

Kembla Grange Resource Recovery Facility Modification 3

Extension of operation hours for transport of material, expansion of waste types and lighting upgrade.

State Significant Development Modification Assessment (SSD-5300-Mod-3).

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Glossary

Abbreviation	Definition
AHD	Australian Height Datum
Applicant	Bingo Recycling Pty Ltd
BCA	Building Code of Australia
Council	Wollongong City Council
Department	Department of Planning, Industry and Environment (DPIE)
DPI	Department of Primary Industries, Department of Regional NSW
EES	Environment, Energy and Science, DPIE
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environment Protection Licence
FRNSW	Fire and Rescue NSW
Minister	Minister for Planning
Planning Secretary	Secretary of the Department
RtS	Response to Submissions
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
TfNSW	Transport for NSW

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1 Introduction

This report provides the NSW Department of Planning, Industry and Environment's (the Department's) assessment of an application to modify the State significant development (SSD) consent for the Kembla Grange Resource Recovery Facility (SSD-5300). The modification application seeks consent to modify the types of waste processed, operational hours for transport of processed material, and site lighting.

The application was lodged by Bingo Recycling Pty Ltd (the Applicant) pursuant to section 4.55(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Background

The Applicant has operated the Kembla Grange Resource Recovery Facility (RRF) at 50 Wyllie Road, Kembla Grange in the Wollongong local government since 2017. The RRF receives and processes up to 230,000 tonnes per annum (tpa) of construction and demolition (C&D) and commercial and industrial (C&I) wastes and employs up to 40 full time staff. The RRF currently receives and processes the following waste materials:

- 85,000 tpa of soils and other excavated material
- 69,000 tpa of recycled building waste such as timber, plastic, steel, paper and glass
- 46,000 tpa of concrete and masonry
- 30,000 tpa of garden organics

The RRF accepts, sorts, pre-processes and transports waste materials offsite during the approved operating hours of 7 am to 6 pm. Approximately 30% of processed recycled material is available for sale to retail customers at the RRF, with the remaining 70% transported in bulk to Bingo's Eastern Creek Recycling Ecology Park (REP) for further processing or disposal in Bingo's Eastern Creek general solid waste (non-putrescible) landfill.



Figure 1 | Regional Context

The Applicant is a subsidiary of Bingo Industries, an Australian Securities Exchange listed company that operates waste management facilities in NSW and Victoria. Bingo Industries is a fully integrated, recycling and waste management company offering end-to-end solutions across the resource management supply chain including collection, processing, recovery, and disposal.

1.2 Subject Site

The subject site is legally described as Lot 10 in DP 878167. It is approximately 21.7 hectares (ha) in area, has irregular dimensions and is zoned part Light Industrial IN2 and part Private Recreation RE2 under the Wollongong Local Environmental Plan 2009 (LEP). The RRF is located on a smaller portion of the overall site, occupying a footprint of approximately 4.94 ha in area (the development footprint). The RRF is located exclusively on land zoned Light Industrial IN2 (see **Figure 1**).

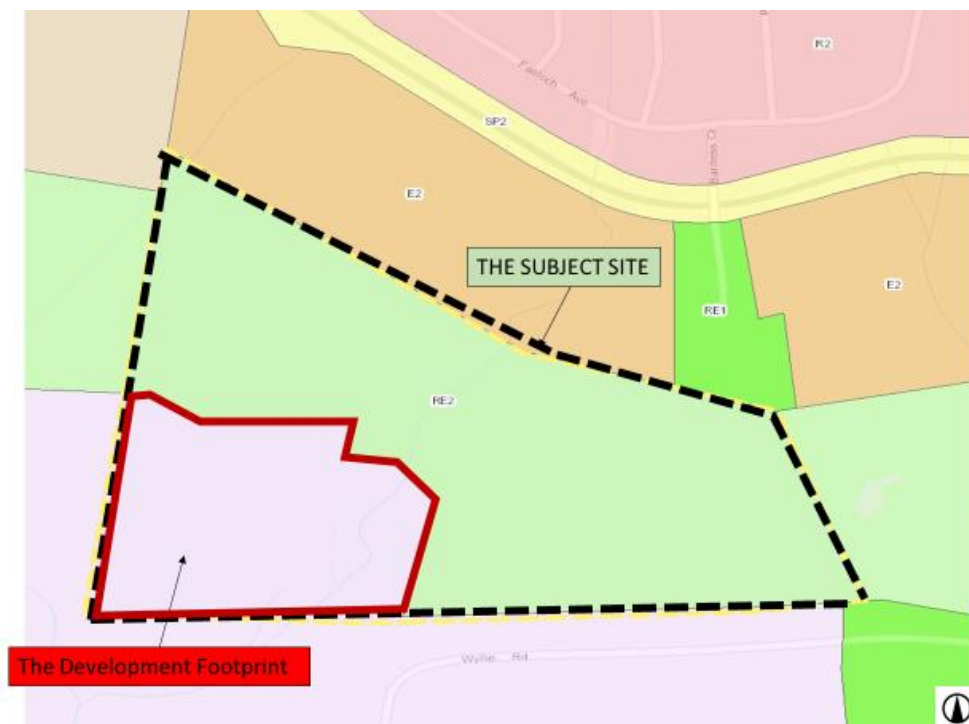


Figure 1 | Development Site Zoning

The site is located approximately nine kilometres south west of the Wollongong City centre in an industrial area (see **Figure 3**). To the south and south west of the site are several vehicle storage facilities, between 100 metres (m) and 400 m away. A former capped landfill is located to the south east. Approximately 400 m to the east are the Ian McLennan Park playing fields and the Sveta Petka Macedonian Monastery. Kembla Grange Racecourse is located to the southeast across the Princes Highway. Immediately to the west is a water treatment facility and an asphalt company. Wollongong Council's Waste and Resource Recovery Centre is 850 m to the west.

Other land uses in the local area include the Farmborough Heights Rural Fire Service (RFS) depot at a distance of 380 m to the north east. The nearest residential receivers are located approximately 400 m to the north of the RRF in the suburb of Farmborough Heights (see

Figure 2). An unnamed creek and riparian zone traverse the eastern portion of the development footprint from north to south.

The haul route to and from the RRF is via Wyllie Road which connects to West Dapto Road, the Princes Highway, and the M1 Princes Motorway and does not involve the use of residential streets.



The RRF currently operates from 7 am to 6 pm Monday to Saturday and 8 am to 4 pm on Sundays, with certain operational activities permitted from 6 am Monday to Saturday.

Figure 2 | Surrounding Land Uses

The RRF currently comprises a processing shed, outdoor waste processing areas, two weighbridges, site office, picking station, stormwater recycling and detention ponds and rainwater tanks (see **Figure 3**). The RRF operates under an Environment Protection Licence issued under Schedule 1 Part 34 of the *Protection of the Environment Operations Act 1997* (PoEO Act).



Figure 3 | Layout of Existing RRF

1.3 Approval history

On 7 March 2016, development consent was granted by the then Planning Assessment Commission (the Commission) to increase the processing capacity of the existing Kembla Grange Resource Recovery Facility (SSD 5300). The development consent includes use of the following plant and equipment:

- 1 mobile jaw crusher and 1 mobile impact/cone crusher
- 4 excavators with processing attachments
- 1 high speed and 1 low speed timber shredder
- front end loaders, 2 bobcats and 1 bulldozer
- various screens and picking stations
- various skip bins and tipper trucks.

The development consent has been modified on two previous occasions (see **Table 1**)

Table 1 | Summary of Modifications

Mod No.	Summary of Modifications	Approval Authority	Type	Approval Date
MOD 1	Relocation of second weighbridge, installation of larger demountable weighbridge office, minor widening of access carriageway to inbound and outbound weighbridges, redirection of rainwater to rainwater harvesting tank, and connection of	Executive Director	s4.55(1A)	8 June 2017

Mod No.	Summary of Modifications	Approval Authority	Type	Approval Date
	rainwater overflow to the existing stormwater management system.			
MOD 2	Regularising constructed elements including rainwater and firewater storage tanks, a pump room and a fixed picking station, and installation of new indoor processing plant and fire safety measures	Director	s4.55(1A)	15 May 2020

2 Proposed modification

2.1 Proposed Modification

The Applicant has lodged a modification application under section 4.55(2) of the EP&A Act. The proposal includes the following:

- extension of operational hours for the loading and transport of sorted waste material off site (only), to 24 hours per day 7 days per week
- addition of certain waste 'categories' processed at the site, which include waste thermosets and composites, and rubber
- upgrades to lighting infrastructure in the night-time operational area.

The modification is described in full in the Statement of Environmental Effects (SEE) included in **Appendix A** and is shown in **Figure 5**.

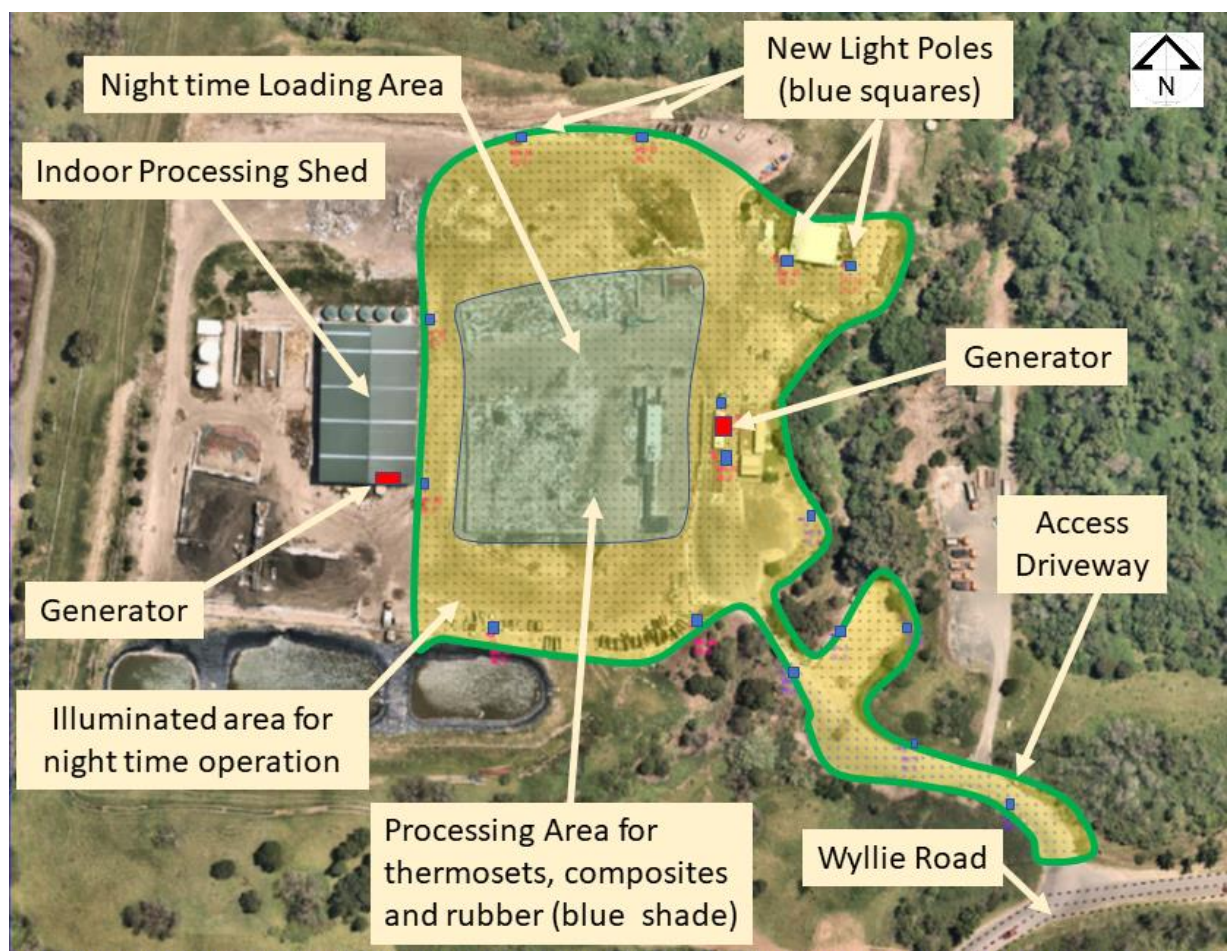


Figure 5 | Overview of proposed modification

Extension of Operating Hours

Bingo Industries Ltd has advised it is seeking to harmonise operational hours across its network of resource recovery facilities. To allow more efficient use of the RRF and enable operations in line with the 24/7 consent approval of its Eastern Creek Recycling Ecology Park (REP) in Sydney, the Applicant

proposes to receive and process most waste material at the RRF during the day and transfer the sorted waste to the REP during the evening and night. The proposed change in operating hours would not result in any change to the overall amount of waste received or processed annually at the RRF.

Currently, deliveries of waste and the operation of machinery for pre-processing is permitted from 7 am to 6 pm from Monday to Saturday, and from 8 am to 4 pm on Sundays. Other site operations are permitted from 6 am to 6 pm Monday to Saturday and 8 am to 4 pm Sundays. No operations are permitted during the evening or night-time periods.

The Applicant proposes to extend operating hours for the 'loading and transport of sorted waste material off site', resulting in the operational hours described in **Table 2**.

Table 2 | Operational hours (existing (approved) and proposed)

Activity	Day	Approved Hours	Proposed Hours
Construction	Monday – Friday	7 am to 6 pm	7 am to 6 pm
	Saturday	8 am to 1 pm	8 am to 1 pm
	Sunday & Public Holidays	Nil	Nil
Waste deliveries & operation of machinery	Monday - Saturday	7am to 6pm	7am to 6pm
	Sunday	8am to 4pm	8am to 4pm
	Public Holidays	Nil	Nil
Loading & transport of sorted waste material off site	Monday - Saturday	7am to 6pm	24 Hours
	Sunday	8am to 4pm	24 Hours
	Public Holidays	Nil	24 Hours
All other operational activities	Monday - Saturday	6am to 6pm	6am to 6pm
	Sunday	8am to 4pm	8am to 4pm
	Public Holidays	Nil	Nil

Operational activities during the extended hours would include use of a 30 tonne (t) excavator and a 20 t front-end loader to load semi-trailer and truck-and-dog trucks with sorted waste at the outdoor loading area, which is located approximately 40 m east of the indoor processing shed (see **Figure 5**).

The Applicant has advised the transport offsite of processed waste during the evening and night-time would improve customer vehicle movements in the waste drop-off area during the day, with more space for plant and machinery movements and safer onsite conditions. Due to a miscalculation of the average load size for semi-trailer and truck-and-dog trucks removing sorted waste during preparation of the original EIS, it is predicted the overall number of daily traffic movements would actually reduce by 56 (28 in, 28 out) from 950 to 894. It is estimated that around eight truck movements (4 in, 4 out) would occur per hour during the evening and night-time periods.

While the Applicant originally requested 24/7 operational times for loading and transport of sorted waste off site, the Department notes the Eastern Creek REP is only approved to receive waste at certain areas of its site on a 24/7 basis. For example, the landfill may only receive residual waste between 5 am and

9 pm. In December 2021, the Applicant advised there is also the possibility that waste may be transported off site to facilities other than Eastern Creek REP in the future. To accommodate these matters, the Applicant proposed that waste from the RRF would be transported to other facilities only in accordance with the terms and operating hours of the Environment Protection Licence (EPL) and development consent of the receiving facility.

In December 2021, the Applicant also provided additional information indicating it has sufficient capacity at the Kembla Grange RRF to store sorted waste during public holidays. This waste would be removed on the next business day and, as such, the Applicant is no longer seeking to undertake any operational activities on public holidays.

Expansion of Waste Types

To ensure consistency of the waste types listed on all the EPLs across its network of resource recovery facilities, the Applicant is seeking to harmonise the broader definition of 'waste categories' that can be received at its facilities. A gap analysis identified that, unlike other Bingo facilities, the Kembla Grange RRF is currently not approved to receive waste thermosets (a type of hardened polymer), composites (a type of mixed plastic) and rubber. The modification therefore seeks approval for receipt of these waste materials.

To facilitate the harmonisation of the description of 'waste categories' approved for receipt, the modification application has specifically listed the following categories for approval:

- a. non-chemical waste generated from manufacturing services (including metal, timber, paper, ceramics, plastics, thermosets, rubber and composites)
- b. glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal
- c. office and packaging waste (including paper, plastics, glass, metal, timber) that is not contaminated or mixed with any other type of waste.

As discussed above, the RRF already has consent to receive all of wastes listed above except for thermosets, composites and rubber. All of the waste types in the 'waste categories' are categorized as *General solid waste (non-putrescible)* in the EPA Guide "Waste Classification Guidelines Part 1: Classifying Waste 2014". Thermosets, composites and rubber would have similar processing and sorting methods as other approved wastes within the solid waste category at the facility and would be received and processed in the outdoor processing area together with building wastes.

The receipt of thermosets, composites and rubber would be included in the existing approved waste limit of 230,000 tpa. No changes are proposed to existing operational processes. It is predicted approximately 10,000 tpa of 'category a' above, including thermosets and composites, would be processed at the facility. 10,000 tpa of 'category b', which includes rubber, would also be received and processed.

Upgrades to Lighting Infrastructure

For safety during the hours of darkness, loading and removal of processed wastes requires adequate lighting distribution and the modification proposes an upgrade of existing lighting in the operational area, carpark and access road (see **Figure 5**). The lighting upgrade was designed in accordance with the relevant Australian standards and would include 19 new 20 m-high light poles mounted with LED floodlights in the operational areas and six LED streetlamps in the carpark and access road. In order to control light spill and the effects of obtrusive lighting, luminaires on light poles would have an asymmetric sharp rear light spill cut-off and zero-degree tilt. Manual, automatic timer and ambient light

level controls are proposed, with upgrades required to existing electrical distribution boards. The two existing generators on site would have sufficient capacity to power the proposed upgraded lighting.

Construction times and employment

Construction time for the proposed modification is expected to be around three months as it is limited to upgrades of lighting infrastructure. No construction jobs would be created, however the changes to loading operation hours and transport of processed waste are expected to create two full-time operational jobs.

2.2 Applicant's Justification for the Proposed Modification

The Applicant advised loading and transporting sorted materials during evenings and nights would enable more efficient and safer use of the RRF and also improve continuous throughput and efficiency of the Eastern Creek REP operations. The reduction in daytime truck movements would also improve road safety, as there would be less impact on the surrounding road network, rail crossing and nearby intersections during both the AM and PM peaks.

The proposal would also support the NSW Government in meeting its recycling targets, by facilitating improved separation of waste streams and diversion of recoverable materials.

3 Strategic context

3.1 Illawarra-Shoalhaven Regional Plan

The Illawarra-Shoalhaven Regional Plan (the Plan) sets out the Government's vision for the Local Government Areas of Kiama, Shellharbour, Shoalhaven and Wollongong until 2041. The key priority of the Plan is to drive economic growth in the region and to integrate economic, social and environmental considerations in the interests of achieving ecologically sustainable development for the region. The modification is consistent with Objective 16 of the Plan by supporting the development of a circular economy and improving environmental outcomes for waste management and landfill.

3.2 WASM Strategy 2021-2041

The state-wide Waste Avoidance and Sustainable Material Strategy 2041 (WASM Strategy) updated the previous Waste Avoidance and Resource Recovery Strategy 2014-21. The WASM Strategy sets targets for waste reduction and landfill diversion to transition to a circular economy, including an 80% average recovery rate from all waste streams by 2030. Part 2 of the WASM Strategy identifies the need for expanding and modernising waste and resource recovery facilities in regional NSW.

By using waste material that would otherwise be destined for landfill and encouraging the highest amount of resource recovery, the Development would contribute to the State's recovery rate in C&I and C&D waste.

4 Statutory context

4.1 Scope of Modifications

The Department has reviewed the scope of the modification application and considers the application can be characterised as a modification involving minimal environmental impacts as the proposal:

- would not significantly increase the environmental impacts of the development as approved
- the modification is of a scale that warrants the use of section 4.55(2) of the EP&A Act
- is substantially the same development as originally approved
- would not involve any further disturbance outside the already approved disturbance areas for the project.

The processing capacity of the facility would not increase and truck-trailer combination types used to transport material is not proposed to change. The proposed extension of operating hours during the evening and night for loading and transporting materials would increase traffic movements at those times, however would reduce the number of daytime traffic movements.

The likely environmental impacts from the modification's proposed extended hours of operation would be similar to impacts that have been assessed and approved for the original SSD-5300.

In this regard, the Department is satisfied the proposed modification is within the scope of section 4.55(2) of the EP&A Act and does not constitute a new development application (DA). Accordingly, the Department considers that the application should be assessed and determined under section 4.55(2) of the EP&A Act rather than requiring a new DA to be lodged.

4.2 Consent Authority

The Minister for Planning (Minister) is the consent authority for the application under section 4.5(a) of the EP&A Act. Under the Minister's delegation of 26 April 2021, the Director, Industry Assessments, may determine the application under delegation as:

- the application has not been made by a person who has disclosed a reportable political donation under section 10.4 of the EP&A Act
- there are fewer than 15 public submissions (other than a council) in the nature of objections, and
- Council has not made a submission by way of objection under the mandatory requirements for community participation listed under Schedule 1 of the EP&A Act.

4.3 Mandatory Matters for Consideration

The Department undertook a comprehensive assessment of the application against the mandatory matters for consideration as part of the original assessment of SSD-5300 under section 4.15 of the EP&A Act. This modification application does not result in significant changes that would alter the Department's consideration of the mandatory matters for consideration under section 4.15(1) of the EP&A Act and conclusions made as part of the original assessment.

4.4 Biodiversity Conservation Act 2016

The original application for the Kembla Grange Resource Recovery Facility (SSD-5300) was lodged prior to the introduction of the *Biodiversity Conservation Act* (commenced 25 August 2017) and was assessed under the repealed *Threatened Species Conservation Act 1995* (TSC Act). Clause 30A(2)(c) of the Biodiversity Conservation (Savings and Transitional) Regulation 2017 specifies that if the determining authority is satisfied a modification will not increase the impact on biodiversity values, a biodiversity development assessment report (BDAR) is not required.

Assessment of SSD-5300 under the requirements of the TSC Act concluded the proposal was unlikely to result in a significant impact on any threatened species, endangered population or endangered ecological community as most works would be contained within cleared areas of the site. The threatened species conservation referral agency, the Office of Environment and Heritage (OEH) recommended that the current management of the riparian corridor be continued and as such, the Department included appropriate conditions in the consent.

The Department notes the works the subject of the current modification application are located within cleared areas that were previously assessed under the provisions of the TSC Act as not impacting on any threatened species, endangered populations or endangered ecological communities, and the Department has concluded that no further biodiversity assessment is required. Works the subject of this modification application are not considered to create additional impact above what was previously considered, and do not impact areas assessed for conservation of threatened species and biodiversity values under the former Act. For this reason, the Department's assessment concludes a BDAR is not necessary for the proposed modification.

5 Engagement

5.1 Department's Engagement

In accordance with clause 10 of Schedule 1 to the EP&A Act and clause 118 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation), the Department exhibited the application for 14 days from 10 September 2021 to 23 September 2021. Notice of the application was published on the Department's website.

Previous submitters were notified of the modification application and invited to make a submission. The modification application was also referred to the Environment Protection Authority (EPA), Roads and Maritime Services (RMS) and Transport for NSW (TfNSW), Fire and Rescue NSW (FRNSW), Sydney Trains, DPIE Water, Biodiversity Conservation Division (BCD) and Wollongong City Council (Council).

5.2 Summary of Submissions

During the exhibition period, the Department did not receive any submissions from interest groups, companies, or members of the public on the modification. Advice was received from seven State government authorities and from Council. A summary of this advice is provided below, with a copy of the advice included in **Appendix A**.

5.3 Key Issues - Government Advice

EPA did not object to the modification however requested further information on noise impacts, and clarification of loads under which equipment was operating during measurement. EPA requested further information on activities and wind effects that impact air quality analysis, and further information on dust mitigation.

Council did not object to the modification and recommended verification of the installed lighting against the relevant Australian standards.

FRNSW did not object to the modification and provided standard recommendations for access for emergency vehicles, building code requirements, detection systems, hydrants and sprinklers, and containment of fire water runoff.

The Department notes MOD 2 included approval for unauthorised additions to the facility. Conditions of consent for MOD 2 included the requirement for installation of fire safety measures, as described in Kembla Grange Fire System Upgrade Review (dated 17 January 2020), to meet the FRNSW requirements in the *Fire Safety in Waste Facilities* guideline. As such, the FRNSW advice for MOD 3 has already been included in the conditions of consent.

RMS and TfNSW did not object to the modification and identified the proposal would not have a significant impact on state roads.

Sydney Trains had no comments on the modification but noted that should there be a future increase in traffic generation traffic impacts on the nearby West Dapto Road Level Crossing should be reviewed.

DPIE Water had no comments on the modification and noted the proposal would involve only minor excavation of soil for upgrading of lighting infrastructure.

BCD had no comments on the modification.

5.4 Response to Submissions

On 8 November 2021 the Applicant submitted a Response to Submissions (RtS) report and an updated SEE responding to the issues raised in the government advice (see Appendix A). The RtS included updated impact assessments for Noise and Vibration, Air Quality, Traffic, and Visual Impact.

The RtS was made publicly available on the Department's website and referred to the EPA and Council for comment:

- The **EPA** advised it had no further comments on the modification and recommended amendments to condition B20 for noise management. The EPA also noted continued dust management would be the subject of its EPL.
- **Council** advised it had no further comments on the proposal.

6 Assessment

The Department has assessed the merits of the proposed modification. During this assessment, the Department has considered the:

- the RtS and additional information provided by the Applicant
- the updated Statement of Environmental Effects report provided to support the proposed modification (see **Appendix A**)
- the Department's assessment report for the original SSD and subsequent modification applications (see **Appendix A**)
- advice from the State government authorities and Council (**Appendix A**)
- relevant environmental planning instruments, policies and guidelines
- requirements of the EP&A Act, including the Objects of the EP&A Act.

The Department considers the key assessment issue is noise impacts. The Department's assessment of other issues is provided in **Table 3**.

6.1 Noise Impacts

There is potential for additional noise impacts at sensitive receivers during evening and night hours (6 pm to 7 am) from additional operational hours for the loading and transport of waste material. Condition B20 of the approved development includes noise limits for morning, shoulder and daytime operations, however there are no noise limits for the evening (6 pm to 10 pm) or night-time (10 pm to 6 am) periods as the facility is currently not approved for operation at those times.

The modification application included a Noise and Vibration Impact Assessment (NVIA) prepared in accordance with EPA's *Noise Policy for Industry* (NPfI) and the *NSW Road Noise Policy* (RNP) (NSW Department of Environment, Climate Change and Water, 2011).

The NVIA assessed operational noise impacts for expected evening and night activities under a worst-case scenario. This included consideration of onsite vehicles and machines operating simultaneously, waste material being loaded into trucks, and truck noise emissions on the haul route during the proposed evening (6 pm to 10 pm), night-time (10 pm to 6 am), and morning shoulder (6 am to 7 am) time periods. As only small-scale construction works are required for the installation of the light poles, construction noise was considered to be minimal (less than daytime operational noise) and was not assessed by the Applicant.

The NVIA identified sensitive receivers from the original noise assessment which are shown in **Figure 6** (for emissions from the site) and **Figure 7** (for sensitive residential receivers adjacent to the haul road between West Dapto Road and the Princes Motorway).

The NVIA calculated project noise trigger levels (PNTLs) based on the methodology in the NPfI for the evening, night and morning shoulder periods between 6 pm and 7 am. The modelling in the NVIA found that in a worst-case scenario the noise levels ranged from 20 dB(A) to 35 dB(A) depending on distance to the receiver and were less than the relevant PNTLs for all receiver types, except at receiver R1 where the predicted night-time noise level was equal to the PNTL of 35 dB(A).

The maximum noise level prediction for sleep disturbance between 10pm and 6am was also less than the relevant disturbance criteria of 52 dB and 47 dB for night and morning shoulder respectively for residential and accommodation receivers.

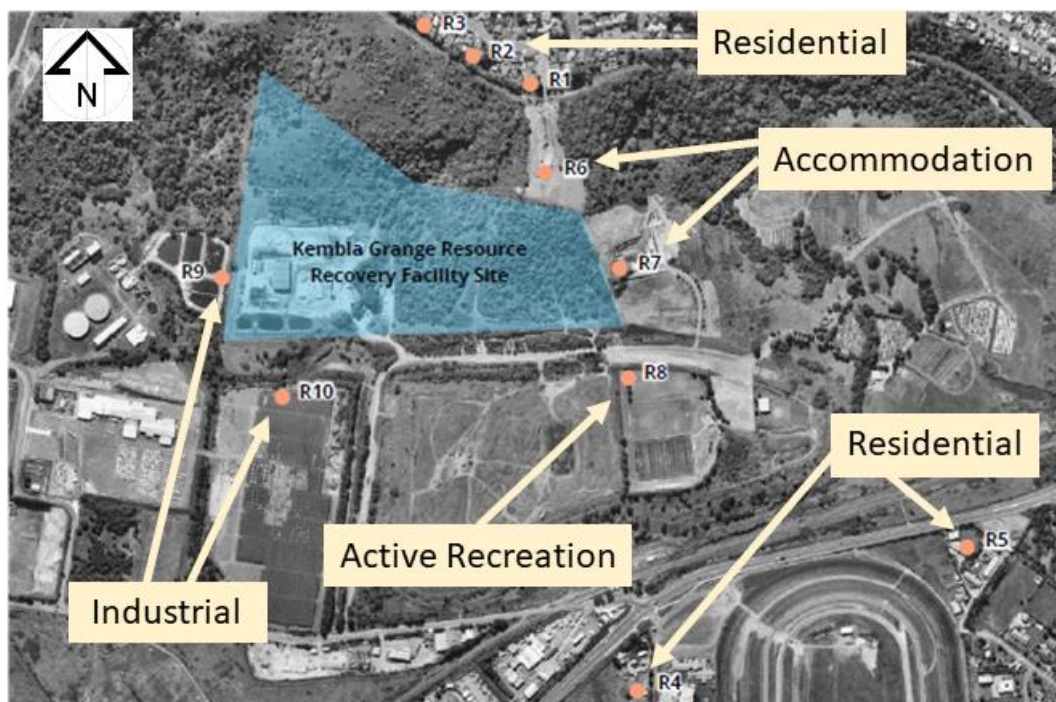


Figure 6 | Location of receivers near RRF site, by receiver type

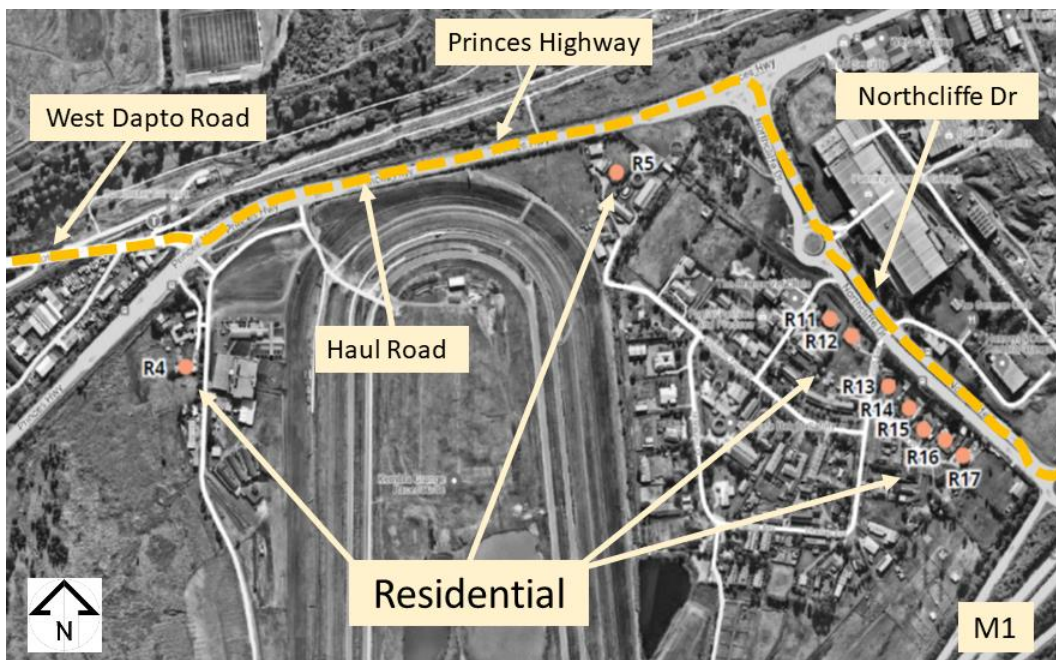


Figure 7 | Location of sensitive residential receivers adjacent to haul road

The EPA reviewed the NVIA and raised concerns about the modelling of surrounding topography as well as the sound power levels used. The Department also requested further information on sound power levels to ensure they were representative of the activities undertaken, including machines

dropping loads of waste into trucks, vehicle start up, and generators. The Department also requested further information on appropriate noise criteria for the Sveta Petka Monastery (R7) as it provides accommodation and therefore requires assessment for night-time sleep disturbance.

The Applicant provided an updated NVIA to address the matters raised by EPA and the Department. This confirmed and updated the noise measurements used for various plant, machinery and activities and provided amended Monastery accommodation night-time noise criteria of 43 dB(A) and sleep disturbance noise criteria of 52 dB(A) as required by the NPfl. The updated NVIA predicted noise emissions for $L_{Aeq(15min)}$ values for evening, night and morning shoulder, as well as L_{AFMax} sleep disturbance values for night and morning shoulder would remain less than the PNTL for each receiver type under noise enhancing conditions. As such, operational noise is not expected to impact on the acoustic amenity of the surrounding noise-sensitive receivers.

The EPA reviewed the updated NVIA and recommended updated noise limits for evening and night-time periods for Condition B20 based on outcomes from the updated NVIA.

The Department has considered the updated NVIA and the responses from the EPA. The Department notes the conservative assumptions provided in the NVIA and that the PNTLs for each receiver would be complied with for evening, night-time and morning shoulder periods.

Assessment of road noise for receivers in the vicinity of the Princes Highway complied with RNP noise criteria and there were no exceedances predicted during the evening and night-time periods. For sensitive receivers in Northcliffe Drive, the $L_{Aeq(9hour)}$ road noise level was predicted to be 57 dB, which represents a 2 dB exceedance of the RNP noise criterion of 55 dB. However, the Department notes Section 3.4 of the RNP permits an increase of up to 2 dB as it represents a minor impact that is barely perceptible to the average person. The Department also notes the pre-development noise measurement at the Northcliffe Drive sensitive receivers was 57 dB, while traffic noise from the proposal's vehicle generation during the evening and night-time hours is much lower at 47 dB.

The Department's assessment concludes the predicted noise levels from the proposed extension of operating hours remain below the relevant noise criteria for each receiver, and that additional vehicle generation would not contribute to an increase in traffic noise levels at residential receivers along Northcliffe Drive. Modification of Condition B20 is recommended to include additional limits for evening and night-time periods. To ensure any noise emissions during the evening and night are appropriately managed, the Department specifically requires the Applicant to implement best practice noise management measures during those times. In addition, the Department requires the Applicant to verify the noise impacts of the development within three months of commencing evening and night-time loading and transport activities. This will confirm compliance with the noise limits and ensure contingency measures are employed to manage any exceedances which may occur.

6.2 Other Issues

Table 2 | Assessment of Other Issues

Issue	Recommendations
Air Quality	
- The modification has the potential to impact air quality during the proposed extension of operating hours and handling of additional types of waste material. - The Applicant provided an Air Quality Impact Assessment (AQIA) prepared in accordance with the <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i>, (DECC, August 2015) which identified sensitive receivers at ten locations surrounding the site, including residences on top of the escarpment at Farmborough Heights. - The AQIA identified particulate matter (PM_{2.5} and PM₁₀) as the emissions of concern and used AERMOD dispersion modelling to predict air quality impacts from a range of emission sources including haul roads, loading, dumping and wind erosion during the extended hours of operation. - As the background levels for 24-hour average PM_{2.5} and PM₁₀ were already high, a contemporaneous assessment was undertaken which added ambient concentrations at the nearby Kembla Grange air quality monitoring station to the dispersion model results. - The EPA requested an update of the emissions inventory and recommended additional dust mitigation measures for haulage on internal roads. The Department requested confirmation of impacts of the new waste types on emissions, background air quality conditions, and mitigation measures for haulage. - The Applicant provided an updated AQIA which included a revised wind erosion emissions inventory for the screening and crushing areas, and confirmation of background conditions. Dust mitigation measures such as watering of haul roads and load covering were also included. - The updated AQIA also advised all wastes including thermosets, composites and rubber would continue to be processed in accordance with existing waste management procedures and no additional impacts would be created from processing the additional waste types. - The Applicant's assessment found the modification would not result in additional exceedances of the EPA's impact assessment criteria for PM_{2.5} and PM₁₀ of 25 µg/m³ and 50 µg/m³ respectively at any sensitive receiver. - The EPA was satisfied with the responses in the updated AQIA and noted that unpaved haul roads would be managed through watering. - The Department notes the dispersion modelling demonstrates that concentration levels at surrounding sensitive receivers would continue to meet the relevant criteria for PM_{2.5} and PM₁₀. The Department considers the additional evening and night-time operations are unlikely to cause air quality impacts and can be managed by existing conditions of consent. Noting the EPA's comments, in accordance with existing Condition C12, the Department recommends the Applicant update the AQMP to include additional dust mitigation measures such as load covering and regular watering of unsealed roads.	No additional conditions are recommended

Lighting and Visual Aspect

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| <ul style="list-style-type: none"> • The Applicant is seeking to extend certain operational hours to include the period from 6pm – 7am, 7 days per week. This would require the work area within the facility to be safely illuminated for night-time operations (see Figure 5). This creates potential for negative impact from light spill and glare on sensitive receivers, including residences in Farmborough Heights and the Sveta Petka Monastery. • The Applicant submitted a Lighting Assessment report prepared by JHA Consulting Engineers in accordance with Australian Standards AS/NZS 1158.3.1:2020 <i>Lighting for roads and public spaces</i>, AS 1680.5:2012 <i>Interior and workplace lighting</i> <i>Outdoor workplace lighting</i>, and AS 4282:2009 <i>Control of the obtrusive effects of outdoor lighting</i>. • The Lighting Assessment recommended optically controlled LED pole mounted light fittings with sharp rear light spill cut-offs along roadways and outdoor working areas to provide controlled uniform light whilst minimising spill to neighbouring buildings and mitigating risk of obtrusive lighting and glare. • A Lighting Visual Impact Assessment (VIA) report was prepared by Green Bean Design to assess the potential for visual impacts from the installation of new lighting infrastructure, both during daylight and night-time hours. • The VIA advised the landscape surrounding the facility would be unchanged from the existing situation, which has extensive vegetated screening elements and landforms between the facility and identified sensitive vantage points. The poles and luminaires represent small scale constructed elements in any available view toward the facility and would be undistinguishable during daylight hours. • The Department requested further details about the views of the development from the relevant vantage points, including when the facility is illuminated. • The Applicant provided an updated VIA which concluded the sensitive residential receivers' views towards the facility would not change significantly when the site is illuminated and concluded the new lighting would have an overall negligible effect on sensitive view locations for both day and night-time views. At the request of Council, the Applicant committed to verifying the obtrusiveness of the constructed lighting to ensure there are no visual impacts in line with the Australian standards. • The Department notes the assessment provided in the VIA and is satisfied the proposed light poles and luminaires as viewed from vantage points during the day, and the facility's illumination at night, would not have significant visual impact. • The Department concludes that potential light spill would be controlled by appropriate installation of lighting to satisfy the relevant Australian Standard for control of obtrusive lighting effects while maintaining safe outdoor work lighting. • A condition of consent has been recommended requiring the construction of the proposed lighting prior to the commencement of the extended operational hours. Further to Council's request to ensure compliance with | <p>Require the Applicant to:</p> <ul style="list-style-type: none"> • implement the lighting infrastructure upgrade prior to commencement of extended operating hours. • verify the LUX measurements of new lighting within four months from commencement of extended operational hours. |
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Issue	Recommendations
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Australian Standards, the Department requires verification of LUX measurements following installation of the new lighting.

Traffic

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| <ul style="list-style-type: none"> • The modification would generate heavy vehicle trips in the evening and night-time periods 7 days per week and these have the potential to impact the local road system along the haul route between the facility and the Princes Motorway (M1). • A Traffic Impact Assessment (TIA) was prepared by Traffix in accordance with Transport for NSW (TfNSW) guidelines. • The TIA advised there would be no changes to the existing approved type of vehicles for removal of processed waste (19.6 metre (m) long truck and dog trailer combination and 20 m articulated vehicles). No change is proposed to the existing facility layout for access, turning and manoeuvring. The TIA advised internal parking and circulation areas would continue to operate satisfactorily. • The Department requested further information on vehicle movements and explanation of why the total daily vehicle numbers (894 per day) would decrease from the original number of 950 per day given no change in waste throughput is proposed as part of the modification. • Additional information in the RtS advised there would be 8 movements (4 in, 4 out) of truck-and-dog and semi-trailer trucks per hour between 6 pm and 7 am. 20 light vehicle movements would also occur during shift changeovers at 2 am to 3 am and 6 pm to 7 pm. • The Applicant advised the decrease in overall traffic volumes was due to a miscalculation of the average load size for semi-trailer and truck-and-dog trucks removing sorted waste during preparation of the original EIS. • The TIA advised the traffic movements during evening and night-time would have no noticeable traffic impact on the surrounding network and would provide a reduction in traffic during the morning and afternoon peaks resulting in improvements of the performance of the railway level crossing and nearby intersections. • Council, TfNSW and RMS raised no objection to the proposed modification to traffic patterns and noted the net reduction in daytime vehicle movements would result in a downturn in peak hour traffic during these times. • The Department has considered the updated TIA and comments from Council and government agencies and notes the change to operational hours would result in minor operational traffic change that would have negligible impact on the facility's internal accessways, parking, and the surrounding road network. No amendments to conditions of consent are required. | <ul style="list-style-type: none"> • No additional conditions are recommended |
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7 Evaluation

The Department has reviewed the SEE, RtS and all submissions, taking into consideration the relevant matters under section 4.15 of the EP&A Act and the objectives of the EP&A Act.

The Applicant is proposing to modify the consent to extend the operational hours for the loading and transport of sorted material off site from 7 am to 6 pm Monday to Saturday and 8 am to 4 pm Sunday, to 24 hours per day 7 days per week and upgrade lighting infrastructure to facilitate these operations. The Applicant proposes to expand waste types processed at the site to include rubber, thermosets and composites.

The Department exhibited the modification and received eight submissions, including one from Council and seven from government authorities. The submissions raised matters relating to noise, air quality, traffic and visual impacts.

The Department's assessment considered noise impact to be the key matter for consideration.

The Department's assessment concludes the modification is appropriate on the basis that it would:

- fulfil Objective 16 of the Illawarra-Shoalhaven Regional Plan by supporting the development of a circular economy and improving environmental outcomes for waste management and landfill
- provide environmental benefits and continue to support the delivery of the State's WASM Strategy performance targets through the collection and processing of various wastes and diversion from landfill
- not increase the facility's traffic generation and distribute the concentration of heavy vehicle trips more widely during daytime.
- provide safer and more efficient use of the facility for collection, processing and transport of waste
- provide economic benefits for the local community by processing waste and benefit associated waste producing businesses
- not significantly increase the environmental impacts of the development beyond those assessed under the original development application.

Consequently, the Department is satisfied that the modification application should be approved, subject to the recommended modification of conditions of consent.

8 Recommendation

It is recommended that the Director, Industry Assessments as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **determines** that the application SSD-5300-MOD-3 falls within the scope of section 4.55(2) of the EP&A Act
- **forms the opinion** under clause 30A(2)(c) of the Biodiversity Conservation (Savings and Transitional) Regulation 2017 that a BDAR is not required to be submitted with this application as the application will not increase the impact on biodiversity values on the site
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to approve the modification
- **agrees** with the key reasons for approval listed in the draft notice of decision
- **modify** the consent SSD-5300
- **signs** the attached approval of the modification (**Appendix B**).

Recommended by:



Christopher Fraser
Environmental Assessment Officer
Industry Assessments

Recommended by:



Sheelagh Laguna
Principal Planning Officer
Industry Assessments

9 Determination

The recommendation is **Adopted** by:



24/12/21

Chris Ritchie

Director

Industry Assessments

as delegate of the Minister for Planning

Appendices

Appendix A – List of Documents

The Department has relied upon the following key documents during its assessment of the proposed development:

Modification Application

- S4.55(2) Statement of Environmental Effects prepared by Jackson Environment and Planning Pty Ltd dated 25 August 2021
- Noise and Vibration Assessment prepared by RWDI Australia Pty Ltd dated 20 August 2021
- Air Quality Assessment prepared by RWDI Australia Pty Ltd dated 20 August 2021
- Lighting Assessment prepared by JHA Consulting Engineers dated 22 June 2021
- Lighting Visual Impact Assessment prepared by Green Bean Design Landscape Architects dated 13 August 2021
- Traffic Impact Assessment prepared by Traffix Traffic & Transport Planners dated 20 August 2021

<https://www.planningportal.nsw.gov.au/major-projects/project/42686>

Submissions and Advice

- Environment Protection Authority
- Wollongong City Council
- Fire & Rescue NSW
- Sydney Trains
- TfNSW and RMS
- DPIE Water
- Biodiversity Conservation Division of EES

<https://www.planningportal.nsw.gov.au/major-projects/project/42686>

Response to Submissions

- S4.55(2) Statement of Environmental Effects prepared by Jackson Environment and Planning Pty Ltd dated 5 November 2021
- Response to Submissions Report prepared by Jackson Environment and Planning Pty Ltd dated 26 October 2021
- Updated Noise and Vibration Assessment prepared by RWDI Australia Pty Ltd dated 4 November 2021
- Updated Air Quality Assessment prepared by RWDI Australia Pty Ltd dated 4 November 2021
- Updated Lighting Visual Impact Assessment prepared by Green Bean Design Landscape Architects dated 20 October 2021
- Updated Traffic Impact Assessment prepared by Traffix Traffic & Transport Planners dated 20 October 2021

<https://www.planningportal.nsw.gov.au/major-projects/project/42686>

Appendix B – Notice of Modification

<https://www.planningportal.nsw.gov.au/major-projects/project/42686>

Appendix C – Consolidated Consent

<https://www.planningportal.nsw.gov.au/major-projects/project/42686>