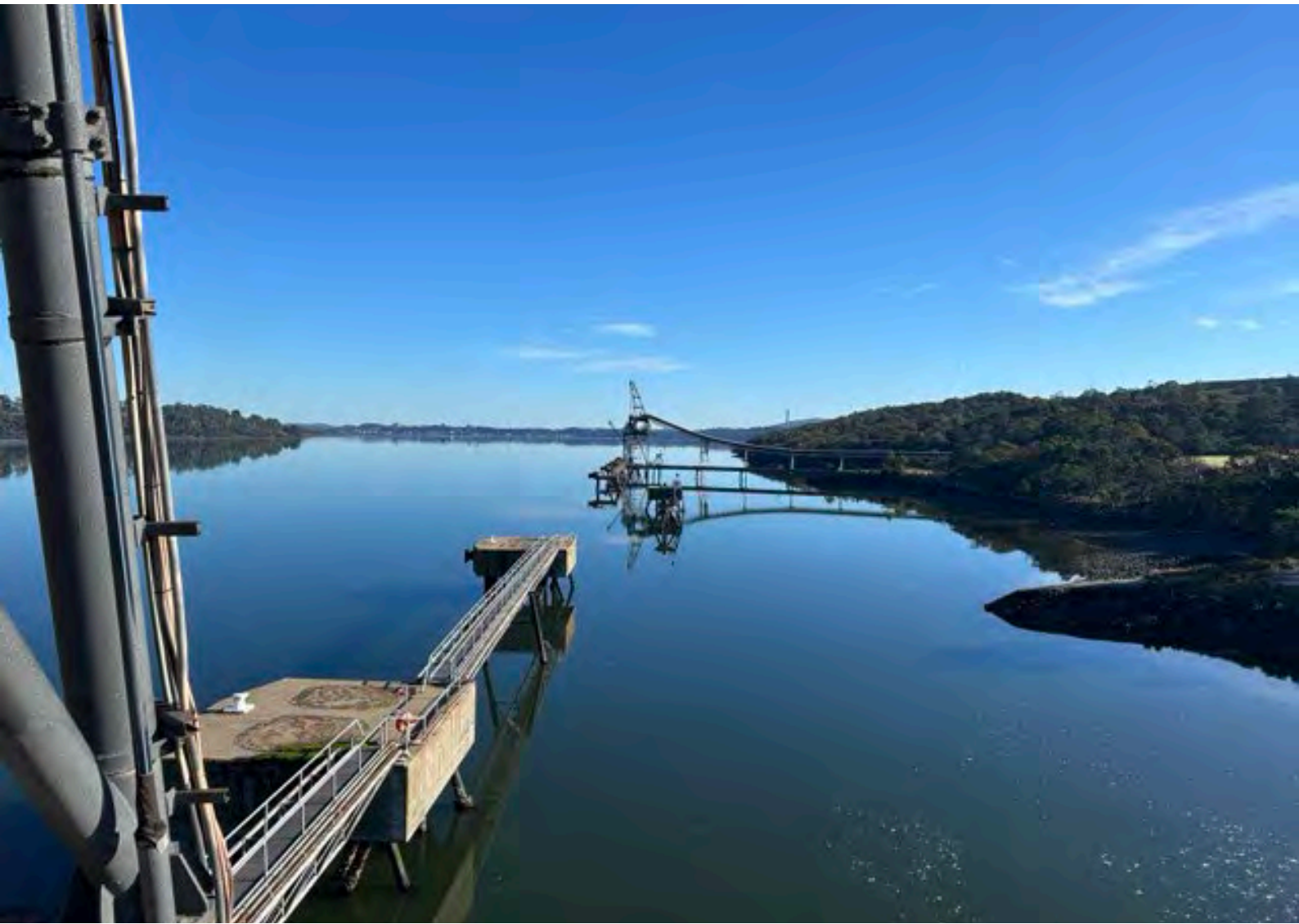
Long Reach Mill

Public Environment Report

Forico Pty Limited

05 December 2025

→ **The Power of Commitment**



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Acronyms	
AER	Annual Environmental Review
EMP	Environmental Management Plan
EMPCA	Environmental Management and Pollution Control Act 1994
EPN	Environment Protection Notice
PDCA	Plan-Do-Check-Act

Acronyms	
PEVs	Protected Environmental Values
LRM	Long Reach Mill
SHE-EMS	Safety, Health and Environmental Management System
TFOST	Tasmanian Forest Operating Sub-Trust

1. Introduction

The Long Reach Wood Chip Mill (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 site operates within the parameters of an Environmental 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, with the most recent update issued in August 2019.

Previously, a Public Environmental Report (PER) was required to be submitted under Regulation 9 of Environmental Management and Pollution Control (General) Regulations 2017, to the Director of the Environment Protection Authority Tasmania (EPA) on a triennial basis. Regulation 9 has since been repealed, however, to support transparent reporting practices, Forico has elected to voluntarily develop and submit a PER to the EPA.

This report is the fourth PER submitted for the Long Reach Mill site and covers the operating period 01/07/2022 – 30/06/2025. The three previous PERs submitted to the Director were for 05/09/2014 – 30/06/2016, 01/07/2016 – 30/06/2019 and 01/07/2019 – 31/07/2022 reporting periods.

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 satisfies 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; and
– Presentation of draft for internal review and finalisation.

The scope of the PER is limited to the operations at the Long Reach Mill 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

1.1 Scope and limitations

This report: has been prepared by GHD for Forico Pty Limited and may only be used and relied on by Forico Pty Limited for the purpose agreed between GHD and Forico Pty Limited as set out in section 1 of this report.

GHD otherwise disclaims responsibility to any person other than Forico Pty Limited arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

2. Statement of Acknowledgement

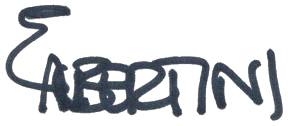
In fulfilment of Condition G6 of EPN 7968/4, the following information is presented, which encompasses site operations of the Forico Long Reach Mill. This report has been scoped and formatted to specifically meet the requirements of Annual Environmental Review (AER) as described in Condition G6 and fulfills a voluntary submission of a PER.

The reporting period of this PER is from 1 July 2022 to 30 June 2025 and is the fourth PER submitted to the Director of the EPA. In addition, this report covers the AER reporting period from 1 July 2024 to 30 June 2025.

The purpose of the PER is to:

- Document and review 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 environmental performance record for one of Forico's two wood fibre processing sites.

As Chief Executive Officer of Forico, I acknowledge 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 focuses 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 10 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 manages approximately 173,000 hectares (ha) of land in Tasmania, comprised of 88,000 ha of plantation, 77,000 ha of natural forest, 3,309 ha of infrastructure, and 3,939 ha of other infrastructure. Forico has a skilled workforce of 118 direct employees, and approximately 360 contractors and sub-contractors[1].

The Forico business comprises of:

- A seedling establishment nursery at Somerset;
- Plantation operations, harvesting and replanting activities, including the management of natural forests on the Forico estate;
- Administrative bases in Launceston and Ridgley (Forico's 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 subject of this report).

With these key assets, Forico is committed to a sustainable plantation forestry sector in Tasmania. It produces 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 to manage the entire supply chain from seed to market efficiently. Sustainable management of all assets, including the wood chipping mills, is a vital component of the Forico business.

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

[1] Natural Capital Report 2023 (Forico)

3.2 Environmental Sustainability Commitments

The board approved an updated Forico Environmental Sustainability Policy on 13 May 2025, with a review of the policy planned for May 2027. The policy is provided as Appendix A and can also be found on the **Forico website**.

»Forico is an integrated asset management company that is committed to sustainability, including responsible environmental management throughout all our business activities in Tasmania. We believe that the wood fibre we grow on the estate, from carbon dioxide it sequesters to downstream value adding processes we undertake, enhances economic, social and natural capital values for Tasmania. As such we undertake our business activities consistent with our Sustainable values and environmental aspiration to be nature positive and provide overall ecosystem benefits from our management of the land estate and business activities.«

Forico's Environmental Sustainability Policy demonstrates the company's commitment to minimising environmental impacts. Forico seeks to achieve a balance between economic viability, social contribution and environmental and cultural heritage responsibility through:

- Leadership;
- Best Practice;
- Adding Value;
- Low Impact;
- Conservation;
- Biodiversity;
- Meaningful Communication; and
- Competent Workforce.

This Policy sets the framework for planning and operational practices at the Long Reach Mill.

3.3 Environmental Management Systems

Forico currently operates under the umbrella of a Safety, Health and Environmental Management System (SHE-EMS) 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.

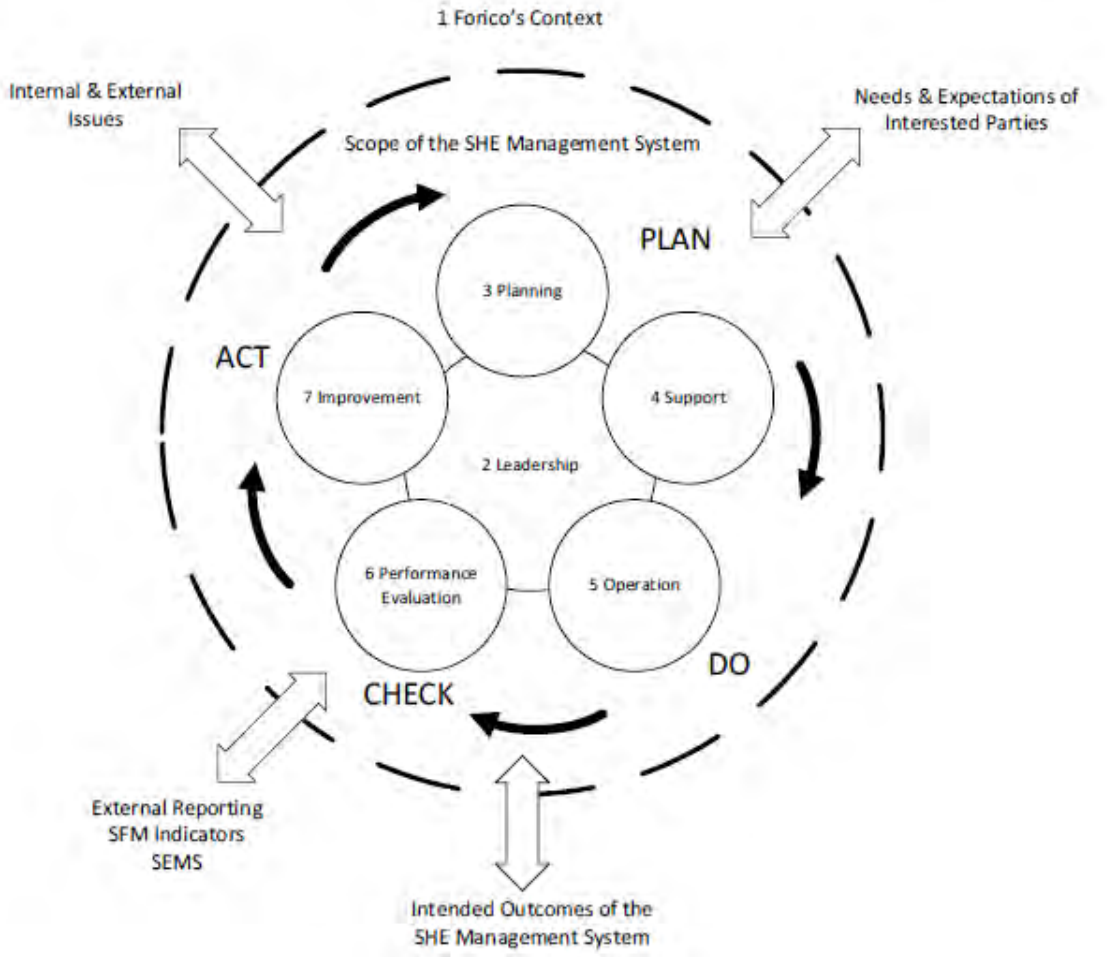


Figure 3.1 Conceptual model of the Plan-Do-Check-Act business cycle within Forico's SHE system

Forico's SHE system is embedded through the training and development of staff and contractors by delivering tailored inductions and documented assessments. All inductees are provided with the Forico Environmental Sustainability Policy at the point of induction, with reinforcement through display on site notice boards.

Beyond induction, ongoing training is provided to permanent staff and contractors, including Risk Management and Environmental Awareness units, to provide an ongoing focus on environmental and safety issues. Environmental Awareness topics include:

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

3.3.1 Certification

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

- AS/NZS ISO14001:2016 – Environmental Management Systems; and
- FSC-STD-40-003, FSC-STD-40-004, FSC-STD-40-005, FSC-STD-50-001– Chain of Custody for Certified Wood and Forest Products.

The Environmental Management Systems certification applies across all Forico's operations. SCS Global issued the original audit certificate in July 2018. Recertification was undertaken in June 2024, and the certification was issued in July 2024 and valid through July 2027 (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 is 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. This certification was updated to the newer FSC Standard standard (FSC-STD-40-003, FSC-STD-40-004, FSC-STD-40-005, FSC-STD-50-001) through the audit process in May 2025. The certificate, expiring in June 2027, is attached as Appendix C.

The environmental policies and certification processes provide accountable processes for market certainty, and regulatory oversight.

3.3.2 Community Engagement

A key pillar of all of Forico's operations is social responsibility. This includes Forico staff through commitments to health and safety, but also the communities in which Forico works. Forico strives to engage with local communities and provide a transparent and accountable operational framework, including active engagement through various sustainability reporting initiatives. These reporting initiatives are available from the Stakeholder Engagement page of the Forico website (www.forico.com.au).

One major element of Forico's recent community engagement has been meaningful engagement with the Tasmanian Aboriginal community. To this end, Forico's 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 Forico's internal knowledge and practices to recognise the significance of the original custodians of the land where Forico works.

Figure 3.2 Artwork by Aunty Judith-Rose Thomas for Forico RAP

The other pillar of Forico's operations is social responsibility. This includes not only Forico's people, with commitments to health and safety, but also the communities in which Forico works. Forico continue to engage with local communities, and provide a transparent and accountable operational framework, including active engagement through sustainability reporting, and using Forico's website to communicate up to date works in local community areas.

On a broader community basis, any feedback or complaints received by the public across Forico's operations are documented and followed up, with any relevant Long Reach Mill-related issues summarised in Section 10 of this report.

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*
– *Tasmanian Planning Commission Act 1997*
– *Tasmanian Civil and Administrative Tribunal Act 2020*
– *State Policies and Projects Act 1993*
– *Environmental Management and Pollution Control Act 1994*
– *Historic Cultural Heritage Act 1995*
– *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*
– *Biosecurity Act 2019*
– State Policies under the *State Policies and Projects Act 1993* including:
    - State Policy on Water Quality Management 1997
    - 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 of this Act
– 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 Wood Chip Mill's main regulatory instrument is Environment Protection Notice (EPN) No. 7968/4 (included as Appendix E). The EPN was 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:

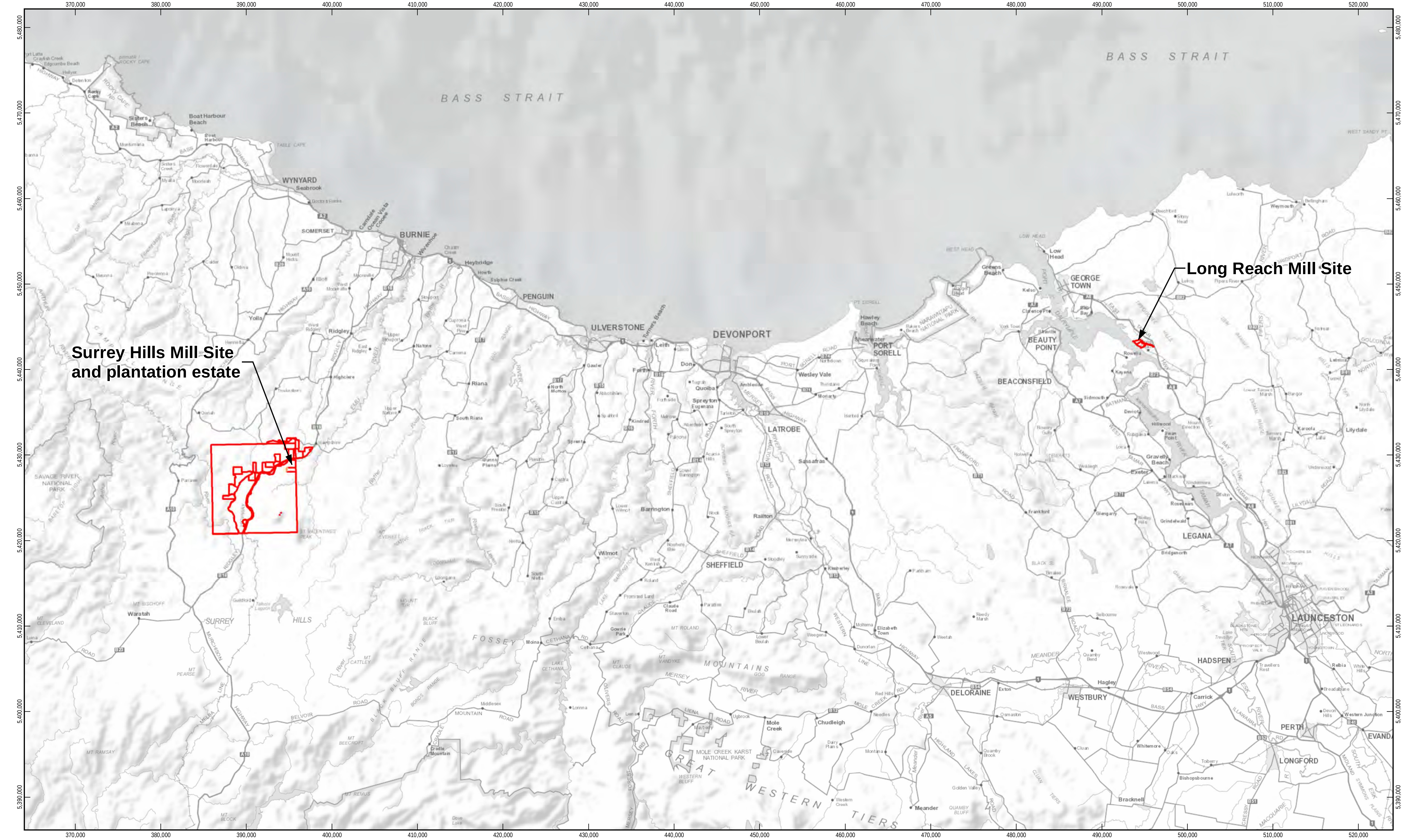
– Maximum scale or activity level through an annual production limit
– Monitoring and reporting requirements (production, by-product wastes, noise, sewage, wastewater and surface water)
– Monitoring sampling points
– Emission qualitative limits (Sewage and wastewater) and
– Ambient noise limits relating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

4.2 Proceedings and infringements

In relation to Long Reach Mill, during the three-year reporting period to 30/06/2025, there were:

– No proceedings (prosecutions) issued under Tasmanian or Commonwealth environmental legislation, or the environmental provisions of other legislation;
– No infringement notices issued under EMPCA; or

– No 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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Forico Long Reach and Surrey Hills Mill Sites

Forico Public Environmental Report

Job Number	12579675
Revision	A
Date	22 Jul 2022

Forico Mill Locations

Figure 4.1

2 Salamanca Square, Hobart Tasmania 7000 Australia **T** 61 3 6210 0600 **E** hbamail@ghd.com **W** www.ghd.com

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5. Long Reach Mill Operations

5.1 Site description

The property where the Long Reach Mill is located is at 3523 East Tamar Highway, Long Reach, property title 136962/1 and 136962/2. The area is zoned General Industrial under the Tasmanian Planning Scheme – George Town. The Long Reach Mill is located approximately 40 km north of Launceston in the northeast of Tasmania, and plantation forests and rural resource zones dominate the surrounding area. The nearest residential zone is housing in Rowella, part of the West Tamar Precinct on the opposite side of the river. There is a Rural Living zone approximately 3.5 km west of the site. However, there is residential housing outside of this zone located approximately 1.5 km west of the site in the Rural Resource zone.

The site consists of the Long Reach Mill and the port and marine export wharf that adjoins it.

Under current wood supply and product demand conditions, production at the site operates 17 hours a day, Monday to Thursday and 8 hours on a Friday. The scale of operation is currently regulated to a maximum production quantity of 1,000,000 tonnes of product per year. The product is sourced from Forico's managed plantation estate, inclusive of approximately 88,000 ha of plantation dispersed across Tasmania (managed by Forico's Forest Management Unit). The estate is dominated by cultivated plantation tree species, predominately Eucalyptus nitens, which serves as the primary export product from the Long Reach Mill. A smaller proportion of *Eucalyptus globulus* and *Pinus radiata* also forms part of the plantation estate.

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 forest to the north and east and the Tamar River to the south and west. The site's climate is described as temperate, with a moderately average median rainfall of 814 mm per annum. Rainfall is slightly higher in winter, with an average of 98 mm in July, and lower in summer, with an average of 46 mm in January/February. Annual temperature averages range between 17.6 and 8.6 degrees Celsius for the site.

The site's geology 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-composed) varieties of these present.

5.2 Site activity profile

5.2.1 Woodchip Production Process

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

The process involves culturing and managing production trees over an approximate 15-year grow-out phase. 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.

5.2.2 Site Material Flows

The scope of Forico's processing flow includes the input of raw materials (comprised of debarked logs in round form) and processing into the final product of uniform size as bulk wood chips. Residual by-products mainly comprise wood particles that are either too small (fines) or too large (reject chips) concerning customer specifications (see Figure 5.2).

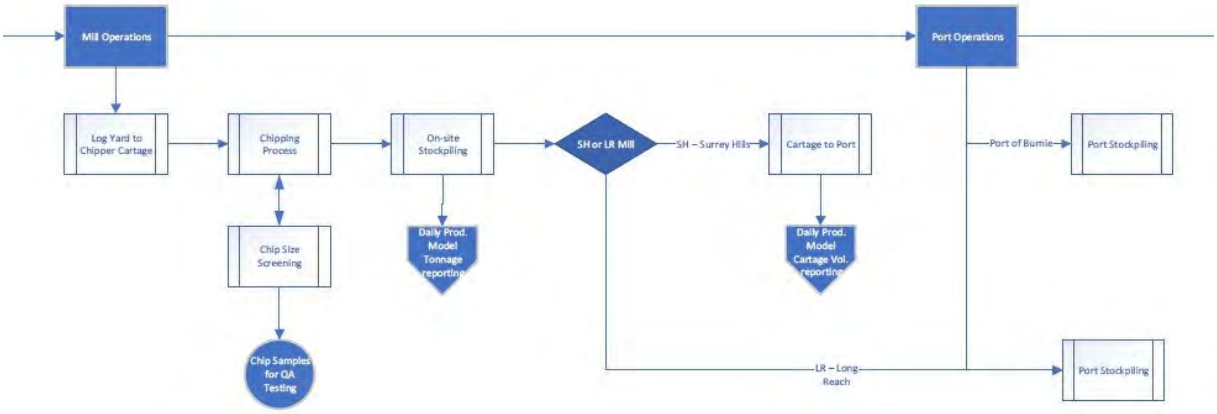

Figure 5.1 Forico conceptual process flow

5.2.3 Key Activities

For the reporting period, the facility averaged a production volume of 27,660 tonnes (t) of product per month. The product is exported from a TasPorts-owned wharf facility at the Long Reach Mill site (title reference 128436/1). External contractors transport logs to the Mill site.

The Long Reach facility also handles Timberlink's softwood chips for export, stockpiling approximately 10,866 t per month and loading approximately 3 vessels per year.

Access to the site is limited through a staffed weighbridge, with site security provided when the Long Reach Mill is closed. Incoming trucks are weighed in, and the log source is 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 before transport to the chipping area. Logs are brought into the chipper area and then fed into the chipping line. Chips are moved via conveyors to sizing screens, separating the product into chips for export and fines. Contaminated chips are stockpiled for landscaping applications, with bark and fines stockpiled separately for various re-use applications.

Re-use applications and process wastes are discussed further in Section 6.

5.3 Level of activity for reporting period

Activity level metrics for the monitoring period are provided below for annual woodchip production and energy consumption. Production levels are consistent with previous years (Table 5.2), with annual chip production averaging 493,243 t/year over the last four production years.

Table 5.1 Annual Totals (t) for hardwood chip production, Long Reach Mill 2024 - 2025

Output	Value for reporting period	Monthly average
Total Chip Production* (t)	331,923	27,660
Total Chip Handling (Timberlink) (t)	130,399	10,866

Table 5.2 Annual Totals (t) of hardwood chip production Long Reach Mill over the last four years

Output	2024 - 2025	2023 - 2024	2022 – 2023	2021 - 2022
Total Chip Production	331,923	461,380	588,209	591,459

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

Long Reach Mill monitors energy consumption against the rate of production in gross metric tonnes (gmt) to provide data to support energy efficiency measures on site.

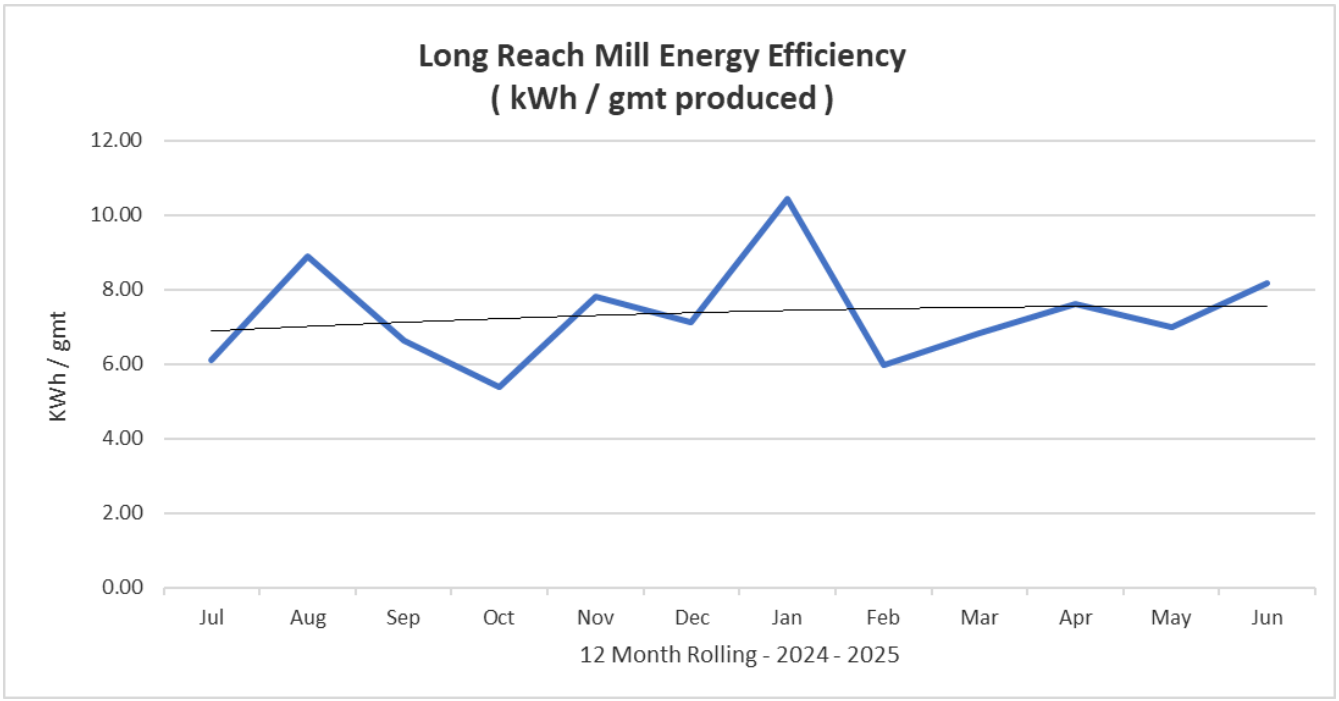

Figure 5.2 Energy consumption per gmt produced, 2024 – 2025 reporting period

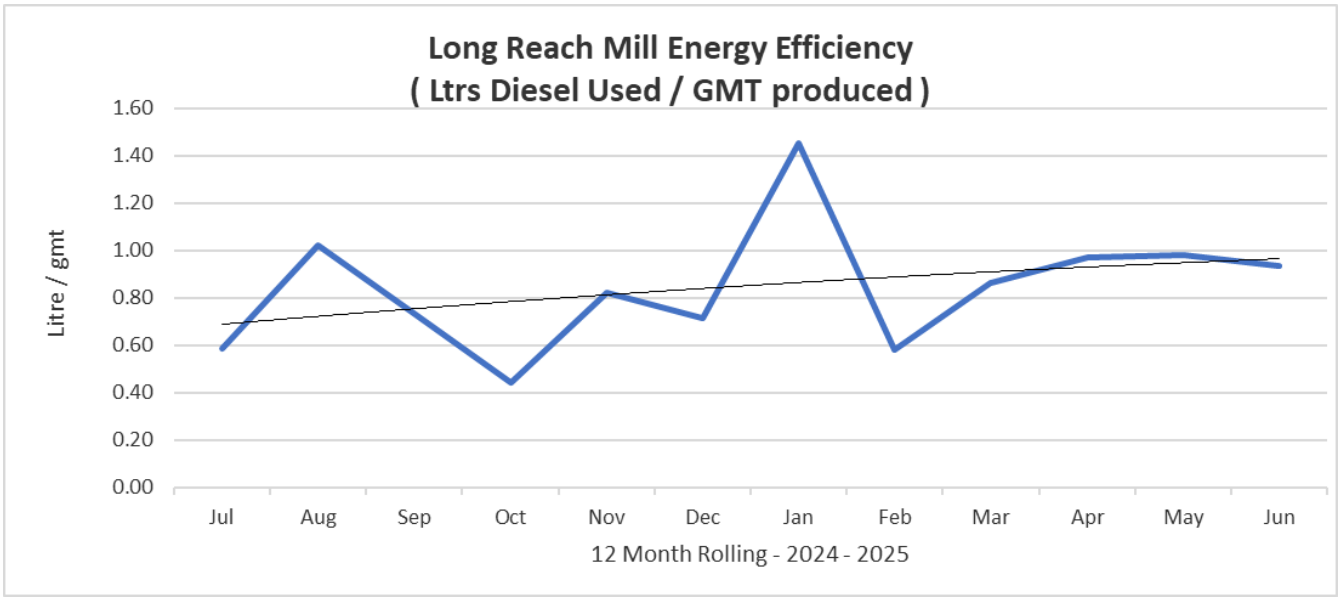

Figure 5.3 Diesel consumption per gmt

5.4 Operating hours

The Long Reach Mill site operates on a five-day week, with the Day shift working eight-hour shifts Monday to Friday and the Afternoon shift working nine-hour shifts Monday to Thursday. Friday after 2 pm the site receives log deliveries only. The site operates on a 24-hour basis, 7 days a week, only when vessels are berthed for loading. Maintenance days are scheduled every fortnight. Transport of softwood woodchips to the site is undertaken by a forestry transport contractor. Delivery of hardwood logs is also undertaken by a forestry transport contractor. Hardwood log deliveries are accepted from 6am to 6pm Monday to Thursday and 6am to 4pm on Friday.

Table 5.3 Operational shift hours

Day	Opening hours
Monday, Tuesday, Wednesday, Thursday	6am – 11pm
Friday	6am – 4pm
Saturday and Sunday	Closed

5.5 Site key environmental values

The key environmental values present at the site include:

– Catchments of Bypass Creek and Williams Creek and associated Protected Environmental Values (PEVs)
– River Tamar / Kanamaluka
– Amenity of a rural resource, forestry-based area.

Both Bypass Creek and Williams Creek exhibit similar integrated conservation values.

Figure 5.4 Pond 9 which discharges into Bypass Creek. Note the softwood chip stockpile in the background

5.6 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.

5.6.1 Atmospheric emissions

Emissions of criteria pollutants, such as nitrous oxides (NOx), Particulate Matter (PM10, PM2.5) etc are largely related to diesel-powered mobile plant and equipment on the 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 Mill 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.

5.6.2 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 – 1,000 Hz. 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.

5.6.3 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 site are a function of rainfall, 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 7.1. 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 / Kanamaluka 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 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'
– 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 / Kanamaluka.

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:

– a failure or other non-availability of pumping infrastructure that is in place to transfer liquors from Pond 9;

– and/or 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 biophysical 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 / Kanamaluka 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
– 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 / Kanamaluka. It is nonetheless maintained, monitored, regulated and reported below for verification purposes.

5.6.4 Land contamination

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
– 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 2023-2024 AER. 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 2022 – 2023 reporting period

Three environmentally relevant process improvement initiatives occurred at the Long Reach Mill site during the 2022 – 2023 reporting period. These were:

– Pile 4 retaining wall was replaced, with construction completed in February 2023, along with improvements to concrete pad
– Removal of disused transformers from North Mill
– Irrigation pumps upgraded/replaced

6.1.2 2023 – 2024 reporting period

During the 2023 – 2024 reporting period, two environmentally relevant process improvement initiatives occurred at the Long Reach Mill site. These were:

– Ongoing energy efficiency initiatives, including conversion of incandescent bulb lighting to LED across the Long Reach Mill site; and
– Opportunities for energy use reduction were explored for the loading of Timberlink softwood chips onto export ships. A ship loading trial was undertaken with an altered machinery mix. It was found that load rates could be maintained with a newly deployed WA500 Komatsu loader with a large bucket. This resulted in only one wheel loader machine being required for ship loading instead of two. This process change will reduce diesel consumption by approximately 13,140 L annually.

6.1.3 2024 – 2025 reporting period

During the current reporting period, two environmentally relevant process improvement initiatives occurred at the Long Reach Mill site. These were:

– Ongoing energy efficiency initiatives, including continuation of conversion of incandescent bulb lighting to LED across the entire Long Reach Mill site; and
– Permanent adoption of the trial machinery mix (undertaken in 2023 – 2024) for ship loading of softwood chips,

6.2 Generation and management of solid and liquid waste

The Long Reach Mill generates two classes of waste:

– Wood-based process material by-products, including fines, reject chips and bark
– 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 on waste disposal for the full reporting period are provided below as annual totals. Veolia Environmental Services (Aust) Pty Ltd is the main 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 anytime due to suspected contamination, sacrificial use for bulk product handling, biodegradation, etc. Bark refers to miscellaneous woody debris generated mostly by log handling. This is a minor waste stream, as log de-barking does not usually occur on the Long Reach Mill site.

Annual totals of major wood-based waste streams are summarised in Table 6.1, with Section 6.2.4 providing details of re-use and minimisation activities.

Table 6.1 Annual wood process waste 2024 - 2025 major wood-based waste streams

Wood process waste	2024 – 2025	2023 - 2024	2022 - 2023
Total waste fines generation (t)	11,526	17,282	16,196
Total waste bark generation (t)	2,277	2,899	4,990
Total waste reject chip generation (t)	669	924	690

6.2.2 Non-process material wastes

Non-process wastes 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 the reporting year. General mixed solid waste is disposed of at the appropriately licenced Launceston Waste Centre. Waste contaminated with oil and oily water is disposed of at the Veolia licenced facility. Annual totals of non-process wastes are shown in Table 6.2.

Table 6.2 Key non-process waste generated

Waste type	2024 - 2025	2023 - 2024	2022 – 2023
Scrap Metal (t) for processing and recycling	18	26.1	11.6
General Solid Waste (t) to Launceston Waste Centre	19.4	11.6	26.6
Oily contaminated Solids (t)	-	0.9	0.9
Hydrocarbon/Water Mixture (L)	240	400	0.7

6.2.3 Controlled and special waste

Veolia is engaged in handling and accepting controlled waste substances (along with general landfill waste and waste oils) generated from the Long Reach Mill site. A consolidated summary of the Long Reach Mill controlled waste disposal is provided below in Table 6.3.

Veolia operates 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 6.3 Controlled waste disposal summary

Controlled waste type	2024 - 2025	2023 - 2024	2022 – 2023
Asbestos Containing Material (t)	6	5	< 1.0
Oil (L)	2,028	3,050	150
End of Life Tyres (units)		2	5

6.2.4 Re-use/waste minimisation initiatives

The Long Reach Mill staff seeks to optimise production processes to continually reduce process waste. Forico has several ongoing agreements with contractors utilising the waste fines as a resource, with monthly removal. This includes removal to pre-approved depots or transport to general primary industry users. During the current

reporting period, 11,169 t of waste fines were removed from the site. General primary industry users collect all reject chip and bark wastes near the site.

The volume of fines stockpiled at the North Mill site has been surveyed in the 2022 – 2023 and 2023 – 2024 reporting years and showed considerable reduction in the size of the stockpile over this time. In the 2024 – 2025 reporting period it was determined the stockpile reduction methods had been successful and the remaining volume of fines was small enough that a survey of the stockpile was not required.

Table 6.4 Wood process waste production, use and disposal

Wood Process Waste (t)	2024 - 2025	2023 - 2024	2022 – 2023
Fines to Stockpile	3,455	2,085	5,138
Fines to Re-use (Direct Off-Site)	8,071	15,197	12,035
Total Fines Generation	11,526	17,282	16,196
Fines to Re-use (Off-Site from Stockpile)	3,098	2,094	5,551
Total Fines disposed off-site	11,169	17,291	17,586
Bark Direct Off-Site	2,682	2,900	4,956
Waste Chips Direct Off-Site	2,339	925	397

6.3 Environmental incidents or incidents of non-compliance

6.3.1 2024 – 2025 reporting period

Environmental incidents at the Long Reach Mill were recorded during the 2024 – 2025 reporting period and are detailed below Table 6.5. Three incidents were recorded, but all can be classified as minor incidents that were reported internally and responded.

Table 6.5 Environmental incidents at Long Reach Mill (2024 - 2025)

Date	Incident description	Response
22/07/2024	Blown Hydraulic hose on 470 Loader	The machine was shut down immediately to reduce hydraulic fluid loss as much as possible. The spill was cleaned up immediately utilising wood fines and disposed of in hydrocarbon bin and a new hose was installed on the machine. No environmental release
22/09/2024	Diesel spilled out of the top fuel cap of Wagner while re-fuelling	The machine was shut down immediately to reduce fuel loss as much as possible. The spill was cleaned up immediately utilising wood fines and disposed of in hydrocarbon bin and a new hose was installed on the machine. No environmental release
28/11/2024	Heavy Rainfall causing leachate sump flow over road and Pond 9 overflow	The incident was reported to the EPA, who subsequently requested a sample from the leachate sump. On attempting to sample leachate sump, the overflow had subsided in the mean time and the issue had been resolved.

6.3.2 2023 – 2024 reporting period

Environmental incidents at the Long Reach Mill were recorded during the 2023 – 2024 reporting period and are detailed below in Table 6.6. Six incidents were recorded, but all can be classified as minor incidents that were reported internally and responded to appropriately.

Table 6.6 Environmental incidents at Long Reach Mill (2023 - 2024)

Date	Incident description	Response
14/07/2023	MP09 Wagner diff failed, losing a small quantity of oil on the mill hardstand.	The machine was shut down immediately to prevent further oil loss and damage. Spilt oil was cleaned up immediately utilising wood fines and disposed of in hydrocarbon bin. No environmental release
17/12/2023	Minor oil spill in oil stores catchment area resulting from a split hose on an oil pod.	The split hose was isolated to prevent further oil loss. The hose was then replaced, and the hydrocarbon spill was cleaned up immediately utilising wood fines and disposed of in hydrocarbon bin. No environmental release
3/01/2024	Split hydraulic hose on MP09 Wagner	The machine was shut down immediately to reduce hydraulic fluid loss as much as possible. The spill was cleaned up immediately utilising wood fines and disposed of in hydrocarbon bin and a new hose was installed on the machine. No environmental release
23/04/2024	MP09 Wagner failure resulted on a minor loss of oil	The machine was shut down immediately to reduce oil loss as far as possible. The spill was cleaned up immediately utilising wood fines and disposed of in hydrocarbon bin. The machine was taken out of service for repairs. No environmental release
14/05/2024	A possum was discovered on the product conveyor during ship loading.	Operations were suspended to allow the animal to be humanely captured and released at a safe forested location on site.

Table 6.6 documents one instance of non-compliance with conditions within the EPN. The non-compliance relates to water quality results.

Table 6.7 Non-compliances with EPN at Long Reach Mill (2023 - 2024)

Date	Incident description	Response
11/07/2023	Monitoring returned an elevated level of Total Suspended Solids (TSS) at the Wetland Rip-Rap Overflow location. Routine sampling detected an exceedance in TSS as measured by an extractive sample. The value returned was 74 mg/l. The threshold for TSS in wastewater discharge set by Condition EF5 of the EPN is 60 mg/L. The exceedance was not noted until the composition of the 2023 – 2024 AER as a result of an internal communication fault and therefore notification was not reported to the EPA at the time of the result.	A sample taken on the same day at the Bypass Creek V-notch weir returned a value of 51 mg/l, which is considerably higher than values typically observed during sampling events over the reporting period. It is noted this value is within the threshold supplied in Condition EF5 of EPN 7968/4. Another sampling event at the wetland rip rap overflow monitoring point on 24/08/2023 returned a reading of 1 mg/L, indicating that the minor exceedance was an isolated occurrence corresponding with winter rainfall events. Site managers are now provided with the results directly from Analytical Services Tasmania. This incident has been now entered into Forico's Management System as a Non-Conformance confirming the corrective action for communication of results.

6.3.3 2022 – 2023 reporting period

Environmental incidents at the Long Reach Mill recorded during the 2022 - 2023 reporting year are detailed below in Table 6.8. There were seven incidents recorded, but all can be classified as minor incidents that were reported internally and responded to appropriately.

Table 6.8 Environmental incidents at Long Reach Mill (2022 - 2023)

Date	Incident description	Response
26/07/2022	Rupture of oil supply line on air pump for bulk oil store. Minor spill which was contained in bund	Spill was contained and supply line replaced. No environmental release
13/10/2022	Significant rainfall (potentially 1:50 year event) caused mill ponds and sumps to overflow, with pump system unable to keep up	EPA notified by phone and email. Forico's Environmental Advisor also notified and sampling was undertaken. Sample results indicated that discharge exceeded the EPN limit with Total Suspended Solids (TSS) was 100 mg/L, compared to 60 mg/L defined in the EPN. Formal report provided to EPA 10/11/2022.
23/11/2022	Ruptured fitting on lift cylinder on Wagner MP-09 loader when lifting load of logs from a truck; resulting in spillage of ~5 L of hydraulic oil	Hydraulic oil contained with fines and disposed of in hydrocarbon bin. Hose audit conducted on loader, with preventative change out of deteriorated hoses.
25/11/2022	Hydraulic hose failure on Wagner MP-09 loader while pushing logs on chipper log deck	Loader relocated to an appropriate location to investigate failure. Investigation found ruptured hydraulic hose. Small leak of fluid (approx 5 litres) contained with fines and disposed of in hydrocarbon bin.
12/01/2023	While excavating footings for the Pile 4 wing walls, an odour was detected (similar to that of diesel).	The contractor stopped work, notifying the principal contractor and Forico. The suspect material was excavated and stored on the concrete apron at the North Mill until samples for analysis could be taken. The material was covered contained in bunded area until verification of further action required. Testing conducted according to EPA Information Bulletin 105 (IB 105). Analytical report showed BTEX analytes were not detected with TPH C10-C36 Silica at 180 and 100 mg/kg in two samples and not detected at all in another. Thus, all samples were below applicable thresholds for disposal as 'Clean Fill' as defined by the EPA's IB105.
9/3/2023	Dozer (MP37) operator was performing stockpile grooming operation on pile 3 when they saw warning light indication on the dozer HMI screen. Operator looked behind the dozer and saw that there was a trail of oil. Oil loss was from a filter breaking off. .	Immediate shut down of the machine. As the incident occurred on top of the woodchip pile there was an assessment made that the estimated 8 litre spill would be contained within the area. The other dozer (MP35) was utilised to cut a new track in at the back of the pile to allow the telehandler to access the area to assist with the clean up. The hydrocarbon residues were initially transported from the spill area to a designated area behind the pile and then transferred to the hydrocarbon waste skip.
22/5/2023	Overflow of oil from waste oil tank	Spilt oil was contained within the cement bunding (no environmental release). Spill cleaned and oil tank emptied by contractor.

7. Environmental Monitoring Results

7.1 Monitoring requirements and timeframes

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

– Surface water monitoring (Surface water/process water runoff sampling at the polishing pond and the wetland overflow drain)
– Surface water monitoring for the receiving environment (Bypass Creek)
– Wastewater/effluent discharge monitoring (Sewage Treatment Plant Monitoring Point)

The requirements of these conditions are detailed below in Table 7.1.

Table 7.1 EPN monitoring requirements for Long Reach Mill

Monitoring Point	Parameters	Frequency
Sewage Treatment Plant (STP) Discharge Monitoring (M2)		
South Mill STP Monitoring Point (or South Mill STP polishing pond in the event of low flow)	Biochemical Oxygen Demand (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 the STPMP weir is insufficient for sampling, a grab sample from Polishing Pond is used to assess the health of STP rather than regulatory compliance for discharge
Wastewater Discharge Monitoring (M3)		
Long Reach Pond 9 Overflow Weir Wetland Rip Rap Overflow	pH, TPH, Biological Oxygen Demand, TSS, Conductivity pH, TPH, BOD, TSS, Conductivity	Quarterly (when flowing during sampling event) Quarterly (when flowing during sampling event)
Bypass Creek Monitoring (M4)		
Bypass Creek v-notch weir Monitoring Point	Chemical Oxygen Demand (reported as BOD(5)), TSS (maximum concentration 60 mg/L) pH (within range of 6.5-9.0), TP, TN, Conductivity	Quarterly Monthly

Figure 7.1 *Long Reach Mill Water Monitoring Locations*

7.2 Water monitoring

Water monitoring at the Long Reach Mill is currently undertaken at seven separate sites identified as surface water collection zones, wastewater monitoring locations or wastewater discharge locations. In accordance with conditions M2, M3 and M4 of the EPN, water monitoring at the Long Reach Site is undertaken in the following locations:

– Sewage treatment plant discharge monitoring
– Site wastewater discharge monitoring
– Bypass Creek surface water monitoring.

Sampling sites are consistent with the previous monitoring periods and are identified on Figure 7.1.

7.2.1 Sewage Treatment Plant Monitoring

Monitoring of treated sewage effluent exiting the South Mill Sewage Treatment Plant (STP) is conducted quarterly. 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 effluent that flows from the polishing pond is monitored for compliance, as this represents the discharge water that flows into the River Tamar / Kanamaluka. Water from within the pond is not assessed for compliance as it is not an emission. Non-discharge samples are instead used to monitor the health of the STP 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:

– Enterococci,
– Biochemical Oxygen Demand (BOD) and
– Total Suspended Solids (TSS).

Samples collected at each monitoring point must be assessed for compliance to applicable discharge limits defined under EPN 7968/4 (Condition EF5).

If the flow at the STPMP weir was insufficient to collect a valid sample, a sample from the Polishing Pond is collected. Polishing Pond samples can provide evidence of the health of the STP system.

During the 2024 - 2025 reporting period, one round of monitoring was undertaken at the STPMP and three rounds at the Polishing Pond

– Winter – 23/07/2024 (STPMP only)
– Spring – 29/10/2024 (Polishing Pond)
– Summer – 28/01/2025 (Polishing Pond)
– Autumn – 10/04/2025 (Polishing Pond)

The results of the monitoring from the South Mill STPMP and Polishing Pond during the 2024 - 2025 reporting year, along with data for the PER reporting period, are presented below in Figure 7.2, Figure 7.3 and Figure 7.4. The data is presented in a time series to provide a longer-term overview of monitoring results.

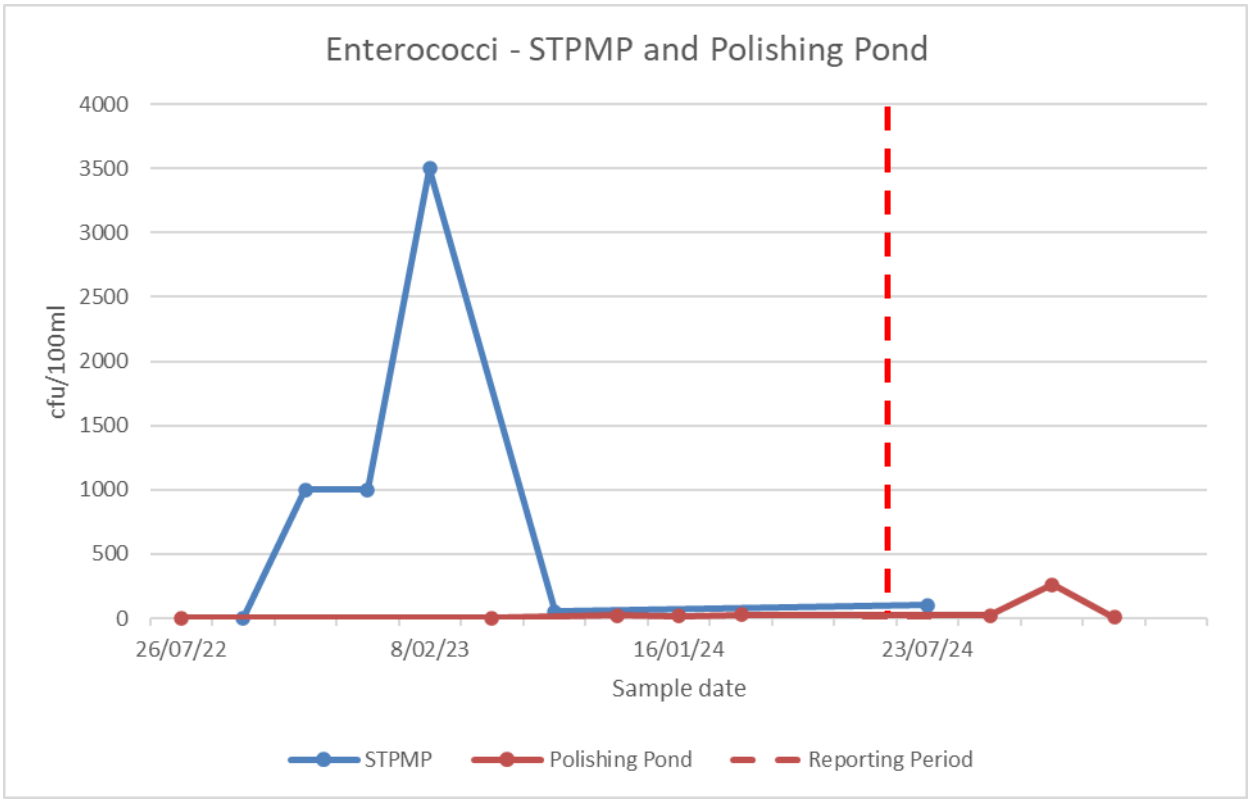

Figure 7.2 Enterococci levels Long Reach South Mill STP Polishing Pond and Monitoring Point 2020 - 2025

As noted above, if flow at the STPMP weir was insufficient to sample, then a sample was taken instead from within the Polishing Pond. The red dotted line delineates the previous and current reporting periods.

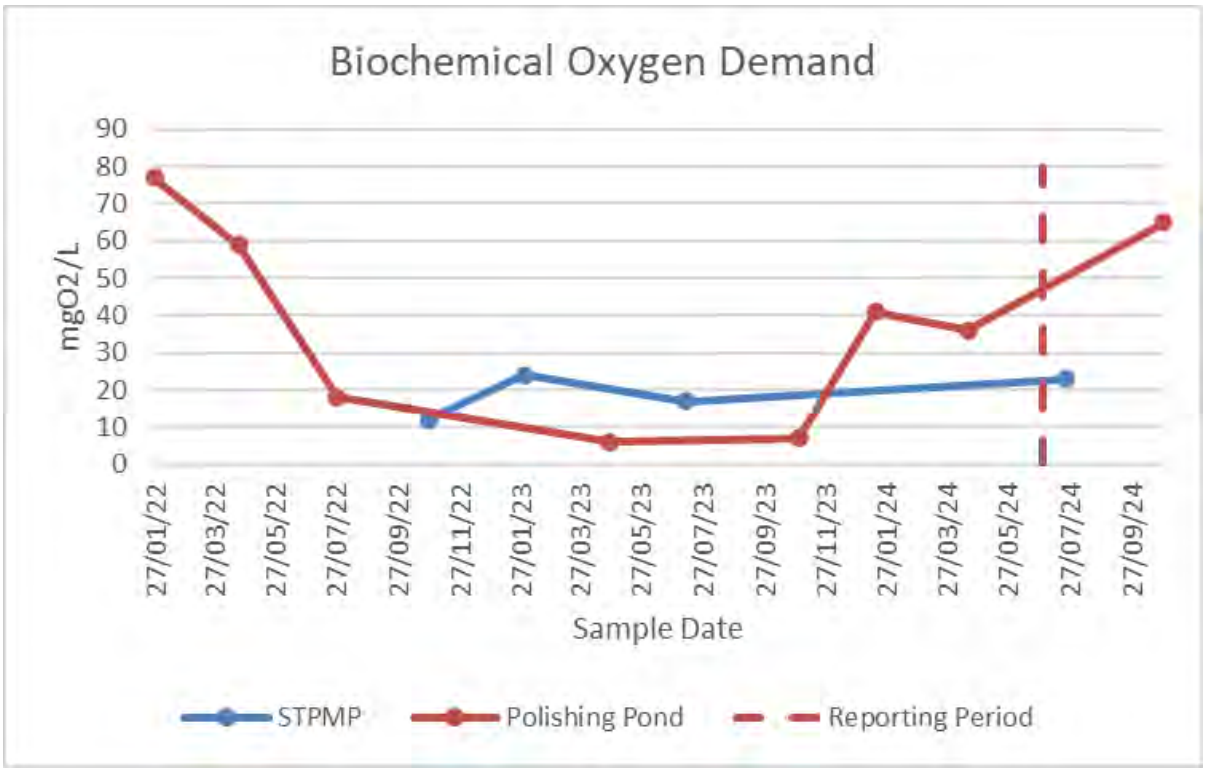

Figure 7.3 BOD levels (mg O2/L) Long Reach South Mill STPMP and Polishing Pond

If flow at the STPMP weir was insufficient to sample, then a sample was taken instead from within the Polishing Pond (no sample is marked as zero value on chart). The red dotted line denotes the previous and current reporting periods.

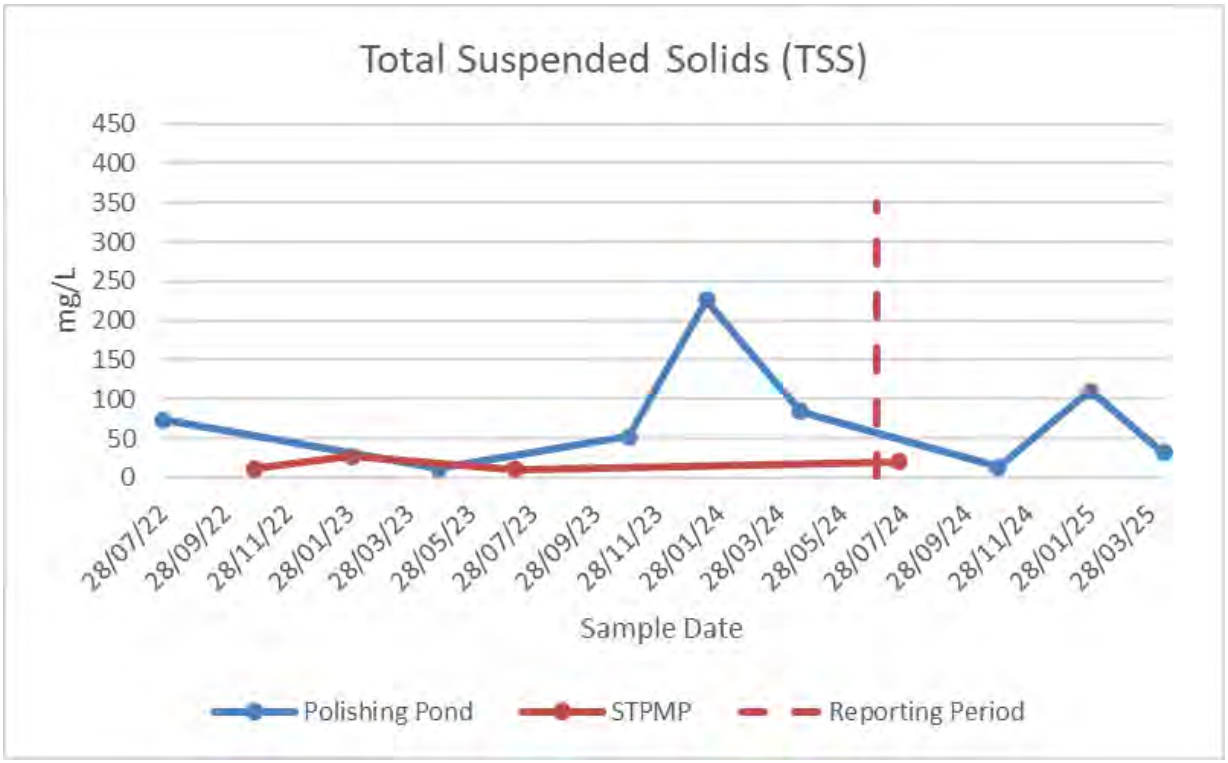

Figure 7.4 Total Suspended Solids (mg/L) Long Reach South Mill STPMP and Polishing Pond

If flow at the STPMP weir was insufficient to sample, then a sample was taken instead from within the Polishing Pond (no sample is marked as zero value on the chart). The red dotted line denotes the previous and current reporting periods.

No exceedances of the thresholds were recorded during the current reporting period. Table 7.2 provides results of Enterococci monitoring for the current reporting period

Table 7.2 Enterococci monitoring results for Sewage Treatment Plant 2024 - 2025

Sampling Date	Sampling Site	Value (c.f.u./100mL)	LOR Adjusted Value (c.f.u./100mL)
23/07/2024	STPMP	101.4	101.4
29/10/2024	Polishing Pond	22	22
28/01/2025	Polishing Pond	260	260
10/04/2025	Polishing Pond	6	6

7.2.2 Interpretation of Sewage Treatment Plant Monitoring Results

Monitoring results collected for biological parameters (Enterococci) showed three results at the STPMP above the compliance discharge thresholds as per Condition EF5 of EPN 7968/4 in the 2022 – 2023 reporting year. These results were from the standard sampling round in January, with two additional sampling events to investigate the exceedances. All were above the threshold stated in EPN 7968/4 and were reported to the EPA. A sample

obtained at the polishing pond on 26/4/2023 indicated that the levels had returned to below the compliance threshold at 5 cfu/100ml. No other exceedances of the discharge levels of Condition EF5 of EPN 7968/4.

Biochemical Oxygen Demand showed no exceedances at the STPMP above the compliance discharge threshold as per Condition EF5 of EPN 7968/4 for the 2024 - 2025 reporting period. One recorded exceedance of BOD (41 mgO_2/L on 16/01/2024) was recorded at the Polishing Pond. It should be noted that in accordance with EPN 7968/4, the Polishing Pond is not considered a discharge point but rather provides an indication of STP performance in periods of low water flow. The exceedance was minor, and levels returned to compliance in the following monitoring events. Flows were insufficient for sampling for all quarterly samples, with the exception of the winter sampling event on 11/07/2023.

There were three records of exceedance of the compliance discharge threshold for Total Suspended Solids monitored at the Polishing Pond over the PER reporting period, being 226 mg/L on 16/01/2024, 84 mg/L on 17/04/2024 and 111 mg/L on 28/01/2025.

It should be noted that in accordance with EPN 7968/4, the Polishing Pond is not considered a discharge point but rather provides an indication of STP performance in periods of low water flow. While the exceedance were notable, there was no discharge at this time and TSS levels were found to be lower in the following quarters sample. Forico will continue to closely monitor these monitoring points during the coming reporting period.

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 at the Bypass Creek V-notch Weir sampling site.

Extracted samples are tested for Total Petroleum Hydrocarbons (TPH), Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS). Conductivity and pH are measured by field instruments. 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.

In the 2024 – 2025 reporting period, surface water monitoring was undertaken at the Bypass Creek V-notch Weir monthly, with the first round of sampling taken on 23/07/2024 and the last round on the 24/06/2025.

Monitoring of wastewater discharge was primarily undertaken at the Bypass Creek V-notch Weir. The first round of sampling was conducted on 23/7/2024, and it continued quarterly.

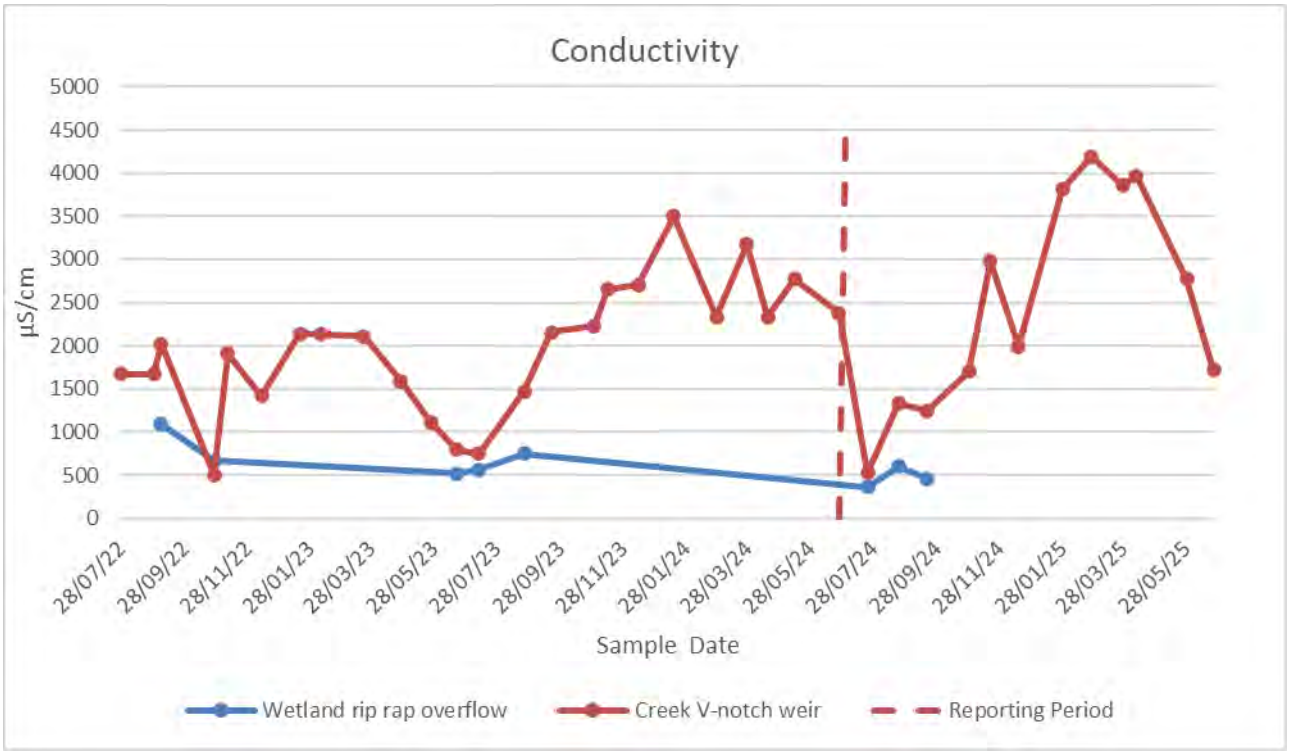

Figure 7.5 *Surface Water Conductivity - Bypass Creek V-notch Weir and Wetland Rip Rap Overflow*

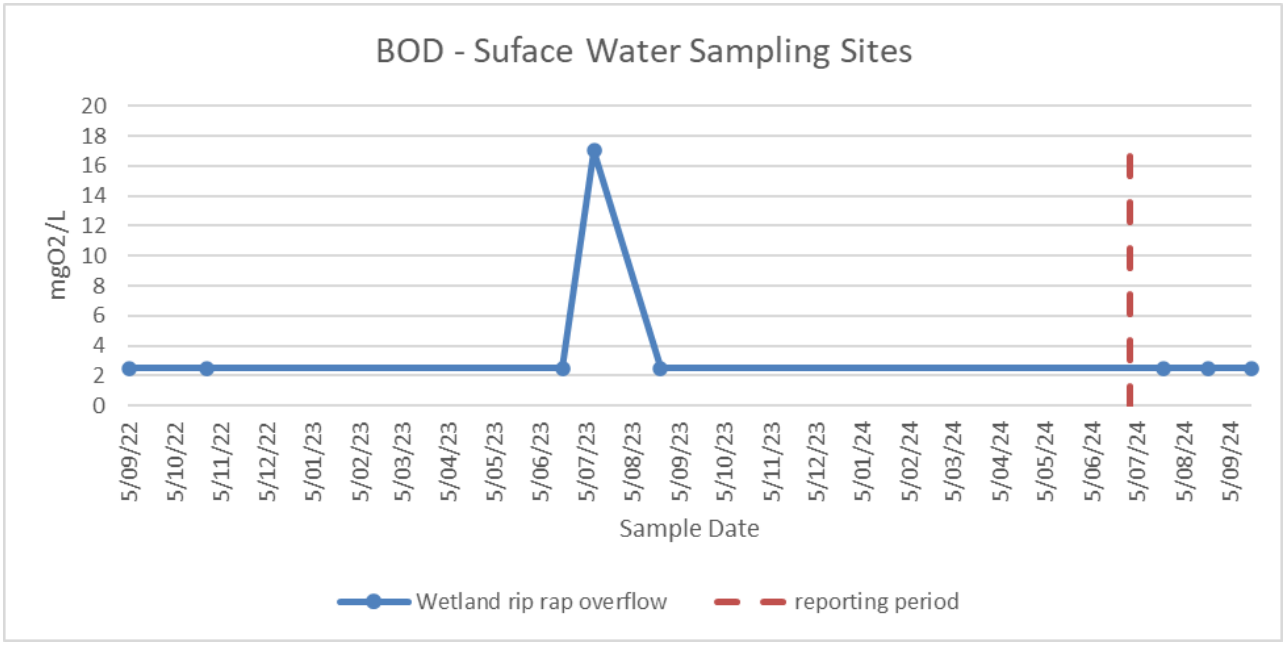

Figure 7.6 *Biochemical Oxygen Demand - Bypass Creek V-notch Weir*

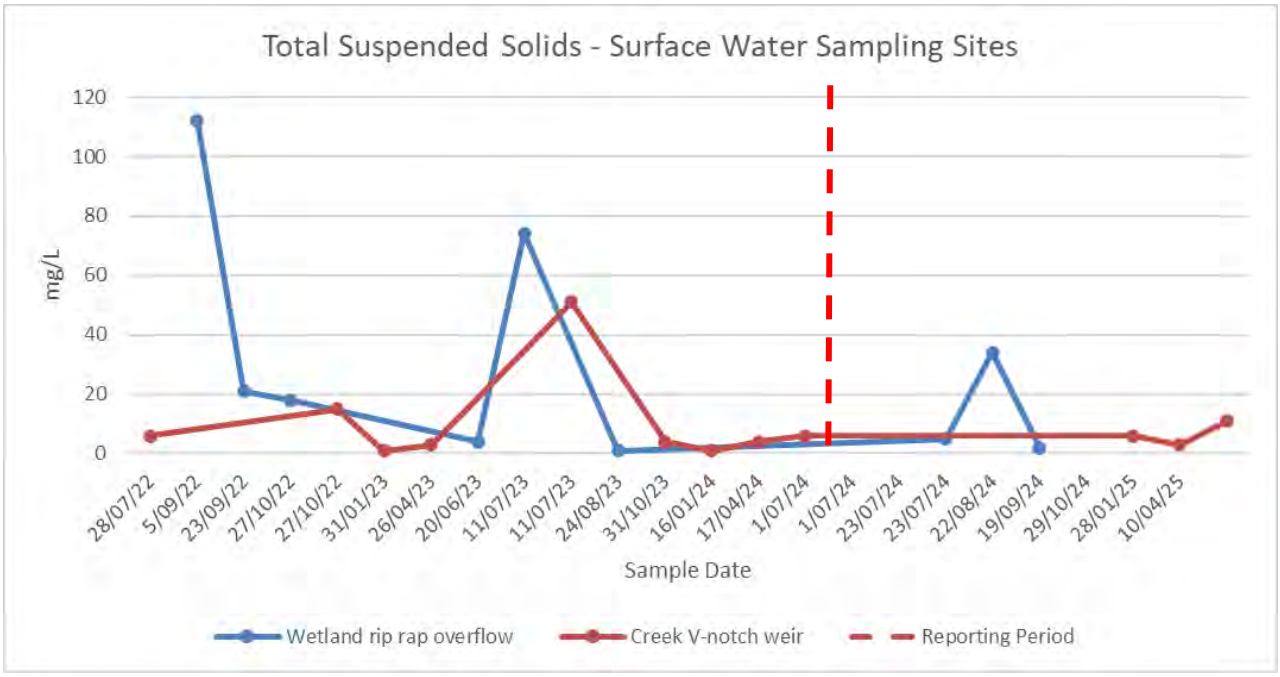

Figure 7.7 Total suspended solids- Wetland Rip Rap Overflow and Bypass Creek V-notch weir surface water sampling sites

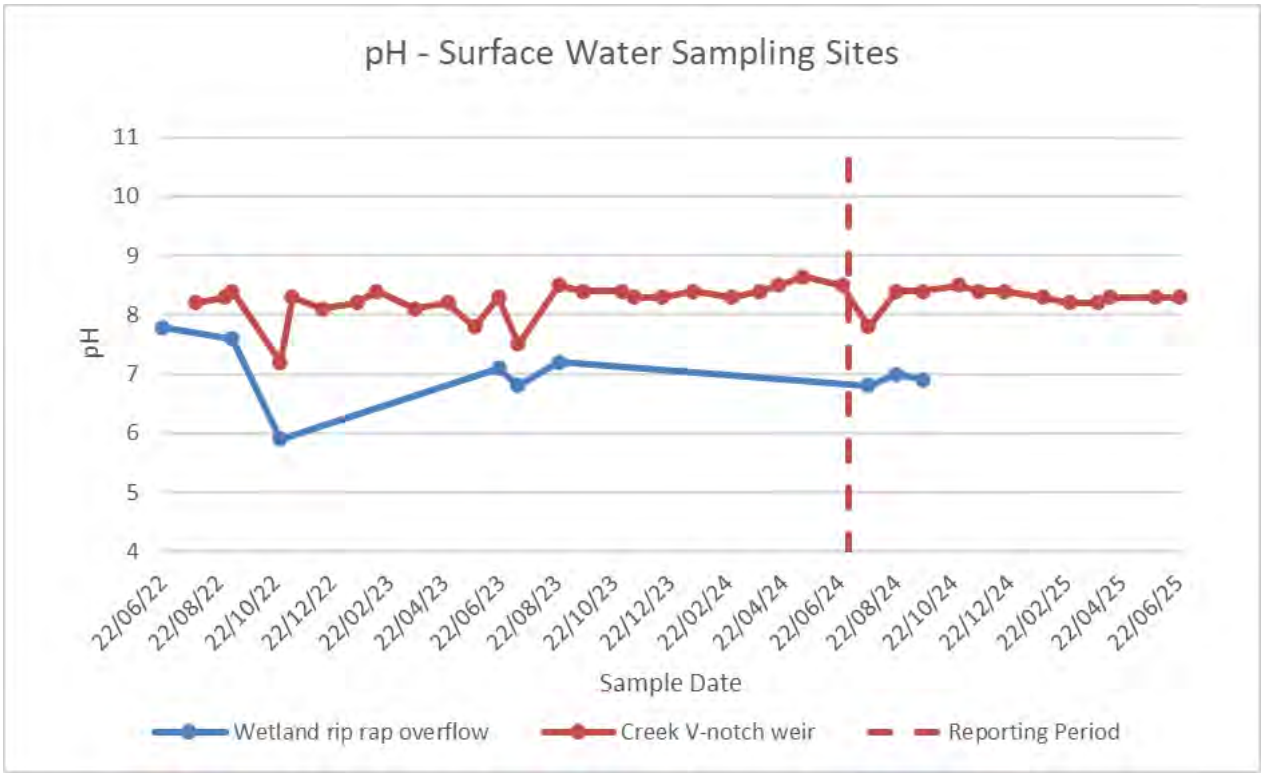

Figure 7.8 pH - Wetland Rip Rap Overflow and Bypass Creek surface water sampling site

Table 7.3 Total Petroleum Hydrocarbon (TPH) sampling from the Wetland Rip Rap Overflow for the PER reporting period

Date Sampled	Sample Site	Analyte	Value (µg/L)
22/06/2022	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
5/09/2022	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
27/10/2022	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)

Date Sampled	Sample Site	Analyte	Value (µg/L)
20/06/2023	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
11/07/2023	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
24/08/2023	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
23/07/2024	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
22/08/2024	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)
19/09/2024	Wetland rip rap overflow	TPH	Below limit of reporting (<100 µg/L)

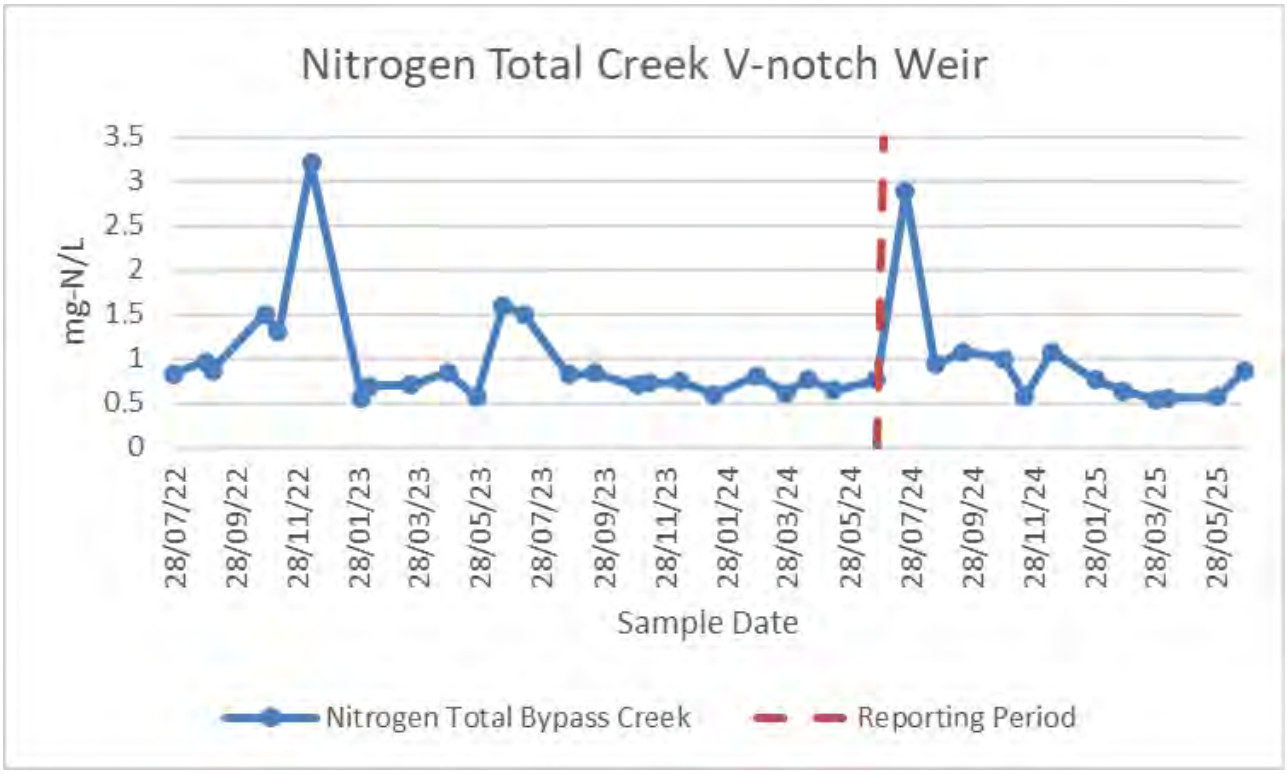

Figure 7.9 Nitrogen (Total) - Bypass Creek V-notch Weir

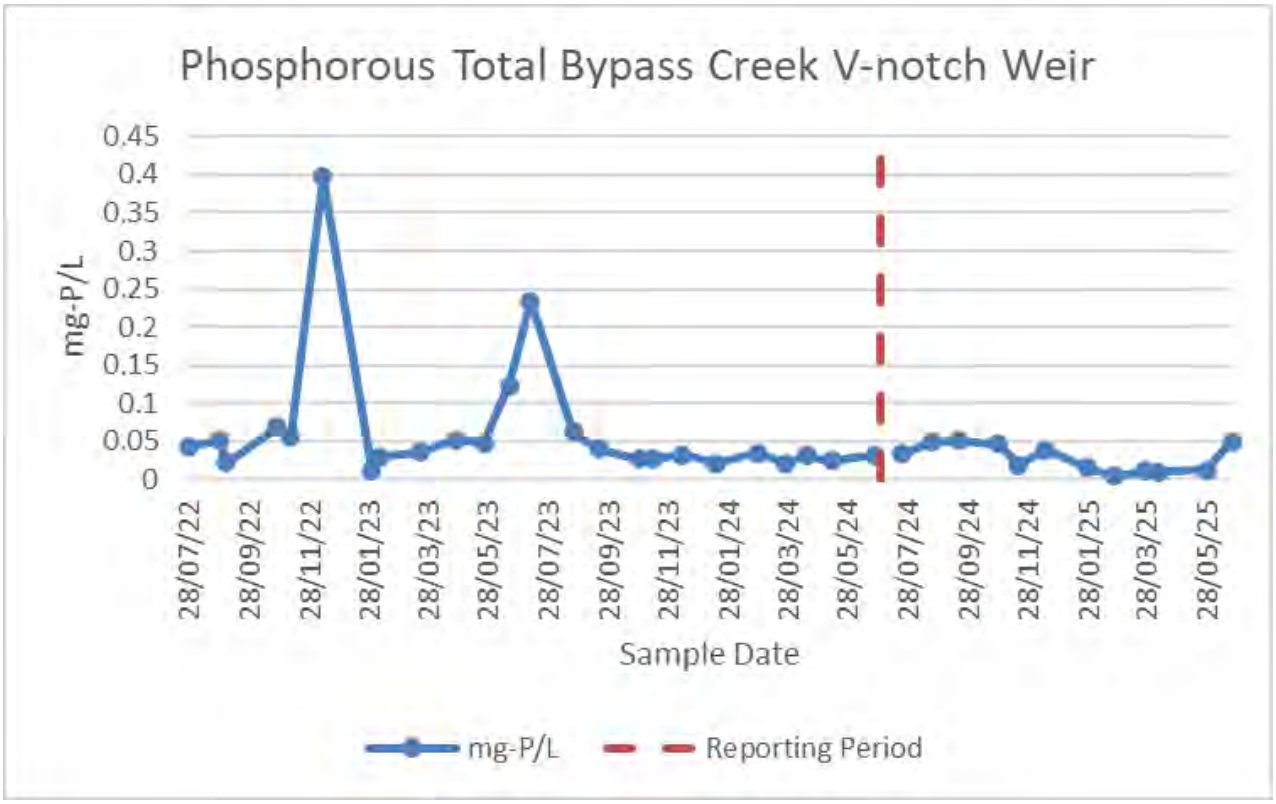

Figure 7.10 Phosphorus (Total) - Bypass Creek V-notch Weir

7.2.4 Interpretation of Water Monitoring Results

Fluctuations in the recorded conductivity monitoring are likely due to an annual dilution effect of higher winter flows and periods of low flow (Figure 7.5). Peaks in conductivity corresponded with low flows in the summer months, notably and troughs correspond with months with higher total rainfall and more notable dilution effects. This seasonal change can be observed in previous data recorded from the Bypass Creek v-notch weir.

Reported values of the regulated parameters, TPH, BOD and pH recorded in wastewater discharges were within the thresholds supplied in Condition EF5 of EPN 7968/4 (Table 7.3, Figure 7.6 and Figure 7.8).

Twelve monthly samples, commencing July 2024 were collected for Total Nitrogen and Total Phosphorus analysis in Bypass Creek during the reporting period (Figure 7.9 and Figure 7.10). Recorded Nitrogen values ranged from minimum 0.54 mg/L to maximum 2.89 mg/L, with an average value 0.95 mg/L. This compares to default guideline values of 0.407 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 0.51 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 0.011 mg/L (median) and 0.029 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, or at the Wetland Rip Rap Overflow site when flows in Bypass Creek were insufficient for field measurements, during the reporting period (Figure 7.8). The values ranged from a minimum of 6.8 to a maximum 8.5, with the median value being 8.3. Quarterly measurements were taken at the Wetland Rip Rap Overflow (when flow was sufficient), where values ranged from a minimum of 6.8 to a maximum of 7, with a mean of 7.12 and a median of 6.9. 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 in accordance with conditions H1, H2, H3 and H4 of EPN 7968/4 (Figure 8.1). The storage facility has an oil and fuel spill recovery kit and an oily waste bin. Any minor spillage events use the oily waste bin to store materials until transport to the appropriate disposal facility is arranged. Waste, such as oily rags, is 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 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 occurred during the PER reporting period or the 2024 - 2025 reporting period.

Minor incidents of hydrocarbon spillage during the PER reporting period were responded to appropriately, with all waste materials stored and disposed of in accordance with the EPN conditions. See section 6.3 for further detail.

Figure 8.1 Hazardous goods storage area at Long Reach Mill

9. Atmospheric Emissions

Overall, 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, particularly from wind-blown fine particulates from woodchip and fines stockpiles. This does not pose a significant environmental hazard within the surrounding area, with particulates contained to the site.

There is also the 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).

Management measures as implemented at the site aim 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
– Use effective control measures such as tarpaulins or load dampening for all vehicles carrying loads of materials that may blow or spill (e.g., woodchips and fines)

9.1.1 Noise Monitoring

An environmental noise survey of the Rowella receiving environment was undertaken in 2025, with data collected in May and June 2025. The survey method and report meet the general requirements of condition N3(5) of EPN 7968/4 and was undertaken by Tarkarri Engineering. Tarkarri Engineering have conducted surveys for previous PERs. The sample locations are show in Figure 9.1 below, with sample coordinates and identified in Table 9.1.

Figure 9.1 Environmental noise survey monitoring locations

Table 9.1 Environmental noise survey monitoring coordinates

Site number	Location	Coordinates (GDA94, Zone 55G)
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

Sample locations were chosen to obtain a representative sample of sensitive receptors in the area. The sample locations are the same locations used in the previous environmental noise surveys.

The survey method was designed to provide information on the compliance or otherwise of the Long Reach Mill facility with the regulatory regime detailed in EPN 7968/4.

There was no exceedance of Forico's EPN noise emission limits was measured during the survey.

Chipper, heavy vehicle movements, dozer activity and ship loading from the Long Reach Mill was noted throughout the survey, however, sources external to the mill controlled the noise environment at most positions. Tones from Bell Bay Industrial Precinct were significant at most positions.

The full report is attached as Appendix D to this report.

10. Register of Public Complaints

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

10.1 2024 – 2025 reporting period

No public complaints were received for the 2024 – 2025 reporting period.

10.2 2023 – 2024 reporting period

On 30/03/2024, a Rowella resident raised concerns via email regarding the environmental impact of light and noise from the Long Reach Mill. The email was responded to, informing the residents of the regulatory oversight of EPN 7968/4, along with a copy of the PER. Additionally, an invitation was extended to the residents to visit the mill and inspect the operation. While the offer was initially accepted, the correspondent chose not to visit the site and stopped responding to email communication.

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), with the last noise survey conducted in 2022. A noise survey is planned to be conducted in the upcoming reporting period.

There are no requirements or limitations within EPN 7968/4 regarding light generated by Long Reach Mill operations.

10.3 2022 – 2023 reporting period

On 13/06/2023, a Rowella resident enquired via email regarding the Mill operating hours, seeking clarification in relation to emissions of noise and light, particularly in the early morning. The email was responded to, and no further correspondence or discussion took place.

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.

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. Results for this monitoring period are included below, including an updated status of results for the year.

11.1 2024 – 2025 reporting period

Table 11.1 Forico Commitments and progress during 2024 - 2025 period

Commitment target	Status	Progress commentary
Energy saving Implement energy-saving improvements such as: Investigate re-routing the leachate drain directly to the wetland, eliminating the need to pump from pond to the wetland	Ongoing	No upgrade of the leachate pit / drainage infrastructure / pumps was conducted in the 2024 – 2025 period, however this project is still planned to proceed and is anticipated to be completed in the 2025 – 2026 reporting period.
Wood Waste Management Continue to reduce total processing wood waste produced on-site through: Investigate construction of new screen house Continue to explore beneficial re-use options with any third-party material re-use opportunities.	Ongoing	In the 2024 - 2025 reporting period there was a continued increase of fines being diverted directly to offsite uses when compared to the previous reporting period. The fines stockpile is now of a small enough size to not warrant a survey in the 2024 – 2025 reporting year. Beneficial re-use options for wood waste will continue to be pursued. New screen houses are being designed and are likely to be installed in the coming reporting period.
Environmental Management Documentation Investigate the development of a site-specific Environmental Management Plan (EMP) that provides a resource to implement environmental management systems, protocols, and monitoring. An EMP at Long Reach Mill would identify actual and potential environmental risks that may be caused by the site operations, documenting controls to manage these risks before they result in environmental harm. The EMP provides an important resource for training and improves clarity on environmental management expectations for the site.	Ongoing	Engagement with an environmental consultancy is in progress. It is anticipated that a site-specific EMP will be implemented in the 2025 – 2026 reporting period.
Drainage Improvements	Complete	Erosion features were identified downslope of the visitors centre. It was identified that the drainage was inadequate and was causing erosion and destabilisation of some landforms in the site footprint. Hardening of some drain surfaces was undertaken along with redirection of drainage features to facilitate dispersal of surface water flows has been undertaken.

11.2 2023 – 2024 reporting period

Table 11.2 Forico Commitments and progress during 2023 - 2024 period

Commitment target	Status	Progress commentary
Energy saving	Ongoing	No upgrade of the leachate pit / drainage infrastructure / pumps was conducted in 2023 – 2024. Forico identified power upgrade

Commitment target	Status	Progress commentary
Implement energy-saving improvements such as: Investigate re-routing the leachate drain directly to the wetland, eliminating the need to pump from pond to the wetland		requirements required in MCC4 for extra back up pump as a pre-requisite to the work. This electrical upgrade is ongoing. Forico plan to complete this in unison with the investigation of energy efficient methods of distribution to the wetlands area.
Wood Waste Management Continue to reduce total processing wood waste produced on-site through: Ongoing process improvements – quality control/process optimisation on a weekly basis Optimise key production areas - knife optimisations, screening process to meet market specifications and reduce fines Investigate construction of new screen house Continue to explore beneficial re-use options with any third-party material re-use opportunities. Material supply agreements in place to utilise waste materials and reduce site stockpiles.	Ongoing	In the reporting period there was a marked increase of fines being diverted directly to offsite uses when compared to the previous reporting period. While some fines waste was added to the existing stockpile, it was less than half of what was added in the previous reporting period (Table 6.4) Beneficial re-use options for wood waste will continue to be investigated through the following reporting period.
Environmental Management Documentation Investigate the development of a site-specific Environmental Management Plan (EMP) that provides a resource to implement environmental management systems, protocols, and monitoring. An EMP at Long Reach Mill would identify actual and potential environmental risks that may be caused by the site operations, documenting controls to manage these risks before they result in environmental harm. The EMP provides an important resource for training and improves clarity on environmental management expectations for the site.	Ongoing	An environmental services consultant has been approached to provide a proposal to conduct these services. The proposal will be considered over the 2024 – 2025 reporting period, with a view to implementing a site-specific EMP.

11.3 2022 – 2023 reporting period

Table 11.3 Forico Commitments and progress during 2022 - 2023 period

Commitment target	Status	Progress commentary
Installation of modern drainage infrastructure and supporting ancillaries	Ongoing	No upgrade of the leachate pit / drainage infrastructure / pumps was conducted in 2022 – 2023. Forico identified power upgrade requirements required in MCC4 for extra back up pump as a pre-requisite to the work. This electrical upgrade is scheduled for completion in April 2024. Forico plan to complete this in unison with the investigation of energy efficient methods of distribution to the wetlands area.
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. Detailed design has progressed through 2022 – 2023 with selected vendors. This Project is being concluded as part of a further strategic review of utilisation of Forico's Long Reach sites and the investigation of further enhancement and diversification of operations.

Commitment target	Status	Progress commentary
Process off-takes on fines/total onsite fines storage	Ongoing	Forico continue to improve on this waste stream re-use initiative, with 17,173 t of fines produced and 17,586 t disposed off site. All fines produced have been transported to pre-approved depots for re-use applications. In addition, a further 413 t have been removed from the site stockpile and transported to re-use partners. The key re-use partners are: – Carey's Mulch, – Powranna Feedlots, and – Resources Australasia. Forico have identified that fines stockpile volume will continue to be reduced through ongoing efforts to identify beneficial re-use options.

Appendix A

Forico Environmental Sustainability Policy

ENVIRONMENTAL SUSTAINABILITY POLICY

1 Purpose

Forico Pty Limited (Forico) is an integrated asset management company that is committed to sustainability, including responsible environmental management throughout all our business activities in Tasmania. We believe that the wood fibre we grow on the estate, from carbon dioxide it sequesters to downstream value adding processes we undertake, enhances economic, social and natural capital values for Tasmania.

As such we undertake our business activities consistent with our Sustainable values and environmental aspiration to be nature positive and provide overall ecosystem benefits from our management of the land estate 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 the FSC® Certification Scheme, the PEFC recognised RW Certification Scheme and the ISO14001 Certification Scheme, which 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 and landscapes for ecosystem services.
- **Biodiversity –** Protection and enhancement of flora and fauna in the natural landscapes and production forests we manage on the estate.
- **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 programmes.

- **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 – An internationally recognised standard for environmental management systems that is applicable to any business or organisation, regardless of size, location or income.

PEFC – Programme 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: **Chief Executive Officer**	Name: Evangelista Albertini Signature: 
Date:	13 May 2025
Date to be Reviewed:	May 2027

Signatures:

Board Controlled Document Approval:	I hereby state that I have found no errors in the contents of this controlled quality document. The document has been approved by the Board and is ready for release.		
Name:	**Evangelista Albertini FORICO\alberte**	Title:	
	Evangelista Albertini		2025-06-16 10:57:21 (UTC+00:00)
Electronically Signed in	M-Files	Timestamp	

Appendix B

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

CERTIFICATE OF REGISTRATION

SCS Global Services does hereby attest that an independent assessment was conducted on behalf of:

Forico Pty Limited

16 Techno Park Drive, Kings Meadows, Tasmania 7249, Australia

Has been assessed by SCS Services and found to be in conformance to the following standard:

AS/NZS ISO 14001-2016

For the following scopes:

- Business activities of Forico Pty Limited including office functions, seedling propagation and growing, log receival and processing, stockpiling and ship loading of forest products.

The validity of this certificate will be maintained with annual surveillance audits and recertification audits every three years.

CERTIFIED by SCS Global Services
ISO 14001
SCS-EMS-00004

JAS-ANZ
WWW.JASANZ.ORG/REGISTER

SCS Global Services, 2000 Powell Street, Suite 600
Emeryville, CA 94608 USA

Certificate Number: **SCS-EMS-00004**
Initial Certification Date: **July 28, 2018**
Valid From: **July 10, 2024**
Valid To: **July 09, 2027**

Scott Coye-Huhn, Vice President, EBC Division

Continued from page 1

The following five (5) sites are included in the scope of certification:

- Main office: 16 Techno Park Drive, Kings Meadows TAS 7249 Australia
- Somerset Nursery: 20 McKays Road, Somerset TAS 7322 Australia
- Ridgley Office: 15-17 Circular Road, East Ridgley TAS 7321 Australia
- Long Reach Mill: 3523 East Tamar Highway, Long Reach TAS 7253 Australia
- Surrey Hills Mill: 2753 Ridgley Highway, Hampshire TAS 7321 Australia

Scott Coye-Huhn, Vice President, EBC Division

SCS Global Services, 2000 Powell Street, Suite 600
Emeryville, CA 94608 USA

Appendix C

Certificate of Approval for Chain of Custody Forest and Tree-based Products (FSC-STD-40-003, FSC-STD-40-004, FSC-STD-40-005, FSC-STD-50-001)

SCS Global Services *does hereby certify that an independent audit has been completed and conformity to the applicable standard(s) has been confirmed for:*

Forico Pty Limited

16 Techno Park Drive, Kings Meadows, Tasmania 7249, Australia

This multi-site certificate covers the production of hardwood and softwood fibre products using the transfer and percentage systems. It also covers a due diligence system for the control of wood sourced from the Tasmanian region.

The facility(s) are hereby Chain of Custody certified to sell products as:

FSC 100%, FSC Mix

The assessment has been conducted by SCS Global Services in accordance with the protocols of the Forest Stewardship Council® A.C. (FSC®).

FSC Standard: FSC-STD-40-003, FSC-STD-40-004, FSC-STD-40-005, FSC-STD-50-001

Certificate Code: SCS-COC-701535

Trademark License Code: FSC-C104643

CW Code : SCS-CW-701535

FSC
www.fsc.org
FSC® A000521

The mark of responsible forestry

RESPONSIBLE FORESTRY CERTIFIED SCS GLOBAL SERVICES

Valid from: 27/05/2025
(DD/MM/YYYY)

Expiry date: 30/06/2027
(DD/MM/YYYY)

SCSglobal SERVICES

Maggie Schwartz, Vice President, Natural Resources
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

Certification Addendum

Forico Pty Limited

Certificate Number: (SCS-COC-701535)

This addendum contains the additionally certified locations approved by SCS Global Services to participate in the use of the FSC® Chain of Custody Certification.

Additional Locations

Forico Pty Limited: 16 Techno Park Drive, Kings Meadows, Tasmania, 7249, Australia, (SCS-COC-701535-)
Forico Pty Limited , Long Reach Mill: 3523 East Tamar Highway, Long Reach, Tasmania, 7253, Australia, (SCS-COC-701535-B)
Forico Pty Limited, Surrey Hills Mill: 2753 Ridgley Highway, Hampshire, Tasmania, 7321, Australia, (SCS-COC-701535-C)

Appendix D

Long Reach chip mill environmental noise survey 2025

FORICO Pty Ltd

Long Reach chip mill environmental noise survey 2025

Report No. 7039_AC_R

TARKARRI ENGINEERING PTY LTD
PO Box 506
Kings Meadows TAS 7249

July 2025

Tarkarri Engineering

Air Quality • Acoustics • Environment • Vibration

DOCUMENT CONTROL

FORICO PTY LTD
LONG REACH CHIP MILL
ENVIRONMENTAL NOISE SURVEY
2025

Report No.
7039_AC_R
Prepared for
Forico Pty Ltd
PO Box 5316
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Tasmania 7250

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Author	Hayman Hookway Engineer	Date: 27 June 2025
Review	Alex McLeod Director / Principal Consultant	Date: 3 July 2025

Revision History

Revision No.	Date Issued	Reason/Comments
0	03/07/2025	Initial release

Distribution

Copy No._____	Revision No.	Location
1	0	Project/Client File
2	0	Client
3	0	Tarkarri Engineering Library

Keywords

Airborne noise (dB re 20 µPa)

dBA – *Decibels A-weighted.*

A-weighting – *Weighting of the audible frequencies reflective of the response of the human ear to noise.*

$L_{Aeq,T}$ – *Equivalent continuous A-weighted sound pressure level over a given time (T).*

$L_{A90,T}$ – *A-weighted sound pressure level exceeded for 90 % of a given time period (T), typically known as the background.*

$L_{A10,T}$ – *A-weighted sound pressure level exceeded for 10 % of a given time period (T).*

Table of Contents

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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

[3] Tarkarri Engineering report 5667_AC_R_Forico – Long Reach chip mill environmental noise survey 2022

Executive Summary

Tarkarri Engineering was commissioned to conduct an environmental noise survey of Forico's Long Reach chip mill. Measurements were conducted between 20 June and 23 May 2025.

No breach of Forico's EPN noise emission limits was measured during the survey.

Chipper, heavy vehicle movements, dozer activity and ship loading from the LRCM was noted throughout, however, sources external to the mill controlled the noise environment at most positions. Tones from BBIP were significant at most positions.

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 N3 of Environmental Protection Notice (EPN) 7968/4 (r1). This report presents the results of this survey carried out during the period 20 - 22 May 2025 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, 2019 and 2022 surveys of the LRCM[1][2][3].

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 (GDA94, 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 (r1):

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.

4 Instrumentation

The following instrumentation was used during the survey:

- Environmental noise analyser Larson Davis LxT s/n 6275
- 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 observed locations during the day, evening and night. This data has been tabulated and presented for each location as arithmetic average measurement results. Relevant observations have also been noted in addition to prevailing weather conditions. Full 10-minute interval data is presented in the Appendix of this report.

Minimum 1-minute spectral data was obtained during each observed measurement and is shown graphically 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 have been marked in these spectra and potential sources noted. Spectra exclude local traffic pass-bys events where practical to do so.

An extended unobserved measurement was obtained at the SLM position with the following noise statistics provided graphically:

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

Times highlighted in yellow on the graph denote when observed measurements at the 6 measurement locations were conducted. For the sake of clarity the other 5 data sets are not shown in this graph.

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

- LRCM: Long Reach Chip Mill
- LF: low frequency
- NBRA: Narrowband reversing alarm
- HV: Heavy vehicle
- BBIP: Bell Bay Industrial Precinct
- BBPS: Bell Bay Power Station
- TVPS: Tamar Valley power station

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.

LRCM activity was audible throughout all measurement periods, however, sources external to the mill were dominant, elevating L_{Aeq} levels. Chipper tones, dozer movements and conveyor noise was noted during lulls in external sources.

Day measurements were controlled by demolition works at the old BBPS, with fish farm pumps, East Tamar Highway traffic and tractor operations also contributing to L_{Aeq} levels. LRCM sources became more audible into the evening and night periods, however, noise emissions from the BBIP were dominant.

Figure 5-1: Position 2.

2 – North Rowella												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	20 May	16:03	40.2	31.6	64.2	50.9	41.3	36.1	33.8	32.7	Scattered cloud Calm	<u>External</u>: Fish farm pumps Traffic – Hwy BBPS - Excavator - impacts - NBRA Tractor Birds <u>LRCM:</u> Chipper HV Material dumping Conveyor

Evening	20 May	21:09	36.9	32.3	48.7	41.5	38.5	36.3	34.4	33.3	Clear Calm	External: Insects/birds Seals BBIP tones TVPS tones Traffic - Hwy LRCM: Chipper HV Dozer Material dumping Conveyor
Night	20 May	22:00	36.1	32.3	49.7	42.2	37.4	35.6	34.2	33.2	Clear Calm	Insects/birds BBIP tones TVPS tones Traffic - Hwy LRCM: Chipper HV Dozer Material dumping Conveyor

Table 5-1: Position 2 Ln-statistics.

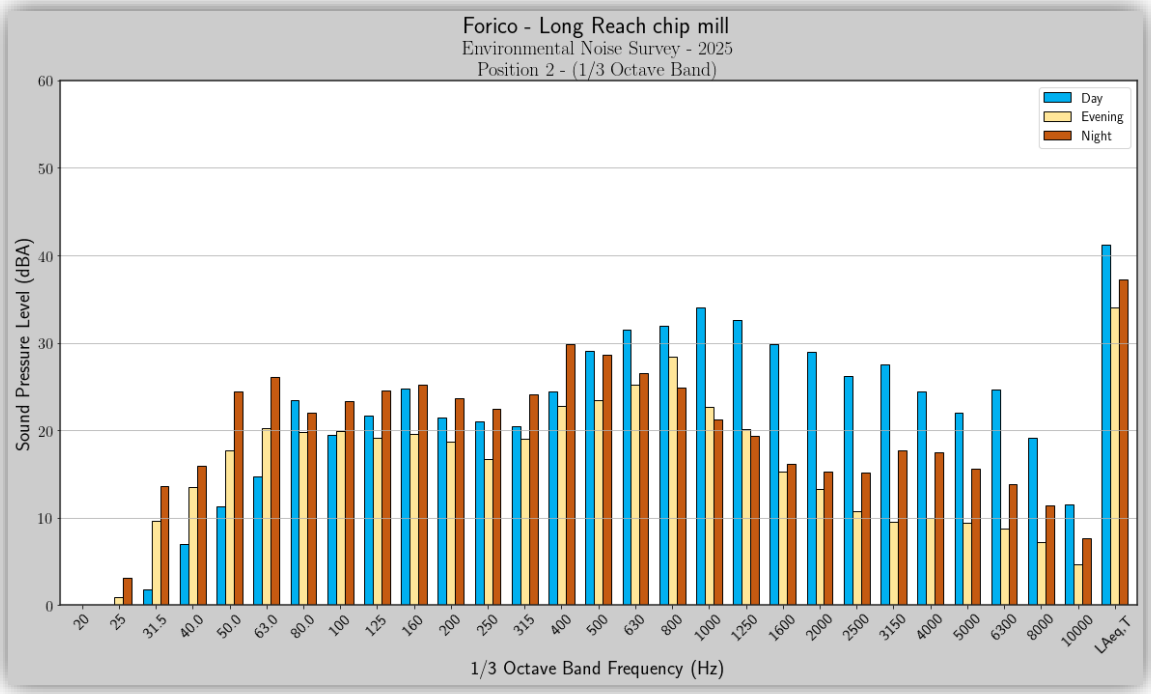

Figure 5-2: Position 2, 1/3-octave band spectrum.

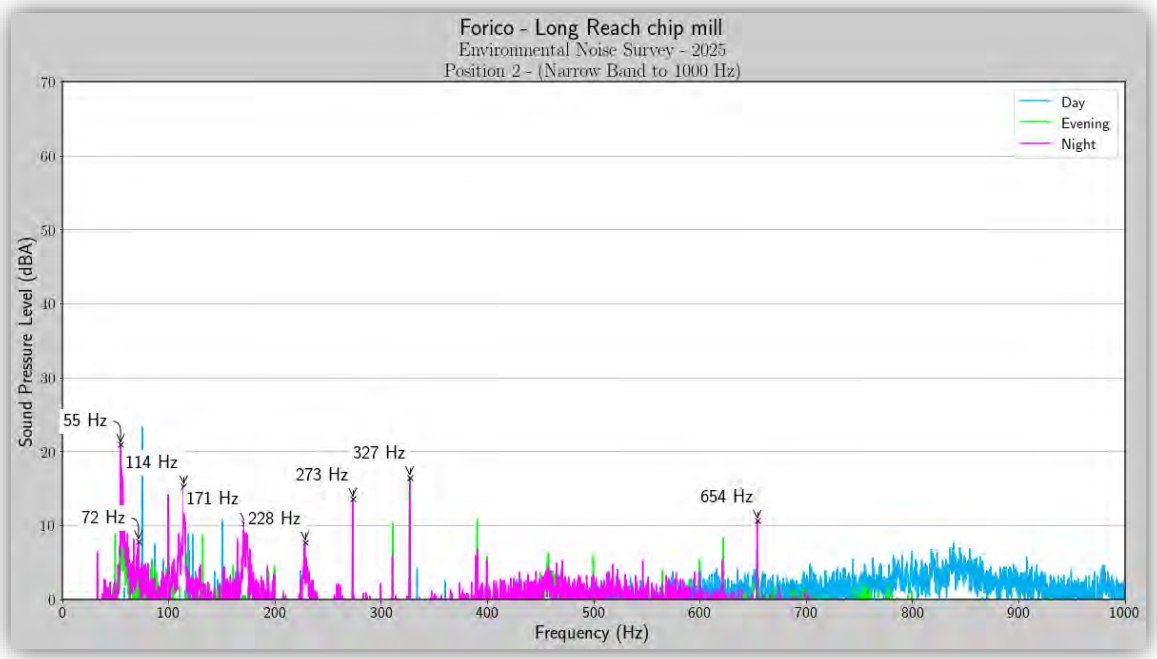

Figure 5-3: Position 2, narrow band spectrum 0 – 1000 Hz.

5.2 Position 3 – Westwood Rd

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

Day measurements were dominated by local traffic and demolition works at the old BBPS. BBIP tonal noise controlled background noise levels. The LRCM was not audible during this period. Bird and insect activity increased into the evening and night, while tones from the BBIP continued to control background.

The LRCM was audible during the evening and night with the chipper and dozer movements notable. A tone in the 250 Hz 1/3-octave band was noted at night and may be associated with the loading of chips onto a ship during this time.

Figure 5-4: Position 3. (Tarkarri Eng. Archive)

3 – Westwood Rd												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	20 May	16:40	49.5	26.7	77.3	58.4	38	32.8	29.6	27.8	Scattered cloud Calm	External: Dogs/birds BBPS - Excavator - Impacts - NBRA Traffic - Local - Hwy BBIP tones Tractor LRCM: Not audible

Evening	20 May	19:59	39.9	29.2	66.4	46.1	38.0	33.0	31.3	30.2	Clear Calm	External: Insects/birds BBIP tones Traffic - Local - Hwy LRCM: Chipper HV movements Dozer
Night	21 May	22:08	35.7	31.2	54.8	39.7	36.5	34.7	33.2	32.1	Clear Calm	External: Insects/birds BBIP tones TVPS tones LRCM: HV movements Chipper Dozer Tone

Table 5-2: Position 3 Ln-statistics.

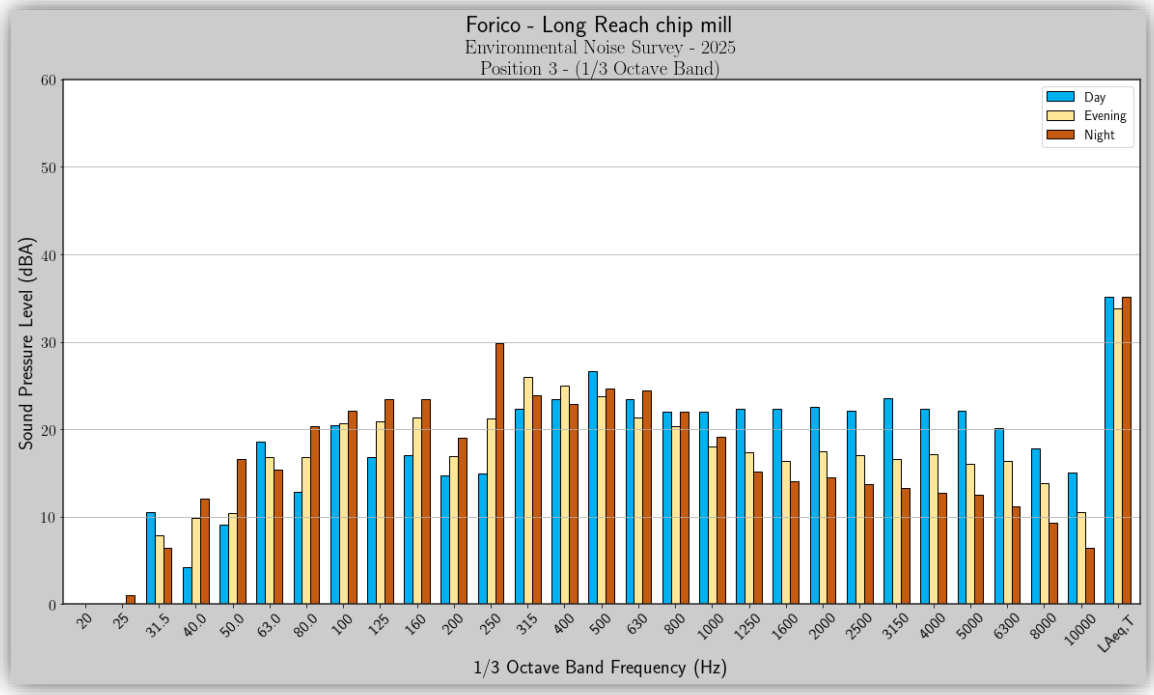

Figure 5-5: Position 3, 1/3-octave band spectrum.

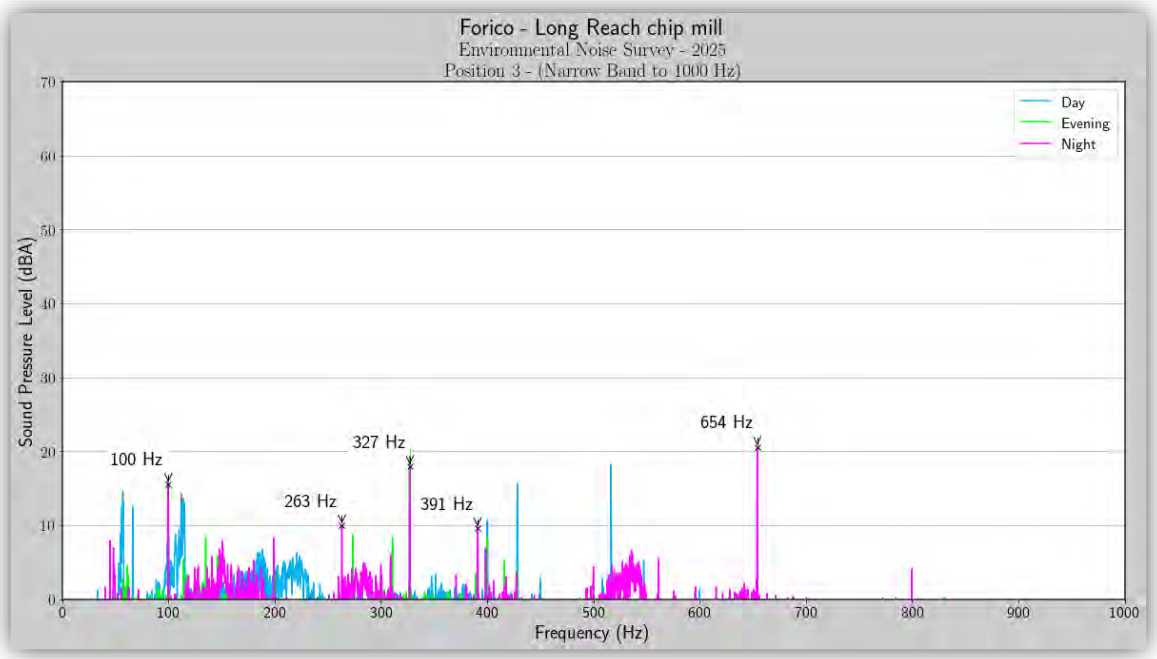

Figure 5-6: Position 3, narrow band spectrum 0 – 1000 Hz.

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.

In the absence of traffic, day measurements were controlled by demolition works at the old BBPS and tonal emissions from the BBIP. Chipper and HV movements from the LRCM were audible during lulls in external noise sources. Local traffic and bird activity elevated L_{Aeq} levels at times.

Tones from BBIP and the TVPS became more dominant into the evening and night periods. Chipper and dozer activity along with conveyor noise was audible from the mill.

Figure 5-5: Position 4.

4 – Westwood Rd and Rowella Rd												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	21 May	13:43	45.1	23.1	69.9	56.2	40.9	28.1	25.0	23.9	Clear Mild W breeze	External: Traffic (Local) Insects/Birds Tractor BBIP tones BBPS - Excavator - impacts - NBRA LRCM: Chipper Dozer Tones

Evening	20 May	20:33	39.9	30.2	61.5	51.0	38.5	33.9	32.3	31.3	Clear Calm	External: Birds/Insects BBIP tones TVPS tones Hwy traffic Dog barking LRCM: Chipper Dozer
Night	21 May	22:42	34.0	30.4	43.3	37.4	35.1	33.7	32.2	31.3	Calm Foggy	External: Insects/Frogs Transformer hum Dog barking BBIP tones TVPS tones LRCM: Dozer Conveyor Chipper Alarm

Table 5-3: Position 4 Ln-statistics.

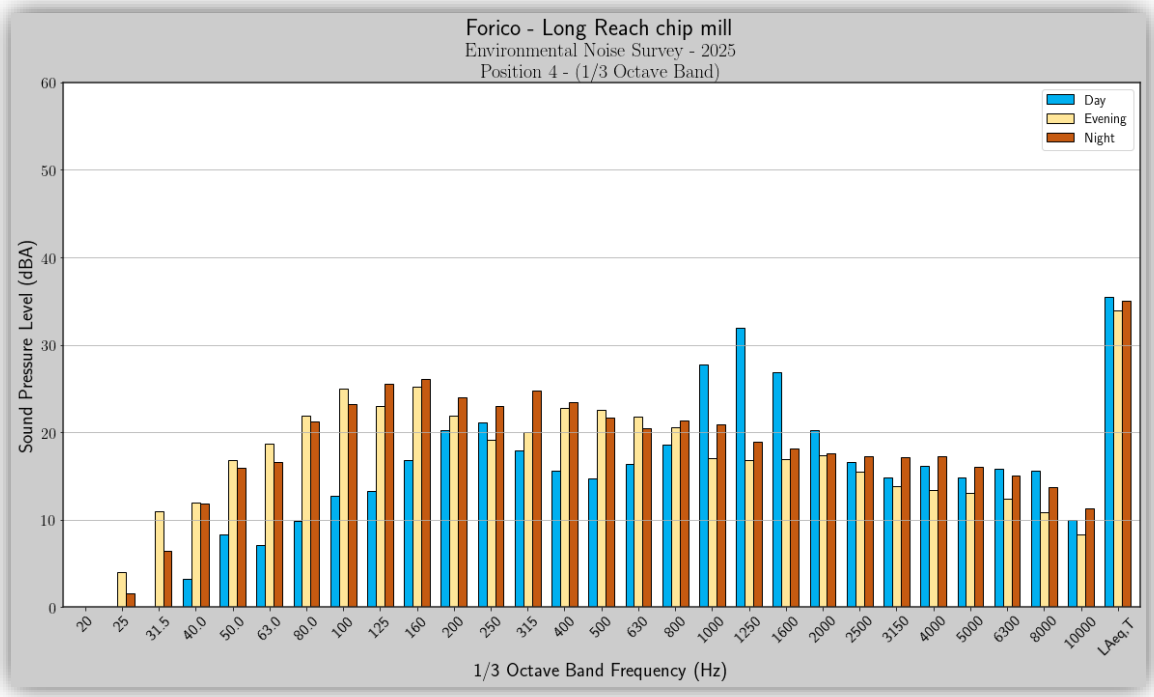

Figure 5-8: Position 4, 1/3-octave band spectrum.

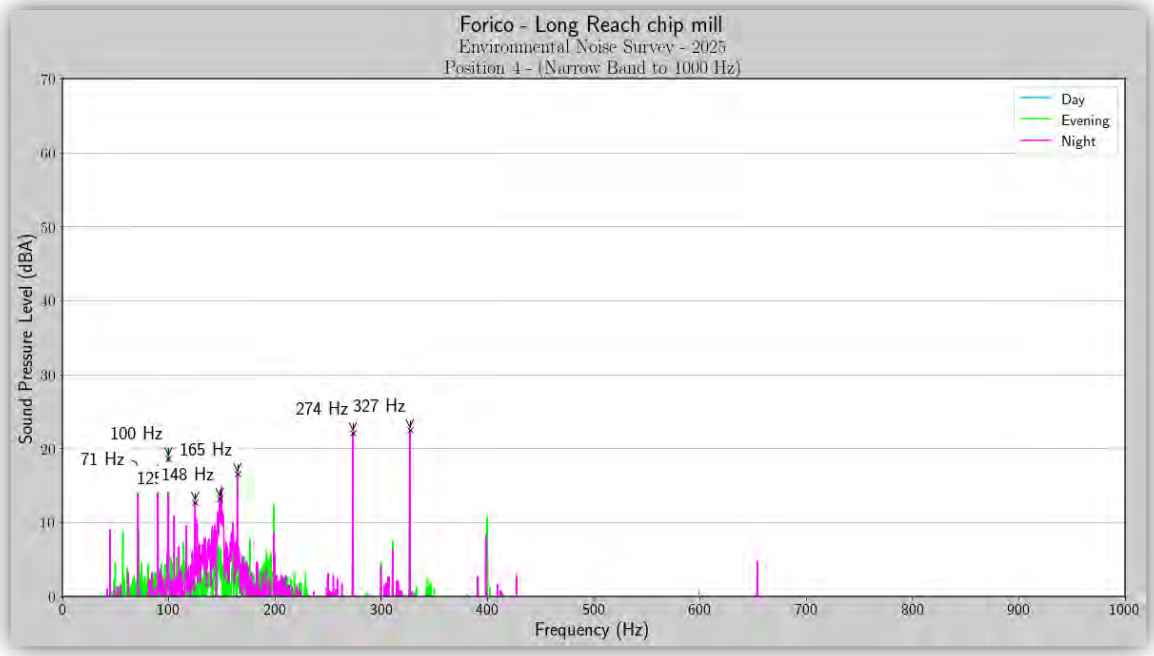

Figure 5-9: Position 4, narrow band spectrum 0 – 1000 Hz.

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 elevated by sources external to the LRCM, with the chipper and HV movements audible in the absence of these eternal sources. Tones from the BBIP were noted, while a pump operating at a nearby fish farm, barking dogs and local traffic all elevated L_{Aeq} levels.

The LRCM became more audible into the evening and night periods, with the chipper most notable; however, external sources were still dominant, in particular excessive dog barking. Tones from the BBIP were of note during the night period. Background noise levels were controlled by insect activty.

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Figure 5-6: Position 5.

5 – Mid Rowella												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	21 May	12:30	41.9	30.8	61.1	49.7	44.6	35.2	32.9	31.8	Clear Mild W breeze	External: Insects/Birds BBIP tones Fish farm pump Vehicle(local) Dog barking Light plane LRCM: Chipper (Faint) Material dumping HV movements

Evening	20 May	18:45	42.8	29.5	62.2	53.8	42.6	33.3	31.6	30.3	Clear Calm	External: Dog barking BBIP tones TVPS tones Insects/ Birds Tractor Voices LRCM: Chipper Conveyor tones HV movements
Night	21 May	23:19	44.6	31.3	67.2	55.9	38.7	34.7	32.9	32.1	Foggy Calm	External: BBIP tones Insects/ Birds Traffic - Local - Highway LRCM: Chipper Bulldozer Conveyor Material dumping

Table 5-4: Position 5 Ln-statistics.

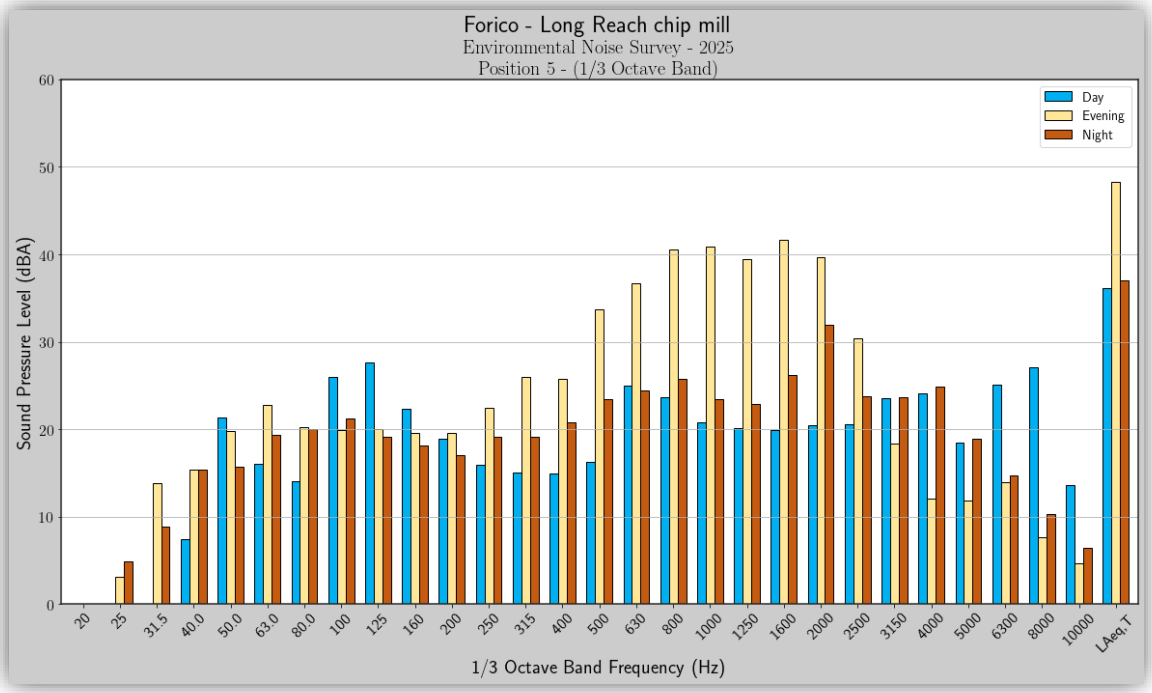

Figure 5-7: Position 5, 1/3-octave band spectrum.

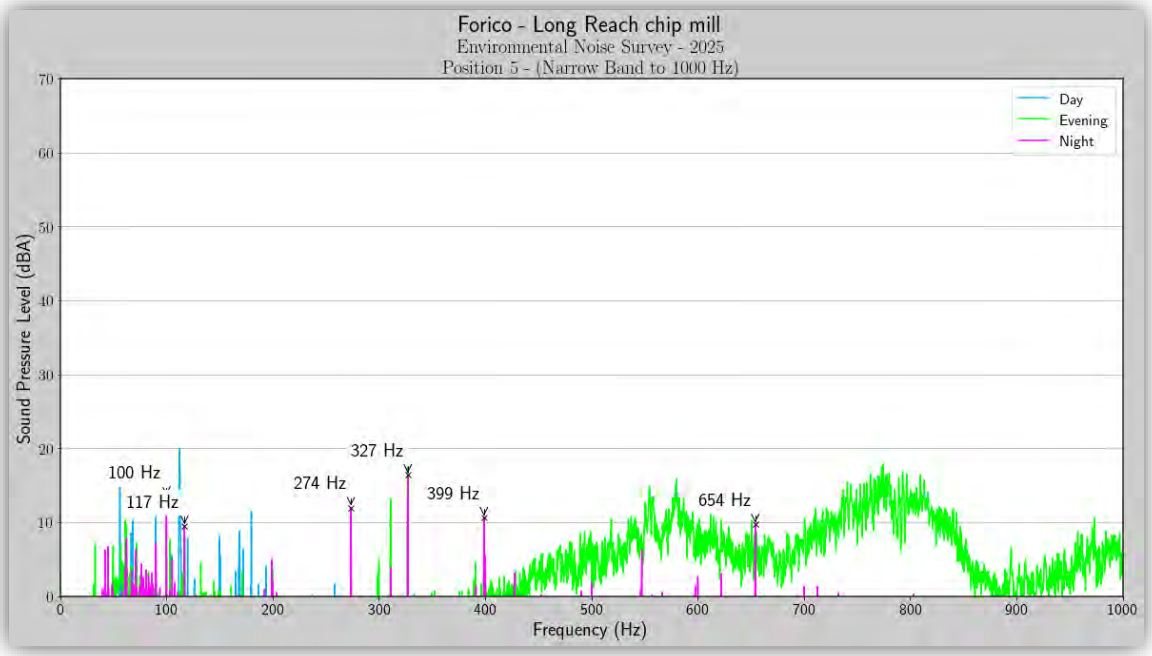

Figure 5-8: Position 5, narrow band spectrum 0 – 1000 Hz.

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 noise environment during the day was dominated by the use of a whipper snipper nearby along with dogs barking and bird activity. The LRCM chipper was audible along with dozer movements and conveyors during all measurement periods. Excessive dog barking was present during the evening and night periods, elevating L_{Aeq}. BBIP tones tones were noted during the night period.

Figure 5-9: Position 6.

6 – South Rowella												
Period	Date	Time	LAeq	LAmax	LAmin	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	21 May	13:06	38.4	27.5	60.8	47.7	37.9	33.5	30.2	28.7	Clear Mild SW breeze	External: Dog barking Whipper snipper Birds Tractor Lawnmower\ LRCM: Chipper HVs Conveyor NBRA
Evening	20 May	19:21	52.3	31.6	78.0	64.7	42.0	37.9	34.2	32.6	Clear Calm	External: Dog barking A/C unit Birds/ Insects LRCM: Chipper HV Dozer Conveyors

Night	21 May	23:58	40.3	28.0	62.4	53.0	37.0	32.6	29.9	28.8	Clear Calm	External: A/C unit Dog barking Birds/Insects Aircraft LRCM: HVs Dozer Conveyor Chipper

Table 5-5: Position 6 Ln-statistics.

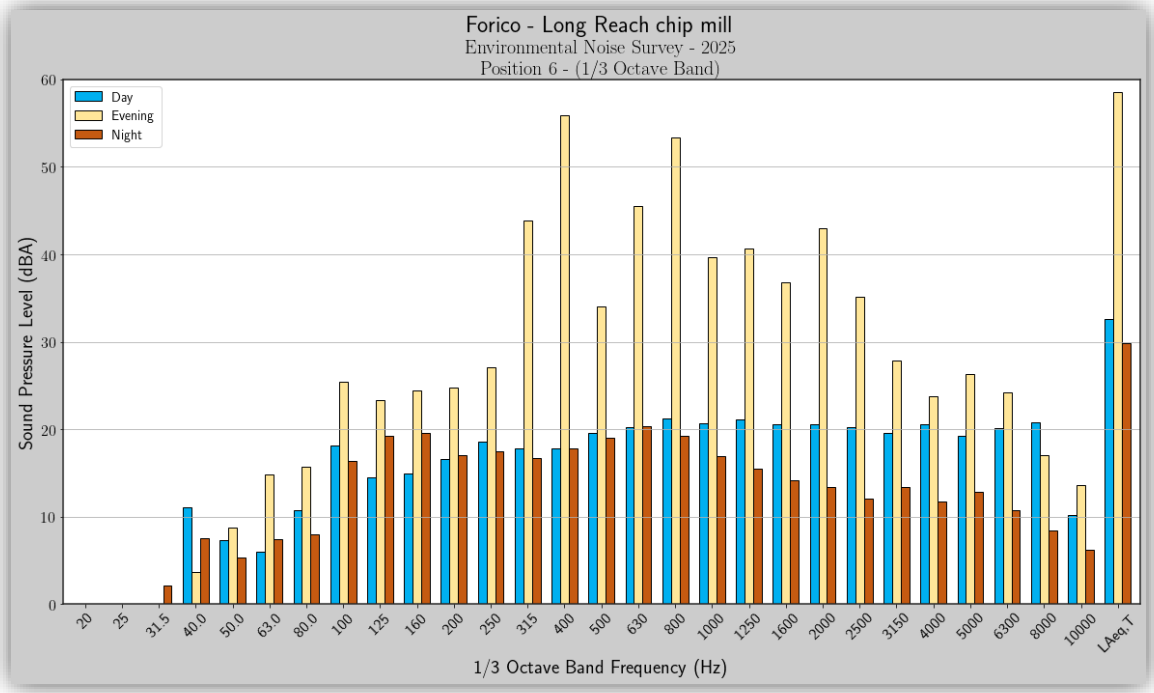

Figure 5-14: Position 6, 1/3-octave band spectrum.

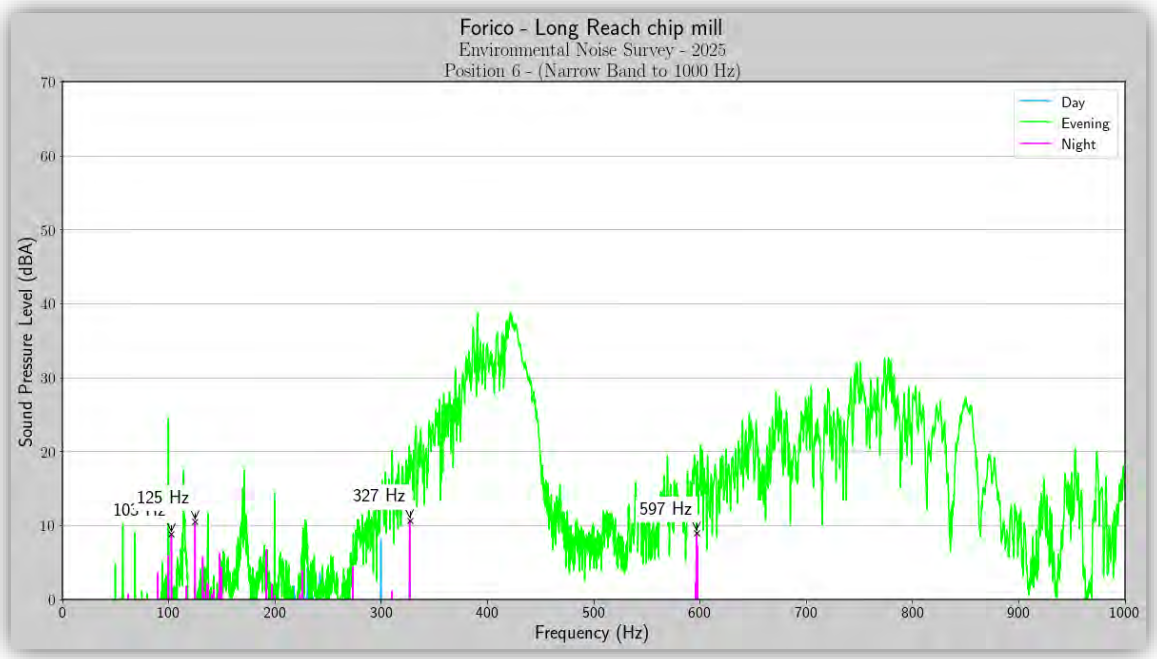

Figure 5-15: Position 6, narrow band spectrum 0 – 1000 Hz.

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. This position is used as the control for the survey.

The noise environment was controlled by nearby sources, consisting of traffic, lawnmower use and bird activity. Tones from the BBIP and the TVPS controlled background during the evening and night. Impacts and material dumping at the LRCM was noted during the night period, however, the LRCM chipper was not audible during the day and evening.

Figure 5-10: Position 7.

7 –Rowella Hall												
Period	Date	Time	LAeq	LAmin	LAmax	LA1	LA10	LA50	LA90	LA99	Weather	Audible sources
Day	21 May	11:53	47.4	30.1	64.9	60.1	48.2	36.7	34.0	32.1	Clear Calm	External: BBIP tones Insects/Birds Local traffic Light plane Lawn Mower LRCM: Not audible
Evening	20 May	18:07	40.6	21.8	60.5	56	38.6	26.5	24.2	23	Clear Calm	External: BBIP tones TVPAS tones Insects Powerline hum Local traffic LRCM: Not audible

Night	20 May	22:38	31.7	24.6	54.3	39.9	32.2	28.6	26.7	25.8	Clear Calm	External: BBIP tones TVPS tones Birds/Insects A/C unit LRCM: Impacts Material dumping

Table 5-6: Position 7 Ln-statistics.

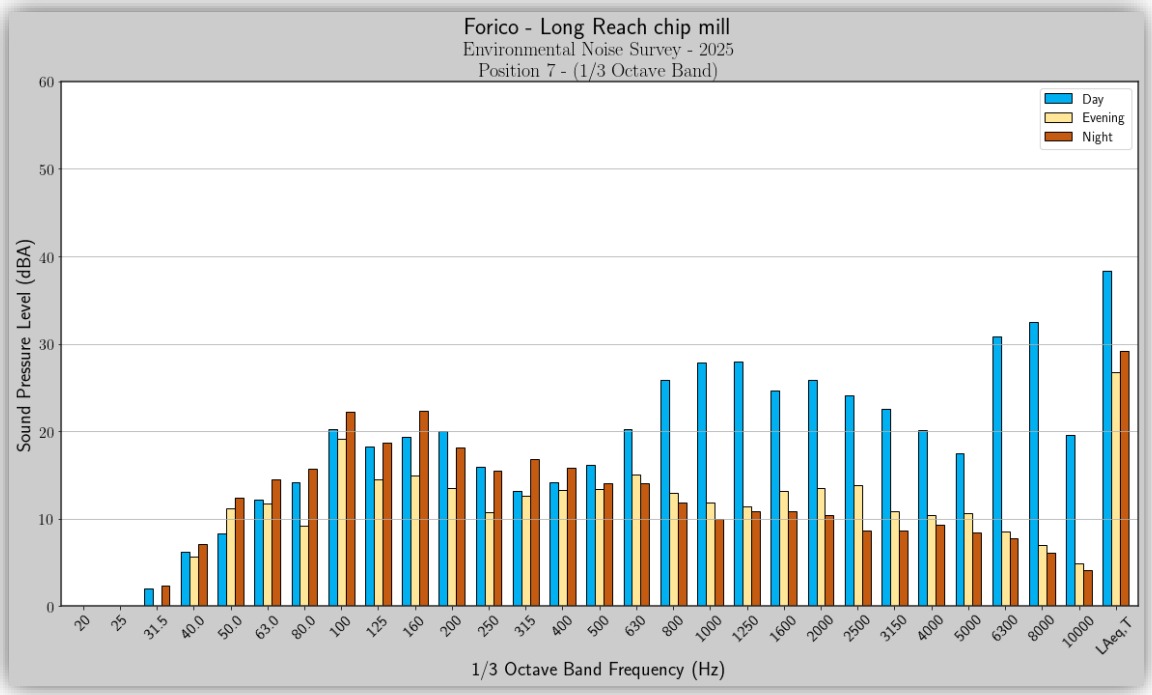

Figure 5-11: Position 7, 1/3-octave band spectrum.

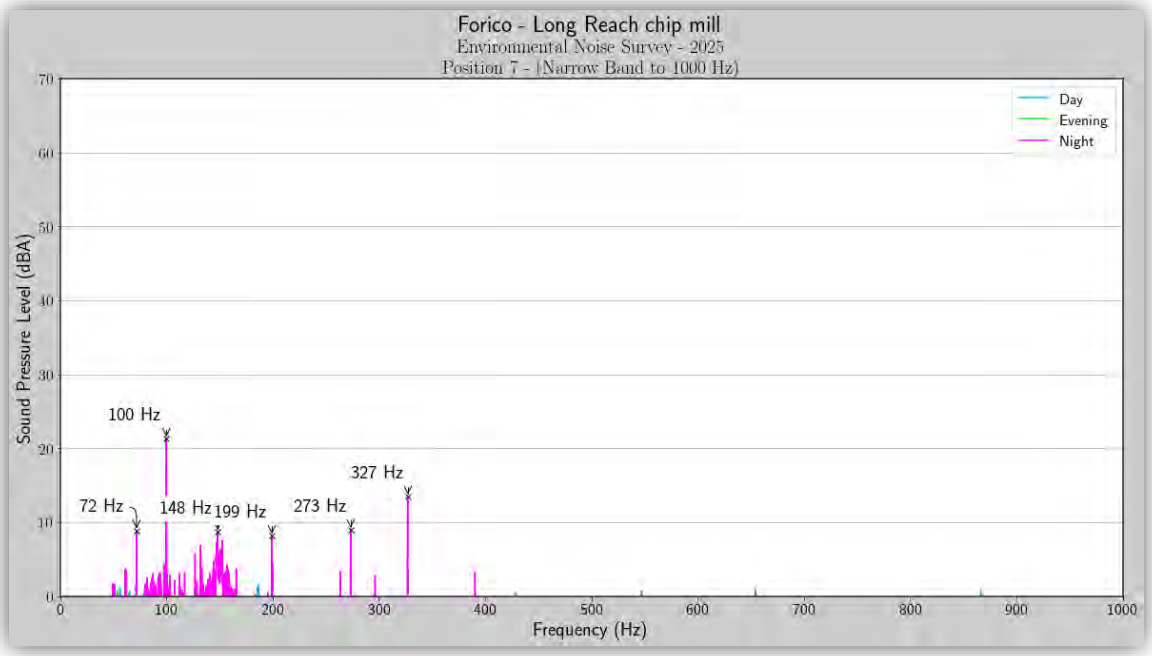

Figure 5-12: Position 7, narrow band spectrum 0 – 1000 Hz.

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.

Figure 5-13: SLM position

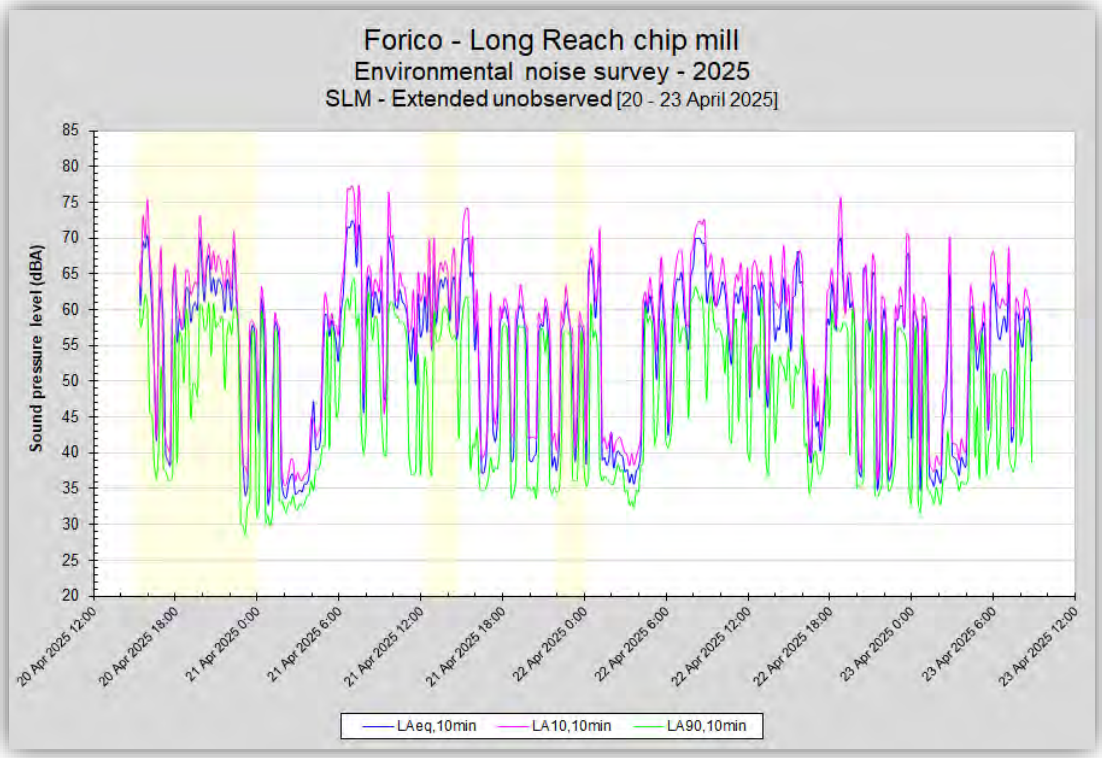

Figure 5-14: SLM position, extended unobserved Ln-statistics.

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, of EPN No. 7968/4 (r1)). 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 BBIP 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	40.2	33.8	50	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Evening	36.9	34.4	45	No	
	Night	36.1	34.2	40	No	
3	Day	49.5	29.6	50	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Evening	39.9	31.3	45	No	
	Night	35.7	33.2	40	No	
4	Day	45.1	25.0	50	No	L_{Aeq} levels not in excess of EPN noise emission limits.
	Evening	39.9	32.3	45	No	
	Night	34.0	32.2	40	No	
5	Day	41.9	32.9	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	42.8	31.6	45	No	
	Night	44.6	32.9	40	No	L_{Aeq} elevated by excessive dog barking
6	Day	38.4	30.2	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	52.3	34.2	45	No	L_{Aeq} elevated by excessive dog barking
	Night	40.3	29.9	40	No	
7	Day	47.4	34.0	50	No	L_{Aeq} levels not in excess of EPN noise emission limits
	Evening	40.6	24.2	40	No	LRCM not audible
	Night	31.7	26.7	40	No	L_{Aeq} levels not in excess of EPN noise emission limits

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 20 May and 23 May 2025. All measurement were taken in accordance with the *Tasmanian Noise Measurement Procedures Manual* and measurement positions from previous surveys[1][2][3] were utilised.
2. No potential breaches of Forico's EPN noise emission limits occurred during the survey
3. Chipper, heavy vehicle movements, dover activity and ship loading from the LRCM was noted throughout, however, sources external to the mill controlled the noise environment at most positions.
4. Tones from BBIP were significant at most positions.

   NB: As has been noted in previous environmental noise survey reports[1][2][3] 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.

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	20-May-25	16:03	0:10:00	61.9	37.3	78.8	73.5	67.0	48.0	39.8	38.4
2	Day	20-May-25	16:13	0:10:00	62.5	39.9	78.9	73.4	67.4	50.9	48.4	41.2
2	Day	20-May-25	16:23	0:10:00	50.1	37.0	75.5	59.8	54.3	41.1	39.1	38.0
				Average	40.2	31.6	64.2	50.9	41.3	36.1	33.8	32.7
2	Evening	20-May-25	21:09	0:10:00	34.9	30.3	53.5	40.8	36.0	34.0	32.4	31.3
2	Evening	20-May-25	21:19	0:10:00	37.2	32.6	43.3	40.6	38.9	37.0	34.4	33.4
2	Evening	20-May-25	21:29	0:10:00	38.7	33.9	49.4	43.1	40.6	38.0	36.3	35.2
				Average	36.9	32.3	48.7	41.5	38.5	36.3	34.4	33.3
2	Night	20-May-25	22:00	0:10:00	36.0	32.6	53.9	43.3	36.9	35.4	34.0	33.3
2	Night	20-May-25	22:10	0:10:00	35.9	31.8	46.0	39.9	37.4	35.5	34.0	33.0
2	Night	20-May-25	22:20	0:10:00	36.5	32.5	49.1	43.5	37.8	35.9	34.6	33.4
				Average	36.1	32.3	49.7	42.2	37.4	35.6	34.2	33.2

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	20-May-25	16:40	0:10:00	47.8	28.7	65.9	61.3	47.1	35.0	32.4	29.6
3	Day	20-May-25	16:50	0:10:00	46.6	30.9	71.1	55.6	41.2	36.0	33.1	31.8
3	Day	20-May-25	17:00	0:10:00	38.0	29.5	51.6	46.7	41.4	35.3	32.1	30.6
				Average	49.5	77.3	26.7	58.4	38.0	32.8	29.6	27.8
3	Evening	20-May-25	19:59	0:10:00	34.2	29.6	60.0	38.8	35.2	33.0	31.4	30.6
3*	Evening	20-May-25	20:09	0:10:00	51.5	29.6	82.8	61.5	43.8	33.3	31.6	30.6
3	Evening	20-May-25	20:19	0:10:00	33.9	28.4	56.3	38.0	34.9	32.7	30.8	29.4
				Average *	34.1	29.0	58.2	38.4	35.1	32.9	31.1	30.0
3	Night	21-May-25	22:08	0:10:00	35.1	31.5	49.0	41.1	36.4	34.4	33.3	32.3
3	Night	21-May-25	22:18	0:10:00	35.0	30.9	51.1	38.8	36.1	34.6	33.3	32.1
3	Night	21-May-25	22:28	0:10:00	37.0	31.1	64.2	39.2	37.1	35.1	33.0	32.0
				Average	35.7	31.2	54.8	39.7	36.5	34.7	33.2	32.1

* Second evening measurement excluded from average due to local traffic noise.

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	21-May-25	13:43	0:10:00	31.1	23.4	56.5	37.4	32.7	28.0	25.2	24.3
4	Day	21-May-25	13:53	0:10:00	43.9	22.8	71.0	56.7	40.0	27.0	24.5	23.7
4	Day	21-May-25	14:03	0:10:00	60.2	23.0	82.2	74.4	50.1	29.2	25.2	23.8
				Average	45.1	23.1	69.9	56.2	40.9	28.1	25.0	23.9
4	Evening	20-May-25	20:33	0:10:00	39.3	29.3	56.5	53.2	38.4	32.9	31.2	30.3
4	Evening	20-May-25	20:43	0:10:00	35.9	31.0	57.3	43.4	37.0	34.4	32.9	31.9
4	Evening	20-May-25	20:53	0:10:00	44.4	30.3	70.7	56.4	40.1	34.4	32.7	31.6
				Average	39.9	30.2	61.5	51.0	38.5	33.9	32.3	31.3
4	Night	21-May-25	22:42	0:10:00	34.1	30.5	45.7	38.3	35.4	33.8	32.2	31.3
4	Night	21-May-25	22:52	0:10:00	33.4	30.2	37.6	35.6	34.6	33.2	31.9	31.2
4	Night	21-May-25	23:02	0:10:00	34.4	30.4	46.7	38.4	35.4	34.2	32.6	31.5
				Average	34.0	30.4	43.3	37.4	35.1	33.7	32.2	31.3

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	21-May-25	12:30	0:10:00	37.8	31.4	61.8	44.7	38.7	34.5	32.9	32.1
5	Day	21-May-25	12:40	0:10:00	39.6	31.2	62.8	48.8	41.8	34.1	32.5	31.8
5	Day	21-May-25	12:50	0:10:00	48.2	29.7	58.7	55.7	53.3	37.1	33.4	31.4
				Average	41.9	30.8	61.1	49.7	44.6	35.2	32.9	31.8
5	Evening	20-May-25	18:45	0:10:00	51.5	30.6	69.0	63.2	56.6	34.2	32.5	31.5
5	Evening	20-May-25	18:55	0:10:00	43.2	29.6	68.3	58.2	35.6	33.0	31.6	30.3
5	Evening	20-May-25	19:05	0:10:00	33.6	28.2	49.3	39.9	35.7	32.6	30.7	29.0
				Average	42.8	29.5	62.2	53.8	42.6	33.3	31.6	30.3
5	Night	21-May-25	23:19	0:10:00	37.4	30.8	51.4	48.9	38.3	34.4	32.3	31.6
5	Night	21-May-25	23:29	0:10:00	48.1	31.2	72.8	60.3	40.9	35.1	33.1	32.0
5	Night	21-May-25	23:39	0:10:00	48.2	31.8	77.5	58.4	36.9	34.7	33.4	32.7
				Average	44.6	31.3	67.2	55.9	38.7	34.7	32.9	32.1

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	21-May-25	13:06	0:10:00	36.1	27.9	52.4	46.6	38.4	32.6	30.5	29.0
6	Day	21-May-25	13:16	0:10:00	35.6	26.6	58.6	45.6	37.2	32.1	29.6	28.0
6	Day	21-May-25	13:26	0:10:00	43.6	27.9	71.3	51.0	38.1	35.8	30.6	29.2
				Average	38.4	27.5	60.8	47.7	37.9	33.5	30.2	28.7
6	Evening	20-May-25	19:21	0:10:00	55.5	31.5	77.8	71.6	43.0	38.1	34.6	32.8
6	Evening	20-May-25	19:31	0:10:00	49.8	32.0	77.0	58.8	42.1	38.6	34.5	32.8
6	Evening	20-May-25	19:41	0:10:00	51.5	31.4	79.2	63.7	40.8	36.9	33.5	32.3
				Average	52.3	31.6	78.0	64.7	42.0	37.9	34.2	32.6
6	Night	21-May-25	23:58	0:10:00	41.6	26.4	64.8	56.2	35.1	30.5	28.3	27.3
6	Night	22-May-25	00:08	0:10:00	42.9	29.6	65.2	57.0	38.6	33.9	31.5	30.4
6	Night	22-May-25	00:18	0:10:00	36.3	27.9	57.1	45.7	37.3	33.5	29.8	28.8
				Average	40.3	28.0	62.4	53.0	37.0	32.6	29.9	28.8

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	21-May-25	11:53	0:10:00	49.8	30.9	66.8	63.0	51.7	38.1	34.7	32.7
7	Day	21-May-25	12:03	0:10:00	45.6	29.0	65.5	58.3	43.5	35.6	33.5	31.6
7	Day	21-May-25	12:13	0:10:00	46.9	30.3	62.3	59.1	49.3	36.3	33.8	32.1
				Average	47.4	30.1	64.9	60.1	48.2	36.7	34.0	32.1
7	Evening	20-May-25	18:07	0:10:00	37.2	20.7	58.8	48.6	35.5	24.7	21.5	29.8
7	Evening	20-May-25	18:17	0:10:00	42.4	22.2	64.3	61.2	40.1	27.5	25.1	28.9
7	Evening	20-May-25	18:27	0:10:00	42.2	22.5	58.4	58.2	40.2	27.3	26.0	29.5
				Average	40.6	21.8	60.5	56.0	38.6	26.5	24.2	23.0
7	Night	20-May-25	22:38	0:10:00	31.1	25.8	47.4	36.4	33.9	29.7	27.9	27.0
7	Night	20-May-25	22:48	0:10:00	30.9	24.8	51.7	42.5	30.5	28.0	26.7	26.0
7	Night	20-May-25	22:58	0:10:00	33.1	23.2	63.9	40.9	32.1	28.2	25.4	24.3
				Average	31.7	24.6	54.3	39.9	32.2	28.6	26.7	25.8

Table A7 – Position 7 observed environmental noise measurements.

Appendix E

Environment Protection Notice (EPN) No. 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.

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Attachments

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:

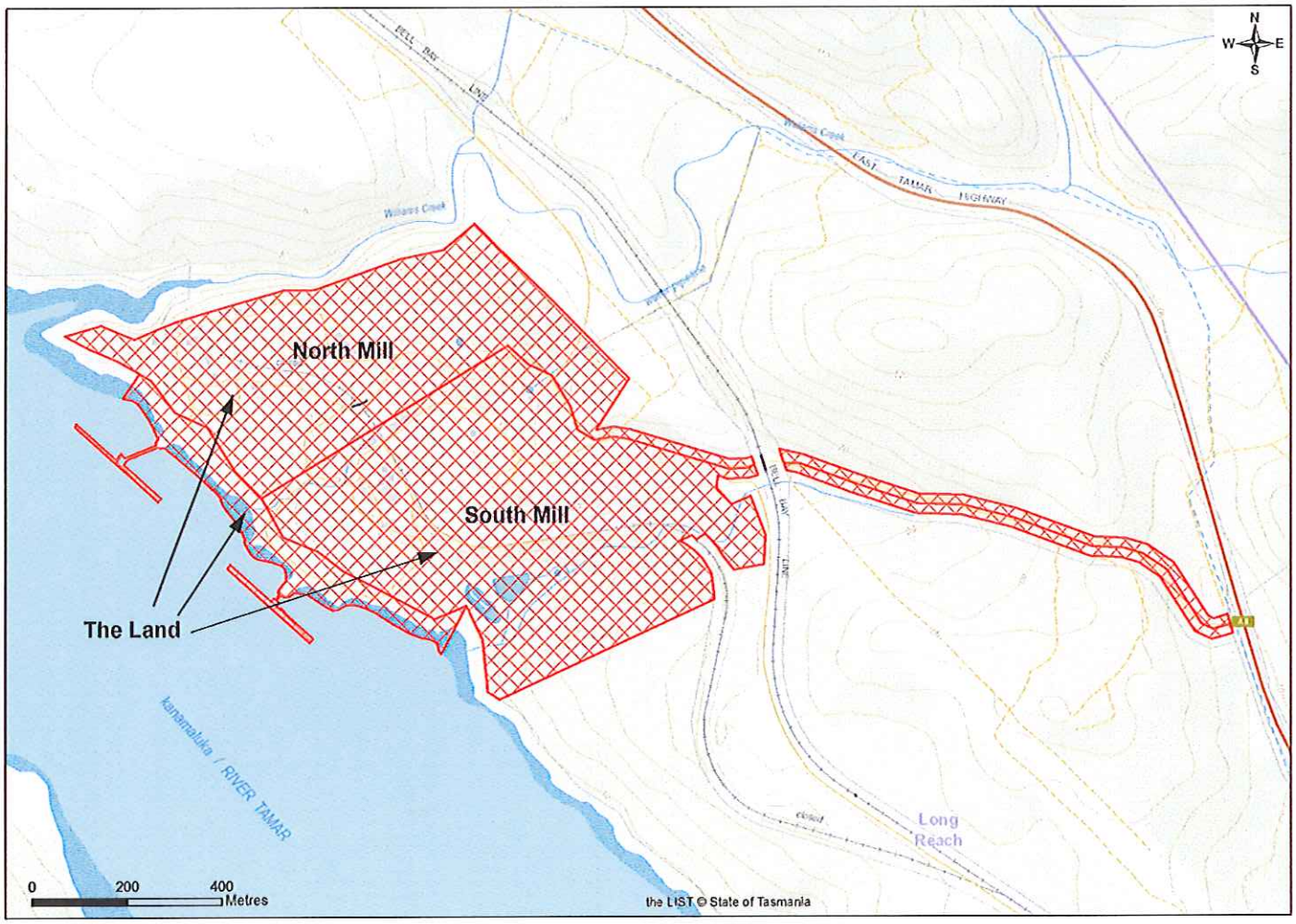
1.1 waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;

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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