (Night time).

2 Where the combined level of noise from the activity and the normal ambient noise exceeds the noise levels stated above, this condition will not be considered to be breached unless the noise emissions from the activity are audible and exceed the ambient noise levels by at least 5 dB(A).

3 The time interval over which noise levels are averaged must be 10 minutes or an alternative time interval specified in writing by the Director.

4 Measured noise levels must be adjusted for tonality, impulsiveness, modulation and low frequency in accordance with the Tasmanian Noise Measurement Procedures Manual.

5 All methods of measurement must be in accordance with the Tasmanian Noise Measurement Procedures Manual.

N2 Noise survey requirements

1 Unless otherwise approved by the Director, a noise survey must be carried out:

1.1 recurrently, with no longer than 3 years since the previous survey.

N3 Noise survey method and reporting requirements

1 Noise surveys must be undertaken in accordance with a survey method approved in writing by the Director, as may be amended from time to time with written approval of the Director.

2 Without limitation, the survey method must address the following:

2.1 measurements must be carried out at day, evening and night times (where applicable) at each location; and

2.2 measurement locations, and the number thereof, must be specified, with one location established as a control location (noise).

3 Measurements and data recorded during the survey must include:

3.1 operational status of noise producing equipment and throughput of the activity;

3.2 subjective descriptions of the sound at each location;

3.3 details of meteorological conditions relevant to the propagation of noise;

3.4 the equivalent continuous (L_{eq}) and L_1, L_{10}, L_{50}, L_{90} and L_{99} A-weighted sound pressure levels measured over a period of 10 minutes or an alternative time interval approved by the Director;

3.5 one-third octave spectra over suitably representative periods of not less than 1 minute; and

3.6 narrow-band spectra over suitably representative periods of not less than 1 minute.

4 A noise survey report must be forwarded to the Director within 30 days from the date on which the noise survey is completed.

5 The noise survey report must include the following:

5.1 the results and interpretation of the measurements required by these conditions;

5.2 a map of the area surrounding the activity with the boundary of The Land, measurement locations, and noise sensitive premises clearly marked on the map;

5.3 any other information that will assist with interpreting the results and whether the activity is in compliance with these conditions and EMPCA; and

5.4 recommendations of appropriate mitigation measures to manage any noise problems identified by the noise survey.

N4 Log drops

Logs being unloaded from a vehicle and/or stockpile must not be dropped directly onto the ground.

Rehabilitation

R1 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

R2 Decommissioning and Rehabilitation Plan

1 Unless otherwise approved in writing by the Director, a revised Decommissioning and Rehabilitation Plan (DRP) must be submitted to the Director for approval:

1.1 when changes to the conduct of the activity are to occur that will result in significant changes to decommissioning and rehabilitation obligations; and

1.2 within 30 days of the Director being notified of the likely cessation of operations; and

1.3 where required by notice in writing, by a date specified in writing by the Director.

2 The DRP must be prepared in accordance with guidelines issued by the Director. If no guidelines have been issued by the Director the measures described in this plan must include, but should not necessarily be limited to, the following:

2.1 completion of a site history, site contamination assessment and contamination remediation plan (including consideration of groundwater);

2.2 removal of all equipment, structures and waste materials unless they are considered by the Director to be beneficial to a future use of The Land;

2.3 grading and levelling/recontouring and revegetating (or other approved method of soil stabilisation) of the surface of the disturbed area;

2.4 management of drainage on The Land so as to reduce erosion and prevent release of a pollutant from The Land;

2.5 maintenance of the rehabilitated area for a period of not less than three years from the date of cessation of operations;

2.6 an itemised estimate of the costs of carrying out the works listed in the DRP and a statement of how these costs will be provided for; and

2.7 any other detail requested in writing by the Director.

R3 Rehabilitation following cessation

1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:

1.1 stabilisation of any land surfaces that may be subject to erosion;

1.2 removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and

1.3 decommissioning of any equipment that has not been removed.

2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

R4 Temporary suspension of activity

1 Within 30 days of becoming aware of any event or decision which is likely to give rise to the temporary suspension of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to suspend or has suspended.

2 During temporary suspension of the activity:

2.1 The Land must be managed and monitored by the person responsible for the activity to ensure that emissions from The Land do not cause serious environmental harm, material environmental harm or environmental nuisance; and

2.2 If required by the Director a Care and Maintenance Plan for the activity must be submitted, by a date specified in writing by the Director, for approval. The person responsible must implement the approved Care and Maintenance Plan, as may be amended from time to time with written approval of the Director.

3 Unless otherwise approved in writing by the Director, if the activity on The Land has substantially ceased for 2 years or more, rehabilitation of The Land must be carried out in accordance with the requirements of these conditions as if the activity has permanently ceased.

Schedule 3: Information

Legal Obligations

LO1 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO2 Storage and handling of dangerous goods, explosives and dangerous substances

1 The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:

1.1 *Work Health and Safety Act 2012* and subordinate regulations;

1.2 *Explosives Act 2012* and subordinate regulations; and

1.3 *Dangerous Goods (Road and Rail Transport) Act 2010* and subordinate regulations.

LO3 Controlled waste transport

Transport of controlled wastes to and from The Land must be undertaken only by persons authorised to do so under EMPCA or subordinate legislation.

Other Information

OI1 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning 1800 005 171 (a 24-hour emergency telephone number).

OI2 Waste management hierarchy

1 Wastes should be managed in accordance with the following hierarchy of waste management:

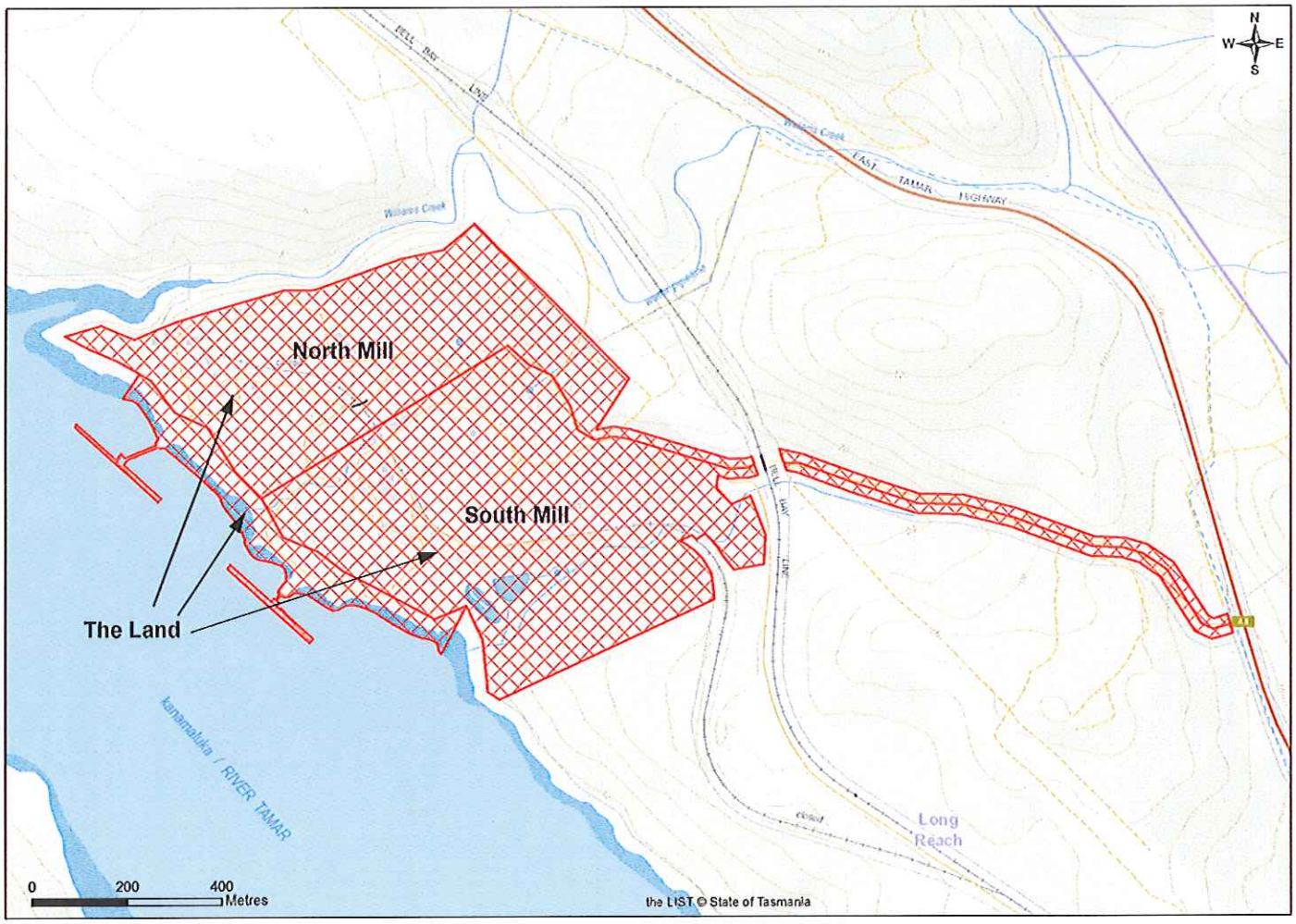
1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;

1.2 waste should be re-used or recycled to the maximum extent that is practicable; and

1.3 waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

ATTACHMENT 1

The Land



DIRECTOR, ENVIRONMENTAL PROTECTION AUTHORITY

Date of issue: 22 AUG 2019

ATTACHMENT 2
North Mill Water Drainage Plan

DIRECTOR, ENVIRONMENT PROTECTION AUTHORITY

Date of issue 22 AUG 2019

ATTACHMENT 3
Monitoring Locations Map

DIRECTOR, ENVIRONMENTAL PROTECTION AUTHORITY

Date of issue: 22 AUG 2019

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