

Opal Botany Mill

DA 05_0120

Annual Environmental Monitoring Report (AEMR)

Operation Compliance Report July 2022 – June 2023

Revision: 01

22/08/2023

Prepared by:

Karen Jones

Environment, Testing and Management Systems Manager



1. Introduction

1.1. Project name and application number

Project Name: Construction of a new paper mill at Amcor's Matraville Plant (Project B9) Application number: 05_0120.

1.2. Project Address

1891 Botany Road, Matraville NSW

1.3. Project Phase

Operation

1.4. Compliance Reporting Period

1st July 2022 to 30th June 2023

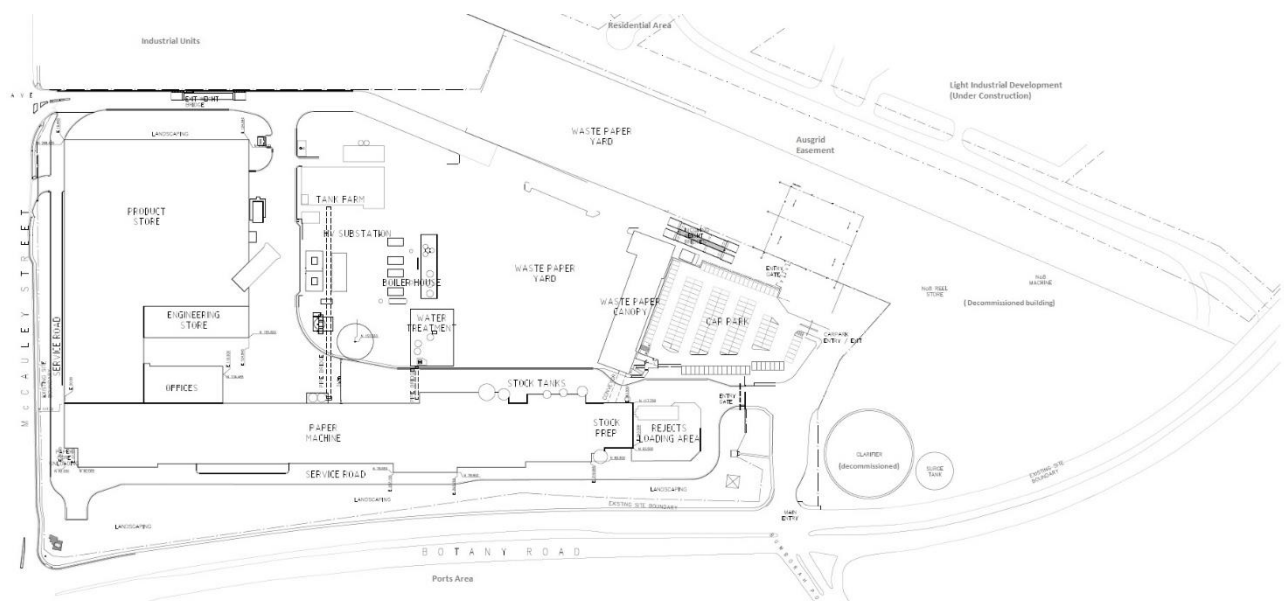
1.5. Project Activity Summary

Works to relocate an existing Sydney Water sewer line in preparation for the rejects handling facility construction as approved in 05_0120-Mod-10 was started during the reporting period.

1.6. Site Footprint and context

Figure 1 shows the premises information for the operational site, Figure 2 gives the coordinates around the boundaries of the Opal Botany Mill property, including easements within the property and Figure 3 is a regional context map.

Figure 1: Premises Information



1.7. Key Project Personnel

Robert Carry	General Manager, Operations
Jacob Chretien	General Manager, Technical
Karen Jones	Environment, Testing and Management Systems Manager
Harries Pallippuram	Health and Safety Manager

2. Operations Summary

2.1. Production Summary

	Approved Limit* (Tonnes)	2021/22	2022/23	2023/24 (forecast)
Packaging Paper	500,000	420,784	437,499	450,000

*Schedule 2, Condition 5, Project 05_0120 (MOD 9)

2.2. Next reporting period

Construction for Modification 10 works for a new Rejects Waste Handling Facility to increase fibre reuse and reduce waste to landfill will be started in the 2023/24 reporting period.

3. Previous report actions

See Appendix B for the Action Status Summary table for actions recommended by the 2022 Independent Environment Audit Report.

There were no further actions from previous reports.

4. Compliance Status

4.1. Non-compliance Summary

Total number of non-compliances: 2

Schedule 3,1	
Compliance Requirement	The Applicant must ensure that the Development complies with Section 129 of the Protection of the Environment Operations Act, 1997. 'Section 129 of the POEO Act 1997, provides that the Applicant must not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is identified in the relevant environmental protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.
Details of non-compliance	53 Odour complaints received by mill and EPA during reporting period.
Agency to which non-compliance was reported	Complaints and action discussed with NSW EPA.
Formal enforcement taken by regulators	Pollution Reduction Program for Odour Emissions Reduction was added to the site Environment Protection Licence in October 2022.
Response taken/proposed	A project to reduce the odour from the Decanter building is being progressed and there is an increased focus on process ventilation and exhaust efficiency. In addition, community engagement has been a focus with five Mill tours offered to the local community.

Schedule 3,3	
Compliance Requirement	Except as may be expressly provided in an EPL for the Development, the Applicant must comply with Section 120 of the POEO Act 1997
Details of non-compliance	Two losses to Stormwater as reported in section 4.5.1 of this AEMR.
Agency to which non-compliance was reported	All reported to NSW EPA as pollution incidents. No further reporting required as the incidents were not material harm incidents.
Formal enforcement taken by regulators	None taken.
Response taken/proposed	Response detailed in Section 4.5.1 of this AEMR.

4.2. Noise

Table 1: Project Approval Noise Limits

ID	Location	Day L _{Aeq,15min} , dB(A)	Evening L _{Aeq,15min} , dB(A)	Night L _{Aeq,15min} , dB(A)	Night L _{Amax} , dB(A)
R1	Corner of McCauley Street and Australia Avenue	46	45	43	55
R2	Australia Avenue	45	45	43	55
R3	Murrabin Avenue	46	45	43	55
R4	Partanna Avenue	42	41	41	55
R5	Corner of Partanna Avenue and Moorina Avenue	42	42	39	55
R6	Moorina Avenue	43	43	39	55

Noise monitoring, as is required by the Botany Mill Environmental Protection Licence (EPL) was conducted on a quarterly basis during the reporting period in September 2022, November 2022 and April 2023. The June-August 2023 quarter is due to be conducted in July 2023. These noise monitoring reports can be found on the Opal website: <https://opalan.com/sustainability/sustainability-performance/>.

Tables 2 to 6 give the noise levels measured during the reporting period at each monitoring point. Comparisons of results from these monitoring periods with criteria and historical monitoring are shown in Figures 4 – 9. While these historical background noise levels are not directly related to the L_{Aeq} criteria from the EPL, they provide an indication of the change in background environmental noise levels corresponding to the regular noise surveys undertaken for the Botany Mill site. No overall trends can be seen in Figures 4 – 9.

The noise consultants conducting each noise survey have stated the following in their reports:

"Regular quarterly noise monitoring surveys have demonstrated that direct measurement of Opal's contribution to the noise environment is not possible because noise emissions from the site are generally lower than the ambient measured L_{Aeq} noise levels, which masks the actual noise from the Opal site"

And

"The influence from Opal on the local noise environment may be better described using the L_{A90} statistical parameter. This additional parameter has been presented in the results summary to be considered in conjunction with the L_{Aeq} noise level when assessing compliance of the Opal site."

Access to location R3 was withdrawn in February 2020 and is unlikely to be available for future noise surveys. This has been discussed with the EPA.

Table 2: Noise levels measured at monitoring point R1

	L _{Aeq, 15 min} dB(A)			L ₉₀ (10 th Percentile) dB(A)		
	Day	Evening	Night	Day	Evening	Night
September 2022*						
November 2022*						
April 2023	52.5	48.3	46.4	42.0	41.9	39.6

* Equipment failure in September and November 2022 resulted in no data during this monitoring period for R1

Table 3: Noise levels measured at monitoring point R2

	L _{Aeq} , 15 min dB(A)			L ₉₀ (10 th Percentile) dB(A)		
	Day	Evening	Night	Day	Evening	Night
September 2022	51.7	50.0	46.5	39.3	38.9	35.7
November 2022	51.6	50.1	46.5	38.1	36.8	35.8
April 2023	51.3	50.2	50.6	41.4	43.7	44.3

Table 4: Noise levels measured at monitoring point R4

	L _{Aeq} , 15 min dB(A)			L ₉₀ (10 th Percentile) dB(A)		
	Day	Evening	Night	Day	Evening	Night
September 2022	52.8	47.4	48.6	41.4	39.9	36.9
November 2022	56.3	47.0	47.6	40.7	37.8	36.3
April 2023	52.2	49.1	46.8	41.3	41.9	41.3

Table 5: Noise levels measured at monitoring point R5

	L _{Aeq} , 15 min dB(A)			L ₉₀ (10 th Percentile) dB(A)		
	Day	Evening	Night	Day	Evening	Night
September 2022	52.7	50.3	53.4	40.2	41.1	38.4
November 2022	51.8	47.6	44.0	39.3	37.8	32.9
April 2023	52.2	47.7	47.3	41.3	40.0	38.9

Table 6: Noise levels measured at monitoring point R6

	L _{Aeq} , 15 min dB(A)			L ₉₀ (10 th Percentile) dB(A)		
	Day	Evening	Night	Day	Evening	Night
September 2022	51.7	50.8	46.4	42.7	41.7	37
November 2022	52.2	51.3	47.4	44.4	41.1	35.1
April 2023						

* Equipment failure in April 2023 resulted in no data during this monitoring period for R6

The April 2023 Quarterly noise monitoring report states:

"The L_{Aeq} and L_{Amax} noise levels recorded during the survey period are higher than the EPL criteria at the monitoring locations but are not related to the operation of the Opal site"

Figure 4: Historical background noise levels at R1

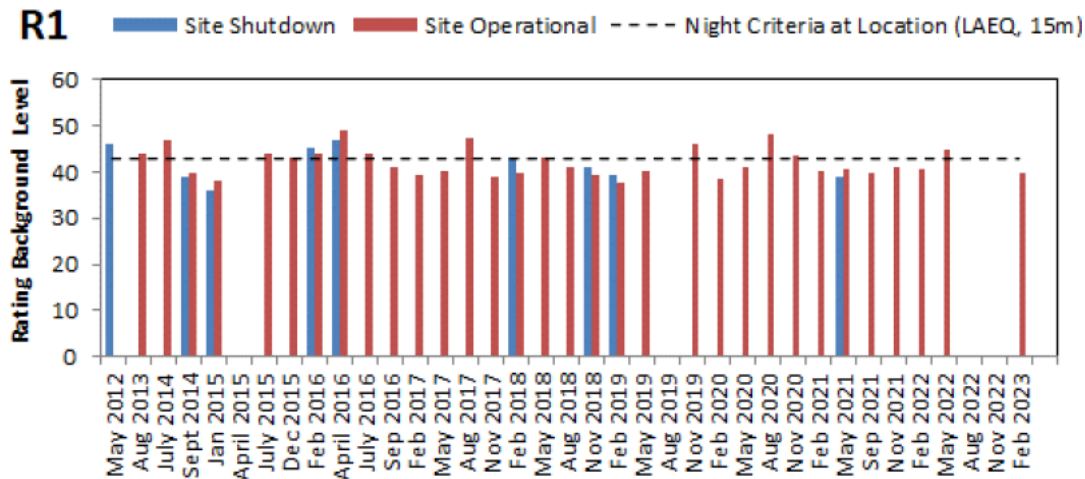


Figure 5: Historical background noise levels at R2

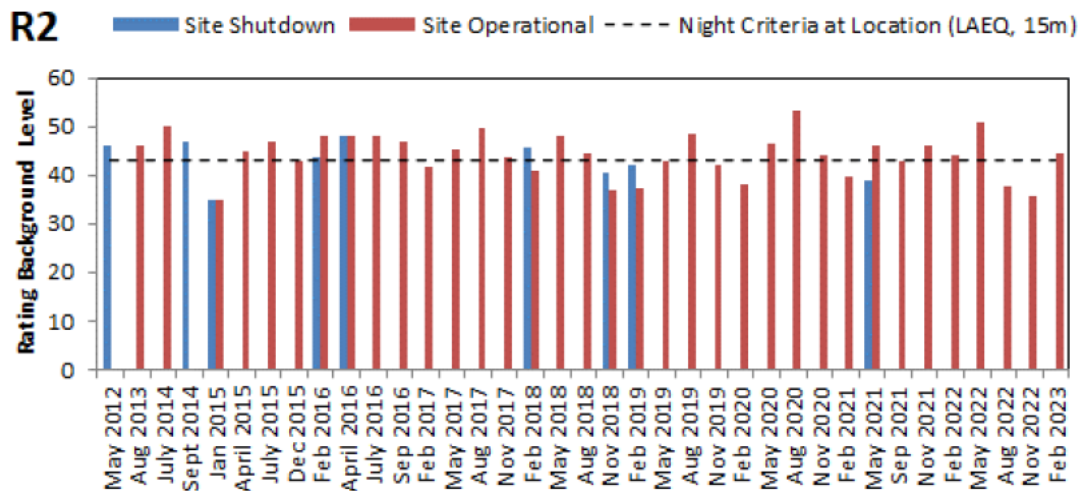


Figure 6: Historical background noise levels at R3

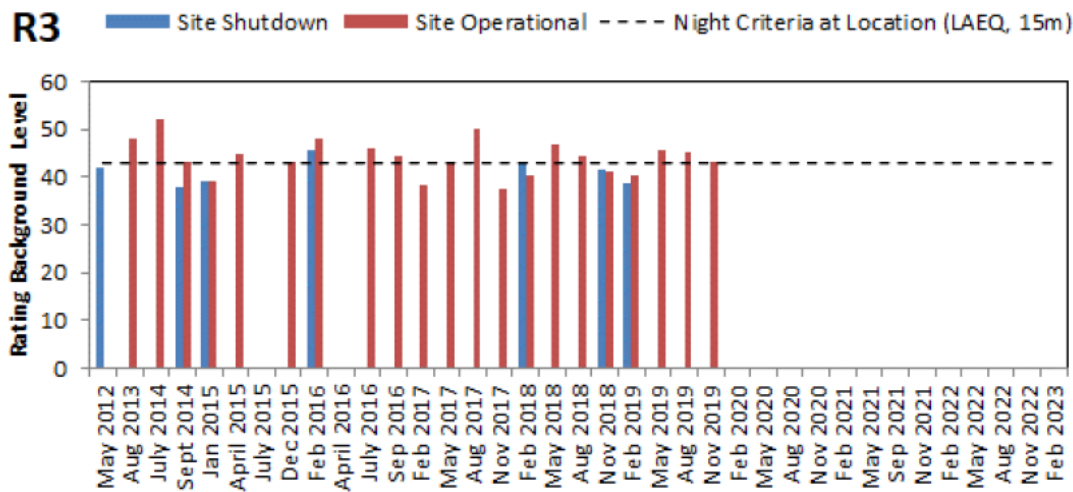


Figure 7: Historical background noise levels at R4

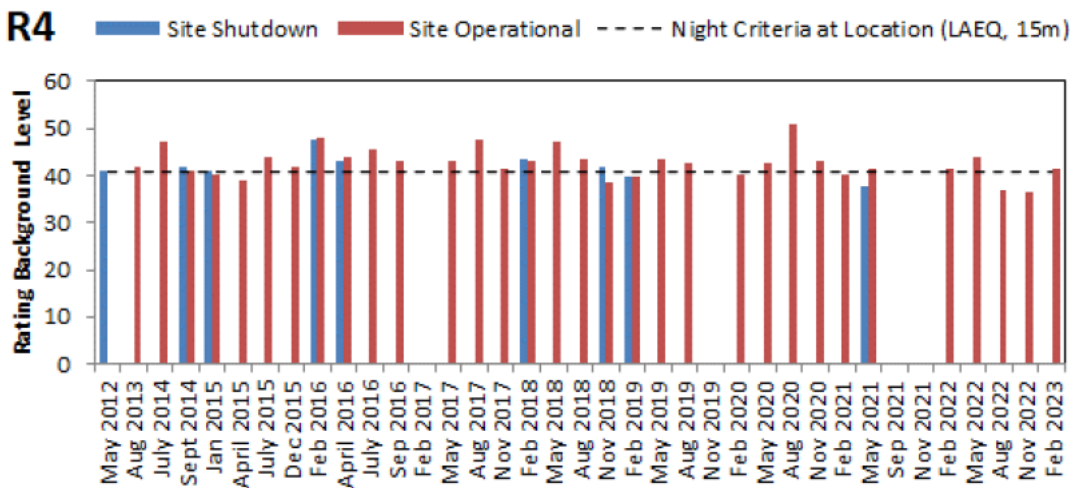


Figure 8: Historical background noise levels at R5

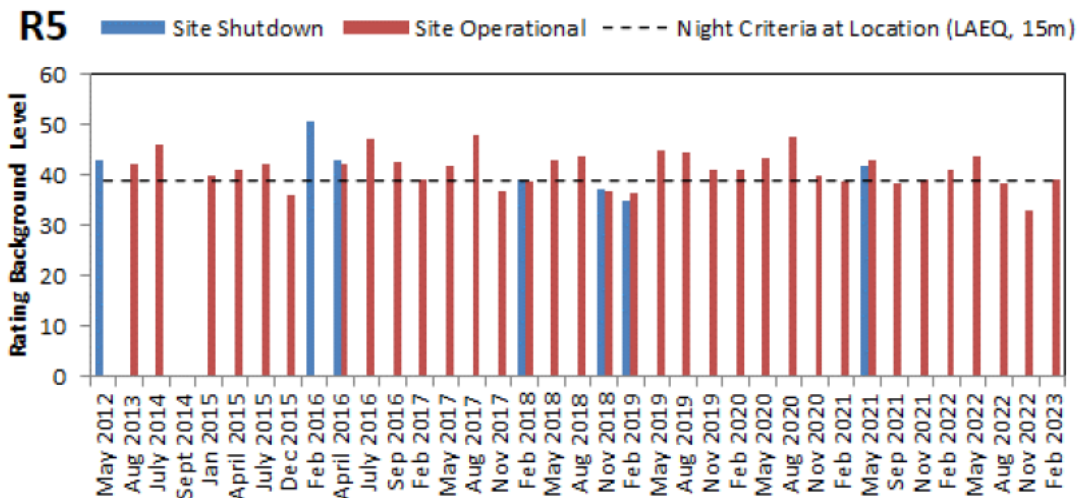
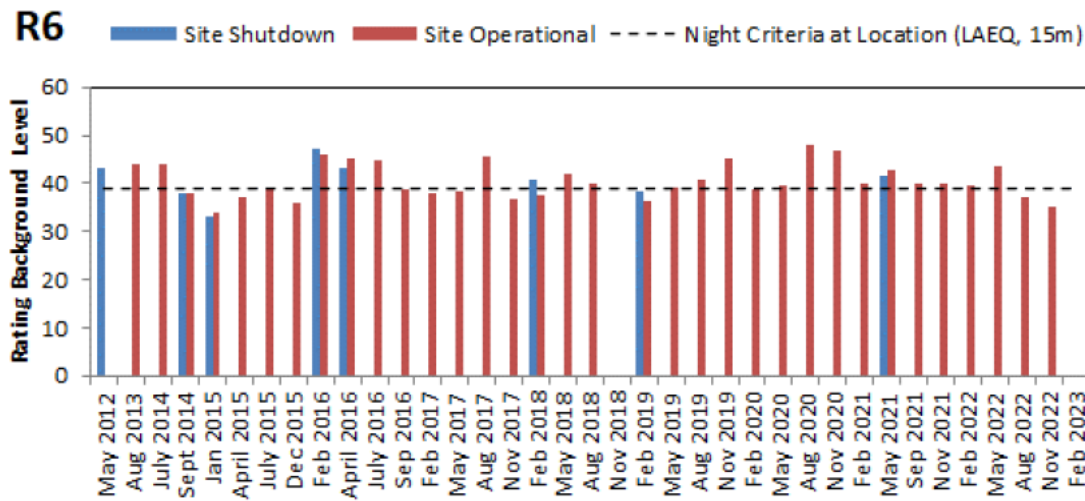


Figure 9: Historical background noise levels at R6



4.2.1. Noise Model Predicted noise levels

As required by Condition U1.2 in the Opal Botany Mill Environmental Protection Licence (EPL), an acoustic model of the Botany Mill site was developed and updated in 2022 to predict noise levels at the key receiver locations detailed in the EPL. Table 7 presents the predicted noise levels against the night time noise criteria as these are the most stringent for the site operating conditions. These predicted noise levels are for periods of worst-case site activity under adverse meteorological conditions, where the likelihood of actual impacts under these conditions is expected to be infrequent at best.

Table 7: Predicted noise levels from Botany Mill Noise model

Location ID	EPL Noise Goals dB(A)		Predicted Noise levels dB(A)	
	Night L _{Aeq} 15 min	Night L _{Amax}	Night L _{Aeq} 15 min	Night L _{Amax}
R1	43	55	38	46-48
R2	43	55	39	47-49
R3	43	55	40	48-50
R4	41	55	40	48-50
R5	39	55	37	42-44
R6	39	55	35	44-46

4.3. Water Use

Botany Mill currently has the following water access licence (WAL) and Approval for extracting groundwater:

- WAL 36382
- Approval 10WA118709

Usage for the reporting period was within licence limits. The site used a total of 1,982 ML/yr, where the licence limit is 2,920 ML/yr.

Water use predicted by the EA was up to 12 ML/day of fresh water. During the reporting period the site used an average of 5.4 ML/day of groundwater.

4.4. Sydney Water Trade Waste

Opal Botany Mill holds a Consent to Discharge Industrial Trade Wastewater (the Consent) with Sydney Water for effluent from site. A new Consent was signed on 26th June 2023. For 1st July 2022 to 25th June 2023, the pollutant limits are set out in Table 8. For 26th June to 30th June 2023, the new Consent conditions are set out in Table 9. In addition, pH and temperature of the effluent must be within the range 7.0 to 10.0 and below 38 degrees Celsius respectively.

Effluent testing was performed, with results sent to Sydney Water as per the Consent to Discharge Industrial Trade Wastewater.

Table 8: Sydney Water Trade Wastewater Consent Pollutant Limits to 25th June 2023

Substance	Daily Mass (kg/d)	Concentration (mg/L)
Biological Oxygen Demand	35,000	N/A
Suspended Solids (TSS)	5,000	600
Total Dissolved Solids	30,000	10,000
Phenolic Compounds	7.25	1

Table 9: Sydney Water Trade Wastewater Consent Pollutant Limits from 26th June 2023

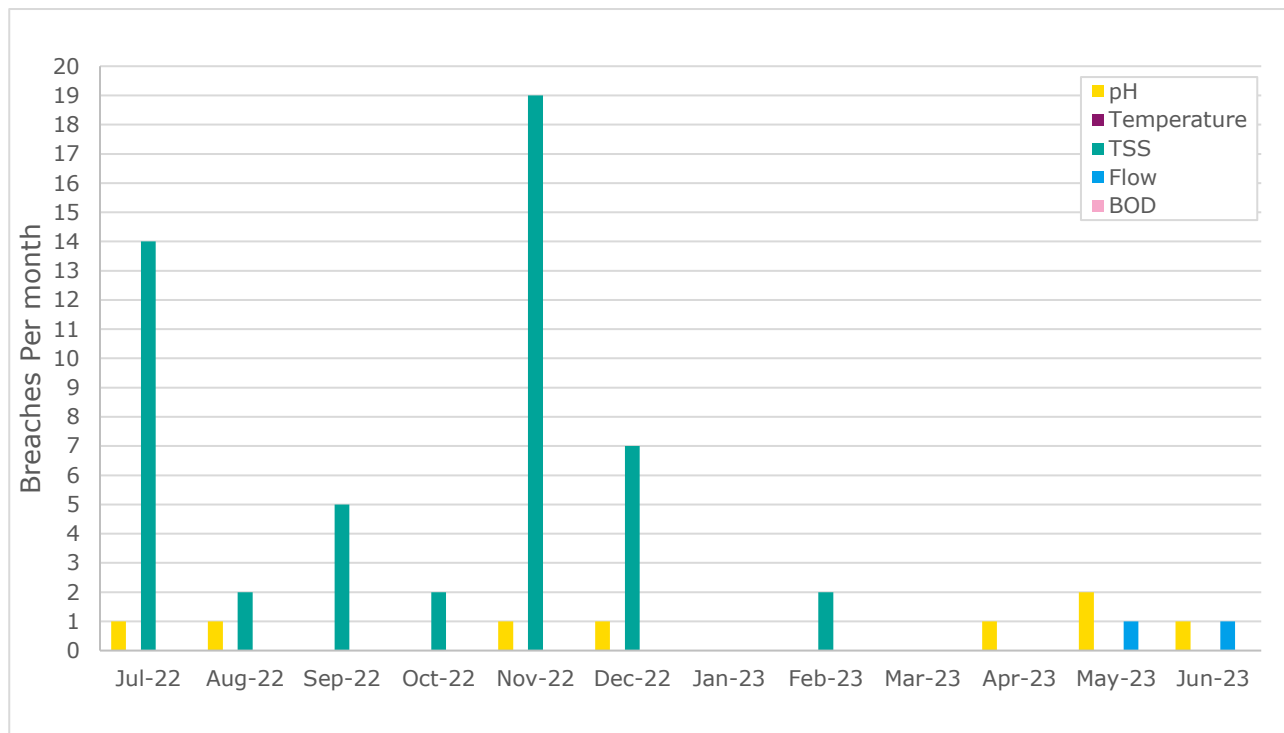
Substance	Daily Mass (kg/d)	Concentration (mg/L)
Biological Oxygen Demand	30,000	N/A
Suspended Solids (TSS)	5,370	600
Total Dissolved Solids	26,000	10,000
Phenolic Compounds	7	1

An effluent flow of 4.3 ML/day was predicted in the EA for an assumed paper production rate of 345,000 T/year. During the reporting period, the site produced 437,000 Tonnes, and released an average of 7.0 ML/day of effluent to the Sydney Water sewer.

As reported in the last AEMR (2021-2022), Sydney Water included an Effluent Improvement Program (EIP) for Total Suspended solids (TSS) during the last reporting period. Opal submitted it's EIP to Sydney Water on 28th July 2022 and specified the steps that will be taken to ensure that the trade waste discharge meeting the TSS standards of 600 mg/L by 31st December 2022.

During the previous reporting period, one hundred and forty breaches of Consent for TSS were recorded. During the 2022-23 reporting period, fifty-one breaches for TSS were recorded. During the last six-month period (January – June 2023) only two TSS breaches were recorded.

Figure 10: Breaches of Consent to Discharge Industrial Trade Wastewater in 2022-23



Figures 11 to 14 show historical trends for the relevant pollutant test results. The variation in BOD₅ results is due to the secondary water treatment plant (SWTP) commissioning in 2018, followed by unreliable running of the SWTP in 2019, and recommissioning in 2020 after significant maintenance works.

Figure 11: Biological Oxygen Demand in effluent – historical data

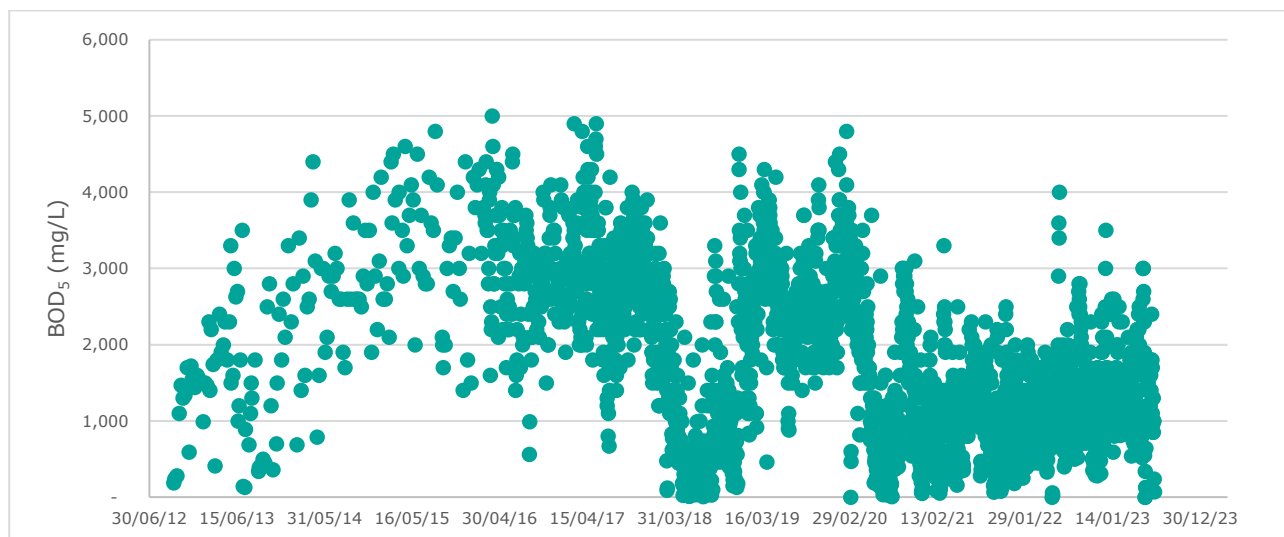


Figure 12: Suspended Solids in effluent – historical data

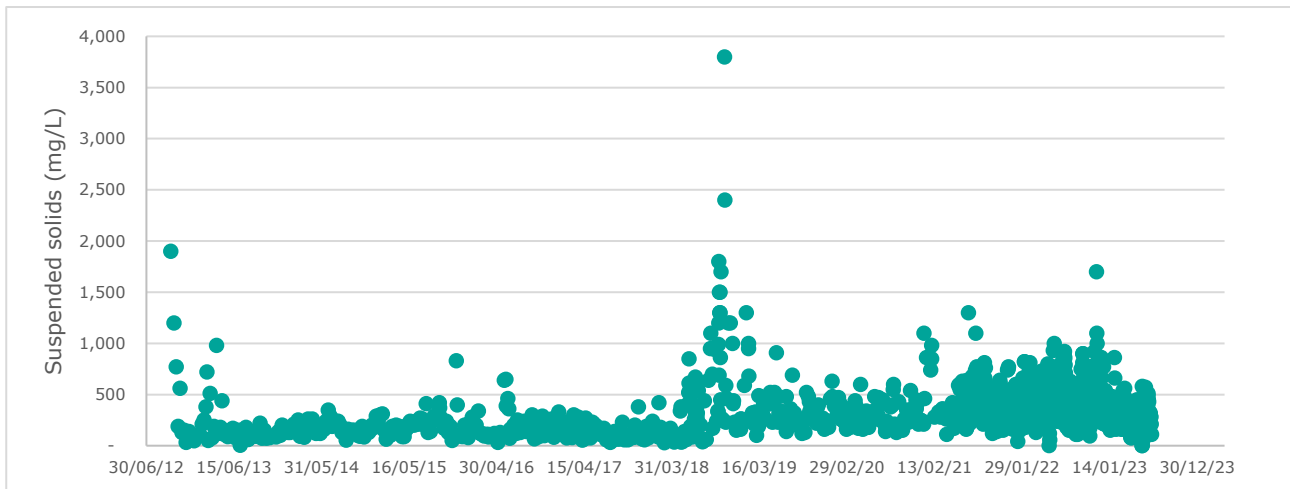


Figure 13: Total Dissolved Solids in effluent – historical data

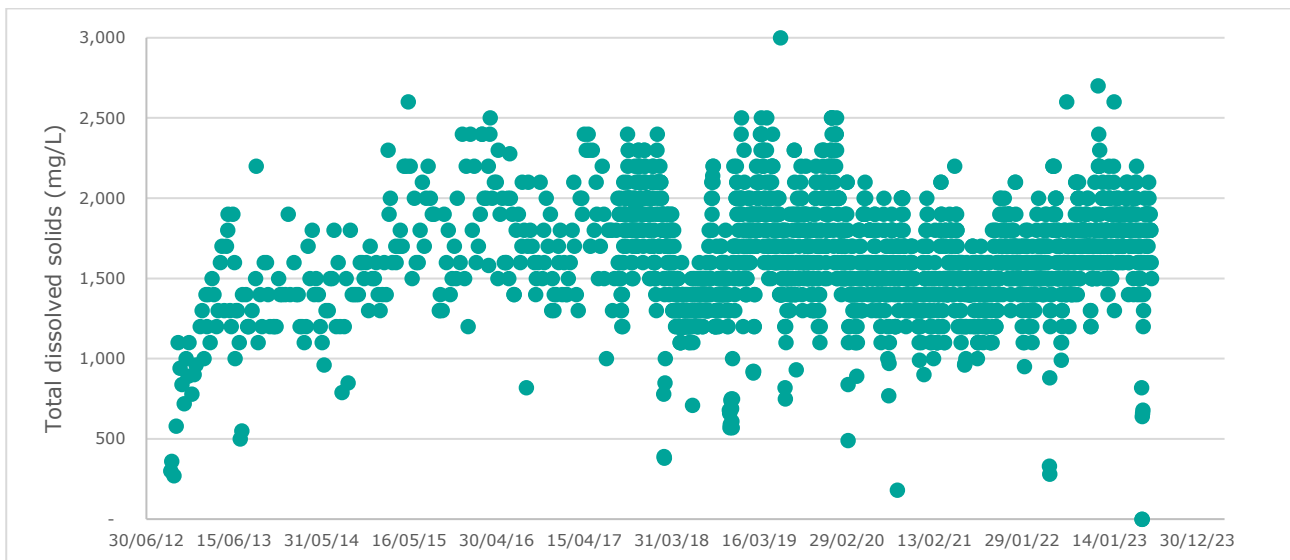
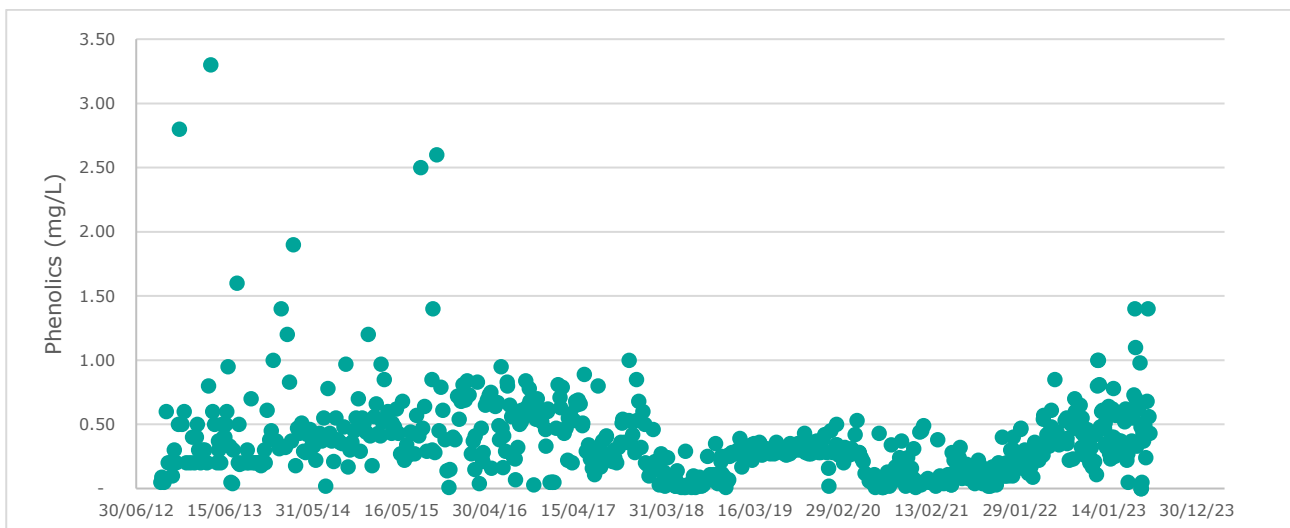


Figure 14: Phenolic compounds in effluent – historical data



4.5. NSW EPA Environmental Protection Licence (EPL)

The EPL was amended in May 2023 to account for the fee-based activity changes for waste generation/storage in the Protection of the Environment Operations (POEO) Regulation.

An Odour Reduction progress letter was submitted in February 2023, and the Odour Mitigation Report submitted in April 2023.

The Annual return for the Botany Mill EPL 1594 was submitted in April 2023 for the 12-months licence reporting period as required. Two non-compliances were reported as detailed in 4.5.1.

4.5.1. EPL Non-compliances

There were two pollution incidents reported to the NSW EPA during the reporting period – one in December 2022 and the other in January 2023, both for process water going to stormwater.

On December 22nd, 2022 approximately 1000 Litres of process water overflowed the basement of the paper machine building via a closed roller door to a stormwater drain on site. After a 21-hour maintenance shut, the winder sump overflowed due to the winder sump pump being put into “out of service” mode during the shut and not being put back into service on start-up. In addition, the sump was found to be overflowing at a sump level of 86%, rather than 100%, hence the reason that no alarms were indicating there was an issue. There are high-level and high-high-level alarms on the winder sump at 90% and 95% respectively, however these were not triggered due to the incorrect reading. The sump overflowed and filled the basement area before running under a roller door and out to the internal roadway stormwater drain.

- Action taken: The winder sump pump was started manually when the overflow was noticed. Recalibration of the level indication on the winder sump was completed on December 22nd 2022. The high- and high-high-level alarms for the winder sump have been lowered to 75% and 80% respectively. An additional level indicator in the winder sump basement area will be installed to indicate any localised flooding. The humeceptor in the stormwater drain (which removes suspended solids and petroleum hydrocarbons) was cleaned out using a vacuum truck after the incident as a precautionary measure.

On January 6th 2023 approximately 8000 Litres of process water overflowed the site stormwater system from the pulper sump. Both pulper sumps were found to have flow restrictions (a hole in the main sump pump and a piece of timber lodged in the #2 pump). In addition, equipment failure in the rejects area caused an increase in the water flow to the pulper sump. Normally all dry-weather flows into the stormwater system are returned to the process areas, however this overflow occurred during a rain event, resulting in the likelihood that some of the overflowed process water left the site via the stormwater outlet.

- Action taken: A portable Sykes pump was set up to pump water out of the pulper sump. Paper bales were placed at the pulper basement bund across the drain to stop water entering the stormwater drain. The main pulper sump pump will have its replacement cycle reduced to 9-monthly. A Sykes pump will be set up as a spare pulper sump pump. A flooding sensor will be added to the pulper sump area of the basement to alert operators to localised flooding.

The EPA have responded to both events and stated that in this instance no regulatory action will be taken.

4.6. Traffic

There has been no significant change in traffic performance for the site since the last reporting period. Current traffic volumes remain well under the vehicle numbers predicted in Modification 9.

Table 10: Predicted and current daily heavy vehicle traffic performance

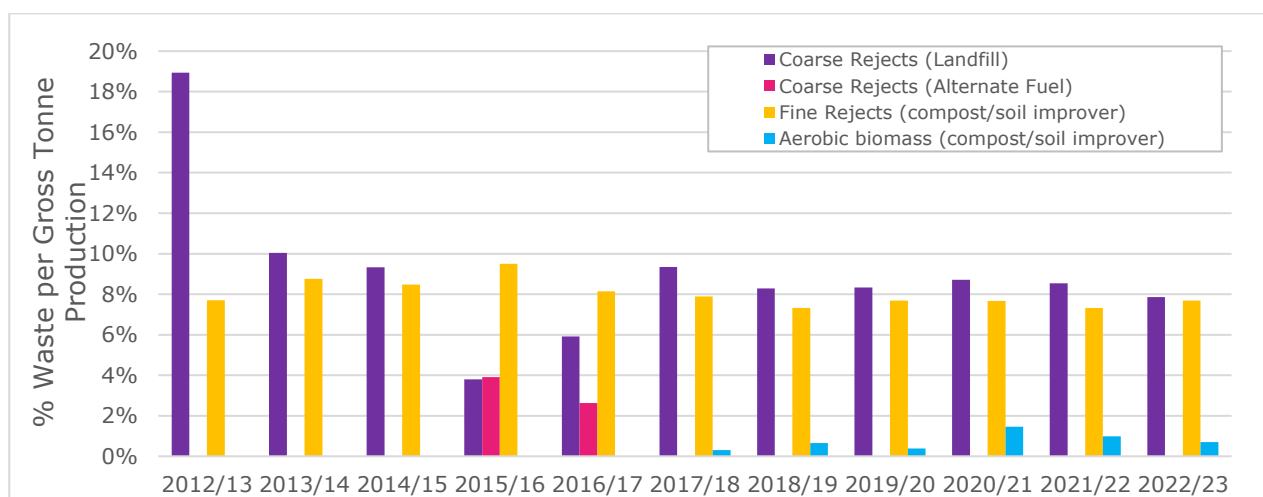
Load type	Predicted Traffic Volumes Mod 9	Current Performance
Wastepaper deliveries	133	111
Starch/Chemical Deliveries	4	3
Finished Product Despatch	62	46
Solid Waste Removal	12	10
General Waste	1	1
Total Heavy Vehicles	212	156

4.7. Waste

Table 11: Comparison of predicted and actual waste generation

Waste stream	Waste Management Plan	Current Performance	Management
Coarse Rejects	47,000 T	35,358 T	Landfill
Fine Rejects	36,000 T	34,583 T	Composting and re-use as soil improver under EPA exemption
Aerobic Biomass	9,000 T	2,760 T	Composting and re-use as soil improver under EPA exemption
Waste Oil	20,000 L	9,600 L	Recycled

Figure 15: Process Waste Trends



4.8. Contaminated Land Management

Inspections were carried out as listed below:

Area	Number of Inspections
Remediated Land Landscaping Inspection	Six
Ground Floor Slab & Exterior Pavement Condition	One
Metals containment cell – Capping integrity & leachate level	One

All audits have shown good integrity of all remediated land, pavement, slab, and capping. There were no accidental breaches or penetration of the capping requirements. No evidence of water ingress into the metals containment cell.

5. Incidents

There were no incidents that caused (or threatened to cause) material harm to the environment during the reporting period.

6. Community Contacts

6.1. Complaints

During the reporting period, Botany Mill received fifty-six complaints via the mill Environment Hotline and the NSW EPA, half the number received during the previous reporting period.

Table 12: Summary of complaints

Nature of complaint	Total Number	No. of complainants
Odour	53	Unknown
Noise	1	Unknown
Waste	2	2
Other	0	0

Of the fifty-three odour complaints received over the twelve-month period, only eighteen were made directly to the paper mill from six households, the remainder were to the EPA. The mill does not receive the details of complainants that call the EPA, only the street in which they were made from, therefore it is unknown how many complainants made reports regarding odour and noise.

The description of the odour in the complaints varies, including “foul acidic odour”, “strong chemical offensive odour”, “wet garbage, rotten refuse odour”, “sulfur smell” and, “like vomit”.

The cause of the odour complaints has not been linked to any process conditions or upsets. The odour strategy that was developed during the last reporting period was continued. Actions to reduce odour are outlined below.

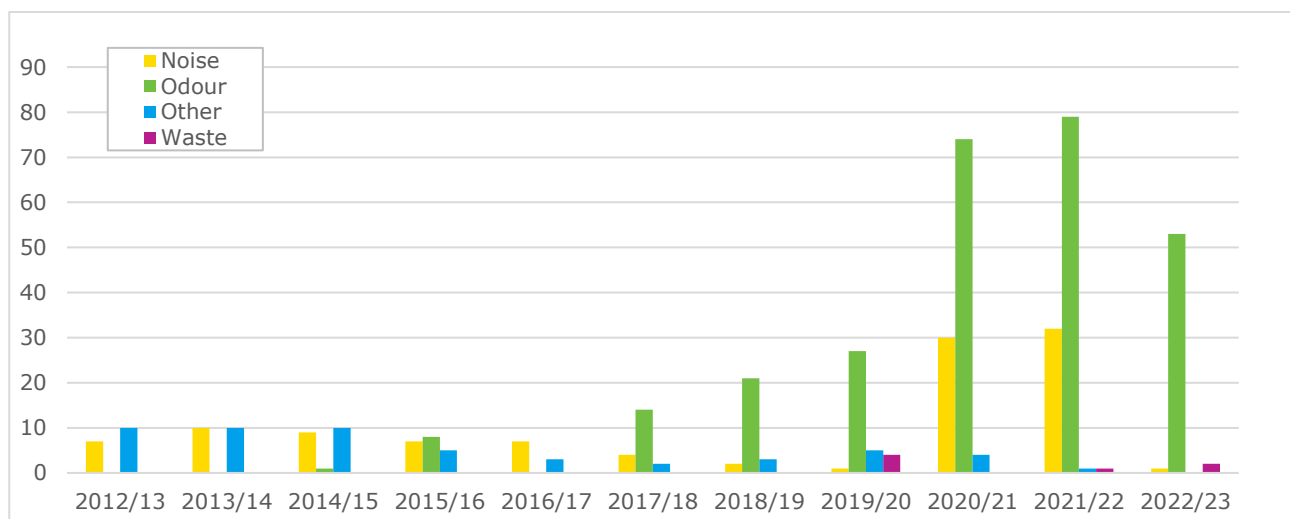
- The odour study report that was submitted to the EPA during the last reporting period identified the decanter building as the source of approximately 40% of the odour impact on the closest

residences. Odour reduction equipment for the decanter building has been ordered and installation and commissioning of this equipment is expected to be completed during the next reporting period.

- An air systems expert from Finland was engaged to check the site ventilation and exhaust systems for design and operation efficiency in the paper machine building (including stock preparation). The audit was completed in November 2022. From the audit a number of exhaust and ventilation air flows were found to be operating below design specifications. The frequency of cleaning exhaust system ductwork and fans has been increased. Extra hatchways have been installed in some areas for improved cleaning. Ductwork flushing shower frequency has been increased in some areas. A damaged heat recovery tower heat exchanger in one of the exhaust stacks was rebuilt to improve air flow.
- Focus has been given to increasing community engagement and understanding of the site. Five tours of the mill were offered to local residents from December 2022 to June 2023. Fact sheets explaining different aspects of Botany Mill have been developed and will be made available on the Opal website during the next reporting period.

The one noise complaint for the reporting period was received in July 2022 and was for a loud thudding noise (possibly an engine) and was found to be related to NSW Ports activities.

Figure 16: Environmental Complaints to Mill and EPA



6.2. Community Liaison group meetings and Community Contact

Four Community Liaison Group meetings were held on 28th July 2022, 3rd November 2022, 16th March 2023 and 20th June 2023. All of these meetings were held in person at Botany Mill.

Information relating to the progression of works, future site plans, production performance, site issues, odour strategy, noise investigations and environmental complaints were presented and discussed. Updates on the Botany Cogeneration plant were also given.

In addition, one Community Update newsletter was distributed to neighbouring residences in August 2022 and five mill tours were offered to local residents in December 2022 and January, February, April and June 2023.

7. Appendices

Appendix A – Compliance Table

Schedule	Unique ID	Compliance Requirement	Development phase	Monitoring methodology	Evidence & comments	Compliance	Details of non-compliance
Schedule 2: Administrative Conditions	Schedule 2, 1	The Applicant must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction and/or operation of the Development.	Operation	Environmental Management System	Environmental Management System records	Compliant	N/A
	Schedule 2, 2	The Applicant must carry out the Development generally in accordance with the: a) EA b) site plan contained in Appendix A c) submissions report d) statement of commitments; and e) Modification application 05_0120 Mod 2 with supporting documents titled Environmental Assessment Report: B9 Development - New Paper Mill - Revised Modification # 2, Subdivision and Site Layout, 16 February 2010, prepared by SKM; f) Modification request 05_0120 Mod 3 with supporting documents titled New Paper Mill Modification Report # 3 - Completion of McCauley Street and Botany Road / McCauley Street Intersection, dated 12 October 2012, and prepared by Sinclair Knight Merz Pty Ltd; g) Modification request 05_0120 Mod 4 with supporting documents titled New Paper Mill Modification Report #4 - completion of McCauley Street and Botany Road / McCauley Street Intersection and use of B-Doubles on McCauley Street, dated January 2013, and prepared by Sinclair Knight Merz Pty Ltd; h) Modification request 05_0120 Mod 5 with supporting documents titled Modification Report - Demolition of B7 and Minor Subdivision, dated November 2014, prepared by Jacobs Group (Australia) Pty Ltd and Submission Report - Modification #5, dated 29 May 2015, prepared by Jacobs Group (Australia) Pty Ltd and statement of commitments for MP 05_0120 Mod 5 contained in Appendix B; and i) conditions of this Consent; j) Modification request 05_0112 MOD 7 and accompanying Environmental Assessment Report, dated August 2016 and prepared by ConsultInfra; k) Modification application 05_0120 MOD 8 and supporting documentation titled Statement of Environmental Effects - Reel Store Demolition & Extension of Noise Barrier, dated 4 June 2018, prepared by Elton Consulting and; B7 Reel Store Demolition & Extension of Noise Barrier Response to DPE Request for Information, dated 1 August 2018, prepared by Elton Consulting; l) Modification application 05_0120 MOD 9 with supporting documentation titled Environmental Assessment Report - Modification #9 - Increase in Paper Mill Maximum Production dated 10 May 2019 and Response to Submissions dated 28 June 2019 both prepared by Elton Consulting; (m) Modification application 05_0120-Mod-10 with supporting documentation titled <i>Statement of Environmental Effects to support Modification #10: Rejects Waste Handling Facility and Finished Products Store Extension</i> dated 31 August 2021 and Response to Request for Information dated 16 November 2021, both prepared by Elton Consulting.	Operation	As described throughout table.	Works and reports submitted as required.	Compliant	N/A
	schedule 2, 3	If there is any inconsistency between the plans and documentation referred to in Condition 2 above, the conditions of this Consent, then the most recent documents must prevail to the extent of the inconsistency	Operation	N/A	N/A	Compliant	N/A
	Schedule 2, 4	The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: a) any reports, plans, strategies, programs or correspondence that are submitted in accordance with this Consent; and b) the implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.	Operation	Requests sent to Opal email address.	Requests for information are fulfilled.	Compliant	N/A
	Schedule 2, 5	The Applicant must ensure that the Development does not produce more than 500,000 tonnes of paper per annum	Operation	Daily/monthly/annual production records.	Production in 2022/23 was 437,499 Tonnes of paper.	Compliant	N/A
	Schedule 2, 6	With the Consent of the Secretary the Applicant may submit any management plan or monitoring program required by this Consent on a progressive basis.	Operation	N/A	N/A	Compliant	N/A
	Schedule 2,13	The Applicant must ensure that all plant and equipment used on the site is maintained and operated in an efficient manner, and in accordance with relevant Australian Standards.	Operation	Maintenance Program in SAP. Statutory requirements for maintenance entered into SAP for automatic reminders. Continuous improvement program for operational efficiency.	Pressure vessel checks, Electrical safety management plan lodged with Ausgrid, maintenance records in SAP.	Compliant	N/A

Schedule 3: Specific Environmental Conditions

Schedule 3,1	The Applicant must ensure that the Development complies with Section 129 of the Protection of the Environment Operations Act, 1997. 'Section 129 of the POEO Act 1997, provides that the Applicant must not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is identified in the relevant environmental protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.	Operation	Monthly odour surveys, water quality testing, complaint recording/monitoring, gas detectors.	Complaints hotline and incident records. Ongoing biocide program for water quality control, odour surveys, Odour study conducted.	Non-compliant	53 Odour complaints received by mill and EPA during reporting period.																																										
schedule 3,2	During the life of the Development, the Applicant must carry out all reasonable and feasible measures to minimise the dust generated by the Development.	Operation	Complaints monitoring. Construction/demolition work to include dust management strategies.	Any piles of material likely to cause dust is wet down at appropriate frequencies.	Compliant	N/A																																										
Schedule 3,3	Except as may be expressly provided in an EPL for the Development, the Applicant must comply with Section 120 of the POEO Act 1997	Operation	Stormwater sampling.	Stormwater separators installed. Stormwater Management Procedure.	Non-compliant	2 losses of process water to stormwater																																										
schedule 3,6	All chemicals, fuels and oils must be stored in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. The bund(s) must be designed and installed in accordance with: a) the requirements of all relevant Australian Standards; and b) the DECC's Environmental Protection Manual Technical Bulletin Bunding and Spill Management.	Operation	Regular bunding audits. Approval system for introduction of new chemicals on site.	Audit reports. Chemical Approval documents.	Compliant	N/A																																										
Schedule 3, 9	The Applicant must prepare and implement a Water Management Plan for the site to the satisfaction of the Secretary. The Plan must: a) be submitted to the Secretary for approval prior to commencement of operation; b) include: * a Water Supply Strategy for the site including a report on the sustainability of groundwater extraction from the Snape Park borefield and the impact on the Botany Sands Aquifer. The strategy should also assess options for alternative water supply, and should be undertaken in consultation with the DWE; * A Stormwater Management Scheme for the site that has been prepared in accordance with the requirements of Sydney Water and Council, and generally in accordance with the Managing Urban Stormwater: Council Handbook (DECC); * a Wastewater System for the site prepared in accordance with the requirements of Sydney Water. The system should include details of discharge rates, wastewater quality and automated controls for monitoring discharges to the Southern and Western Sydney Ocean Outfall Sewer (SWSOOS).	Construction/Operation	As per Operational Trade Waste Management Procedure, Storm water management procedure, monthly bore water flow checks and original documentation submitted prior to commencement of operation. Overarching Water Management Plan developed as per IEA recommendation	Ongoing Trade Waste Agreement with Sydney Water, Stormwater quality test results, Groundwater Access Licence for bores.	Compliant	N/A																																										
schedule 3,10	<p>The Applicant must ensure that noise from the operation of the Development does not exceed the noise limits presented in Table 1:</p> <table border="1"> <caption>Table 1: Project Noise Limits</caption> <thead> <tr> <th>ID</th> <th>Location</th> <th>Day L_{Aeq} (15 minute) dB(A)</th> <th>Evening L_{Aeq} (15 minute) dB(A)</th> <th>Night L_{Aeq} (15 minute) dB(A)</th> <th>Night L_{Amax} dB(A)</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>Cnr. McCauley St and Australia Ave</td> <td>46</td> <td>45</td> <td>43</td> <td>55</td> </tr> <tr> <td>R2</td> <td>Australia Avenue</td> <td>45</td> <td>45</td> <td>43</td> <td>55</td> </tr> <tr> <td>R3</td> <td>Murrabin Avenue</td> <td>46</td> <td>45</td> <td>43</td> <td>55</td> </tr> <tr> <td>R4</td> <td>Partanna Avenue</td> <td>42</td> <td>41</td> <td>41</td> <td>55</td> </tr> <tr> <td>R5</td> <td>Cnr. Partanna and Moorina Avenues</td> <td>42</td> <td>42</td> <td>39</td> <td>55</td> </tr> <tr> <td>R6</td> <td>Moorina Avenue</td> <td>43</td> <td>43</td> <td>38</td> <td>55</td> </tr> </tbody> </table>	ID	Location	Day L _{Aeq} (15 minute) dB(A)	Evening L _{Aeq} (15 minute) dB(A)	Night L _{Aeq} (15 minute) dB(A)	Night L _{Amax} dB(A)	R1	Cnr. McCauley St and Australia Ave	46	45	43	55	R2	Australia Avenue	45	45	43	55	R3	Murrabin Avenue	46	45	43	55	R4	Partanna Avenue	42	41	41	55	R5	Cnr. Partanna and Moorina Avenues	42	42	39	55	R6	Moorina Avenue	43	43	38	55	Operation	Quarterly noise monitoring. Requirement noted on "Environmental Annual Calendar - Reporting and Monitoring requirements" BW-13022	Quarterly noise monitoring reports. Although noise surveys report noise levels above the Project Noise Limits, ambient noise is regularly greater than the noise limits when Opal is not operating, therefore the noise emissions from Opal are generally lower than the ambient measured L _{Aeq} noise levels.	Compliant	N/A
ID	Location	Day L _{Aeq} (15 minute) dB(A)	Evening L _{Aeq} (15 minute) dB(A)	Night L _{Aeq} (15 minute) dB(A)	Night L _{Amax} dB(A)																																											
R1	Cnr. McCauley St and Australia Ave	46	45	43	55																																											
R2	Australia Avenue	45	45	43	55																																											
R3	Murrabin Avenue	46	45	43	55																																											
R4	Partanna Avenue	42	41	41	55																																											
R5	Cnr. Partanna and Moorina Avenues	42	42	39	55																																											
R6	Moorina Avenue	43	43	38	55																																											
Schedule 3, 10F	The Applicant must prepare a Long-term Noise Barrier Plan for the Development. The Plan must: a) identify the Applicant's long-term plan for noise mitigation to nearby sensitive receivers; b) address the planning and implementation strategy for the long-term noise barrier solution, including timeframes for implementation; c) include a procedure for the removal of all or part of the noise barrier if new structures are erected on the site which would perform a suitable noise attenuation function; d) be prepared in consultation with the Department, EPA and Council; and e) be submitted to the Department by 30 June 2021 for Consent by the Secretary.	Construction/Operation	Long-term noise barrier plan completed	Long-term noise barrier plan submitted and approved by DPE 19/4/23	Compliant																																											
schedule 3,12	The Applicant must ensure that noise from reversing alarms is minimised at all times.	Operation	Monthly noise observations, complaint recording/monitoring.	Reversing alarms replaced with white noise quackers. No noise complaints for reversing alarms.	Compliant	N/A																																										

Schedule 3: Specific Environmental Conditions	Schedule 3, 14A	Within 3 months of the installation of the Stage 2 Noise Barrier, the Applicant must submit a Noise Verification Study to the Secretary. This study must: a) be undertaken by a suitable qualified acoustical expert and in accordance with the NSW Industrial Noise Policy; b) validate the predictions made in the EA and supporting documents for MP 05_0120 Mod 5; c) demonstrate compliance with the noise limits in Table 1 of Conditions 10; and d) describe the contingencies that would be implemented, and the timing for implementation, should non-compliances be detected.	Demolition	Study undertaken by acoustic experts, Hutchison Weller.	Report submitted to Department on 6th October 2020	Compliant	N/A
	Schedule 3, 14C	Within three months of completion of works associated with 05_0120 MOD 8 the Applicant must submit an updated Noise Verification Study required by Condition 14A. The updated study must: a) be undertaken by a suitable qualified acoustic expert in accordance with the Noise Policy for Industry 2017; b) validate the predictions made in the SEE and supporting documentation for 05_0120 MOD 8; c) demonstrate compliance with the limits in Table 1 of Condition 10; d) describe the additional noise mitigation measures that would be implemented and the timing for implementation should non-compliances be detected; and e) be submitted to the Department for Consent by the Secretary.	Demolition	Study undertaken by acoustic experts, Hutchison Weller.	Report submitted to Department on 6th October 2020	Compliant	N/A
	Schedule 3, 14D	Within 3 months of the commencement of operations associated with 05_0120 MOD10, the applicant must prepare a Noise Verification Study in consultation with the EPA and to the satisfaction of the Secretary. This study must: (a) be undertaken by a suitably qualified acoustic expert; (b) include a verified operational source emission inventory developed from on-site monitoring of all plant and equipment associated with 05_0120 MOD 10; (c) establish environmental performance in accordance with the requirements of the Noise Policy for Industry 2017; (d) confirm the predicted noise impacts made and adequacy of noise mitigation measures specified in the SEE and supporting documentation for 05_0120 MOD10; and (e) describe the additional noise mitigation measures to be implemented and the timing for implementation should non-compliances with the noise limits specified in Table 1 of Condition 10 be detected.	Operation			Not triggered	Operations associated with Modification 10 have not yet commenced.
	schedule 3,20	The Applicant must ensure that: a) the internal road network and parking on site complies with the Australian Standards AS 2890.1:2004 and AS 2890.2:2002; b) site related vehicles do not queue on any public roads; c) heavy vehicles are restricted from using McCauley Street north of Raymond Avenue; and d) any changes to site access, including new access points and closure of existing access points are notified to the Secretary prior to commencement of operation.	Operation	McCauley street exit designed for right-hand turn only.	No reports of heavy vehicles using McCauley Street north of Raymond Avenue. No trucks lined up on Botany Road.	Compliant	N/A
	schedule 3,24	The Applicant must prepare and implement a Operational Hazard Plan for the site to the satisfaction of the Secretary. This plan must: a) be prepared by a suitably qualified independent person approved by the Secretary; b) be submitted for Consent prior to the commencement of commissioning; and c) include a : *Emergency Plan that has been prepared in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines and * Safety Management System covering all on-site operations and associated transport activities involving hazardous materials. The Safety Management System must be developed in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 9 - Safety Management.	Operation	Botany Mill Safety Management System. Botany Mill Emergency Plan	Operational Safety procedures and Emergency Plan submitted to the Secretary as they were prepared. Most recent set of documents submitted prior to the Water treatment plant commissioning.	Compliant	N/A
	Schedule 3, 24E	Twelve months after the commencement of operation of the upgraded WTP and every three years thereafter, or at such intervals as the Secretary may agree, the Applicant must carry out a comprehensive Hazard Audit of the facility as modified and within one month of each audit, submit a report to the Secretary. The audit must be carried out at the Applicant's expense by a qualified person or team, independent of the Development, approved by the Secretary prior to commencement of the audit. The Hazard Audit must be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No 5, "Hazard Audit Guidelines". The audit report must be accompanied by a program for the implementation of all recommendations made in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.	Operation	Audit conducted by an Independent Auditor approved by the Secretary.	Audit conducted in June 2022	Compliant	N/A
	Schedule 3, 24F	The Applicant must comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the reports submitted in respect of conditions 24A to 24E inclusive, within such time as the Secretary may agree.	Operation	Response submitted to requests as required.	Response submitted to requests as required.	Compliant	N/A
	schedule 3,25	The Applicant must ensure that all waste generated on the site during demolition, construction and operation of the Development is classified in accordance with the DECC's Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes and disposed of to a facility that may lawfully accept the waste.	Operation	Waste Management Plan	Waste Audits	Compliant	N/A
	schedule 3,27	For the life of the Development, the Applicant must: a) Monitor the amount of waste generated by the Development; b) Investigate ways to minimise waste generated by the Development; and c) Implement reasonable and feasible measures to minimise waste generated by the Development to the satisfaction of the Secretary.	Operation	Waste Management Plan	Waste records	Compliant	N/A
	schedule 3,28	The Applicant must prepare and implement an Energy Savings Action plan for the Development to the satisfaction of the Secretary. This plan must be prepared in accordance with the requirements of the DWE and the Guidelines for Energy Savings Action Plans, DEUS 2005, and be submitted to the Secretary for Consent.	Operation	Monthly energy and greenhouse gas monitoring/tracking.	Electricity and gas intensity reductions since commissioning	Compliant	N/A

Schedule 4: Environmental Management and Monitoring	Schedule 4, 29	The Applicant must prepare and implement an Environmental Management Strategy for the Development, the satisfaction of the Secretary. This strategy must be submitted to the Secretary prior to the demolition commencing. The plan must be updated as required throughout construction and must: a) provide the strategic context for environmental management of the Development; b) identify the statutory and other obligations that apply to the Development; c) describe the role, responsibility, authority and accountability of all the key personnel involved in environmental management of the Development; and d) describe the procedure that would be implemented to: * keep the local community and relevant agencies informed about the construction, operation and environmental performance of the Development; * receive, handle, respond to, and record complaints; * resolve any disputes that may arise during the course of the Development; * respond to any non-compliance * report on monitoring results; and * respond to emergencies.	Operation	Environmental Management System	Legal compliance register, community liaison group meetings, community update newsletters, 24-hour complaints hotline, emergency procedure	Compliant	N/A
	Schedule 4, 30	Within one year of the commencement of operations, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission an Independent Environmental Audit of the Development. This audit must: a) be carried out by a suitable qualified, experienced and independent audit team, that contains an odour specialist, noise expert and wastewater specialist, whose appointment has been endorsed by the Secretary; b) assess the environmental performance of the Development; c) assess whether the Development is complying with the conditions of both this Consent and the EPL for the Development; d) review the adequacy of any strategy/plan/programme required under this Consent, and if necessary, recommend measures or actions to improve the environmental performance, and or any strategy/plan/programme required under this Consent.	Operation	Audit conducted by an Independent Auditor approved by the Secretary.	Audit conducted March - June 2022.	Compliant	N/A
	Schedule 4, 31	Within two months of completing this audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, with a response to any recommendations contained in the audit report.	Operation	Audit and response submitted to DPE	Audit submitted and approved by DPE	Compliant	N/A
	Schedule 4, 32	Within three months of submitting the audit report to the Secretary, the Applicant must review and if necessary revise the strategies/plans/programs required under this Consent.	Operation	Document reviews and updates conducted according to audit actions and recommendations.	Updated documents submitted to Department via Major Projects Portal.	Compliant	N/A
	Schedule 4, 33	Within seven days of detecting an exceedance of the limits/performance criteria in this Consent, or an incident causing (or threatening to cause) material harm to the environment, the Applicant must report the exceedance/incident to the Department, and any relevant agency. The report must: a) describe the date, time and nature of the exceedance/incident; b) identify the cause (or likely cause) of the exceedance/incident; c) describe what action has been taken to date; and d) describe the proposed measures to address the exceedance/incident.	Operation	Incident reporting system at Botany Mill. PIRMP in place.	Two incidents reported to Department on 23/1/23 regarding non-compliance with Condition 3 of Schedule 3, however these did cause or threaten material harm.	Compliant	N/A
	Schedule 4, 34	Within 12 months of this Consent, and annually thereafter, the Applicant must submit an Annual Environmental Monitoring Report (AEMR) to the Secretary and relevant agencies. This report must: a) identify the standards and performance measures that apply to the Development; b) describe works carried out in the last 12 months; c) describe the works that will be carried out in the next 12 months; include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; e) include a summary of monitoring results for the Development during the past year; f) include an analysis of these monitoring results against the relevant: * impact assessment criteria/limits; * monitoring results from previous years; and * predictions in the EA; g) identify any trends in the monitoring results over the life of the Development; h) identify any non-compliance during the previous year; and i) describe what actions were, or are being, taken to ensure compliance.	Operation	Requirement noted on "Environmental Annual Calendar - Reporting and Monitoring requirements" BW-13022	Report submitted by 28th August 2022.	Compliant	N/A
	Schedule 4, 35	Subject to confidentiality, the Applicant must make all documents required under this Consent available on a web site.	Operation	Relevant documents forwarded to Opal communications team for uploading.	Documents available on https://opalanz.com/sustainability/sustainability-performance/	Compliant	N/A
	Schedule 4, 36	Within 3 months of: a) an annual independent environmental audit submitted under Condition 30; b) an incident report submitted under Condition 33; or c) the Consent of a modification to the Development Consent, the Applicant must review, and if necessary revise, the strategies, plans and programs required under this Consent to the satisfaction of the Secretary.	Operation	As required	As per Condition 32.	Compliant	N/A

Appendix B – Action Status Table

Table 13: Independent Environment Audit Report Recommendations 2022

Recommendation	Non-compliance (Y/N)	Response/Actions to be taken	By when	Complete
The monthly odour surveys should include a brief statement or standardised evaluation of whether the assessor considers offensive odour was observed, as recommended by the Odour Survey Protocol.	N	Statement on whether odour was offensive or not was included in the August odour survey. Odour survey template to be modified to ask for a statement as to whether any odours observed were considered offensive to ensure the statement is always included.	31/12/2022	Y
Persons completing the odour surveys should consider becoming a certified odour assessor in accordance with AS4323.3 to confirm that they fall within the recommended range of odour sensitivities for the n-butanol reference.	N	Consider whether Environment Manager should become a certified odour assessor.	31/12/2023	
The complaints log includes a column used to "justify" or verify odour complaints. This is not always filled in for odour. Opal should consider ways to verify the odour complaints and document them in the complaints register. Where odour complaints cannot be verified, this should be noted in the register.	N	Most odour complaints come via the EPA and so are received by the site several days after the complaint was made. This makes it very difficult to "justify" or verify the complaints as no investigation is able to be completed at the time of the complaint. Notes to this effect will be made in the complaints log going forward.	31/10/2022	Y
For noise compliance, unattended monitoring would normally not be considered acceptable or would be supplemented by additional attended measurements at receivers and sometimes at intermediate locations with additional calculations or modelling to confirm compliance. The adoption of the LA90 or Rating Background Noise Level (RBL) is not appropriate to measure compliance with a level varying noise source and intermittent external activities. The quarterly noise monitoring reports do not come to any clear conclusion about Compliance with LAeq limits, compliance with LAmax limits, tonal characteristics, and level varying characteristics. The adoption and implementation of Special Condition U1.1 and U1.2 site verification modelling is key in conjunction with receiver and site attended noise monitoring to demonstrate noise compliance with EPL and conditions of approval.	Y	Special Condition U1.1 and U1.2 - Site noise model verification has been completed and submitted to the EPA on 30th June 2022. The model showed that the site noise contribution at the nearest residences under the worst-case scenarios are less than the EPL limits. Discuss with Noise Consultants the appropriateness of attended measurements.	30/11/2022	Y. Attended noise measurements do not add any value - hence the reason for going to a noise model. You cannot determine where the noises are coming from, even if you are at the monitoring location.
The noise mitigation wall was completed in January 2019 using an innovative re-use of shipping containers. In order for the wall to operate effectively, all gaps between containers must be filled. A site inspection confirmed a number of gaps between the containers.	N	Refill gaps between shipping containers in noise wall.	31/12/2022	Y
The facility has prepared a Water Supply Strategy, a Stormwater Management Procedure and a Trade Waste Management procedure but does not currently have a Water Management Plan which meets contemporary benchmarks. It is recommended that a Water Management Plan is prepared that (in addition to those matters currently included) - describes relevant consent and EPL conditions, works approvals and water access licences; - describes the water supply, stormwater and waste management systems; - describes how relevant development consent, EPL conditions and water regulations are addressed; and - describes monitoring programs and how associated monitoring data is used to progressively review, and where necessary improve the water management system.	Y	Prepare Water Management Plan.	1/06/2023	Y. Uploaded to SAP DMS
Employ periodic checks for storage of materials in areas expressly marked to be kept clear	N	Housekeeping checked in Workplace Inspections.	Complete	Y
Update the Opal ANZ website with the documents that were on the Orora website as required under the consent.	Y	Relevant documents uploaded to Opal Website.	Complete 11/8/22	Y
Update the Statement of Commitments for the development. For example the production capacity of the paper mill has been update in the consent conditions, but not the Statement of Commitments.	Y	Determine whether the Statement of Commitments needs to be updated (or was it a one-off document at the beginning of the project). Update if required.	31/03/2023	The Statement of Commitments as recorded on the Dept of Planning Consolidated Development Consent does not include the production limit as reported by the auditors. It only relates to demolition aspects, and therefore does not need updating.
Submit the Long-term Noise Barrier Plan	Y	Long-term noise barrier to be submitted to the Dept of Planning. Draft Long term noise barrier plan submitted to the Dept of Planning on 23/08/2022	31/12/2022	Y. Approved by DPE 19/4/23
Renew the Aerobic Biomass waste exemption with the EPA.	Y	Opal have also applied for an exemption for the Anaerobic biomass (in addition to the Aerobic biomass). The EPA are in the process of combining the Aerobic biomass and Anaerobic biomass exemptions into the one new exemption and have released it as a draft document. Opal and EPA are currently reviewing draft.	Modifications in progress	Y. Combined digestate RRE/RRO finalised 13/4/23

Appendix C


Compliance Declaration Form	
Project Name	Construction of a new paper mill at Amcor's Matraville Plant (Project B9)
Project Application Number	05_0120
Description of Project	Construction and Operation of Recycled Paper Mill
Project Address	1891 Botany Road, Matraville
Proponent	Opal Packaging (Previously Orora and Amcor)
Title of Compliance Report	Annual Environmental Monitoring Report – Operational Compliance Report
Date	17/08/2023

I declare that I have reviewed the contents of the attached Compliance Report and to the best of my knowledge:

- the Compliance Report has been prepared in accordance with all relevant conditions of consent;
- the Compliance Report has been prepared in accordance with the Compliance Reporting Requirements;
- the findings of the Compliance Report are reported truthfully, accurately and completely;
- due diligence and professional judgement have been exercised in preparing the Compliance Report; and
- the Compliance Report is an accurate summary of the compliance status of the development.

Notes:

- Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and
- The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years' imprisonment or 200 penalty units, or both)

Name of Authorised Reporting Officer	Karen Jones
Title	Environment, Testing & Management Systems Manager
Signature	
Qualification	Bachelor of Engineering, Chemical
Company	Opal Packaging
Company Address	1891 Botany Road, Matraville 2036