ASSESSMENT REPORT

Department of
Urban Affairs and Planning

SUBJECT: DEVELOPMENT APPLICATION (DA 143-06-01) FROM GOODMAN FIELDER LTD FOR AN UPGRADE OF A FOOD PROCESSING PLANT IN THE HURSTVILLE LOCAL GOVERNMENT AREA

File No: S01/00876

1. SUMMARY

Goodman Fielder Limited (Goodman Fielder) is proposing to upgrade and expand the facilities at its site located at 4 The Crescent, Kingsgrove, in the Hurstville City Council local government area. The site currently produces a variety of consumer food products using blending and mixing processes, and is one of seven such sites operated by Goodman Fielder along the eastern seaboard. Goodman Fielder intends closing or downsizing a number of its mixing facilities and consolidating its activities to the Kingsgrove site. The upgrade of the facility will generate 40 to 50 new full time jobs at the Kingsgrove site and involve a capital investment of $20.5 million.

Under the *Environmental Planning and Assessment Act 1979* (the Act), the proposal is classified as State Significant development. The Minister is the consent authority for the DA.

On 20 June 2001, Goodman Fielder (the Applicant) lodged a development application (DA) and statement of environmental effects (SEE) for the proposed development with the Department of Urban Affairs and Planning.

The DA and SEE were publicly exhibited - from 4 July to 3 August 2001 - at Hurstville City Council Library, the Nature Conservation Council of NSW, and the Department's Sydney office.

The Department received a total of 38 submissions relating to the DA and SEE, proposal: 34 from the public; and 4 from public authorities. All of the submissions from the public objected to the proposed development. The key issues raised in these submissions were:

- Potential impacts of B Double truck traffic on local roads (and associated traffic, safety, air quality, noise and vibration impacts), given that local roads are not approved B-Double routes;
- Potential noise and air quality / odour impacts associated with the expansion of the processing facility; and
- The suitability of the site for expansion, given its proximity to residences.

On 24 August 2001, Goodman Fielder amended the DA, electing to transport goods using semi trailers instead of B Double trucks until such time as B Double routes are approved. A supporting traffic Impact Statement was provided, and was publicly exhibited between 5th and 18th September 2001. The Department received an additional 8 submissions from the public related to this amendment.

The Department has assessed the DA, the SEE, and the submissions on the proposed development, and recommends that the Minister approve the DA, under Section 80 of the Act, subject to the imposition of certain conditions.

2. SITE CONTEXT

2.1 Site Location

The proposed site is located at 4 The Crescent, Kingsgrove, in the Hurstville City Council local government area, as indicated in Figure 1.

2.2 Site Description

The site covers an area of approximately 29, 490 m^2 and is owned by the Applicant.

The site was developed in the 1960s to 1970s, and has always been used for the production of food products. Site operations are conducted in the main site building, which includes offices, silos for the storage of raw materials (mostly flour and sugar), warehousing for finished goods and raw materials, mixing plants and packaging lines. An indicative layout of the site is included as Figure 2. Approximately 40,000 tonnes / year of product are currently produced at the site, which employs 63 people. The site currently operates 24 hours / day on three shifts, although the night shift is relatively light.

The area of the site is zoned 4 - Light Industrial under the City of Hurstville Local Environmental Plan 1994. The most recent factory installations and upgrades were approved by Hurstville City Council on the 22nd July 1997 (DA 00145/97) and 28th February 1994 (DA 637/93).

2.3 Surrounding Land Uses

The site is located in a light industrial area and is surrounded on three sides by industrial/commercial premises. Directly to the north of the site is the M5 motorway (under construction). The closest residential areas are approximately 350 metres to north and southwest of the site. The nearest natural waterway is Wolli Creek, which runs along the northern boundary of the site. An open stormwater channel runs along the southern boundary.

3. THE PROPOSED DEVELOPMENT

3.1 Outline of the Proposal

The proposed development involves:

- Extension of the existing building, to allow for the installation of an additional 24 silos, and a product mixing tower;
- Increasing the rate of production to more than double the existing rate (from 40,000 tpa to 110,000 tpa);
- Transportation of goods using semi trailers and, potentially, B-Double trucks;
- Installation of additional product blending and packaging lines;
- Conversion of the current raw ingredients warehouse to a roll on / roll off transport area; and
- Construction of a new car parking area.

The footprint of the existing building will undergo only minor changes, with most of the expansion works taking place within the existing building, which will increase in height. The proposed layout of the site is shown in Figure 3.

The proposed development will:

- Be part of a rationalisation of Goodman Fielder's current mixing facilities along the eastern seaboard;
- Produce processed food products such as pre mixes and cake mixes, bringing the total production at the site to 110,000 tonnes per annum;
- Operate 24 hours a day, seven days a week over three shifts;
- Employ an additional 40 to 50 personnel on a full time basis, increasing total full time employment on the site to approximately 106; and
- Involve an average of approximately 550-570 vehicle movements over a 24 hour period, approximately 80 - 100 of which are heavy vehicles (semi trailers or B Doubles).

3.2 Justification for the Proposal

Goodman Fielder currently operate seven mixing sites along the eastern seaboard, at Toowomba, Smithfield, Kingsgrove, Wetherill Park, Wagga, Kensington (Vic) and Ballarat. The mixing operation and products are reportedly similar at each site. As a result, there is duplication and inefficient use of capital.

The proposal is aimed at facilitating a rationalisation of these operations by providing a strategic site at Kingsgrove, which will be expanded and upgraded. This will:

- Reduce duplication;
- Increase the efficiency of the production operations, logistics and warehousing arrangements; and
- Provide approximately 40 to 50 new jobs at the Kingsgrove site.

The Applicant obtained development consent from the Minister in March 2001 (DA No. 435-12-00) to conduct a similar strategic expansion of the Smithfield site. However, during the detailed design stage of this expansion, it was revealed that cost estimates would not be met, and the expansion of the Smithfield site was no longer considered to be cost effective. As a result, the Applicant is now proposing to expand the Kingsgrove site instead.

As part of the rationalisation of operations, the Wetherill Park and Ballarat sites will be closed, and the Toowoomba and Wagga sites will be down-sized. It is understood that the rationalisation will result in a net gain of 16 jobs in NSW.

4.0 THE STATUTORY FRAMEWORK

4.1 Permissibility

Under the *Hurstville Local Environmental Plan 1994*, the site is zoned 4 - Light Industrial. The proposed development is permissible with development consent in this zone.

4.2 Legislative Context

State Significant Development

Under Section 76A(7)(b)(iii) of the Act, the proposed development is classified as State Significant development because it satisfies the criteria in Schedule 1 of SEPP 34: it is a "food or beverage processing" development which will have a capital investment value of over $20 million.

Consequently, the Minister for Urban Affairs and Planning is the consent authority for the development application.

Integrated Development

Under Section 91 of the Act, the proposed development is classified as Integrated development because it requires a separate approval from the Department of Land and Water Conservation under Part 3A of the *Rivers and Foreshores Improvement Act 1948*. Therefore the proposed development is an integrated development.

The existing facility holds an EPA Environment Protection Licence for a scheduled activity under the *Protection of the Environment Operations Act 1997*. Information provided in the SEE clarifies that scheduled activities are not and will not be conducted at the expanded site. The EPA has indicated (letter dated 28 August 2001) that the licence will therefore be surrendered.

4.3 Minister's Role

The Minister for Urban Affairs and Planning is the consent authority for the development application.

4.4 Relevant Environmental Planning Instruments

The proposed development is subject to the provisions of the following environmental planning instruments:

- *State Environmental Planning Policy No. 34 – Major Employment Generating Industrial Development;*
- *Greater Metropolitan Regional Environmental Plan No.2 - Georges River Catchment;*
- *Hurstville Local Environmental Plan 1994*; and
- *State Environmental Planning Policy No 11 - Traffic Generating Development.*

The proposed development is generally consistent with the provisions of these instruments. A more detailed analysis of the relevant provisions of these instruments is included in Appendix A - Section 79C Considerations

4.5 Relevant Policy Documents

The following policy documents are relevant to the proposed development:

- *Hurstville Development Control Plan No. 2 - Car Parking;* and
- *Hurstville Development Control Plan No. 7 - Light Industrial Areas.*

The proposed development is generally consistent with most of the provisions of these documents. A more detailed analysis of the relevant provisions of these documents is included in Appendix A - Section 79C Considerations.

5. CONSULTATION

On 20 June 2001, Goodman Fielder lodged a DA and SEE for the proposed development with the Department of Urban Affairs and Planning.

After receiving the application, the Department:

- Exhibited the DA and SEE between 4th July and 3rd August 2001, at Hurstville City Council, the Nature Conservation Council of NSW, and the Department's Sydney office;
- Notified local owners and occupiers in writing about the proposed development;
- Arranged for the proposed development to be advertised in the St George and Sutherland Shire Leader; and,
- Placed two public notices about the proposed development on the proposed site.

During this exhibition period, the Department received a total of 38 submissions on the DA. 34 submissions were received from the general public, including a submission from the Hurstville Residents Association, all of which objected to the proposed development. Four submissions were received from public authorities, including the EPA, DLWC, Canterbury City Council, and the Hurstville City Council Traffic Committee. While none of the submissions from agencies objected to the proposed development, the Councils raised issues regarding traffic.

The key issues raised in these submissions (see Appendix B for a summary) included the:

- Potential impacts of B Double truck traffic on local roads (and associated traffic, safety, air quality, noise and vibration impacts);
- Potential noise and air quality / odour impacts associated with the expansion of the processing facility; and
- The suitability of the site for expansion, given its proximity to residences.

On 24 August 2001, Goodman Fielder amended the DA, electing to transport goods using semi trailers instead of B Double trucks until such time as B Double routes are approved. A supporting Traffic Impact Statement was provided. The Department:

- Exhibited the Traffic Impact Statement between 5th and 18th September 2001, at Hurstville City Council and the Department's Sydney office;
- Notified those who made a submission on the initial DA in writing about the proposed amendment; and
- Arranged for the amended development to be advertised in the St George and Sutherland Shire Leader.

The Department received an additional 8 submissions from the public related to this amendment, all of which raised concerns about the proposed increase in traffic.

6. CONSIDERATION OF ENVIRONMENTAL ISSUES

The Department has assessed the DA, the SEE and the submissions, and believes that the potential traffic, noise, air quality, water quality, safety, and waste management impacts of the proposal require further consideration.

6.1 Traffic, Parking and Access Issues

Methodology

Rhodes Thompson Associates prepared a Traffic Impact Statement for both the originally proposed development and the amended development. The statements assessed:

- Impact of traffic generated on the local road network;
- Proposed on site parking provisions; and
- Proposed access and internal circulation arrangements.

Traffic

The site is located on The Crescent, a U shaped local access road which also serves other nearby industrial developments, and intersects with Vanessa Street at two locations. Vanessa Street, Tooronga Terrace and Commercial Road form a collector route between King Georges Road (to the west of the site) and Kingsgrove Road (to the east of the site). Vanessa Street serves mostly industrial premises, with some residences. Commercial Road serves commercial landuses, and Tooronga Terrace is fronted by residences.

Existing Traffic

Traffic volumes on Vanessa Street and The Crescent were measured by conducting mechanical counts over seven days. In summary, these counts showed that:

- approximately 12,000 vehicles use Vanessa Street on a given week day, and that the maximum peak hour volume was 1,200 vehicles. The majority of these vehicles also travel along Tooronga Terrace and Commercial Road;
- an average of approximately 1,100 vehicles use The Crescent each day, with a maximum peak volume of 178 vehicles; and
- approximately 998 semi trailers and 141 B Double trucks / road trains use Vanessa Street every week.

The efficiency of the intersection of The Crescent and Vanessa Street was assessed by undertaking traffic counts at the intersection on one day during peak hour. The traffic consultant concluded that the intersection currently offers a good ("B") level of service.

The volume of traffic generated by existing operations at the Goodman Fielder site was assessed by observing vehicle movements over a 24 hour period. The results are summarised in Table 6.1.1.

Table 6.1.1 - Existing Daily Vehicle Movements Associated with Goodman Fielder

Vehicle type	**Movements / day**
Cars	150
Small and large trucks	64
Semi Trailers	30
B Doubles	0
Total	***244***

It should be noted that:

- The majority of these movements occur in the day and afternoon shifts; and
- While B Doubles are present on roads in the vicinity of the site, they are not used to service the Goodman Fielder site.

The only roads in the vicinity of the site which are authorised for use by B Double trucks are King Georges Road and Canterbury Road (to the north of the site). The traffic consultants indicate that B Doubles appears to operate in a safe and efficient manner on these roads. However, submissions received from the public do not support this (discussed in more detail below).

Projected Traffic Conditions

The SEE does not describe the traffic which will be associated with the construction of the proposed facility.

The volume of traffic which will be generated by the operation of the proposed development has been estimated by the consultant under 2 scenarios. Goodman Fielder are proposing to ultimately transport goods using B Double trucks. However, at this stage, the route to the Goodman Fielder site has not been approved for use by B

Doubles. Goodman Fielder are therefore planning to use semi trailers until such a time as the B Double route is approved. As a result, the 2 scenarios assessed are:

A: Transportation using semi trailers (no B Doubles); and
B: Transportation using B Doubles and semi trailers .

The projected additional daily traffic movements associated with both of these scenarios are summarised ion Table 6.1.2.

Table 6.1.2: Projected Additional Daily vehicle movements

Vehicle type	**Additional traffic movements per day**	
	Scenario A Transportation using no B Doubles	**Scenario B Transportation using B Doubles**
Cars	104	104
Small and large rigid trucks	58	58
Semi trailers	66	28
B Doubles	0	20
Total Additional Traffic	**228**	**210**

In summary:

- Car and truck movements are expected to (approximately) double;
- Scenario A (no B Doubles) involves 18 more daily truck movements than Scenario B;
- Under Scenario B (B Doubles), during the busiest (day) shift, B Double traffic will equate to less than 2 traffic movements per hour; and
- While the majority of vehicle movements will continue to be associated with the day and afternoon shifts, vehicle movements at night will increase. A total of between 16 and 20 heavy vehicle movements are expected to occur per night.

Inbound heavy vehicles delivering raw materials are expected to access the site via Canterbury Road, Kingsgrove Road, Commercial Road, Vanessa Street and The Crescent. Heavy vehicles leaving the site will most likely follow one of 2 routes:
- The Crescent, Tooronga Terrace and King Georges Road; or
- The Crescent, Vanessa Street, Commercial Road, Kinsgrove Road and the M5.

The additional traffic which will be generated by the proposed development is expected to represent less than 3% of the total traffic on Vanessa Street, 16 to 30% of semi trailer movements and, under Scenario B, 50% of B double movements.

The efficiency of the intersection of The Crescent and Vanessa Street, taking the proposed development into account, was estimated for both scenarios. The traffic consultant concluded that, while some increases in delay, number of stops and degree of saturation will be experienced, the general level of service of the intersection will not change significantly.

Although B Double trucks are currently using local roads to access other industrial sites in the vicinity, the only roads which are approved for B Double use are King Georges Road and Canterbury Rd. The Applicant's transport provider has made an application to Council's Local Traffic Committee to have the route to the Goodman Fielder site approved for B double use. The Committee effectively declined the application, finding that:

1. B Double access should not be permitted along Toroonga Terrace due to the concerns of residents in the area;
2. B Doubles should be permitted to travel south along Kingsgrove Road into commercial Rd, Vanessa Street and The Crescent, returning along the same route and turning right from Commercial Rd into Kingsgrove Rd;
3. The above route should be approved in consultation with Rockdale and Canterbury Councils; and
4. Despite (2), the above-mentioned right turn from Commercial Rd into Kingsgrove Road is not currently physically achievable for B Doubles.

The RTA has referred the application to the Regional Traffic Committee, claiming that the proper procedure was not followed by Council. The RTA indicated that:

- a B Double route along Tooronga Terrace should be considered, along with a night-time curfew;
- a B Double trial should be completed before any final decision is made; and
- B Doubles offer a partial solution to reduce noise and traffic impact.

This issue has not yet been resolved.

It should be noted that, the RTA has verbally advised that with the commissioning of the M5, traffic levels on Vanessa Street and Tooronga Terrace are not expected to decrease significantly. This is mostly due to the fact that a relatively large amount of light industrial development has been approved in the Hurstville LGA.

Parking

The Applicant proposes to construct a new parking area on the site, providing a total of 70 parking spaces. The new parking area is a long aisle, located along the north eastern boundary of the site.

The proposed development will employ a total of 106 personnel, spread across three shifts. The maximum number of employees which will be present on the site at any one time is 67, assuming a 100% overlap of the day and afternoon shift, 5% absentees and 7% car-pooling. The proposed parking arrangements will provide sufficient parking for employees, and at least 3 spaces for visitors.

Hurstville City Council Development Control Plan (DCP) No. 2 - Car Parking sets out Council's requirements for the provision of onsite parking spaces. The DCP indicates that parking space requirements should be calculated on the basis of gross floor area. The proposed parking arrangement provides the number of parking spaces required by the DCP.

Hurstville City Council DCP No. 7 Light Industrial Areas specifies further requirements for parking areas. The SEE states that the proposed development largely complies with these requirements.

Access

The site is currently accessed by two driveways leading from The Crescent onto the site. These are located in the north-western and southern corners of the site. Cars and trucks enter and exit the site using both of these driveways. As part of the proposed development, vehicles will enter the site via the southern driveway and leave the site via the north-western driveway. The proposed access and internal circulation arrangements comply with the requirements of Councils DCP No.7.

Submissions

Submissions received from the public were mostly concerned about:

- existing volumes of heavy traffic on the local roads, and the associated safety risks, reduced amenity of the road, noise, air pollution, and vibration which allegedly damages houses;
- the potential increase in heavy traffic associated with the proposed development which could exacerbate these problems; and
- The fact that B Doubles are not allowed on local roads.

A minor number of submissions also:

- Called for a west facing ramp to be installed on the M5;
- Stated that heavy traffic is damaging the road;
- Called for a curfew for B Doubles;
- Called for the local roads to be designated with a 3t limit; and
- Indicated that construction should be staged so that is does not coincide with railway construction traffic.

Canterbury City Council indicated in their submission that the northern portion of Kingsgrove Road, near Canterbury Road, is not suitable for B Double traffic.

In considering these issues, the Department has taken the following into account:

- Traffic levels on Vanessa Street and (by inference) Tooronga Terrace, are currently high, thus a proposed increase in traffic, particularly heavy vehicles, has prompted objections from local residents;
- Residents are currently experiencing night time heavy vehicle movements (relatively noisy trucks and trailers) associated with the nearby East Hills rail line upgrade (pers comm. RTA). Heavy traffic levels are likely to decrease when this construction has been completed;
- External to this DA, local residents and the local Council have been lobbying the RTA to provide west facing ramps to the M5, which will provide an access ramp for M5 traffic travelling east, directly to the light industrial area;
- The area of the site is a designated light industrial area, and has been expanding over recent years. Industries in the area expect to be able to access their operations using trucks;

- Council has designated Tooronga Terrace with a 3t limit, but this is not policed (pers comm RTA);
- The use of B Doubles is typically safer, and reduces the total number of trucks required; and
- Traffic problems in this area are a wider issue, and not strictly limited to this DA.

With regard to traffic congestion:
- The total amount of traffic which will be generated by the proposed development represents a relatively small proportion of the total amount of traffic on Vanessa Street.
- The proposed development will generate approximately 106 truck / heavy vehicle movements per day. In absolute terms, this number of trucks is not excessive. However it may represent a significant proportion of the heavy traffic on Vanessa Street and residential Tooronga Terrace (if this route is used); however,
- The Traffic Impact Statements indicate that the level of service of Vanessa Street and the Crescent will not be significantly impacted.

With regard to traffic safety, in their consideration of traffic routes for this DA, neither Council nor RTA raised specific concerns with respect to traffic safety.

Noise and air quality issues are further discussed in Sections 6.2 and 6.3 of this report.

Conclusions/Recommendations

The Department considers the proposed parking, access and internal traffic arrangements to be appropriate. Recommended conditions of consent have been included which require parking and access to be provided as outlined in the SEE.

The Department has not been able to assess the impact of construction traffic associated with the proposed development. However, it is likely that the volume of traffic involved in construction will be relatively minor. Nevertheless, it is recommended that the Applicant be directed to prepare a Construction Management Plan, which details, among other things, the likely volume of construction traffic, and the methods by which construction traffic will be managed to minimise impacts.

The Department considers that, depending on the route selected, the type of vehicles used, and the hours of travel, the heavy transportation aspect of the proposed development may have an impact on local residents. However, this impact could be effectively mitigated through the development and implementation of a Traffic Management Plan, in consultation with RTA and Council. The Traffic Management Plan will identify:
- Routes which will be used by heavy vehicles;
- Traffic numbers;
- Truck transportation hours;
- What measures and procedures will be implemented to:
  - Minimise the number of trucks which will be used to transport goods;
  - Minimise noise and vibration associated with truck traffic;
  - Ensure tucks travel in a safe manner;
  - Minimise road damage;

  - Minimise air pollution from exhaust; and
  - Record and respond to complaints regarding traffic.
- Monitoring which will be conducted to ensure the requirements of the Traffic Management Plan are being met.

These requirements have been incorporated into conditions of consent for the development.

6.2 NOISE IMPACTS

Methodology

The noise assessment of the proposal involved:

- Background noise monitoring at three nearby residences. Monitoring was conducted over a one week period using environmental noise loggers;
- Attended monitoring at each of the above residences, and at four locations at the site boundary, to determine background noise levels and noise sources affecting the measured levels;
- Determining the relevant noise criteria that should be applied to the noise emissions from the site, in accordance with the EPA *Industrial Noise Policy;*
- Noise propagation modelling to assess potential noise impacts against relevant noise criteria; and
- Making recommendations for appropriate ameliorative measures and management procedures.

The noise assessment did not include an assessment of construction noise or traffic noise associated with the proposed development.

Existing Noise Environment

Noise levels at monitored residential areas were found to fluctuate significantly during the day, evening and night. Noise levels during the evening and night time were relatively high. Observations made in the SEE indicate that the Goodman Fielder operations were not audible at the nearest residential receivers. The main contributors to ambient noise in nearby residential areas were the construction of the M5, other industrial activities and traffic noise.

Based on noise measurements, noise criteria were developed for the proposed operations at the site, measured at residences. These are indicated in Table 6.2.1.

Boundary Noise Limits were established, based on boundary monitoring, and guidance within the *Industrial Noise Policy*, as indicated in Table 6.2.2:

The Department considers the methodology adopted for the assessment of noise criteria as appropriate.

Table 6.2.1 Project Specific Residential Noise Limits

Receiver	Period	Intrusive Limit ($L_{Aeq, 15\ minute}$)	Amenity Limit (L_{Aeq})	Sleep Disturbance (L_{A1})	Noise Limits (Note (i))
Residents to the North-West (Baranbali Street and Sth Tallawarra St)	Day	48	60	-	48
	Evening	42	48	-	42
	Night	41	41	51	41
Resident to the North (Armitree Street)	Day	45	60	-	44
	Evening	45	42	-	42
	Night	42	37	52	37
Residents to the West (North Tallawarra Street)	Day	47	60	-	47
	Evening	44	46	-	44
	Night	40	37	50	37

(i) The Noise Limit selected is the lower of the Intrusive, Amenity and Sleep Disturbance criteria.

Table 6.2.2 Project Specific Boundary Noise limits

Receiver	Period	Project Specific Boundary Noise Design Objective LAeq
Northern Boundary	Day	70
	Evening	70
	Night	70
Southern Boundary	Day	67
	Evening	67
	Night	67
North Western Boundary	Day	69
	Evening	69
	Night	70
South Western Boundary	Day	70 [1]
	Evening	70
	Night	70

(1) Assumed value

Proposed Noise Environment

Noise associated with construction has not been considered in the SEE.

The SEE details the noise modelling which was conducted for the proposed operations. The modelling:

- Measured and predicted noise levels associated with process equipment (taking into account likely attenuation by building facades) and external mobile sources;
- Considered three scenarios:
  - normal day-time operations;
  - maximum day-time operations; and

    - sleep disturbance; and
- Considered a range of weather conditions.

The modelling indicated that:

- The predicted noise levels at nearby residences (to the north, north-west and west) complied with noise criteria in still and noise-enhancing weather conditions;
- Noise levels at the north, north-western and south- western site boundaries complied with noise criteria for all scenarios;
- Noise levels at the southern boundary complied with noise criteria under normal operating conditions, but slightly exceeded noise criteria under maximum operating conditions (by 1 dB(A)). As the modelling approach assumed worst-case conditions, this exceedence does not suggest that significant noise impacts will occur at the southern site boundary.

The assessment also indicated that noise from the site is unlikely to be tonal or impulsive.

The SEE does not include a detailed assessment of traffic noise, stating that the relatively small volume of traffic associated with the proposed development does not warrant a detailed noise assessment, and noise will not be significant.

Proposed Safeguards

The SEE indicates that the following noise management practices will be employed:
- Reasonable work practices will be implemented, such as avoiding extended periods of 'noisy' work time;
- Encouragement of contracted truck drivers to consider the community and limit the use of exhaust brakes and reversing alarms during early morning, evening and night time periods;
- The adoption of Best Management Practice (BMP) and Best Available Technology Economically Achievable (BATEA) including raising awareness amongst staff of the problems associated with noise and selecting all future plant equipment after considering noise emissions from it.
- Compliance monitoring will be undertaken following the commencement of operations, and on a regular basis to ensure that any assumptions made in the modelling are verified and to assist in reducing impacts of key noise sources affecting residential area (if applicable).
- A complaints procedure that involves site management initiating and maintaining a complaints register to record details of all complaints.

Issues raised in submissions

Submissions from the public express concerns regarding:
- The potential for continued noise from the existing processing facility. One submission made reference to a "grinding" noise; and
- Noise impacts associated with B Double and other truck traffic, particularly in the residential areas of Tooronga Terrace and Vanessa Street, including general truck noise and noise from brakes.

The Applicant's consultant indicated that a small sugar grinder is located within an enclosure inside the building; noise from the grinder is not audible outside the building; and that noise from the grinder has been taken into account in noise modelling. The Department considers that grinding is unlikely to have a significant noise impact.

Ten submissions from the public raised concern that excessive noise and vibration from trucks and traffic in the area is creating a disturbance, and that an increase in the number of trucks associated with the proposed development would exacerbate the problem. As indicated in Section 6.1, traffic movements associated with the proposed development are relatively small, compared to the total amount of traffic on the roads in the area. However, Goodman Fielder truck movements will represent a fair proportion of total tuck movements, and, depending on a range of factors, may generate significant noise and disturbance. One of these submissions stated that truck movements at the site currently disturb sleep, and an increase would result in more disturbance. The Department notes that noise modelling took external mobile sources at the site into consideration.

During the early stages of the exhibition period, the EPA had not yet processed Goodman Fielder's application to surrender its licence under the POEO Act, and therefore considered the proposed development as integrated. As such, the EPA made a submission requesting further information on cumulative noise impact assessment. The EPA subsequently approved the application to surrender, and indicated it would not be involved in further assessment of the noise impacts of the proposed development. The Department has reviewed the additional information which was provided by the Applicant in response to the EPA's initial request. It is considered that, given existing operations at the industrial area are not audible at nearby residences, consideration of cumulative noise impacts is not warranted. In any case, the results of this consideration do not affect the outcome of the noise assessment provided above.

Conclusions/Recommendations

The Applicant has not considered construction noise impacts in detail. Given the industrial setting and the fact that most of the construction will occur inside the building, construction noise impacts may not be significant. However, based on the information available, it is not possible to make this assessment. The Applicant should therefore be directed to:

- Prepare a construction noise management plan as part of the construction phase environmental management plan;
- Limit construction hours to 7am to 5pm Monday to Saturday, with construction on Saturday afternoon limited to "indoor" construction activities; and
- Conduct noise monitoring during the construction phase, at site boundaries and the nearest potentially affected receivers. Monitoring should be undertaken in accordance with NSW EPA guidelines, and measured noise levels should be assessed against the construction noise objectives outlined in the NSWEPA *Environmental Noise Control Manual*. Where measured noise levels exceed the construction noise objectives, management strategies, such as re-scheduling, or the use of screens, should be implemented.

The estimated operational noise levels largely comply with project-specific noise limits. The proposed monitoring regime and management and mitigation measures are considered appropriate to control noise impacts.

The Applicant should be required to:
- Comply with the project specific noise limits identified in Tables 6.2.1;
- Adhere to restrictions on construction hours, as recommended in the EPA *Noise Control Manual*;
- Formalise the proposed management, monitoring and mitigation measures listed above in the Environmental Management Plan for the site, and implement them; and
- As discussed in Section 6.1, develop and implement a Traffic Management Plan.

These requirements have been incorporated into the conditions of consent for the development.

6.3 Air Quality Impact

Air pollutants which could potentially be generated by activities at the site include dusts / particulate matter, odours, and fuel combustion products.

In order to estimate potential air quality impacts of the proposed development qualitative and quantitative investigations were undertaken at the site.

Dust and Particulate Matter

The main potential sources of dust emissions are:
- Construction works, during which areas of soil may be exposed, and dust may be generated; and
- Dust / particulates which could be released during filling of silos, transferring raw materials (mostly flour and sugar), mixing ingredients, and filling sacks with product.

The Applicant's consultant conducted an assessment of dust levels associated with the existing facility by inspecting the various processing and storage areas, and measuring dust concentrations using an aerosol monitor. The assessment revealed very low levels of visible and measured dust inside and adjacent to the building, and concluded that the existing facility would have a negligible impact on dust levels beyond the site boundaries.

As the proposed production rate is expected to more than double, there is the potential for additional dust emissions. However, the storage, mixing and packing processes will continue to be conducted internally, so and the primary source of dust and particulate emissions will therefore be the exhaust vents associated with these additional operations.

To prevent emissions from bulk handling operations, the main measures that are currently used are construction and sealing practices. These practices will be implemented at the proposed facility, and will serve to limit the effect of air currents

and minimise material free fall distances and velocities during handling and transfer. Construction and sealing measures include dust-tight cleaning and processing equipment, using flanged inlets and outlets on all spouting, transitions, and miscellaneous hoppers. In addition to these measures, adequate ventilation or capture/collection systems will be installed to reduce potential emissions.

Dust can potentially be emitted from the silo or the tanker coupling point upon delivery of flour or sugar from a bulk tanker to a silo, as a result of overfilling or the displacement of air. To reduce the risk of a silo being overfilled, each silo will have a device that activates a warning alarm to alert the operator to stop the filling process. In addition, an overfill device will close the valve on the filling line if the silo should come close to being overfilled. Each silo is to be fitted with a dust collector, which filters the displaced air and discharges the filtered air into the main building.

Filtered air, and air extracted from all areas of the building is to be directed through a central dust collector, which has a reported removal efficiency of 99.5 to 99.9%, and will separate dust into a sealed drum. The filtered air will be discharged at ground level. The SEE states that the central dust collector will be able to meet the dust emission limits outlined in Table B of the *Clean Air (Plant and Equipment) Regulation 1997* (250 mg/m^3).

The SEE states that, in the event that the filter bag or cartridge on the central dust collector is compromised, excess dust may be discharged, but this will occur at ground level, and have minimal opportunity to disperse. Preventative inspection and maintenance programmes are proposed to prevent this from occurring.

A submission from the public indicated that flour has drifted from the site in the past and expressed concerns that dust emissions would continue. Given the level of dust filtering and control proposed for the facility, this situation is unlikely to recur.

Fuel Combustion By-products

The operation of road transport equipment and on-site forklifts generate various by-products of fuel combustion (including carbon dioxide and oxides of nitrogen). The SEE states that staff on site will ensure that no mobile vehicles are in contravention of the *Clean Air Act 1970* and the regulations under the *Protection of the Environment Operations Act 1997* (POEO Act) in terms of the release of smoke and emissions.

Local minor emissions of volatile organic compounds (VOCs) may result from the use of products such as oils and solvents in equipment maintenance.

11 submissions from the public raised concern that exhaust from trucks and traffic in the area was adversely impacting air quality, and that an increase in the number of trucks associated with the proposed development would exacerbate the problem. As indicated in Section 6.1, traffic movements associated with the proposed development are relatively small, compared to the total amount of traffic on the roads in the area. In addition, the SEE states that Goodman Fielder staff will ensure vehicle emissions comply with the requirements of the POEO Act. In this event, it is considered unlikely that emissions from vehicles associated with the proposed development will have a significant adverse impact on air quality.

Odour

Similar sites have had problems with odour (a toasted smell from ovens) and blue haze (resulting from hot smouldering areas in the equipment). However, no cooking will be conducted on the Goodman Fielder Kingsgrove site. The SEE states that off-site odour impacts are generally considered proportional to the potential for off-site particulate matters impacts. Since particulate matter impacts have been identified in the SEE as being not significant, it is deduced that neither will odour impacts be significant.

Six of the submissions from the public expressed concern that the expansion of the facility would result in an increase in odour levels. The submissions did not specify whether odours were currently being generated, or the types of odours they felt were likely to be generated.

The Department considers that there are no significant sources of odour, and the proposed development is unlikely to have an adverse odour impact.

Proposed Safeguards

Safeguards detailed in the SEE to minimise potential air quality impacts are summarised below:

- During construction, ensure that all potential fugitive dust sources are well maintained.
- Seal or seed all disturbed areas as soon as is practicable.
- Install dust collection systems and process controls.
- Install alarms and shut off valves on silos.
- Continue good housekeeping practices as currently exist under current operations.

Conclusions/Recommendations

The Department is satisfied that the mitigation measures proposed in the SEE will minimise air quality impacts from fugitive and process sources associated with the development.

The Applicant should be required to:

- Comply with the dust emission limits outlined in Table B of the *Clean Air (Plant* and Equipment) Regulation 1997;
- Ensure emissions from vehicles associated with the proposed development comply with the requirements of the *Clean Air (Motor Vehicles and Motor Vehicle Fuels) Regulation 1997* under the Protection of the Environment Operations Act 1997; and
- Formalise the management and mitigation measures, as part of the site Environmental Management Plan.

These requirements have been incorporated into conditions of consent for the development.

6.4 Stormwater and Wastewater Management

Stormwater

The site is located adjacent to Wolli Creek, which runs along the northern site boundary. The potential impacts on stormwater and the creek would result from two main sources, namely:

- Stormwater contamination with sediment during construction; and
- Stormwater contamination from spills of ingredients or other materials.

Contamination by sediment

Stormwater may potentially be contaminated by sediment sourced from soil exposed during construction works. Soil may leave the site and contaminate stormwater through direct erosion after rain, vehicles tracking it off-site onto public roads, or through wind erosion depositing it on surfaces that permit transport via stormwater.

A total area of 500m^2 is proposed to be disturbed for the construction of foundations for the silos, within the main building. It is expected that the earthworks would take a total of three months to complete. However, given that the area is covered, any sedimentation associated with the construction works is expected to be limited.

A number of safeguards have been proposed in the SEE to mitigate the effects of sediment on stormwater, and include:

- Development and implementation of a detailed Stormwater Management Plan; and
- Following best management practices derived from the NSW Department of Housing's "Managing Urban Stormwater - Soils and Construction, 3rd Edition, 1998";

Contamination from spills

There is the potential for vegetable oils to be spilled upon transfer from the tanker to the aboveground tanks, and to spill or leak from the tanks. To minimise the risk of leaks or spills, the SEE indicates that the following mitigation measures will be implemented:

- A spill tank will be placed beneath the coupling points of the tanker and the aboveground tanks;
- The tankers will have a brake interlock which means the vehicle can not be driven off while the hose is connected;
- A spill kit would be located adjacent to the delivery area; and
- The stormwater system on the site would be able to be isolated in the event of a spillage.

Wastewater

No significant amounts of wastewater or other liquid waste will be generated as part of the development. The proposed facility involves dry mix processes only and there is no liquid waste generated from the mixing facility. Equipment is cleaned using

either vacuums or rags and is not washed down. The additional staff required for the site will generate minor amounts of waste water discharge.

No information has been provided in the SEE on how, in the event of a fire, contaminated fire water will be contained and managed. The SEE states that this issue will be investigated and disused as part of a detailed Fire Safety Study, which is to be prepared and submitted as part of the construction certificate application.

Issues raised in submissions

None of the submissions from the public raised issues related to water quality. DLWC indicated that soil and erosion control measures should be implemented at the site, during construction and operation, in accordance with the practices outlined in the Department of Housing's Managing Urban Stormwater: Soils and Construction1998 and Council's requirements.

Conclusions/Recommendations

The Department is satisfied that stormwater and wastewater management issues associated with the proposed upgrade can be effectively managed. The Applicant should be directed to:

- Prepare a Stormwater Management Plan;
- Prepare an Erosion and Sediment Control Plan for construction phase activities;
- Include information on the management of contaminated fire water as part of the site Fire Safety Study; and
- Implement the mitigation measures outlined above.

These recommendations have been incorporated into the conditions of consent for the development.

6.5 Aesthetic Impacts and Landscaping

Aesthetics

The site is located within an industrial area and all properties directly to the south, east and west of the site are used for industrial purposes. The embankments associated with the M5 motorway serve to screen the existing facility from residences to the north of the site.

The proposed development involves small changes to the footprint of the building, but an increase in the height and bulk of the building. The existing building has a maximum height of 24.2 m, in the area of the existing silo tower, which is located in the central southern portion of the building. The proposed development involves the extension of the silo area, so an increase in the height of the south-eastern portion of the building, to a maximum of 24.2 metres. This represents a significant increase in the bulk of the building, as indicated in Figure 4.

The SEE does not indicate whether the extended building will be visible from residences to the south-east or west of the site. Based on observations made by the Department during a site visit:

- it is considered unlikely that the proposed building will be visible from residences to the west;
- residences to the south east of the site which may have a line of sight to the proposed building are on the far side of the railway line, behind acoustic barriers.

So the increased bulk of the building is not likely to have a significant impact on aesthetics in the area.

Hurstville City Council DCP 7 sets external design features for industrial developments in the area, in terms of density, setback, height and finishes. The proposed development is consistent with the density and setback requirements outlined ion the DCP. Little information has been provided on the materials to be used on the external finish, so it has not been possible to assess compliance with the DCP in this regard. The DCP states that buildings should have a maximum height of 9.5 m (2 storeys) or 12.5 m (3 storeys). The existing building pre-dates the DCP, and exceeds these heights. The proposed building is consistent with existing heights, but is not consistent with the requirements of the DCP.

Hurstville City Council have not made a submission on the proposal, thus their opinion on the building height and external appearance is not known.

One of the submissions raised concerns that the aesthetics of the general area were deteriorating.

Landscaping

None of the existing trees at the site will be affected by the proposed development. The SEE indicates that the M5 corridor has encroached on the site such that there is very little space to accommodate additional landscaping. However, the SEE states that a Landscape Plan, detailing landscaping works aimed at screening the building and the car park, will be submitted with the construction certificate.

DLWC indicated in their submission that landscaping should include the provision of an area of vegetation between the car park and Wolli Creek. However, there is very little space available between Wolli Creek and the carpark, and landscaping in this area may not be feasible.

Conclusions/Recommendations

The Department considers that, while the proposed development involves a significant increase in the bulk of the building, this increase will not have a significant impact on aesthetics, particularly given that additional, although limited, landscaping is proposed.

The Applicant should be directed to prepare a Landscape Management Plan, which includes providing vegetation between the car park and the creek, in consultation with Council, prior to the issuing of construction certificates.

These recommendations have been incorporated into the conditions of consent for the development.

6.7 Dangerous Goods Storage

Existing Situation

The SEE indicates that liquid carbon dioxide is stored the only dangerous good currently stored at the site, but does not provide details on the quantity stored on the site, or how it is stored.

Vegetable oil is stored onsite in four bunded above ground tanks. Vegetable oil is not classified as a dangerous good.

Proposed Situation

The Applicant proposes to continue using the existing carbon dioxide and vegetable oil storage facilities, and install an additional above ground tank for the storage of vegetable oil.

Safety issues associated with the storage of liquid carbon dioxide include the risk of a leak from pipework into an enclosed area, and the risk of failure of the carbon dioxide refrigeration system.

While the Applicant does not specify safeguards which will be put in place to minimise these risks, the Department considers that these risks can be adequately mitigated.

There is a low fire risk associated with the storage of vegetable oil as:

- The flash point of the oils is greater than or equal to 150C; and
- Vapour is not emitted from the oil at ambient temperatures and the oils will not be exposed to elevated temperatures in processing.

It is possible that vegetable oil could spill or leak from the storage tanks. The SEE indicates that the tanks will be provided with sufficient bunding to contain 110% of the capacity of the tank, and spills or leaks will be effectively contained.

Conclusions/Recommendations

The Department is satisfied that the proposed arrangements for the storage of Dangerous Goods and vegetable oil are satisfactory, and associated risks can be adequately mitigated.

The Applicant should be directed to:

- Ensure that carbon dioxide is stored and handled in accordance with the relevant clauses of AS1894-1997 The Storage and Handling of Non-Flammable Cryogenic and Refrigerated Liquids, as part of a site Safety Management System.
- Ensure vegetable oil is stored in accordance with AS1940-1993, as part of a site Safety Management System; and
- Provide sufficient bunding around the above ground vegetable oil tanks;

These recommendations have been incorporated into the conditions of consent for the development.

6.8 Safety Risks

The SEE identifies two main safety risks, the details of which are summarised below.

Dust ignition or explosion

Flour and sugar dusts are combustible and fires can potentially occur if sufficient dust is present on electrical devices with heated surfaces. To reduce the risk of ignition or explosion of dust the Applicant proposes:

- Compliance with AS2430.2-1986 Classification of Hazardous Areas Part 2 - Combustible Dusts and AS/NZS2381.1:1999 Electrical Equipment for Explosive Atmospheres - Selection, Installation and Maintenance Part 1: General Requirements; and
- The installation of a dust collector to remove combustible dusts from the air in the building.

Fire Safety

Engineered Fire and Safety have conducted a preliminary evaluation of fire safety issues associated with the existing facilities and the proposed development. The investigation concluded that there are a number of non-compliances with the Building Code of Australia (BCA) requirements.

As part of the current development application, Goodman Fielder intends to upgrade the site to achieve full compliance. A Fire Safety Study has been commissioned and will be submitted for approval as part of the construction certificate application.

The Fire Safety Study should also address the possibility of a fire at the vegetable oil storage area.

Use of Carbon Dioxide

In addition to those risks identified in the SEE, there are safety risks associated with the failure of the carbon dioxide refrigeration / storage system and subsequent leakage of carbon dioxide, as discussed in Section 6.7 above. Risks can be effectively mitigated by implementing procedures and systems which, for example, include the regular testing of the safety relief valves and verification of the adequacy of the relief system in the event of a failure.

Conclusions/Recommendations

The Department considers that the safety risks associated with the proposed development can be effectively minimised.

To this end, the Applicant should be required to:

- Complete a Fire Safety Study prior to issuing of the construction certificate. The Fire Safety Study should include a discussion of contaminated fire water storage and disposal arrangements, and (among other things) address the possibility of a fire at the vegetable oil storage area, and dust explosion issues;
- Prepare an Emergency Plan, which outlines emergency procedures and response in a range of scenarios including (but not limited to) fire, failure of the carbon dioxide refrigeration system, leakage of carbon dioxide into an enclosed area. The Plan should be prepared in accordance with the Department's *Hazardous Industry Planning Advisory paper No. 1 "Industry Emergency Planning Guidelines"*;
- Prepare a Safety Management System which details procedures and systems which will be followed to ensure safe operation of the facility. The Safety Management System should be developed in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 9 "Safety Management"*; and
- Complete a Deflagration Management Strategy, which outlines the dust explosion hazard, and indicates what measures will be put in place to mitigate the risk.

These requirements have been incorporated into the conditions of consent for the development.

6.9 Waste Management

The SEE does not provide information on existing or proposed waste management practices at the site. However, information previously forwarded to the Department indicated that, to minimise waste going to landfill, the following reuse/recycling practices are conducted at the Kingsgrove site:

- Edible product does not go to landfill. Coarse dust particles are collected (in dust collection system) for sale to piggeries as a food supplement and damaged product is reused as animal food;
- Packaging is baled and sent to recyclers (after separation into polythene, sacks and cardboard); and
- Other wastes that can not be sorted or recycled are compacted and sent to landfill.

It is understood that these practices will continue if the proposed development proceeds.

One of the submissions received from the public expressed concerns that workers were leaving rubbish in the area, which attracted rats.

Conclusions/Recommendations

The Department recommends the development and implementation of a waste management plan to determine a consistent approach to waste management across the site and to identify disposal options for all wastes generated on site. This plan should be submitted to the Department with the construction certificate application. This has been incorporated as a condition of consent.

7. SECTION 79C CONSIDERATION

Section 79C of the Act sets out the matters that a consent authority must take into consideration when it determines a development application.

The Department has assessed the development application against these heads of considerations (see Appendix A), and is satisfied that the potential impacts of the proposed development can be mitigated and/or managed subject to the imposition of certain conditions of consent.

8. RECOMMENDED INSTRUMENT OF CONSENT

The Department has prepared a set of proposed conditions for the development. These conditions include the Department's conditions, and take into account the issues raised in submissions from other agencies.

These conditions recommend that the Minister grant development consent to the development application, under Section 80 of the Act.

These recommended conditions of consent are intended to modify details of the development application to:

- Ensure that the Applicant complies with all the necessary statutory approvals for the development;
- Establish an environmental management regime for the construction and operational phase of the development;
- Provide for environmental monitoring and reporting on the future performance of the development;
- Provide for a regular independent environmental audit of the proposed development;
- Set standards and performance measures for certain environmental issues;
- Ensure appropriate safety management.

The Applicant has reviewed and accepted these proposed conditions.

9. CONCLUSION

The Department has assessed the development application, the Statement of Environmental Effects, and the submissions on the proposed development.

Based on this assessment, the Department is satisfied that the proposed development is consistent with the Government's State and regional planning objectives to encourage employment generation, and promote ecologically sustainable development. In addition, the Department is confident that the potential impacts associated with the proposed development can be mitigated or managed through conditions of consent.

10. RECOMMENDATION

It is recommended that the Minister:

(i) Consider the findings and recommendations of this report;
(ii) Approve the development application for the proposed development, under Section 80 of the Act; and
(iii) Sign the Instrument of Consent.

Endorsed:

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