

ASSESSMENT REPORT

Orora Paper Mill Wastewater Treatment Plant upgrade (05_0120 MOD 6) Section 75W Modification

1. BACKGROUND

This report assesses a proposal to upgrade the existing wastewater treatment plant (WTP) at Orora Limited's (the Proponent) paper mill (the mill) on Botany Road, Matraville in the Randwick local government area (see **Figure 1**).

The site is 15.5 hectares (ha) in area and is located within the Matraville industrial area. The site is bounded to the south by Botany Road, to the north by Australia Avenue, to the west by McCauley Street, and extends east to the end of Partanna Avenue. The site is surrounded by a mix of industrial, commercial and residential land uses. The closest residences are located approximately 30 metres (m) from the mill boundary off Partanna and Australia Avenues. Commercial offices are located to the north-west of the site on McCauley Street and industrial uses associated with Port Botany are to the south and south-west of the site.



Figure 1: Site Location

A paper mill has operated at the Botany Road, Matraville site since 1901. In the 1960s, two paper machines housed in buildings B7 and B8, were built on the eastern boundary of the site. These paper machines used wastepaper as source material to produce brown paper for boxes, cardboard and packaging.

The site contained a large wastepaper storage area in the centre of the site, numerous tanks for fibre and water storage, a wastewater treatment plant, a substation and boiler house, chemical and engineering stores, and an administration office and car parking.

In the early 2000s, Amcor (the former site owner) identified that the operational lives of the B7 and B8 machines were coming to an end and planned for a new paper machine. This informed the project application 05_0120 and the approval of the B9 mill and building.

1.1 Site History – Project Approvals

Project Approval 05_0120

On 20 July 2007, the then Minister for Planning approved Project Application 05_0120 for the construction and operation of the new B9 paper mill at Orora's Matraville site (see **Figure 1**).

Under the Minister's approval, the Proponent is permitted to:

- install and operate a new paper machine (B9) housed in a new industrial building capable of producing around 380,000 tonnes of paper a year from wastepaper;
- decommission two existing paper machines (Buildings B7 and B8);
- build a new finished product store building;
- develop covered loading areas, a new engineering store and workshop;
- expand the wastepaper storage area; and
- demolish some redundant buildings and infrastructure.

The B9 paper mill commenced full production in early 2013. The proposed upgraded WTP, the subject of this modification request, will treat process wastewater from the B9 paper mill.

05_0120 MOD 1

The original approval permitted the Proponent to undertake the demolition of a number of redundant buildings and infrastructure. On 25 July 2008, the Executive Director, Major Projects Assessment approved MOD 1 to permit additional demolition works at the site.

05_0120 MOD 2

On 12 July 2010, the Executive Director, Major Projects Assessment approved MOD 2 to:

- facilitate the subdivision of the site;
- permit changes to the site layout and access arrangements on McCauley Street; and
- increase the permitted operational noise limits and allow further noise mitigation works, including construction of a noise wall along the northern boundary and around the wastepaper storage yard.

05_0120 MOD 3 and MOD 4

In December 2012 and February 2013, the approval was modified to address delays in completing the road work upgrades to McCauley Street and the intersection of McCauley Street and Botany Road, required by the approval.

05_0120 MOD 5

On 25 September 2015, the Director, Industry Assessments approved MOD 5 to include the demolition of the fire damaged B7 building to ensure the safety of the site, a minor amendment to the approved subdivision layout to better align with the final internal road alignments, approval to construct a further noise wall and a minor relocation of the existing McCauley Street site access (30 m to the south of the existing access) to improve traffic, safety and noise outcomes for roads users and nearby residential areas.

There was no change to the existing operations or the approved processing capacity.

Environment Protection Licence (EPL) 1594

Under EPL 1594, the mill is licenced to undertake "paper or pulp production" and "paper or pulp waste generation" as scheduled activities under the *Protection of the Environment Operations Act 1997* (POEO Act).

2. PROPOSED MODIFICATION

On 4 July 2016, the Proponent submitted a modification request (MOD 6) under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to upgrade the existing WTP at the mill.

The mill uses significant quantities of water to process wastepaper and manufacture finished paper products. Process water is currently treated in a Dissolved Air Floatation (DAF) Wastewater Treatment Plant (equivalent to primary treatment). Water used in the paper making process is reused over 400 times before being discharged into Sydney Water's South Western Suburbs Ocean Outfall Sewer (SWSOOS) via a Trade Waste agreement. The mill is one of the single largest trade waste dischargers in the Sydney region in terms of wastewater volumes requiring secondary wastewater treatment.

The Proponent is seeking to upgrade the existing WTP to provide secondary treatment, before discharge into the SWSOOS. The upgraded WTP would utilise the existing DAF primary treatment and incorporate a new two-stage secondary treatment process involving both aerobic and anaerobic treatment. Both would be utilised to remove substances in the wastewater that generate high Biochemical Oxygen Demand (BOD). The quality of the effluent produced by the upgraded WTP would have a BOD load similar to domestic sewage levels, significantly reduced from current levels.

As indicated in **Figure 2** below, the upgraded WTP would be located centrally within the site, adjacent to the existing primary WTP and screened from view by existing buildings and structures. The Proponent is currently considering two different suppliers for the WTP and as such, the size and location of various components are indicative only and may change slightly during the detailed design of the upgraded WTP to optimise the process layout and minimise operating costs. A detailed indicative layout is provided in **Figure 3**. The upgraded WTP would occupy an area of approximately 2,500 m² and would be approximately 160 m from the nearest residence located on Partanna Avenue (refer to **Figure 5**).

The proposed WTP upgrade comprises the following key elements:

- 25 m diameter aeration tank and 8 m diameter anaerobic reactor tank (see **Figure 3**);
- 8 m diameter sludge storage tank;
- two 5 m to 10 m diameter tanks for flow balancing;
- four 5 m diameter bunded storage tanks for the chemical storage;
- 10 m x 5 m gas bag installed in a sealed building to protect it against damage and capture odours;
- lamella clarifier¹, return tanks and various pumps and blowers;
- de-sulfurisation, sludge dewatering and odour control facilities;
- gas flare in 6 m x 6 m enclosure;
- gas engine and generator; and
- internal maintenance road, access paths and stairways.

Construction works are expected to take six to nine months during standard construction hours and would be carried out whilst the mill is operating. Construction would involve site preparation, including minor demolition of existing pavement and other redundant infrastructure; piling to support the larger tanks; minor excavation for drainage trenches; delivery and assembly of the equipment; installation of pipelines, pumps, blowers and the like; and finishing works such as landscaping and maintenance roads.

The upgraded WTP would operate continuously while the B9 mill is operational. Generally any maintenance of the WTP would be scheduled to occur during the general maintenance shutdowns at the B9 mill.

Further Use of Waste

The upgraded WTP will also produce waste in the form of biogas and biosolids. Biogas generated by the treatment process is proposed to be used to generate electricity to power the mill processes and elementary sulfur recovered from the biogas is proposed to be sold to generate additional revenue for the Proponent. Any excess gas would be burnt in the flare.

The small amount of anaerobic sludge produced is proposed to be used to 'seed' other similar treatment systems with the necessary microorganisms and the aerobic sludge will be mixed with the waste material from the pulpers for beneficial reuse in land application, soil manufacturing and other products that require a biological base.

¹ A lamella clarifier or inclined plate settler (IPS) is a type of settler designed to remove particulates from liquids. They are often used in industrial water treatment in place of conventional settling tanks.

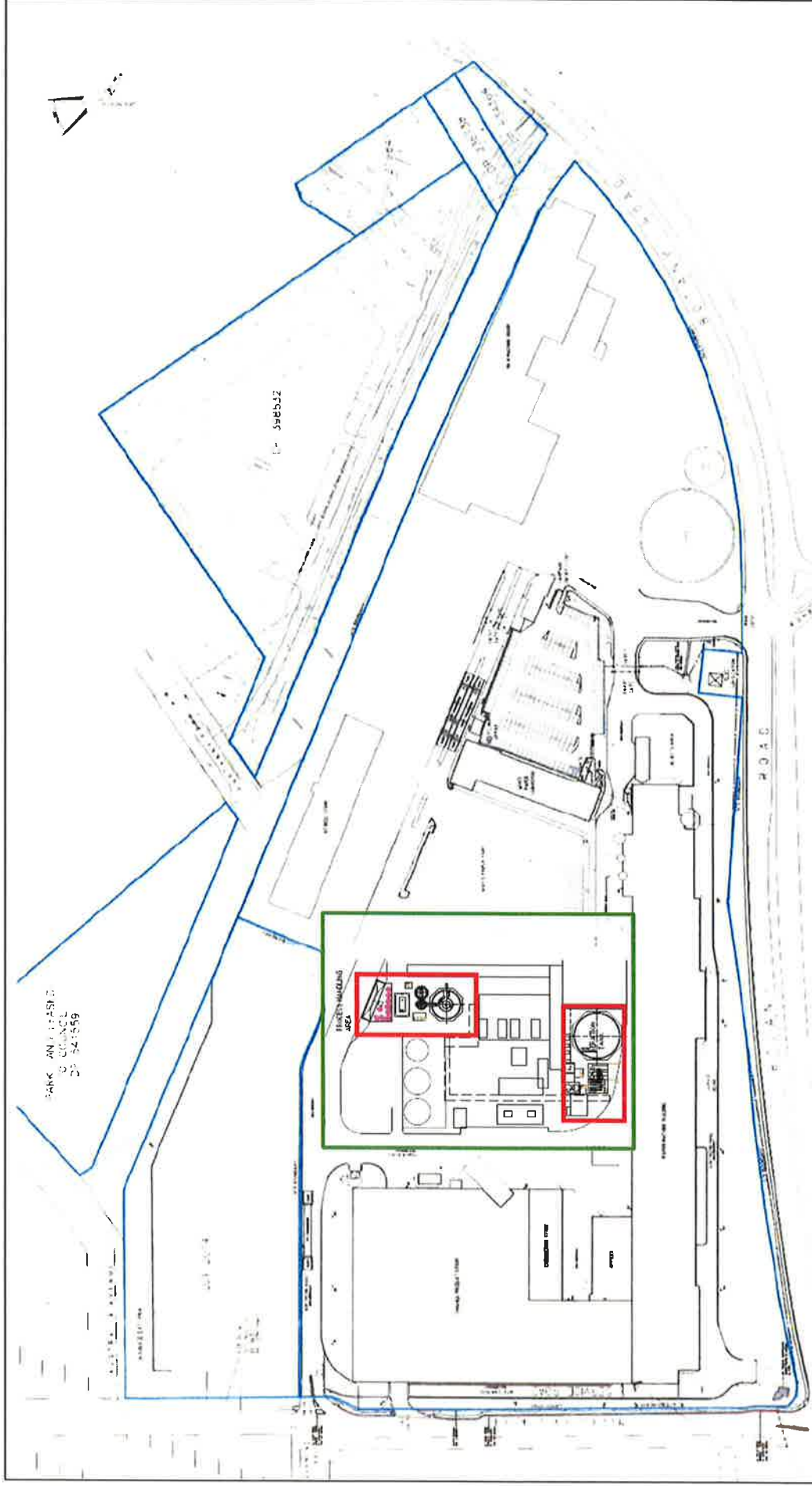
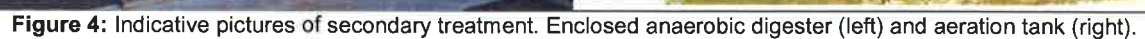
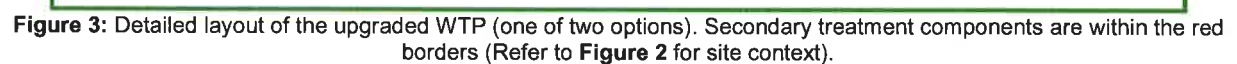


Figure 2: Location of the proposed WTP (secondary treatment components are within the red borders) in the context of the existing site layout (Note: site boundaries are indicated by the blue line. The green bordered rectangle is a key plan for the detailed layout shown in **Figure 3**).



2.1 Modification Need and Proponent's Justification

The Proponent considers the proposed modification will be a net environmental improvement compared to the existing wastewater treatment process. The proposal will reduce the current demand on Sydney Water's secondary treatment of wastewater, thereby freeing up capacity for other potential users. The improved quality of wastewater discharged into the SWSOOS will reduce any potential damage to the sewer system and will also reduce treatment costs for Sydney Water.

The proposed WTP upgrade will produce effluent with BOD levels equivalent to domestic sewage. The Proponent states this will result in significant cost savings and increased on-site operational efficiencies. Some of the treated wastewater will be of sufficient quality to be reused within the existing facility processes. This will result in a net reduction in the facility's current demand for potable water, currently reused 400 times before discharge to the SWSOOS.

As discussed above, biosolids and biogas produced from the WTP will be further used for beneficial reuse offsite and electricity generation to power the mill processes.

Overall, the Proponent considers the proposal is justified as it will reduce the environmental impact and increase the sustainability of the mill operations.

3. STATUTORY CONSIDERATION

3.1. Section 75W Modification

Project Approval 05_0120 was granted under Part 3A of the EP&A Act. Under Schedule 6A of the EP&A Act, the project remains a 'transitional Part 3A project'. Consequently, the modification request is to be determined under Section 75W of the EP&A Act.

The Department is satisfied the proposed modification request is within the scope allowed under Section 75W of the EP&A Act and does not represent a new development in its own right. The Department notes that:

- the approved development would not change as a result of the proposed modification; and
- any potential environmental impacts would be minimal and appropriately managed through the existing or modified conditions.

3.2 Delegated Authority

The Minister was the approval authority for 05_0120 and is the approval authority for the modification request.

In accordance with the Minister's Instrument of Delegation dated 16 February 2015, the Minister for Planning delegated responsibility for the determination of Section 75W requests to the managers and directors who report to the Executive Director, Key Sites and Industry Assessments where:

- the relevant local council has not made an objection; and
- a political disclosure statement has not been made; and
- there are no public submissions in the nature of objections.

The proposal complies with the terms of the delegation as Randwick City Council did not object to the request, a political disclosure statement has not been made in relation to the request, and no public submissions were received in the nature of objections. Accordingly, the Director, Industry Assessments may determine the request in accordance with the Minister's delegation.

4. CONSULTATION AND SUBMISSIONS

4.1 Consultation

Under Section 75W of the EP&A Act, the Department is not required to notify or exhibit the request. Upon receipt, the request was placed on the Department's website. The Department sought comments from the Environment Protection Authority (EPA), Department of Primary Industries (DPI), the Office of Environment and Heritage (OEH), the Roads and Maritime Service (RMS), Sydney Water, and Randwick City Council (Council).

The Department also consulted with members of the Botany Mill Community Liaison Group (BMCLG). Minutes of the group's meeting on 21 July 2016 were provided by the Proponent for the Department's consideration.

4.2 Submissions

The issues raised by the agencies and Council are summarised below.

The **EPA** raised no objection and provided the following comments:

- Licensing - new activities to be undertaken as part of the proposed modification including energy generation from biogas and the secondary treatment of process water may be "scheduled activities" under the POEO Act and may necessitate variation to EPL 1594 to include these new activities;
- Air quality - while the assessment of odour impacts and anticipated 0.1 Odour Unit (OU) increase is accepted, a post-commissioning monitoring and testing program is recommended to verify that the emissions of the final upgraded WTP design are consistent with the predictions of the Air Quality Impact Assessment (AQIA);
- Waste - additional information was requested in relation to the type and volume of waste expected to be generated, sludge dewatering and disposal;
- Resource Recovery Orders (RROs) – RROs are required before biosolids (sludge) can be used for land application and before generated biogas (an eligible waste fuel) can be used for generating electricity; and
- Noise - acceptable noise predictions in the EA are reliant on the combined screening of existing large buildings on the eastern side of the site and the development on McCauley Street on the northern end of the site. It is not clear whether the McCauley Street development has been finalised. The Operational Noise Impact Assessment (ONIA) should be updated and resubmitted prior to commissioning if the sound power level (dB(A)) of any of the components of the upgraded WTP increases beyond the predictions made in the ONIA as a result of the implementation of the final design of the proposal.

Council has no objection but requested an acoustic report be provided to the Department, EPA and Council within three months of the commencement of the upgraded WTP to ensure compliance with the site operational noise limits and the relevant provisions of the POEO Act.

The **BMCLG** meeting minutes indicate no objection to the proposed modification. The minutes indicate the BMCLG was largely supportive of the project due to its broad environmental benefits. However, concern was raised over potential odours from the upgraded WTP.

All other agencies that made a submission on the modification request, including the **DPI, OEH, RMS** and **Sydney Water** raised no objection.

4.3 Response to Submissions

The Proponent provided a response to the issues raised in submissions. The RTS provided:

- further consideration of potential noise and odour impacts including:
 - confirmation the McCauley Street development is 90% complete and the completed works include the erection of 12 m high precast concrete wall panels on McCauley Street;
 - a commitment to verify the noise predictions for the final site layout prior to commissioning against the predictions made in the ONIA;
 - a commitment to undertake a post-commissioning monitoring and testing program to verify the odour emissions from the upgraded WTP are consistent with those predicted in the AQIA;
- details of the types and volumes of waste generated by the proposal (approximately 1 tonne (t) per day of anaerobic sludge and 8 t per day of aerobic sludge);
- a commitment to apply for a RRO for the biosolids (sludge) generated by the upgraded WTP, and an acknowledgement that in the interim, sludge would be disposed of at a licensed landfill facility capable of lawfully receiving the waste;
- that the proposed modification will not involve any new scheduled activities/ variations to the existing EPL; and
- a commitment to apply for a RRO and Resource Recovery Exemption (RRE) for the use of biogas to generate electricity (energy from waste), acknowledging that in the interim, the biogas will be burnt in the flare.

5. ASSESSMENT

In assessing the merits of the modification the Department reviewed:

- the EA for the original project approval 05_0120 and subsequent modifications;
- the EA and RTS for the current modification;
- issues raised in submissions;
- relevant environmental planning instruments, policies and guidelines; and
- relevant provisions of the EP&A Act, including the objects of the EP&A Act.

The Department considers the modification would have only minor impacts with operational noise and hazards the key issues and are addressed in **Sections 5.1 to 5.2** of this report. The Department's assessment of other issues is considered in **Table 1** in **Section 5.3**.

5.1 Noise

The construction and operation of the upgraded WTP has the potential to impact on the acoustic amenity of nearby sensitive receivers. To address these impacts, the Proponent provided a construction noise impact assessment (CNIA) and operation noise impact assessment (ONIA) as part of the Environmental Assessment. Construction impacts are discussed in **Section 5.3**.

As discussed in the noise assessment, the existing noise environment around the mill is not considered to be dominated by a specific site or activity, but is a combination of the surrounding noise influences. This includes road traffic noise from Botany Road and McCauley Street, noise emissions from port operations at Port Botany and industrial premises and aircraft movements from Sydney Airport.

The noise environment has been subject to a detailed and ongoing quarterly review as part of the noise monitoring required under the EPL since the B9 paper mill commenced operation in early 2013. The Department notes the existing background noise level often exceeds the operational noise limit set for the mill, particularly at night.

Light industrial units have recently been constructed on McCauley Street using 12 m high prefabricated concrete panels (see **Figure 1**). These units are located between the B9 mill and residences on Australia Street.

Operation Noise

The upgraded WTP would include the installation and operation of potentially noisy pumps and blowers. These would generally be located at ground level and would have appropriate acoustic enclosures to minimise noise generation. Existing and new WTP tanks are expected to provide an acoustic barrier between the new pumps and blowers and the nearest residential receiver on Partanna Avenue (approximately 160 m away) (see **Figure 5**). The new sludge dewatering facility may also be a source of noise. This would operate periodically during daylight hours and would be located behind the boiler house, at least 250 m from the nearest resident on Partanna Avenue.

Noise generated within the site from the additional three vehicles per day to deliver process chemicals and remove sludge is expected to be minimal. All deliveries would be undertaken during daylight hours.

As discussed in **Section 2**, the Proponent is considering two different suppliers for the WTP and each supplier has slightly different process units and layouts. To ensure that operational noise impacts of the upgraded WTP were adequately assessed, the Proponent's assessment has considered the worst case noise scenario in terms of type of equipment, location and proximity to sensitive receivers.

The results of the noise assessment show the upgraded WTP operating concurrently with the mill is predicted to contribute an additional 1 dB(A) or less at the nearest sensitive receivers. These noise levels are predicted to be below the project specific noise levels (PSNL) for the site specified in the EPL and approval, at all times.

The EPA has advised there is a very low level of risk of non-compliance with the PSNL as the proposed WTPs are generally relatively quiet and the existing background noise is relatively noisy, however, due to the uncertainty in the final design of the WTP, it has recommended the Proponent provide further information prior to the commissioning of the upgraded WTP. In particular, the EPA has recommended the Proponent review the sound power levels (dB(A)) associated with the equipment and location for the final WTP design against the predictions made in the ONIA.

The Department notes the risk of exceeding the noise predictions is low and supports the EPA's recommendation to verify the noise associated with the final WTP design prior to commissioning. A condition to this effect is included in the recommended conditions. Should there be any predicted increase in noise beyond that initially modelled, further noise mitigation measures such as noise insulation or additional acoustical screening could be incorporated prior to operation commencing.

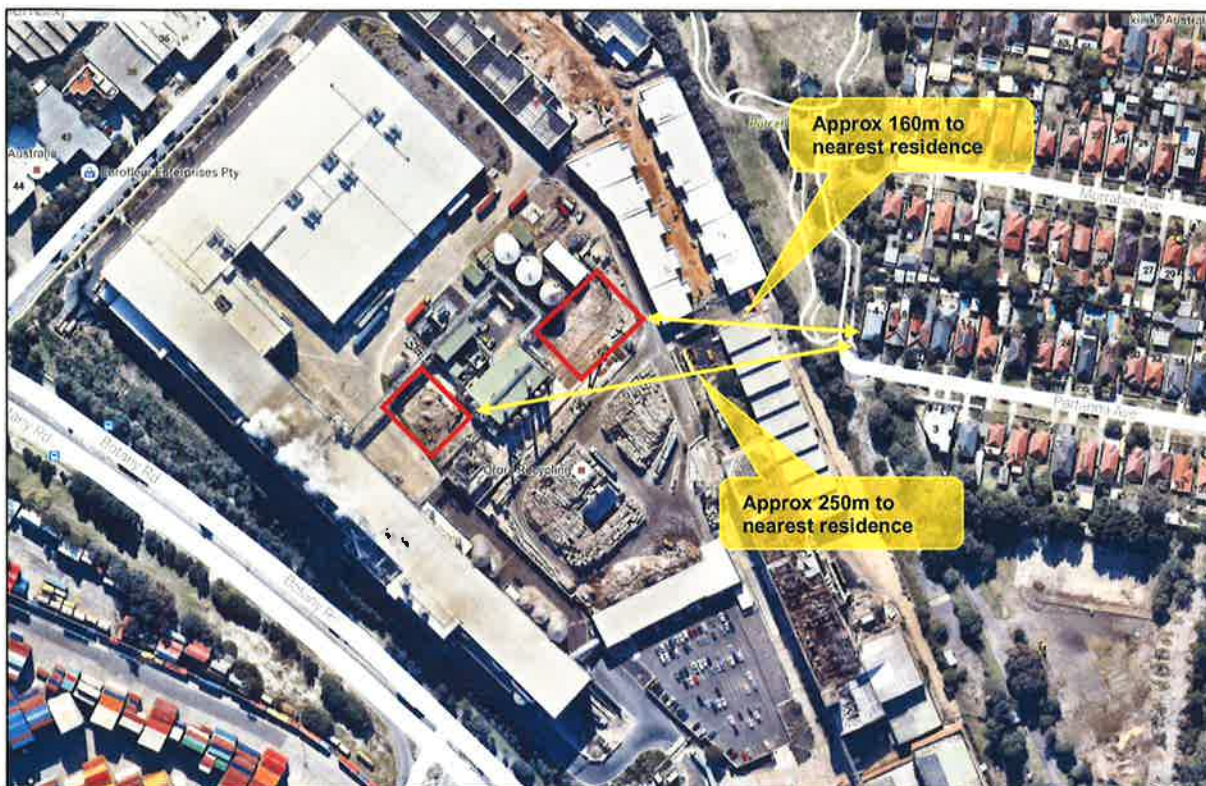


Figure 5: Separation distance between the WTP and the closest residence at No.4 Partanna Avenue, Matraville

In response to Council's request for post-commissioning noise monitoring of the WTP, the Department notes the Proponent is already required to undertake noise monitoring every three months as part of its EPL. The EPA has stated the Proponent will be required to update the existing noise model to include the upgraded WTP. As such, a further condition is not required.

The Department has considered the Proponent's assessment together with the issues raised in submissions and concludes the noise associated with the operation of the upgraded WTP is minor. The Department's recommended conditions together with the existing noise compliance requirements under the approval and EPL will ensure the relevant noise criteria can be met.

5.2 Hazards

The handling and storage of dangerous goods presents various hazards and risks to the surrounding environment. The development is deemed a 'potentially hazardous industry' under the provisions of *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33) as the storage capacity of hydrochloric acid (HCl) which is used in the WTP process, exceeds the screening level thresholds in the Department's guideline *Applying SEPP 33*. Therefore, a detailed risk assessment was undertaken as part of the EA.

It is also proposed to use methane rich biogas (produced during the anaerobic digestion) to drive a gas engine and produce electricity to power part of the mill. A gas holder will be used for storage (and will inflate or deflate according to process flows). Further, in case of process disruption, equipment failure or plant emergency, the entire biogas stream can be directed to flare. The flare stack height would be 3 m.

The EA included a Preliminary Hazard Analysis (PHA) as part of the EIS to assess the potential risk to people, property and the environment as a result of the development. The PHA was carried out in accordance with the Department's *Hazardous Industry Planning Advisory Paper (HIPAP) No. 6 – Hazard Analysis*.

The purpose of the PHA is to identify potential hazards, analyse consequences and the likelihood of occurrence, then estimate the resultant risk to surrounding land uses. The risks are then compared with the relevant land use safety criteria defined in the Department's *HIPAP No. 4 – Risk Criteria for Land Use Safety Planning* to determine whether the development would pose an unacceptable risk to surrounding land uses.

The PHA identified the major hazardous materials with the potential for off-site safety or environmental effects which are HCl, the biogas and hydrogen sulfide (H₂S). The H₂S in the biogas will be routed to a scrubbing system prior to reaching the gas holder and the expected flow rate will be low with insignificant storage and as such, possible hazardous events were not considered further in the consequence analysis.

The PHA also considered the likelihood of each incident (frequency) occurring and the potential consequences of these incidents. A number of safeguards were identified to address the identified hazards.

The major accident events identified for further analysis include:

- biogas leak (Gas Holder Enclosure) – the consequence of explosion was assessed;
- flaring during emergency – ground level heat radiation was assessed; and
- hydrochloric acid release into bund – the consequences of toxic fumes due to evaporation of a pool of liquid were assessed.

Of these three events, only a biogas leak and consequent explosion would lead to offsite impacts.

The Department considers the appropriate techniques were used to analyse the potential consequence and likelihood of each identified hazardous scenario and is satisfied it is consistent with HIPAP No. 6.

The PHA found the individual fatality risk from potential accidents will be at a level significantly below the risk criteria for residential land uses and industrial land uses set out in HIPAP No. 4. In addition, the injury risk criterion (7 kilopascals (kPa) explosion overpressure level not exceeding the industrial risk criterion) and criteria with regards to the risk of property damage and accident propagation (14 kPa explosion overpressure not exceeding the industrial risk criterion), are satisfied.

The Department's assessment concludes the proposed modification satisfies the relevant risk criteria of HIPAP No. 4 provided that all safeguards and recommendations described in the PHA are implemented. Conditions have been recommended to ensure continuous safe operation of the upgraded WTP and the mill as a whole, including the requirement for a comprehensive hazard audit of the upgraded WTP 12 months after commencement of operations. Additional conditions enforce the recommendations of the PHA. Following the submission of the initial hazard audit, the upgraded WTP will be included in the triennial hazard audit required for the mill.

5.3 Other Issues

The Department's assessment of other issues is provided in **Table 1**.

Table 1. Assessment of Other Issues

Consideration	Recommended Condition
Odour and Air Quality • The Proponent undertook an Air Quality Impact Assessment (AQIA) in accordance with the EPA's guidelines to determine the impacts associated with the proposed modification. Emissions associated with the proposed modification would involve odour from the upgraded WTP processes and particulates, SO₂, NO₂ and CO from the gas engine. • The odour model predicted there would be an increase of less than 0.1 Odour Units (OU) at the nearest sensitive receivers which is not considered to be discernible or measurable in practice. The highest odour concentration was predicted to be 4.3 OU at the nearest receiver, an incremental change of 0.02 OU over the existing scenario. • Whilst this level is below the site specific odour criterion of 6 OU determined when the old mill was operating, the EPA notes the usual criterion that would apply in this locality would be 2 OU. The Proponent responded in the RTS noting that no suitable data exists for the new mill, however, the odour generation rates of the B9 mill are likely to be substantially less given the newer technology used, although this cannot be quantified. The Proponent does, however, note there has been a reduction in odour complaints to the EPA and the Proponent since the new mill commenced operation in 2013. The EPA accepted this response and the Department concurs.	Require the Proponent to: • prepare and implement a post-commissioning monitoring and testing program to verify the predictions in the AQIA

• The AQIA notes there is insufficient background or source data for some air pollutants and has taken a conservative approach to the modelling of these. With the exception of NO₂, the predicted increase in emissions is low compared with the background concentrations. Notwithstanding, the predicted maximum cumulative NO₂ impacts as well as the other pollutants (particulates, SO₂ and CO) would remain below the relevant criteria. The Proponent contends in actual practice, the impacts would be significantly less. The EPA did not raise any concern with this aspect of the proposal. • The EPA notes the Proponent has not proposed a post-commissioning proof of performance and/ or monitoring program to confirm the predictions made in the AQIA and to identify any necessary contingencies, and recommends this be done. The Proponent responded in the RTS stating it would undertake this program. The Department agrees with this approach and has incorporated this into the recommended conditions. • Overall, the Department is satisfied there would be a negligible change in odour emissions and other air pollutants from the site as a result of the proposed modification. Subject to the inclusion of the above condition, the Department's assessment concludes the upgraded WTP will not result in any unreasonable odour or air quality impacts on nearby sensitive receivers.	
Waste • Approximately 1 tonne (t) per day of anaerobic sludge and 8 t per day of aerobic sludge would be generated by the upgraded WTP. The upgraded WTP would also generate biogas (comprising around 80% methane and 20% carbon dioxide). • The Proponent is proposing to utilise the biosolids for beneficial reuse in agricultural, landscaping and land rejuvenation programs. The biogas is proposed to be used to generate electricity to power part of the mill processes. • Under the <i>Protection of the Environment Operations (Waste) Regulation 2014</i> (2014 Waste Regulation), the EPA can issue a Resource Recovery Order (RRO) and/ or Resource Recovery Exemption (RRE) where it can be demonstrated that a specific type of waste can safely be used for another purpose rather than being disposed of. • For the purposes of this modification, the EPA has identified that the proposed use of biosolids for beneficial reuse would require a RRO, similar to that currently required for the reuse of the wastepaper fines from the site. Similarly, the use of the biogas to generate electricity would require a RRO. The EPA states it is currently developing a draft guideline that will provide further information on Eligible Waste Fuels such as biogas and how to apply for an RRO and RRE. • The Proponent has stated that until such time as the RROs are in place, the dewatered sludge would be sent to an appropriately licenced landfill capable of receiving the waste. For the biogas, it would be burnt in the flare. • In response to this, the EPA provided further advice stating that the EPL and other legislative requirements including the POEO Act and Regulation are sufficient to control these aspects of the modification until such time as the RROs are in place. • The Department notes the existing conditions of approval require all waste generated on site to be classified in accordance with the EPA's relevant guidelines before being disposed of. The AQIA demonstrated that the burning of biogas meets the relevant air quality limits. • The EPA has recommended a condition be imposed requiring the Proponent to prepare a Water Treatment Plant Waste Management (WTPWM) report prior to commissioning and submit this to the EPA. The WTPWM report will provide detailed information on the final design and operation of the WTP. It will also provide the EPA with the information	Require the Proponent to: • prepare a WTPWM report prior to commissioning detailing the waste generated by the WTP and how it will be managed.

required to determine whether the mill EPL is required to be updated to include any additional scheduled activities under the POEO Act, and also to assess the Proponent's application for RROs and possible exceptions in relation to waste to land and energy from waste. • The Department is satisfied waste produced by the upgraded WTP can be appropriately managed under the short term arrangements. The Department supports the Proponent's proposal for beneficial reuse and electricity generation subject to the Proponent obtaining the necessary RROs and RRE. • Subject to the imposition of condition outlined above and compliance with the existing conditions of approval, the Department's assessment concludes that the type, volume and disposal methods of the waste generated by the upgraded WTP are acceptable.	
Construction Noise • Construction noise was assessed in the EA using the noise model developed for the B9 mill. The majority of the new WTP infrastructure would be metal tanks, prefabricated off site and delivered to site for assembly. Other components such as the desulfurisation facility and control room are purpose-built units and the Proponent considers would require minimal construction works to install. • Construction works would be undertaken during standard working hours as required by Condition 11 of the project approval. • The Proponent's noise assessment concluded the construction works would not be discernible above the existing operation noise and would be below the Noise Management Levels set out in the <i>Interim Noise Construction Guidelines</i> at all locations and for all construction phases because: • screening provided by existing buildings and the new development on McCauley Street act as a noise barrier; • the construction works are relatively minor due to the off-site prefabrication of major components; and • there is already high existing background noise levels. • Vibration impacts associated with the construction will meet all relevant goals. • The Department concurs with the Proponent's assessment and concludes the construction phase will not result in any unreasonable impacts on the acoustic amenity of surrounding residences.	Existing condition 11 requires construction works to be carried out during standard construction hours (Monday to Friday, 7am – 6pm and Saturday, 8am – 1pm).

6. CONCLUSION

The Department has assessed the merits of the modification request and has determined it is in accordance with the requirements of the EP&A Act.

The Department considers the modification request would result in an environmental improvement at the mill. The existing on-site primary treatment of process wastewater will be upgraded to include aerobic and anaerobic secondary treatment. Wastewater requiring secondary treatment would no longer be discharged to the SWSOOS and this will result in cost savings and operational efficiencies for the mill, increased capacity for Sydney Water's trade waste network and a decreased risk of damage to the sewer infrastructure. Subject to obtaining Resource Recovery Orders in relation to disposing waste to land, and generating electricity from harvested biogas, the proposal will enable the realisation of further environmental benefits, operational efficiencies and cost savings.

The Department's assessment has concluded that any additional noise and odour generated by the proposal will be minimal and unlikely to impact on the amenity of nearby residential receivers. Conditions have been recommended to require monitoring and testing to ensure this is the case.

The Department is satisfied the proposed modification is minor, relative to the scope of the approved works, in the public interest and should be approved, as set out in the recommended modifying instrument at **Appendix A**.

7. RECOMMENDATION

It is RECOMMENDED the Director, Industry Assessments:

- consider the findings and recommendations of this report;
- approve the proposed modification (05_0120 MOD 6) under Section 75W of the EP&A Act; and
- sign the attached instrument of modification (in **Appendix A**).

Robert Byrne
Senior Planner, Industry Assessments

Endorsed:


Joanna Bakopanos 27/9/16
Team Leader
Industry Assessments


Chris Ritchie 30/9/16
Director
Industry Assessments

APPENDIX A

MODIFYING INSTRUMENT

05_0120 MOD 6