Government of Western Australia
Department of Environment Regulation

Amended Licence

Licence Number	L8101/2004/3
Licence Holder	Inghams Enterprises Pty Ltd
ACN	008 447 345
Registered business address	1 Julius Ave NORTH RYDE NSW 2113
Duration	08/10/2012 to 07/10/2021
Prescribed Premises	Category 23: Animal feed manufacturing
Premises	Wanneroo Feedmill 1040 Wanneroo Road SINAGRA WA 6065 Part of Lot 1665 on Plan 103478 Certificate of Title Volume 1294 Folio 460

This Amended Licence is granted to the Licence Holder, subject to the following conditions, on 13 January 2016 by:

Date signed: 13 January 2017
Jonathan Bailes
A/Senior Manager – Industry Regulation (Process Industries)
Licensing and Approvals
an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

Conditions

Environmental compliance

1. The ***Licence Holder*** must comply with the ***EP Act*** and all regulations prescribed under the EP Act and applicable to the Premises, including:

(a) The duties of an occupier under s 61;

(b) The duty to notify the ***CEO*** of discharges of waste under s 72; and

(c) Not causing, or doing anything that is likely to cause, an offence under the ***EP Act***

except where the ***Licence Holder*** does something in accordance with a ***Condition*** which expressly states that a defence under s 74A of the ***EP Act*** may be available.

Notification of Material Change

2. The ***Licence Holder*** must notify the ***CEO*** of any ***Material Change*** within 14 days of a ***Material Change*** occurring and such notification (which the ***CEO*** will make publicly available) must:

(a) be in writing;

(b) include details of the changes, including duration, infrastructure details (if any); and

(c) include risk analysis of the changes, including proposed controls to mitigate risks.

Nothing in this Condition constitutes a defence to offences under the ***EP Act***.

3. The ***Licence Holder*** must provide to the ***CEO*** any additional information the ***CEO*** may reasonably require to assess the ***Material Change*** under ***Condition*** 4 and in order for the ***CEO*** to determine if an amendment is required under the ***EP Act***.

4. The ***Licence Holder*** must cease carrying out, or modify, a ***Material Change*** in the manner and at the time required by the ***CEO*** if:

(a) the ***CEO*** forms the view, acting reasonably, that the ***Material Change*** has or may have an unacceptable impact on public health, amenity or the environment; and

(b) the ***CEO*** has provided written notice (which the ***CEO*** will make publicly available) to the Licence Holder specifying the grounds for the ***CEO's*** views.

Nothing in this ***Condition*** prevents the Licence Holder subsequently submitting an amendment in relation to the ***Material Change***.

Infrastructure and Equipment

5. The ***Licence Holder*** must maintain and operate the infrastructure and equipment specified in column 1 of Table 5 in Schedule 3, in accordance with the requirements specified in columns 2 and 3 of Table 5 in Schedule 3.

6. The ***Licence Holder*** must ensure that the infrastructure and equipment specified in Table 5 of Schedule 3 are maintained in good working order.

Specified Actions

7. The Licence Holder must ensure all ***Raw Materials*** and product is only stored or stockpiled within dedicated bins, silos, hoppers or the general storage shed.

Point Source Emissions to Air

8. The ***Licence Holder*** must ensure the pollution control equipment specified in column 3 of Table 1 is operating while the corresponding emission sources specified in column 4 of Table 1 are emitting from the corresponding emission points in column 1 of Table 1.

Table 1: Point Source Emissions to Air Table

Column 1	Column 2	Column 3	Column 4
Emission Point	**Reference on Schedule 1: Point Source Emissions to Air Map**	**Pollution Control Equipment**	**Emission Source**
Mill Building Stacks 1 and 2	MB1 and MB2	Two cyclones	Pellet Mills and Counterflow Coolers
Baghouse emission vent 1	BV1	Two baghouse filters	Grain off grinder and two expansion hoppers
Baghouse emission vent 2	BV2	One baghouse filter	Industrial vacuum system
Baghouse emission vent 3	BV3	One baghouse filter	Enclosed conveyor system
Baghouse emission vent 4	BV4	One baghouse filter	Additive intake blower system
Baghouse emission vent 5	BV5	One baghouse filter	Bulk meals intake system
Baghouse emission vent 6	BV6	One baghouse filter	Micro ingredients system
Baghouse emission vent 7	BV7	One baghouse filter	Transit separator system

Emissions

9. The ***Licence Holder*** must not cause any ***Emissions*** from the ***Premises*** except for Specified Emissions and General Emissions described in column 1, subject to the exclusions, limitations or requirements specified in column 2, of Table 2 below.

If the ***Licence Holder*** proves that it has acted in accordance with this ***Condition***, it may be a defence under s 74A of the ***EP Act*** to proceedings for offences under the ***EP Act*** (including offences under section 56).

Table 2: Emissions Table

Column 1	**Column 2**
***Emission* Type**	**Exclusions/Limitations/Requirements**
Specified Emissions	
Fugitive dust	Subject to compliance with: • rows 1 to 7 of Table 5 in Schedule 3; and • ***Condition*** 7.
Point Source Emissions to Air	Subject to compliance with: • row 8 of Table 5 in Schedule 3; and • ***Condition*** 8;
General Emissions (excluding Specified Emissions)	
Emissions which: • arise from the activities on the ***Premises*** through matters set out in, or incidental to the matters set out in, the ***General Description*** in Schedule 2; or • arise from a ***Material Change*** (except where Condition 4 applies).	***Emissions*** excluded from General Emissions are: • ***Unreasonable Emissions***; or • emissions that result in, or are likely to result in, ***Pollution, Material Environmental Harm*** or ***Serious Environmental Harm***; or • ***Discharges*** of ***Waste*** in circumstances likely to cause ***Pollution***; or • emissions that result, or are likely to result in, the ***Discharge*** or abandonment of ***Waste*** in water to which the public has access; or • ***Emissions*** or ***Discharges*** which do not comply with an ***Approved Policy***; or • ***Emissions*** or ***Discharges*** which do not comply with prescribed standard; or • ***Emissions*** or ***Discharges*** which do not comply with the conditions in an ***Implementation Agreement or Decision***; or • ***Emissions*** or ***Discharges*** the subject of offences under regulations prescribed under the ***EP Act***, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004*.

Information

10. The ***Licence Holder*** must maintain accurate and auditable records in relation to:

(a) the calculation of fees payable in respect of this ***Licence***; and

(b) any ***Material Change***.

11. If an emission of the type referred under ***Condition*** 9 occurs on the ***Premises***, then the ***Licence Holder*** must:

(a) investigate why the ***Emission*** occurred;

(b) take all reasonable steps to prevent the ***Emission*** occurring again;

(c) record the details of the investigation and all steps taken; and

(d) provide a copy of the record to the ***CEO*** within 21 days of the date ***Licence Holder*** became aware of the ***Emission*** occurring.

12. The ***Licence Holder*** must record the number and details of any complaints received by the ***Licence Holder*** relating to the ***Premises***, and any action taken by the ***Licence Holder*** in response to the complaint. Details of complaints must include:

(a) an accurate record of the concerns or issues raised, for example, a copy of any written complaint or a written note of any verbal complaints made;

(b) the name and contact details of the complainant, if provided by the complainant;

(c) the date of the complaint; and

(d) the details and dates of the actions taken by the ***Licence Holder*** in response to the complaints.

13. The ***Licence Holder*** must submit to the ***CEO*** within 90 days after the ***Anniversary Date***, an ***Annual Audit Compliance Report*** indicating the extent to which the ***Licence Holder*** has complied with the ***Conditions*** in this Licence for the ***Annual Period***.

14. The ***Licence Holder*** must comply with a ***CEO*** Request, within 7 days from the date of the ***CEO Request*** or such other period specified in the ***CEO Request***.

Definitions and Interpretation

Definitions

In this Licence, the following terms have the following meanings:

Anniversary Date means 30 June of each year.

Annual Audit Compliance Report means a report in a format approved by the ***CEO*** as presented by the ***Licence Holder*** or as specified by the ***CEO*** from time to time and published on the Department's website.

Annual Period means a 12 month period commencing from 1 July until 30 June in the following year.

CEO for the purposes of notification means:

Chief Executive Officer
Department Div. 3 Pt. V EP Act
Locked Bag 33 Cloisters Square
Perth WA 6850
info@der.wa.gov.au

CEO Request means a request made by the ***CEO*** to the ***Licence Holder*** in writing, sent to the ***Licence Holder's*** address for notifications, as described at the front of this ***Licence***, in relation to:

(a) information, records or reports in relation to specific matters in connection with this ***Licence*** including in relation to compliance with any ***Conditions*** and the calculation of fees (whether or not a breach of condition or the EP Act is suspected); or

(b) reporting, records or administrative matters:

(i) which apply to all ***Licences*** granted under the ***EP Act***; or

(ii) which apply to specified categories of ***Licences*** within which this ***Licence*** falls.

Condition means a condition to which this ***Licence*** is subject under s 62 of the ***EP Act***.

Department means the department established under s.35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the EP Act.

Discharge has the same meaning given to that term under the ***EP Act***.

Emission has the same meaning given to that term under the ***EP Act***.

Environmental Harm has the same meaning given to that term under the ***EP Act***.

EP Act means the *Environmental Protection Act 1986* (WA).

EP Regulations means the *Environmental Protection Regulations 1987* (WA).

General Description means the description of activities and operations carried out on the Premises as set out in Schedule 2 of this Licence.

IBC means intermediate bulk container.

Licence refers to this document, which evidences the grant of ***Licence*** by the ***CEO*** under s 57 of the EP Act, subject to the ***Conditions***.

Licence Holder refers to the occupier of the premises being the person to whom this ***Licence*** has been granted, as specified at the front of this ***Licence***.

Material Change means a change to the activities carried out on the ***Premises*** as described in the ***General Description*** set out in Schedule 2 and:

(a) that may result in an increased risk to public health, amenity or the environment; and

(b) includes the types of changes specified in Schedule 2; and

(c) does not include the excluded changes specified in Schedule 2.

Material Environmental Harm has the same meaning given to that term under the ***EP Act***.

Pollution has the same meaning given to that term under the ***EP Act***.

Premises refers to the premises to which this ***Licence*** applies, as specified at the front of this ***Licence*** and as shown on the map in Schedule 1 to this ***Licence***.

Raw Materials means grains, meals and other additives in solid form used in the animal feed manufacturing process.

Serious Environmental Harm has the same meaning given to that term under the ***EP Act***.

Unreasonable Emission has the same meaning given to that term under the ***EP Act***.

Waste has the same meaning given to that term under the ***EP Act***.

Interpretation

In this Licence:

(a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a ***Condition***, each row in a table constitutes a separate ***Condition***; and

(d) any reference to an Australian or other standard, guideline or code of practice in this ***Licence*** means the version of the standard, guideline or code of practice in force at the time of granting of this ***Licence*** and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the ***Licence***.

Schedule 1: Maps

Premises Map

The ***Premises*** is shown on the map below. The pink line depicts the boundary to the ***Premises,*** and the blue line depicts the boundary of Lot 1665 on Plan 103478.

LEGEND

- Road Centrelines
- Cadastre
- Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2015

** Project Data. This data has not been quality assured. Please contact map author for details.*

N

0 200 m

Scale 1:6860
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Prepared by: chrism
Prepared for: L8101/2004/4
Date: 6/09/2016 10:22:05 AM

Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend.

Government of **Western Australia**
Department of **Environment Regulation**

General Layout Map

LEGEND

- Road Centrelines
- Cadastre
- Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2015

** Project Data. This data has not been quality assured. Please contact map author for details.*

N

0 62 m

Scale 1:2394

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Prepared by: chrism
Prepared for: L8101/2004/3
Date: 3/10/2016 10:44:57 AM

Information derived from this map should be confirmed with the data custodian acknowleged by the agency acronym in the legend.

Government of Western Australia
Department of Environment Regulation

Point Source Emissions to Air Map

LEGEND

- Road Centrelines
- Cadastre
- Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2015

** Project Data. This data has not been quality assured. Please contact map author for details.*

N

0 ~62 m

Scale 1:2157
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

Prepared by: chrism
Prepared for: L8101/2004/3
Date: 10/01/2017 4:56:42 PM

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

Government of Western Australia
Department of Environment Regulation

Schedule 2: General Description

At the time of assessment, the following activities and operations were considered in the determination of the risk and related conditions for the ***Premises***.

The ***Licence Holder*** is carrying out activities at the ***Premises*** which fall within the meaning of Prescribed ***Premises*** under the ***EP Act***. The ***Premises*** constitute Category 23 ***Premises*** on which animal food is manufactured or processed.

Infrastructure and equipment

The infrastructure and equipment situated on the ***Premises*** *are detailed in* Table 3:

Table 3: Infrastructure and equipment situated on the *Premises*

	Infrastructure	Plan reference
1	Bulk grains intake	General Layout Map
2	Bulk meals intake	General Layout Map
3	Grain silos	General Layout Map
4	Tallow intake	General Layout Map
5	Mill building	General Layout Map
6	Mill warehouse	General Layout Map
7	Tallow and liquid additive storage including IBCs	General Layout Map
8	Product storage and truck loadout facility	General Layout Map
9	Sealed ring road	General Layout Map
10	General storage shed	General Layout Map

Site layout

The infrastructure and equipment are set out on the ***Premises*** in accordance with the site layout specified on the ***Premises*** General Layout Map in Schedule 1.

Animal Food manufacturing

The ***Licence Holder*** owns and operates a commercial poultry feed and pig feed manufacturing facility. Grains and meals are delivered by truck into dedicated intake areas and form the primary ingredients. The manufacturing process includes the addition of solid and liquid additives, including coating with tallow. The manufacturing process is largely automated through preset ingredients ratios and weighing systems for product consistency. Feeds are produced in pellet or crumble form and are conveyed to overhead loadout hoppers for direct loading into trucks.

Table 4: Animal food volumes assessed

Product	Volume in aggregate (annual)
Poultry feed	Up to 220,000 tonnes (produced)
Pig feed	

Examples of Material Change

- Volume increases of product exceeding 10%;
- Changes to the site layout of infrastructure and equipment specified on the plans in Schedule 1.

Non-Material Change

Improvements or additions to, or replacement of, infrastructure and equipment that do not increase the risk of emissions and discharge.

Schedule 3: Infrastructure and Equipment

Table 5: Infrastructure and Equipment Controls Table

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	**Description**	**Operation details**	**Plan Reference**
	Controls for dust			
1	Bulk meals intake	Fully enclosed shed with separate roller doors for truck entry and exit.	At least one door remains closed at all times during meal unloading.	Schedule 1: General Layout Plan
2	Bulk grains intake	Fitted with a closeable screen.	Screen is utilised during grain unloading. Screen remains intact and fit for the intended purpose of minimising airborne dust generation during grain unloading.	
		Enclosed grain silos fitted with level alarms and overfill prevention interlocks.	None specified.	
3	Mill Building and Mill Warehouse	Enclosed silos, bins and hoppers.	Storage and transfer of raw materials	
		Chutes from upper levels to dust sweeping collection bins at ground level.	Collection bins replaced or emptied once full.	
4	Product storage and truck loadout	Transferred from Mill Building via enclosed conveyor to product storage hoppers fitted with truck loading chute extensions.	Chute extensions are intact and utlised during product loading into trucks.	
5	Conveyor system	Enclosed.	None specified.	
6	Sealed ring road	The internal access ring road is bituminised	None specified.	

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	**Description**	**Operation details**	**Plan Reference**
7	Cleaning equipment	Road sweeper and industrial vacuum system	Road sweeper is used at least once on each day of production on all external trafficable areas (subject to wet weather conditions and road sweeper breakdowns) and internal floors within the Mill Building and Mill Warehouse. Industrial vacuum system available for cleaning and removing accumulated dust from surfaces and equipment.	
	Controls for point source emissions to air			
8	Baghouse filters and cyclones	Baghouse filters are fitted with a broken bag detection system. Cyclones direct emissions to Mill Building Stack 1 and 2 that are 9.5 m in height.	Baghouse filters inspected on at least a daily basis. Cyclones inspected on at least a daily basis and accumulated particulate matter is removed.	
	Controls for noise			
9	Mill Building	Cyclone fans fitted with noise attenuators and Mill Building Stacks 1 and 2 fitted with a noise silencer.	-	
10	External sections of the conveyor system	Enclosed.	Inspected at least daily and serviced or repaired to address any abnormal noises.	
	Controls for preventing stormwater contamination			
11	Tallow intake	Concrete collection bund for tallow drips and spillages during unloading.	Accumulated stormwater is removed from the collection bund.	
12	Tallow and liquid additive storage	Enclosed storage vessels that are located within a concrete secondary containment compound and IBCs.	Accumulated stormwater is removed from within secondary containment areas.	
13	Intermediate Bulk Containers (IBCs) self-bunded containment	Self-bunded containment equipment used for the storage of IBCs.	Storage of IBCs occurs within the Mill Building or Mill Warehouse.	

Government of Western Australia
Department of Environment Regulation

Decision Report

Division 3, Part V *Environmental Protection Act 1986*

Licence Holder:	Inghams Enterprises Pty Limited
ACN:	008 447 345
	L8101/2004/3
File Number:	DEC938
Premises:	Wanneroo Feedmill
	1040 Wanneroo Road SINAGRA WA 6065
	Being Part of Lot 1665 on Plan 103478 Certificate of Title Volume 1294 Folio 460
Date of report:	
Status of Report	

Table of Contents

List of Tables

Definitions of terms and acronyms

Term	Definition
AACR	Annual Audit Compliance Report
AHD	Australian Height Datum
Category/Categories (Cat.)	categories of prescribed premises as set out in Schedule 1 of the EP Regulations
DEC	Department of Environment and Conservation (a predecessor of DER)
Decision Report	this document
Delegated Officer	An officer under section 20 of the EP Act
DER	Department of Environment Regulation
DoW	Department of Water
EP Act	*Environmental Protection Act 1986*
EP Regulations	*Environmental Protection Regulations 1987*
GIS	Geographical Information Software
ICMS	Incident and Complaints Management System
Licence Holder	Inghams Enterprises Pty Ltd
NEPM	*National Environmental Protection Measure*
Noise Regulations	*Environmental Protection (Noise) Regulations 1997*
PDWSA	Proclaimed Drinkwater Source Area
PM	Particulate Matter
Prescribed Premises	Premises prescribed under Schedule 1 to the EP Regulations
Primary Activities	is defined in DER's *Guidance Statement: Risk Assessments* to include the primary activities which fall within the description of the category of prescribed premises in Schedule 1 to the EP Regulations.
Premises	Wanneroo Feedmill on part of 1040 Wanneroo Road Sinagra being part of Lot 1665 on Plan 103478 (Certificate of Title Volume 1294 Folio 460)
RIWI Act	*Rights in Water and Irrigation Act 1914*
WAPC	West Australian Planning Commission

1. Purpose and Scope of Assessment

Inghams Enterprises Pty Limited (***Licence Holder***) holds existing Licence L8101/2004/3 for a ***Cat.*** 23 premises under the *Environmental Protection Act 1986* (***EP Act***) for the Wanneroo Feedmill. The ***Premises*** is located at 1040 Wanneroo Road, Sinagra, WA within the City of Wanneroo. A poultry farm also operated by the Licence Holder is co-located within the same parcel of land. Poultry farms are not ***prescribed premises*** listed in Schedule 1 of the *Environmental Protection Regulations 1987* (***EP Regulations***) and therefore are not regulated under Part V of the EP Act. The poultry farm is not within the premises boundary specified in Licence L8101/2004/3. Refer to Figure 1 in section 6.2 which shows the location of the feedmill, poultry farm and nearby receptors.

A risk-based review of the Wanneroo Feedmill was initiated by the Department of Environment Regulation (***DER***) on receipt of an application to renew Licence L8101/2004/3 from the Licence Holder on 8 June 2016. An Amendment Notice was issued on 5 October 2016 to extend the licence duration by six months to 6 April 2017 to allow DER time to complete the risk-based review process and consult with the Licence Holder on any proposed licence changes.

The scope of this assessment includes activities associated with the Wanneroo Feedmill and does not include activities associated with the adjacent poultry farm. No works or operational changes are proposed by the Licence Holder in relation to this licence review. As a result of this licence review, a revised licence has been issued and is set out in Attachment 1.

This review has been undertaken in accordance with DER's risk-based approach as set out in DER's published Regulatory Framework.

2. Background

The Wanneroo Feedmill has operated in its current location since the 1960's. The feedmill did not hold a licence under the EP Act until 2006 when the City of Wanneroo advised the then Department of Environment and Conservation (***DEC***) that the premises may have exceeded the specified production or design capacity threshold for a Cat. 23 animal feed manufacturing premises. In consultation with the City of Wanneroo and the Licence Holder, DEC granted the first licence in 2006 for animal feed manufacturing as specified in Table 1.

Table 1: Prescribed Premises Categories

Classification of Premises	**Description**	**Production or design capacity**	***Schedule 1 Category Threshold***
Cat. 23	Animal feed manufacturing: premises on which animal food is manufactured or processed	200,000 tonnes per year	1,000 tonnes per year

The surrounding land use was predominantly rural when operations at the site commenced in the 1960's. Since then, there has been urban development that continues to occur around the premises, in particular, the intensive development of dwellings from the north. Land use conflicts have arisen and activities on 1040 Wanneroo Rd, Sinagra have been, and continue to be, the subject of odour and noise complaints to DER.

Licence L8101/2004/3 was granted on 20 September 2012, replacing licence L8101/2004/2. The expiry date for Licence L8101/2004/3 when granted was 7 October 2015; however, this was extended by 12 months on 1 October 2015 through licence amendment. This extension to licence duration was in response to City of Wanneroo submissions advising of uncertainties with the status of site planning approvals further outlined in section 4.1. An Amendment Notice was issued on 5 October 2016 to extend the licence duration by six months. This

extension was to allow DER to complete its risk-based review process and consult with the Licence Holder on any proposed licence changes.

As part of the risk-based review process, two DER officers visited the Premises on 11 August 2016. DER officer observations with respect to infrastructure location, process flow, and the Licence Holder's environmental controls have been considered (where referenced) in the preparation of this Decision Report. An electronic and hard copy of a detailed process flow diagram provided by the Licence Holder during the site visit has also been considered.

3. Overview of Wanneroo Feedmill

3.1 Infrastructure

The Wanneroo Feedmill infrastructure as it relates to Cat. 23 activities is detailed in Table 2. A General Layout Map is included in Appendix 4.

Table 2: Wanneroo Feedmill - Category 23 infrastructure

Prescribed Activity: Category 23 Poultry and pig feeds are produced for bulk loadout in trucks through a process of milling mixing and conditioning raw materials such as grains, meals, additives and tallow.		
Infrastructure		**Plan reference**
1	Bulk grains intake and bulk meals intake	Appendix 4: General Layout Map
2	Mill Building and Mill Warehouse	
3	Grain silos	
4	Tallow intake	
5	Tallow and liquid additive storage	
6	Product storage and truck loadout	
7	Sealed ring road	
8	General storage shed	

3.2 Operational Aspects

The feedmill produces bulk poultry and pig feeds for use in commercial animal production. The primary ingredients of feeds are grains and meals which are mixed with solid micro ingredients, medications, and liquid nutrients to produce feed in pellet or crumble form with a tallow coating. The feedmill is 24 hours a day, seven days per week operation.

Grains and meals are delivered to respective intake areas and unloaded into hoppers which distribute the incoming materials to pre-assigned storage silos. Additives are delivered to the milling warehouse or liquid nutrient intake area. Meals are transferred directly to the ingredient storage bins, while grains are transferred through mills for crushing and grinding. The additives are transferred to the micro-ingredient bins via a pneumatic blower system.

The feedmill has a computerised batching system, with each production batch formula entered at the plant control centre for automatic operation of transfer lines, weighing scales and the liquid transfer and weighing system. The pelleting process comprises two production lines,

one of which is fitted with an expander unit. A gas fired boiler supplies dry saturated steam to partially cook the meal before it is forced through the pelleting die. This conditioning assists in maintaining a high temperature, which is essential for the destruction of bacteria. The pellets are dried through coolers, screened, and any un-pelleted product is returned to the process line. Tallow is added to coat the pellets, increasing the calorific value and preserving the pellets during storage and distribution. Feed is stored in overhead product bins prior to the loading of feed delivery trucks. Crumbles are produced in addition to pelletised feeds.

Stormwater is collected within drains and discharged to land via a discharge pipe towards the south-east of the premises in proximity to the product truck loadout area. There is the potential for solid and liquid materials used on the premises to enter the stormwater collection system and be discharged to the environment. There is no known treatment of stormwater prior to discharge.

The gas-fired steam generator was observed during a site visit by DER officers on 11 August 2016. Subsequent to the site visit, the Licence Holder clarified by email received on 23 August 2016 that the natural gas consumption of the boiler is 15,600 MJ/hr per hour. A reference guide on the Australian Gas Networks website (www.natural-gas.com.au, accessed 1 September 2016) provides a conversion value of 53.6 MJ per kg of natural gas. In noting that conversion values are intended as a guide only, the natural gas consumption of 15,600 MJ/hr is approximately equivalent to 290 kg/hr. This was considered in the context of Cat. 87 as described in Table 3.

Table 3: Category 87 description

Category	**Description**	**Production or design capacity**	***Schedule 1 Category Threshold***
Cat. 87	Fuel burning: premises on which gaseous, liquid or solid fuel with a Sulphur content of less than 0.25% is burnt in a boiler for the supply of steam or in power generation equipment.	Natural gas consumption of 290 kg/hr (approx.)	More than 500 but less than 2 000 kg per hour in aggregate

The ***Delegated Officer*** had regard to the Guidance Statement: Risk Assessment and considered that fuel burning on the premises is not a primary activity and therefore will not be subject to licence conditions.

4. Legislative Context

4.1 Planning

4.1.1 Structure Plan and Zoning

As outlined in section 2, the feedmill was established in the 1960's and first licensed in 2006. When established, the predominant surrounding land use was rural. The premises is now zoned 'Urban Development' according to DER's Geographical Information System (***GIS***); areas to the north and adjacent east of Lot 1665 are also zoned Urban Development.

The *East Wanneroo Cell 2 (Sinagra) Agreed Structure Plan (*As Amended*)* was prepared under the Provisions of Part 9 of the City of Wanneroo District Planning Scheme No. 2 (the Structure Plan) and adopted by resolution of the Western Australian Planning Commission (***WAPC***) on 30 June 2004. The Structure Plan is publically available on the City of Wanneroo's website at www.wanneroo.wa.gov.au. The Structure Plan imposes the following land use planning buffers as specified in section 3.3.1:

- *An Inner Buffer situated within 300 metres from the Poultry Sheds situated on Lot 1665 Wanneroo Road, Sinagra; and*
- *An Outer Buffer situated between 300 metres and 500 metres from the Poultry Sheds situated on Lot 1665 Wanneroo Road, Sinagra.*

The Structure Plan does not mention the feedmill and the imposed buffers relate to the poultry farm only. The imposed buffers and surrounding zoning are shown on the map in Appendix 5 as taken from the Structure Plan. The plan shows the development of residential precincts and consequent construction of residential dwellings to the north-west, north and north-east of 1040 Wanneroo Road, Sinagra. As outlined in section 6.2, the closest receptor (residential dwelling) is now approximately 270 m north-west of feedmill infrastructure. The location of the poultry farm and the feedmill is shown in Figure 1 for comparison to Appendix 5.

4.1.2 City of Wanneroo

A review of DER records identified that the City of Wanneroo had made submissions on advertised applications associated with the feedmill since it was first licensed in 2006. Key summary points in these past submissions included:

- Recommendation for DER to refuse the licence;
- Recommendation for DER to include strict conditions such as operating hour limitations and two-year review periods to consider impacts on neighbours;
- Noting the need to improve consultation processes with neighbouring land owners;
- Noting the need for studies to assess air quality, noise and odour issues;
- Noting the presence of unpleasant odours from both the feedmill and other poultry processes on site. The City of Waneroo believed the majority of odours might generally be attributed to the poultry housing sheds.
- Noting that the City had received 40 complaints regarding odours emanating from Inghams Enterprises over the previous 12 months (to 1 September 2009). The City believed the majority of these complaints related to the poultry housing sheds; and
- The recommendation that rather than re-licensing the feedmill, DER should consider a mechanism for licensing all aspects of the facility, including the poultry housing sheds and hatchery.

The City of Wanneroo lodged a submission dated 28 August 2015 on the application to renew licence L8101/2004/3 in 2015. Key points in this submission included that:

- Council did not support the continued operation of the feedmill and related operations;
- There were concerns that operation of the feedmill would create a further nuisance with respect to pollution emissions and impact on the amenity of the general surrounding area;
- The facility would be contrary to the orderly and proper planning of the intended land uses of the subject land and surrounding area;
- The Wanneroo Town Centre Structure Plan (May 2001) identified the land immediately to the south as appropriate for residential use. The 500 m buffer from the facility activity restricts the opportunity for residential development to occur;
- Reissue of the licence should only be considered if subject to a binding exit strategy; and
- The premises within the context of a growing urban environment is seen as incompatible with future and existing surrounding land uses.

On 14 September 2015, DER requested the City of Wanneroo confirm whether the feedmill had planning approval to operate and whether the planning approval provided any limitations on duration. The City of Wanneroo provided a supplementary submission to DER on 17 September 2015 that stated (extract):

"The site has been operating for a number of years and there appears to be a lack of certainty and clarity over the original planning approvals granted for use currently operating. We are currently researching the issue."

The City of Wanneroo requested that DER defers its decision on the renewal of Licence L8101/2004/3 to provide an opportunity to undertake further planning investigations. As noted in section 4.2.1, the Delegated Officer extended Licence L8101/2004/3 for a period of 12 months, enabling the City of Wanneroo to complete investigations on the status of planning approvals.

The Licence Holder subsequently provided DER with copies of correspondence from 1996 from the then Minister for Planning, the Western Australian Planning Commission (WAPC), and the City of Wanneroo relating to development approval for the feedmill. The 1996 documentation shows the Minister for Planning upheld appeals lodged by the Licence Holder against a WAPC refusal to grant planning consent and the City of Wanneroo's deemed refusal of the proposed expansion and renovation of the feedmill. The Minister for Planning's appeal determination of 8 September 1996 provided that the approvals would lapse and be of no further effect if the development was not substantially commenced within two years of the date of the Minister's letters.

In a letter dated 17 October 1996 (reference 30/58 63181), the City of Wanneroo specified eight conditions which it would 'reasonably impose' on the planning approval. The WAPC advised in a letter dated 26 November 1996 (reference 30-58-5) that it did not wish to impose any conditions other than those already imposed by the City.

Apart from the time limit on 'substantial commencement' set out in the Minister for Planning's appeal determinations of 8 September 1996, the planning approval is for an indefinite period. DER wrote to the CEO of City of Wanneroo on 16 March 2016 summarising the above information and advised it would take into account the 1996 approval in its determination for a subsequent licence on the basis of this information, and in the absence of contrary advice from the City of Wanneroo. DER also advised that the duration of any licence granted would also have regard to DER's Guidance Statements for *Licence duration* and *Land Use Planning*.

The City of Wanneroo was invited by DER to make a submission on the latest application for a licence with reference to the Department's previous advice of 16 March 2016. A submission was received on 18 August 2016 and is addressed in more detail in section 5 of this Decision Report. The Delegated Officer made particular note of the following statements contained within the City of Wanneroo's submission and the agenda report attached to the submission:

- "...*discussions have commenced between the City and Inghams Enterprises on the preparation of an exit strategy of the operation and it is understood that Inghams' consultants are currently investigating the planning requirements necessary to facilitate relocation."*
- *"Administration has since carried out extensive investigations into the history of planning approvals over the site. The result of those investigations, which included advice from the City's Legal Team, was that the feedmill must be considered as an existing use and as such deemed compliant in terms of planning approvals."*

Further consideration of the City of Wanneroo's submission is provided in section 5 and this information has been considered in the context of determining the duration for the Revised Licence in section 8.5.

4.2 Part V of the EP Act

4.2.1 Works Approvals

There are no current or past works approvals applicable to the premises. The site was pre-existing when first licensed in 2006.

4.2.2 Licence Amendments

Licence L8101/2004/3 was originally due to expire on 7 October 2015 and was subject to a licence renewal application from the Licence Holder. On 1 October 2015, the licence was extended for a period of 12 months to provide the City of Wanneroo an opportunity to investigate planning approval uncertainties it had raised during the public consultation process (refer to section 4.1). A generic condition regarding visible dust was also removed from the licence.

An Amendment Notice was issued on 5 October 2016 to further extend the licence duration by six months. This extension was to allow DER to complete the risk-based review process and consult with the Licence Holder on any proposed licence changes. The Amendment Notice also corrected the registered business address for the Licence Holder to be consistent with the address registered with the Australian Securities and Investments Commission (ASIC).

4.2.3 Compliance Inspection

DER has undertaken compliance inspections on two occasions since the previous licence was issued on 20 September 2012. The following summary of inspections is provided below:

1. Inspection undertaken on 20 August 2013: DER records indicate that no compliance issues were identified during the inspection.
2. Inspection undertaken on 16 March 2016: There were no adverse findings. Operational and regulatory controls were found to be sufficient for key emission types such as odour, noise, dust, waste and leachate.

Access to further information and documentation associated with these inspections can be sought through DER's Freedom of Information process as outlined on its website at www.der.wa.gov.au.

4.2.4 Annual Audit Compliance Reports (AACRs)

The reporting period for Licence L8101/2004/3 is the financial year (1 July to 30 June). A review of the previous three ***AACR***s has been undertaken and issues of note are summarised below.

1. *Reporting period 1 July 2012 to 30 June 2013*

   The Licence Holder reported in the AACR that it complied with the conditions of licence during the reporting period.

2. *Reporting period 1 July 2013 to 30 June 2014*

   The AACR received by DER on 8 November 2013 was limited to the period 1 July 2013 to 30 September 2013 and reported that the conditions of the licence had been complied with. A revised AACR was received on 11 November 2013 for the same reporting period. However, the Licence Holder reported it did not comply with all conditions. The Licence Holder reported a non-compliance of the 'odour emission' condition due to an odour complaint on 2 July 2013. The Licence Holder suspected the source was the broiler shed which is not part of the prescribed premises.

Reporting of compliance with licence conditions for the remaining period of 1 October 2013 to 30 June 2014 was not located on DER records.

3. *Reporting period 1 July 2014 to 30 June 2015*

   The Licence Holder reported in the AACR that it had not complied with all licence conditions during the reporting period. It reported that on 3 October 2014 it did not comply with the 'odour emission' condition and attached a copy of its complaints register. The Licence Holder's register records that DER received an odour complaint 5 October 2014 for an event on 3 October 2014. The Licence Holder believed the poultry farm sheds were the odour source as the sheds were open and litter management activities were being performed without odour suppressors being turned on.

   The Delegated Officer notes that Licence L8101/2004/3 does not contain any specific odour emission conditions and that the broiler farm sheds are part of the poultry farm and not part of the Premises (refer to section 3.2).

4.2.5 Other reporting

Condition 10 of Licence L8101/2004/3 requires the Licence Holder to submit to the CEO a quarterly complaints report. The complaints report is to be based on the written complaints register the Licence Holder is required to maintain in accordance with condition 9 of the licence. The complaints register is limited to the recording of complaints relating to odour emissions only.

For Licence L8101/2004/3, quarterly complaint reports between October 2012 and September 2013 were identified. There were no reports for the period October 2013 to June 2014. A complaints report for the 12 month period thereafter (July 2014 to June 2015) was attached to the AACR for that reporting period. No complaint reports were identified after this date.

Complaint records were a combination of complaints received directly by the Licence Holder or received by DER and referred to the Licence Holder. In total, there were two odour complaints the Licence Holder attributed to the poultry farm, one odour complaint the Licence Holder attributed to the feedmill, and two odour complaints of unknown source. Two noise complaints were also recorded.

It is noted by the Delegated Officer that the Licence Holder has not consistently met the requirement for quarterly reporting of complaints records. However the volumes of complaints reported are consistently low. The Delegated Officer has reviewed comments in the DER Inspection Report for the most recent inspection on 16 March 2016. Inspectors viewed the Licence Holder's computer based odour and noise complaints register and noted that from the records observed, most odour complaints were attributed to the poultry farm by the Licence Holder.

4.2.6 Compliance History

DER's Incident and Complaints Management System (***ICMS***) is used to record complaints received and non-compliances requiring investigation. Following a review of ICMS, the Delegated Officer has noted that there has been one incident recorded since 2006 as summarised in Table 4. There are no recorded statutory notices.

Table 4: DER recorded incidents for the Wanneroo Feedmill

No.	Date	Incident details	Incident Close Out
18643	01/02/2010	Self-reported dust emissions that occurred due to a tear in an explosion vent causing dust from a stockfeed premix. A written notification in accordance with s72 of the EP Act was subsequently submitted.	The Licence Holder undertook remedial action to replace the torn membrane. The Licence Holder was also investigating other mechanisms to prevent future tears without impacting on the intended purpose of releasing pressure in the dust collector. The Incident was closed on 22/06/2010.

There are 52 complaints recorded within ICMS for the premises address 1040 Wanneroo Road, Sinagra since 2006. These are discussed in section 4.2.7.

4.2.7 Complaint Records

A search of complaint records relating to 1040 Wanneroo Rd, Sinagra, from 2006 (first licence) through to September 2016 was carried out. The results of this search included complaints against both the feedmill and poultry farm as potential sources of emissions. The search returned 55 complaints, including 52 odour complaints and one noise complaint.

Of the 52 odour complaints, there were 50 individual alleged events and two occasions when multiple complaints were registered for the same event. Complainants alleged the odour source was the feedmill on 15 occasions, the poultry farm on 8 occasions, and unknown or not reported on 31 occasions.

Odour complaints records for the site did not return any complaints that had been substantiated by DER. Descriptions of odours when provided by complainants generally included the following:

- manure type odours;
- biscuit type odours;
- animal waste type odours;
- foul, sharp, putrid and unpleasant smell;
- meaty smell;
- pungent dough type smell;
- boiled chicken and wet feathers type smell; and
- yeasty and mashed potatoes smell

Given the lack of substantiation of odour complaints and the potential for any given odour complaint to be related to the feedmill or the poultry farm, a definitive source of the odours cannot be ascertained from complaint records.

On review of DER odour complaint records against the site, complaint descriptions relating to manure animal waste, and chicken and wet feather type odours are more likely to be attributed to the types of odours emitted from a poultry farm. Odour descriptions relating to biscuit and dough odours are more likely to be attributed to the types of odours emitted from the feedmill.

In relation to the one noise complaint in 2011, review of this record shows it was the trigger for further noise investigations by the Licence Holder and culminated in additional noise attenuation installation in 2012. This is further outlined in section 4.2.9.

4.2.8 Appeal Decisions

A search of publically available appeal reports and decisions on the Office of the Appeals Convenor website at www.appealsconvenor.wa.gov.au identified there were two appeals (411-412 of 2006) against the conditions of Licence L8101/1 issued on 6 October 2006. The Minister for Environment determined the appeals on 26 November 2007 and upheld a ground of appeal related to odour.

From a review of the Minister's appeal determination, it is noted that appellants raised concerns that there were unacceptable odours from the feedmill premises. The appellants sought stricter environmental management conditions, or for the premises to be relocated. The Minister's determination considered advice from DEC, the City of Wanneroo, and the Licence Holder. The Minister noted disagreement from all parties on the source (i.e. feedmill versus poultry farm), significance, and variability of odours.

The Minister determined that the licence was to be amended to include an odour complaints management register condition. The Minister also considered it appropriate for this information to be reported to the Department regularly to determine whether further action is required. The Minister encouraged DEC and City of Wanneroo to refer any complaints received to the Licence Holder.

The licence was amended to include two new conditions on the licence to give effect to the Ministers appeal determination that required the Licence Holder to:

- maintain a register of odour complaints; and
- submit a quarterly summary of complaints to DER.

Licence L8101/2004/3 contains conditions 9 and 10 which reflect the outcomes of the appeal determination.

4.2.9 Modelling and Monitoring Data

1. Odour Modelling

A review of DER records identified the report *Preliminary Odour Dispersion Modelling Study, Feed Mill and Broiler Farm, Draft Report*, The Odour Unit, April 2005 (the ***Odour Report***). The Odour Report was prepared for the purpose of gaining a preliminary understanding of the likely impact of the feedmill's point source odour emissions on surrounding areas. It also sought to understand better the extent to which the odour emissions were being prevented from dispersing in an optimum manner by the size and bulk of the mill building.

The report notes that the consultant undertook several site inspections and proposed there may be a plume downwash effect occurring at the mill, whereby the emissions from the stacks are prematurely drawn down to ground level. This effect was suspected of resulting in poor plume dispersion due to inadequate stack height and/or gas exit velocity. The study was used to assess the benefits of increasing stack height of the two emitting stacks and their exit velocities as a means of odour impact reduction.

The dispersion modelling was carried out using AUSPLUME Version 5.4 and input data consisted of odour emission rates for the two mill stacks based on stack measurement surveys in December 2004. The consultant modelled five scenarios:

Scenario 1: Baseline stack emission conditions and stack configuration;

Scenario 2: An increase in stack exit velocity from 5.5 m/s to 15 m/s;

Scenario 3: An increase in odour emission rate from 6,000 ou/s to 15,000 ou/s;

Scenario 4: Combined Scenario 2 and 3; and

Scenario 5: Scenario 3 and a 5 m increase in stack height (4.5 m to 9.5 m).

The consultant concluded that the modelling confirmed the hypothesis that the two mill stacks are hindered by a plume downwash effect arising from the design of the existing stacks. The consultant also noted the results were consistent with field observations of odour in the vicinity of the feed mill building. The consultant indicated that changes to the configuration of the mill stacks might be sufficient to solve the issue.

DER records show the Odour Report was the subject of review and technical advice from DEC's Air Quality Division who provided advice dated 9 September 2005. The advice noted the following:

- Concerns with the use of Hope Valley meteorological station input data for the model as the Hope Valley station is a highly exposed site in a coastal environment. This has potential implications for concentration underestimations and input values;
- The use of Ausplume for 3-minute concentrations; and
- Plot contour limitations.

Despite the concerns and study limitations raised, the advice found the conclusion that low stack height was contributing to odour impacts at ground level near the feedmill was sound.

In response to these findings, the Licence Holder undertook works to increase the stack height to 9.5 m in 2006.

2. Noise Investigations

A review of DER records indicates the Licence Holder has undertaken historical noise assessments to investigate noise complaints and provide guidance towards noise reduction improvements.

DER records contained a letter dated 1 February 2012 from the Licence Holder stating the following:

- Herring Storer Acoustics (HSA) carried out noise assessments at noise sensitive premises to the north in 2011;
- A noise report prepared by HSA identified the dust collector discharge stacks as significant noise sources. The source had two fans, with Fan#2 the most significant source and Fan#1 due for replacement. This was despite the fans being already fitted with a discharge silencer;
- Noise controls were identified and replacement parts were ordered; and
- Noise attenuators and installation of fans with attenuators was completed in 2012.

5. Consultation

DER publically advertised an application from the Licence Holder to renew Licence L8101/2004/3 in the *West Australian* newspaper on 18 July 2016. The application was also referred to the City of Wanneroo and five stakeholders (residents) whom the Delegated Officer considered had a direct interest in the application. Direct interest stakeholders were identified on the basis of persons who had made a submission on the Licence Holder's last application for a licence in 2015.

DER received submissions from the City of Wanneroo, seven residents (email submissions), and a hardcopy petition signed by nine residents of Sinagra through the public advert and direct interest referrals.

DER sent an interim written response to the City of Wanneroo on 4 October 2016 in relation to its submission dated 19 August 2016. On 7 October 2016, the seven residents who provided email submissions were also provided with interim responses to their submissions to:

- Notify them of the decision to issue an Amendment Notice for a licence duration extension to allow DER to complete a risk-based review of the premises;

- Inform them of how to access the Amendment Notice; and
- Clarify that submissions for the renewal application had been recorded and would be considered in the risk-based review.

The Delegated Officer considered all submissions on the renewal application as part of the risk-based review of the premises in this Decision Report. A summary of the submissions and the Delegated Officer's considerations is contained in Appendix 3.

The Licence Holder was provided with the draft Decision Report and draft Licence on 16 December 2016 and a submission was received by DER on 6 January 2017. A summary of the Licence Holders comments and the Delegated Officer's considerations is contained in Appendix 3.

6. Location and Siting

6.1 Siting Context

The Wanneroo Feedmill is located on the Swan Coastal Plain in the City of Wanneroo. The feedmill is in an area that was predominantly rural when established in the 1960's. However, urban development has occurred up to the boundary of Lot 1665.

6.2 Residential and Sensitive Premises

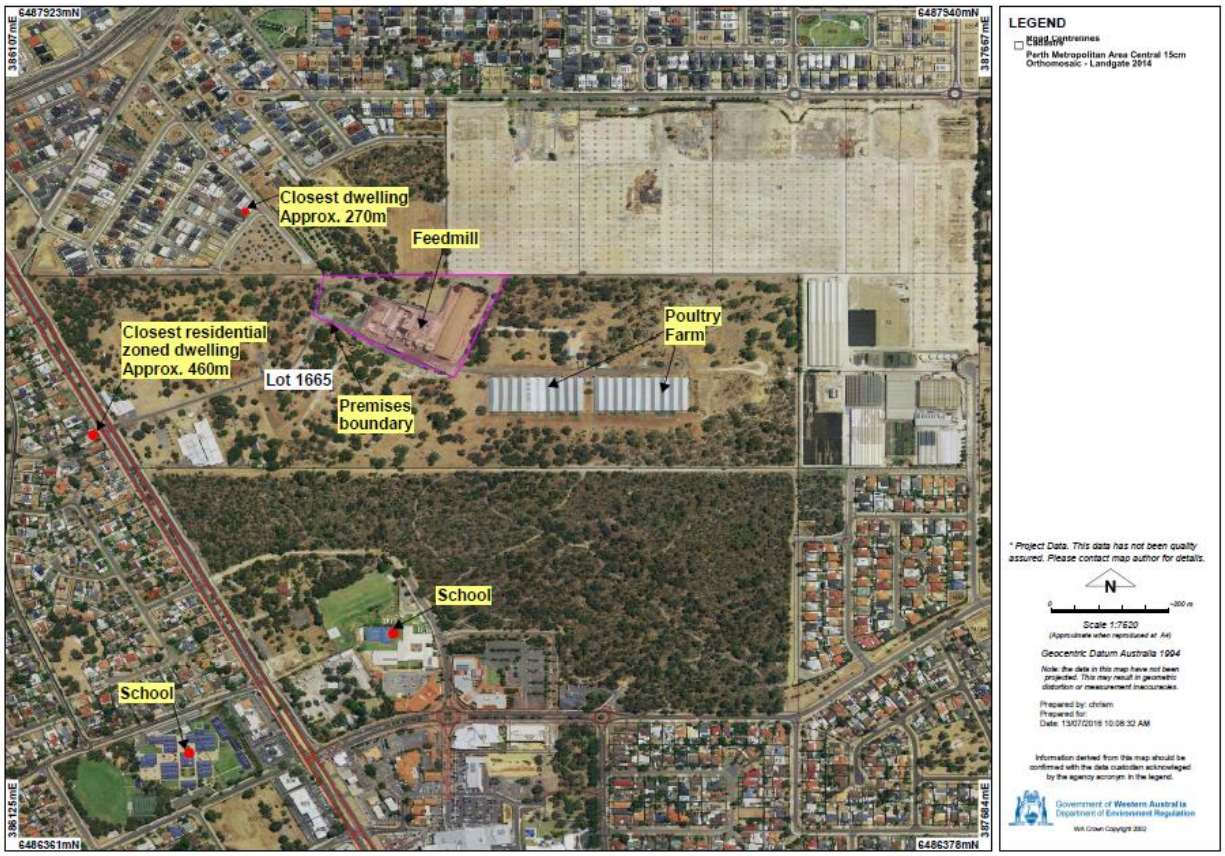
The distances to residential and sensitive receptors are as follows:

Table 5: Receptors and distance from prescribed activity

Residential and Sensitive Premises	Distance from Prescribed Activity
Closest residence (as identified from DER's GIS)	270 m to the north-west 520 m to the west 600 m to the south-east
Closest residential zoned premises	460 m to the south-west 720 m to the south-east
Closest special rural zoned premises	850 m to the north-east
St. Anthony's School	480 m to the south
Wanneroo Primary School	720 m to the south-west

The location of the closest residence, residential zoned premises and schools are shown in Figure 1.

Figure 1: Location of feedmill and nearby receptors



6.3 Specified Ecosystems

Table 6: Specified ecosystems

Specified ecosystems	Distance from Prescribed Premises
Conservation Category Wetland: Lake Joondalup	920 m to the west
Conservation Category Wetland: Mariginup Lake	1600 m to the north-east
Multiple Use Wetland: Jandabup Lake	2460 m to the east

6.4 Groundwater and water sources

Table 7: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental Value
PDWSA – Priority 3 (P3)	Commences 470 m to the west	P3 PDWSA's are areas defined to manage the risk of pollution to the water source. Groundwater flow direction from the premises is towards the P3 PDWSA.
RIWI Act – Proclaimed Groundwater Area – Wanneroo Groundwater Area	All of Lot 1665 is located within the outer margin of the Wanneroo Groundwater Area that ceases at the western boundary of Lot 1665.	The groundwater areas form part of the Gnangara groundwater system which is Perth's largest source of good quality, fresh water. It provides a crucial part of Perth's public water supply as well as water for public open spaces, extensive agriculture and gardens. It also supports nationally significant groundwater dependent ecosystems. (Source: Department of Water (***DoW***) website www.water.wa.gov.au)
RIWI Act – Proclaimed Groundwater Area – Perth Groundwater Area	Commences at the western boundary of Lot 1665	
Groundwater[1]	Depth to groundwater beneath premises is approximately 25 m from natural surface contours or 33 m Australian Height Datum (***AHD)***. Estimates may fluctuate between 0.5 and 3 m due to seasonal variation. Groundwater level contours are estimated based on recorded groundwater levels measured in May 2003 (end of Summer). Groundwater direction is believed to be east to west from groundwater depth contour review. There are bores located within 500 m of the premises. On the assumption of groundwater flow direction westwards, there are two water supply bores within Lot 1665 and DoW monitoring / observation bores for Lake Joondalup beyond the Lot 1665 boundary.	Groundwater salinity is considered marginal (TDS 500 to 1000 mg/L). There is a high iron staining risk, and groundwater is not suitable for garden bores which may be related to water quantity or quality. Groundwater flow direction appears to be towards the Priority 3 PDWSA and Lake Joondalup.

Note 1: Groundwater information sourced from Perth Groundwater Atlas at www.water.wa.gov.au unless otherwise specified.

6.5 Soil Type

The Perth Groundwater Atlas describes the surface geology type as Tamala Limestone; Aeolian calcarenite, variably lithified, leached quartz sand.

DER's GIS viewer describes generic soil types likely to be encountered at the premises location as:

> *"Undulating dune landscape with some steep dune slopes and underlain by aeolianite at depth: chief soils are brown sands. Associated are siliceous sands on the deeper dunes, especially on the western side of the unit; and leached sands on the more subdued dunes, especially on the eastern side of the unit."*

7. Risk Assessment

7.1 Emission, pathway, receptor identification

Identification of key potential emissions, pathways, receptors and impacts are set out in Table 8 below. Table 8 also identifies which potential emissions and impacts will be progressed to a full risk assessment. Some potential emissions/impacts may not receive a full risk assessment if a potential receptor or pathway cannot be identified.

Table 8: Identification of key emissions

			Potential Emissions	Potential Receptors	Potential Pathway	Potential Impacts	Continued to detailed risk assessment?	Reasoning
Source (see Section 3.1 for infrastructure references)	**Ingredient intake, handling storage and transfer**	Intake of grain/meal into hoppers. Transfer via conveyors: Grains to silos and meals to storage bins. Micro-ingredient intake and transfer via pneumatic blower system. Liquid nutrient and tallow intake and storage.	Fugitive dust : Unloading of materials and overfilling of silos	Residences. Closest dwelling <300m. School <500m.	Air / wind dispersion	Public health and amenity impacts	Yes	See section 7.4
			Noise	Residences. Closest dwelling <300m. School <500m.	Air wind dispersion	Amenity impacts	Yes	See section 7.6
			Liquid nutrient and tallow: Loss of containment, spill or overflow causing discharge or contaminated stormwater runoff.	P3 PDWSA drinking water catchment commencing approx. 470m west. Located over Wanneroo Groundwater Area. Groundwater depth approx.25m from surface contours.	Direct discharge and infiltration to groundwater	Groundwater contamination impacting on groundwater dependent ecosystems and beneficial use	Yes	See section 7.8
			Discharge of stormwater contaminated through contact with spilt solid material.				Yes	See section 7.8
	Feed processing and	Processing of materials including: milling, grinding	Point source emissions of particulates via two stacks	Residences. Closest dwelling <300m. School <500m.	Air / wind dispersion	Public health and amenity impacts	Yes	See section 7.7

			Potential Emissions	Potential Receptors	Potential Pathway	Potential Impacts	Continued to detailed risk assessment?	Reasoning
	manufacture	mixing, steam conditioning, pelletising, cooling, and tallow coating. Transfer of materials via conveyors	Odour	Residences. Closest dwelling <300m. School <500m.	Air / wind dispersion	Amenity impacts	Yes	See section 7.5
			Noise	Residences. Closest dwelling <300m. School <500m.	Air / wind dispersion	Amenity impacts	Yes	See section 7.6
			Discharge of stormwater contaminated through contact with spilt solid or trafficked material	P3 PDWSA drinking water catchment commencing approx. 470m west. Located over Wanneroo Groundwater Area. Groundwater depth approximately 25m from surface contours.	Direct discharge and infiltration to groundwater	Groundwater contamination impacting on groundwater dependent ecosystems and beneficial use	Yes	See section 7.8
	Product storage and handling	Product conveyed to overhead truck loadout bins.	Fugitive dust	Residences. Closest dwelling <300m. School <500m.	Air / wind dispersion	Public health and amenity impacts	Yes	See section 7.4
			Noise	Residences. Closest dwelling <300m. School <500m.	Air / wind dispersion	Amenity impacts	Yes	See section 7.6
			Discharge of stormwater contaminated through contact with spilt solid or trafficked material	P3 PDWSA drinking water catchment commencing approx. 470m west. Located over Wanneroo Groundwater Area. Groundwater depth approximately 25m from surface contours.	Direct discharge and infiltration to groundwater	Groundwater contamination impacting on groundwater dependent ecosystems and beneficial use	Yes	See section 7.8

7.2 Risk Criteria

During the assessment the risk criteria in Table 9 below will be applied to determine a risk rating set out in section 7.

Table 9: Risk Criteria

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the risk / opportunity occurring.		**The following criteria has been used to determine the consequences of a risk occurring:**		
			Environment	**Public Health* and Amenity (such as air and water quality, noise, and odour)**
Almost Certain	The risk event is expected to occur in most circumstances	Severe	• **on-site impacts**: catastrophic • **off-site impacts local scale**: high level or above • **off-site impacts wider scale:** mid level or above • Mid to long term or permanent impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are significantly exceeded	• Loss of life • **Adverse health effects:** high level or ongoing medical treatment • Specific Consequence Criteria (for public health) are significantly exceeded • **Local scale impacts:** permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	• **on-site impacts**: high level • **off-site impacts local scale**: mid level • **off-site impacts wider scale**: low level • Short term impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are exceeded	• **Adverse health effects:** mid level or frequent medical treatment • Specific Consequence Criteria (for public health) are exceeded • **Local scale impacts**: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	• **on-site impacts**: mid level • **off-site impacts local scale**: low level • **off-site impacts wider scale**: minimal • Specific Consequence Criteria (for environment) are at risk of not being met	• **Adverse health effects:** low level or occasional medical treatment • Specific Consequence Criteria (for public health) are at risk of not being met • **Local scale impacts:** mid level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	• **on-site impacts**: low level • **off-site impacts local scale**: minimal • **off-site impacts wider scale**: not detectable • Specific Consequence Criteria (for environment) likely to be met	• Specific Consequence Criteria (for public health) are likely to be met • **Local scale impacts:** low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	• **on-site impact**: minimal • Specific Consequence Criteria (for environment) met	• **Local scale**: minimal to amenity • Specific Consequence Criteria (for public health) met

^ Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting.*

* In applying public health criteria, DER may have regard to the Department of Health's, *Health Risk Assessment (Scoping) Guidelines* **"on-site"** means within the prescribed premises boundary.

7.3 Risk Treatment

DER will treat risks in accordance with the Risk Treatment Matrix below:

Table 10: Risk Treatment

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk event will not be tolerated. DER may refuse application.
High	Acceptable subject to multiple regulatory controls.	Risk event will be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	Acceptable, generally subject to regulatory controls.	Risk event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
Low	Acceptable, generally not controlled	Risk event is acceptable and will generally not be subject to regulatory controls.

The emission types have been identified with the pathways and receptors in Table 8 above.

7.4 Risk Assessment - Fugitive Dust

7.4.1 General Hazard Characterisation and Impact

Fugitive dust emissions may be generated through unloading of bulk raw materials (grains and meals) where materials are unloaded into sub-floor hoppers for transfer to storage bins or silos. Overfilling of storage vessels such as silos may also result in emissions of dust. Trucks within the premises boundary may cause dust on trafficable areas. Product loading of trucks via overhead storage bins may also generate fugitive dust.

Particulate matter (***PM***) can impact on public health and amenity. In general, fine particles (PM less than 2.5 micrometres in aerodynamic diameter) are associated with cardiovascular impacts and acute and chronic respiratory disease or disorders. Coarser particles ($PM_{2.5\text{-}10}$) are generally associated with aggravating respiratory disorders. Coarse particles and particles up to PM_{50} can impact amenity. In addition to particle size, the health impacts of PM are influenced by the chemical composition of the particles, the mass concentration of airborne particles, and duration of exposure.

Materials used on the premises that have the potential to generate dust are used in the production of poultry and pig feed and are not considered to pose a hazard to public health in terms of their toxicity or chemical composition.

The feedmill does not have continual fugitive dust emissions. Emissions are characterised as short-term and sporadic events associated with particular activities such as grain unloading or product loading, and are also dependent on weather conditions. Fugitive dust associated with the feedmill is primarily coarse particle size given the nature of materials and activities on the premises. The hazard of fugitive dust emissions, therefore, relates to its potential to cause short-term impacts to amenity.

7.4.2 Criteria for Assessment

The *National Environment Protection (Ambient Air Quality) Measure 2003* (***NEPM***) specifies a PM_{10} maximum concentration of 50 µg/m^3 (24-hour averaging period) for the protection of human health. The NEPM was updated in February 2016 to specify:

- $PM_{2.5}$ = 25 µg/m^3 (microgram per cubic metre air) per day averaged over 24 hrs and; 8 µg/m^3 per year averaged over a calendar year. This standard includes a goal of 20 µg/m^3 and 7 µg/m^3 respectively to be achieved by 2025.
- PM_{10} = 50 µg/m^3 per day averaged over 24 hrs and 25 µg/m^3 per year averaged over a calendar year.
- Exceedances are no longer allowed except for natural events.

Amenity impacts can be assessed against the general provisions of the EP Act, specifically, whether fugitive dust unreasonably interferes with health, welfare, convenience, or comfort.

7.4.3 Licence Holder Controls

Licence Holder controls for fugitive dust were identified through DER officer observations during a site visit on 11 August 2016.

Table 11: Licence Holder controls for fugitive dust

Control	Description
Engineering and infrastructure	• Bulk meals intake shed with separate roller doors for truck entry and exit. • Bulk grains intake fitted with a weighted screen. • Grain storage silos fitted with alarms and interlocks to prevent overfilling. • All silos, bins and hoppers are enclosed. • Chute extensions on product hoppers for loading product into trucks. • Bitumenised internal ring road. • Internal and external conveyors are enclosed. • Chutes from upper levels of Mill Building/Mill Warehouse to direct dust sweepings to collection bins at ground level.
Procedures / Management	• Use of a road sweeper during production days on external trafficable areas (subject to wet weather and road sweeper breakdown) and internal floors within the Mill Building/Mill Warehouse). • Unloading of bulk meals occurs with one door closed at all times to eliminate the wind tunnel effect. • Bulk grain intake screen is utilised and remains intact and fit for purpose. • Industrial vacuum system used for cleaning and removing accumulated dust from surfaces and equipment within the Mill Building/Mill Warehouse. • Chute collection bins are replaced or emptied once full

7.4.4 Key Findings

The Delegated Officer has reviewed the information regarding fugitive dust impacts from the premises and has found:

1. *Fugitive dust emissions have the potential to impact on amenity.*
2. *Materials on site do not pose a hazard to public health in terms of their toxicity.*
3. *The Licence Holder has both engineering and procedure/management controls for fugitive dust.*

7.4.5 Consequence

Localised changes in land use planning have resulted in the intensive construction of dwellings to within 300 m of the activity boundary. Fugitive dust emissions could impact on the amenity of a larger population given the change in surrounding land use. The impact would be short term.

Taking into consideration the hazard, siting factors and the nature of activities, the consequence rating is **Moderate.**

7.4.6 Likelihood of Consequence

DER records do not indicate a history of fugitive dust complaints against the premises and there is no significant adverse record of compliance issues identified through a review of compliance inspection records. The Licence Holder has fugitive dust controls in place.

Taking into consideration the site history of complaints, compliance inspection records and Licence Holder controls, the likelihood of consequence rating is **Unlikely**.

7.4.7 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above through the Risk Matrix (Table 9) and determined that the overall rating for the risk of fugitive dust on sensitive receptors during operation is **Medium.**

7.5 Risk Assessment - Odour

7.5.1 General Hazard Characterisation and Impact

Odour emissions from the feedmill can be generated from the following sources:

- raw material receipt, storage and handling;
- physical process operations (grinding etc);
- application of heat during extrusion and during cooling processes; and
- storage, handling and transport of the product during processing.

Spilt or accumulated material in open areas exposed to rain or moisture also has the potential to become odorous.

The most significant source of odour is likely the two stacks on the Mill Building that extract air from the pellet mills and coolers. The feedmill operates continuously and with a generally stable process consisting of set ingredients in set mixing volumes and ratios. It is therefore expected that manufacturing related odour emissions are continuous without significant variability. The variability in odour emissions is more likely to be related to atmospheric conditions such as wind speed, direction and humidity.

Odour emissions have the potential to impact on amenity.

7.5.2 Criteria for Assessment

There are no set threshold or concentration criteria for odour assessment. The general provisions of the EP Act make it an offence to cause or allow unreasonable emissions which include emissions of odour that unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person.

7.5.3 Licence Holder Controls

Licence Holder controls for odour were identified through DER officer observations during a site visit on 11 August 2016. Information regarding the increase in the height of stacks on the

Mill Building was sourced from the then Department of Environment and Conservation Environmental Assessment Report for the granting of Licence L8101/2004/3 on 20 September 2012.

Table 12: Licence Holder controls for odour

Source	Control techniques
Raw material storage	• Solids stored within enclosed silos and the general storage shed; • Liquids stored within enclosed tanks and IBCs; • Housekeeping and cleanup practices such as cleaning of equipment using the industrial vacuum system and using the road sweeper
Loading and unloading	• Spillage management; and • Road sweeper use.
Processing operations and application of heat	• Enclosed conveyors; • Enclosed silos, bins and hoppers; • Enclosed processes under negative pressure; • Dispersion of pellet mill and cooler air through two 9.5 m stacks on the Mill Building (stack heights increased from 4.5 m to 9.5 m in 2006 to optimise plume dispersion); • Automated processes with weighted mixing of ingredients; • Housekeeping and cleanup practices; and • Process controls on temperature, moisture content, and raw material quality.
Product storage and loading	• Product stored within enclosed hoppers pending loading.

7.5.4 Key Findings

The Delegated Officer has reviewed the information regarding the odour impacts from the premises and has found:

1. *Odour from the premises has the potential to impact on amenity;*
2. *The most significant source of odour is likely to be the two stacks on the Mill Building that extract air from the pellet mills and coolers; and*
3. *With reference to section 4.2.7, there are limited conclusions that can be drawn from historical DER complaints data primarily due to a lack of complaint substantiation and odour source identification issues.*

7.5.5 Consequence

Odour may be generated by feedmill operations and has the potential to impact on the amenity of a large population for a short period. Localised changes in land use planning have resulted in the intensive construction of dwellings to within 300 m of the activity boundary.

Therefore, the Delegated Officer considers the consequence to be **Moderate**.

7.5.6 Likelihood of Consequence

The primary source of odour emissions is likely to be through processing of ingredients within the Mill Building. The emission and dispersion of odour through stacks was improved through stack height increases in approximately 2006. Historical complaints data and review of basic odour complaint descriptions indicate that odours from the feedmill may occasionally occur, however, frequency and source contribution between the feedmill and co-located poultry farm

has not been established. Given that the feedmill operates 24 hours, 7 days a week, the Delegated Officer considers the occurrence of odour impacts to be **Possible**.

7.5.7 Overall rating

The Delegated Officer has compared the consequence and likelihood of consequence ratings described above through the Risk Matrix (Table 9) and determined that the overall rating for the risk of odour on sensitive receptors during operation is **Medium**.

7.6 Risk Assessment - Noise

7.6.1 General Hazard Characterisation and Impact

Operational noise has the ability to impact on the amenity of sensitive receptors. The feedmill is a continuous operation and operates 24 hours a day, 7 days a week. Amenity impacts are more likely to occur during the night-time period where cumulative noise from background sources is less of a factor, and the feedmill has the potential to become the dominant noise source. Noise sources include truck and light vehicle movements within the premises boundary, feed processing infrastructure/equipment within buildings, and conveyors (internal and external of buildings). Truck and vehicle movements outside the premises boundary are not within the scope of assessment.

7.6.1 Criteria for Assessment

The *Environmental Protection (Noise) Regulations 1997* (***Noise Regulations***) apply to the operation of the feedmill. The Licence Holder is required to comply with the assigned levels in Regulation 8 of the Noise Regulations.

7.6.2 Licence Holder controls

Licence Holder controls for noise were identified through DER officer observations during a site visit on 11 August 2016. Information on Mill Building stacks and stack fans was identified on DER records (letter from the Licence Holder dated 1 February 2012).

Table 13: Licence Holder controls for noise

Control	Description
Engineering	• Location of infrastructure and equipment within buildings; • Noise attenuators on Mill Building stack fans; and • Stack silencers on Mill Building Stacks
Procedures / Management	• Repair and maintenance of equipment; and • Daily checks and observation (e.g. conveyor noise)

7.6.3 Key Findings

The Delegated Officer has reviewed the information regarding the noise impacts from the premises and has found:

1. *Noise from the feedmill has the potential to impact on the amenity of receptors.*
2. *The lack of background sources during night periods has the potential to make the feedmill a dominant source of noise, particularly where short term infrastructure/equipment malfunctions or issues occur (e.g. conveyor bearing noise).*
3. *The majority of infrastructure and equipment is within buildings and in some cases there is additional noise attenuation.*
4. *As per section 4.2.7, there are two historical noise complaints for one event in 2011 that were resolved by noise attenuation improvements in 2012.*

7.6.4 Consequence

Noise emissions could impact on the amenity of a large population for a short period. Localised changes in land use planning have resulted in encroachment of residential dwellings to within 300 m of the activity boundary. Noise impacts are most likely to be associated with an equipment malfunction, abnormal activities/events, and truck movements within the premises during night time periods.

Therefore, the Delegated Officer considers the consequence to be **Moderate**.

7.6.5 Likelihood of Consequence

In consideration of the hazard, Licence Holder controls and also taking into consideration the lack of noise complaints against the premises, the likelihood of a moderate consequence is unlikely.

Therefore, the Delegated Officer considers the likelihood of a moderate consequence to be **Unlikely**.

7.6.6 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above through the Risk Matrix (Table 9) and determined that the overall rating for the risk of noise on sensitive receptors during operation is **Medium.**

7.7 Risk Assessment - Point Source Particulate Emissions

7.7.1 General Hazard Characterisation and Impact

The feedmill has two point source emission stacks on the roof of the Mill Building and a number of minor emission vents from small to medium baghouse filter units (Table 14). These emission points have the potential to discharge PM to the atmosphere. The emission points and their respective sources were identified through:

- Observation during site visit by DER officers on 11 August 2016;
- Site flow diagram provided by the Licence Holder during the site visit;
- DER inspection reports; and
- Review of DER Environmental Assessment Reports/Decision Documents prepared for previous versions of the licence.

Table 14: Source of potential point source particulate emissions

	Source	Treatment	Emission point
1	Two processing lines for the pellet Mills and counter-flow coolers	Cyclone (2)	Two Mill Building stacks (one from each cyclone)
2	Grain off grinder and two expansion hoppers	Baghouse (2)	Baghouse emission vent
3	Industrial vacuum extraction system	Baghouse	Baghouse emission vent
4	Enclosed conveyor extraction system	Baghouse	Baghouse emission vent
5	Additive intake blower system	Baghouse	Baghouse emission vent
6	Bulk meals intake system	Baghouse	Baghouse emission vent
7	Micro ingredients system	Baghouse	Baghouse emission vent
8	Transit separator system	Baghouse	Baghouse emission vent

PM can impact on public health and amenity. In general, fine particles ($PM_{\leq 2.5}$) are associated with cardiovascular impacts and acute and chronic respiratory disease or disorders. Coarse particles ($PM_{2.5-10}$) are generally associated with aggravating respiratory disorders. Coarse particles and particles up to PM_{50} impact amenity. In addition to particle size, the health impacts of PM are influenced by the chemical composition of the particles, the mass concentration of airborne particles and duration of exposure.

Materials used on the premises that have the potential to be emitted from point sources are used in the production of poultry and pig feed. They are not considered to pose a hazard to public health in terms of their toxicity or chemical composition. The feedmill operates continually, therefore, will have continual point source emissions.

There is no real-time monitoring data available; however, a review of publically available ***NPI*** data for the premises shows the Licence Holder has reported point source emissions of PM_{10}. In 2014/2015 it reported 130 kg of PM_{10} for the 2014/2015 financial year, 96 kg for the 2013/2014 financial year and 4,900 kg for the 2012/2013 financial year. Dating back to the first licence in 2006, reported PM_{10} amounts ranged from approximately 3000 – 5000 kg per year.

Using an estimated mass emission of 4,900 kg, and assuming 365 days operations, this equates to a whole of site PM_{10} emission rate of 0.16 g/s.

The two Mill Building stacks are the most significant potential source of total suspended particulates (TSP) to the atmosphere. A conservative value for normal operating conditions TSP concentration of 50 mg/m^3 from each stack can be used to calculate the emission rates along with an exit velocity of 5.5 m/s (refer to 4.2.9) and a known stack diameter of 0.925 m (refer to 4.2.9). This gives a calculated normal operating emission rate of 0.18 g/s per stack.

There is the potential for pollution control equipment to malfunction (i.e. broken bags in a baghouse or particulate accumulation within a cyclone) which may result in emissions that exceed relevant assessment criteria.

7.7.2 Criteria for Assessment

The *National Environment Protection (Ambient Air Quality) Measure 2003* specifies a PM_{10} maximum concentration of 50 $\mu g/m^3$ (24-hour averaging period) for the protection of human health.

Amenity impacts can be assessed against the general provisions of the EP Act, specifically whether emissions unreasonably interfere with the health, welfare, convenience, or comfort.

7.7.3 Licence Holder controls

PM emissions are primarily controlled through either cyclones on the two main Mill Building stacks and small baghouse filter units on all other extraction points.

Table 14 outlines the abatement device for respective sources and Table 15 describes the general controls with respect to these devices.

Licence Holder controls for point source particulate emissions were identified through DER officer observations during a site visit on 11 August 2016.

Table 15: Licence Holder controls for point source emissions to air

Control	Description
Engineering and infrastructure	• Cyclones fitted to each pellet mill/counterflow cooler line; • Baghouses on various sources as per • Table 14; and • Visual pressure differential monitoring system on baghouses.
Procedures / Management	• Cyclones are visually inspected on a daily basis and accumulated dust removed. During a site visit on 11 August 2016, DER officers observed a log book of cyclone inspection tests including time, observations and any actions; • Baghouse pressure gauges visually inspected daily; • Maintenance of cyclones and baghouses; and • Maintaining spare filters for baghouses on site.

7.7.4 Key Findings

The Delegated Officer has reviewed the information regarding point source emission of PM to air and has found:

1. *Point source emissions to air will potentially contain PM, the hazard of which at the premises relates to particulate size and concentration, but not toxicity. Particulate emissions have the potential to impact on public health and amenity.*
2. *Actual emissions data is not available and historical modelling relates to odour emission but not particulate emissions. However, review of NPI data and estimation of emission rates indicates particulate emissions are negligible under normal operating conditions with pollution control equipment operating.*
3. *The Licence Holder has pollution control equipment for reducing particulate emissions on all emission points and this equipment is monitored and maintained.*

7.7.5 Consequence

Localised changes in land use planning have resulted in the intensive construction of residential dwellings to within 300 m of the activity boundary. Point source emissions of PM would be expected to impact on the amenity of a larger population given the change in surrounding land use. Point source emissions to air are constant, however, are considered to be negligible while pollution control equipment (i.e. cyclones on the pellet mill counterflow coolers and baghouses as per

Table 14) is operating and not expected to have any impact on health or amenity of receptors on consideration of the hazard characterisation.

The Delegated Officer considers the normal operation consequence to be **Slight**.

7.7.6 Likelihood of Consequence

The Licence Holder has particulate abatement equipment prior to all discharge stacks and vents. The Licence Holder has systems and procedures in place to ensure ongoing efficient operation and maintenance of this equipment.

The Delegated Officer considers the likelihood of the normal operating consequence to be **Almost Certain**.

7.7.7 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above through the Risk Matrix (Table 9) and determined that the overall rating for the risk of point source particulate emissions on sensitive receptors during normal operations is **Medium**.

7.8 Risk Assessment – Discharge of contaminated stormwater to land

7.8.1 General Hazard Characterisation and Impact

The premises does not have wastewater discharges. However stormwater from bitumen trafficable areas and walkways is discharged to land in the south-east corner of the feedmill and has the potential to become contaminated from prescribed activities associated with animal feed manufacturing. Potential contaminant types associated with the premises are nutrients (e.g. nitrogen, phosphorous), biological oxygen demand, total suspended solids, and oil/grease (i.e. tallow) based on the raw materials received, stored and processed, as well as the animal feed product. These contaminants have the potential to infiltrate to groundwater and impact on groundwater dependent ecosystems and the beneficial use of groundwater. Groundwater may also have hydraulic links to surface water bodies such as Lake Joondalup.

Contamination of stormwater may occur through:

- contact with spilt, accumulated, or trafficked solid materials (e.g. grains, meals, additives and product); and
- contact with liquids through loss of containment, spillage or overflow during transfer and storage (e.g. tallow, liquid additives)

The discharge of stormwater is not continual and occurs as a consequence of rainfall events. he majority of rainfall occurs during winter months between June and August.

7.8.2 Criteria for Assessment

The *Australian Drinking Water Guidelines* (2011) and the freshwater aquatic ecosystem protection guidelines (ANZECC & ARMCANZ 2000).

7.8.3 Licence Holder controls

Licence Holder controls for contaminated stormwater discharges were identified through DER officer observations during a site visit on 11 August 2016.

Table 16: Licence Holder controls for contaminated stormwater discharges to land

Control	Description
Engineering and infrastructure	*Liquids* • Secondary containment of tallow and liquid additive storage vessels; and • Tallow intake point has a concrete collection bund for tallow drips or spillages during unloading. *Solids* • Bulk grains and meals intake areas fitted with roller doors or screens to prevent wind access and minimise airborne dust generation. • Enclosed silos, bins, hoppers and the general storage shed for raw materials and product. • Enclosed conveyors; and • Overhead product storage hoppers fitted with truck loading chute extensions to prevent spillage and airborne dust generation.
Procedures / Management	• Use of a road sweeper vehicle on production days (subject to wet weather and road sweeper breakdown) to clean hard surfaces and collect spilt material; • Storage of Intermediate Bulk Container's (IBC's) within the Mill Building on self-contained bunds; • Third party removal of accumulated stormwater from secondary containment areas to maintain capacity to retain spills; and • Use of an industrial vacuum system for cleaning and removing accumulated dust from equipment within the Mill Building and Mill Warehouse.

7.8.4 Key Findings

The Delegated Officer has reviewed the information regarding the discharge of contaminated stormwater to land impacts from the premises and has found:

1. *There is potential for stormwater to be contaminated with solid and liquid materials used to manufacture animal feeds and also animal feed product.*
2. *Stormwater is discharged to land through a discharge pipe and infiltrates to groundwater. Infiltration of contaminated stormwater could impact on the beneficial use of groundwater.*
3. *There are Licence Holder controls to avoid contamination of stormwater by materials used and produced on the premises. Contamination of stormwater is not expected to occur under normal operating circumstances.*

7.8.5 Consequence

As summarised in section 6.3 and 0, there are environmental receptors in the proximity to the premises. Contaminated stormwater discharged to land has the potential to cause localised impacts to groundwater quality, and there is a risk of ecosystem criteria (refer to section 7.8.2) not being met.

Therefore, the Delegated Officer considers the consequence to be **Moderate**.

7.8.6 Likelihood of Consequence

The Licence Holder has a range of engineering and procedure/management controls as outlined in Table 16 to prevent the contamination of stormwater. A stormwater contamination event of moderate consequence is unlikely to occur. Therefore, the Delegated Officer considers the likelihood of a moderate consequence to be **Unlikely**.

7.8.7 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above through the Risk Matrix (Table 9) and determined that the overall rating for the risk of discharge of contaminated stormwater to land is **Medium.**

7.9 Summary of Risk Assessment and Acceptability

The risk items identified in section 7.8 including the application of risk criteria and the acceptability with treatment are summarised in Table 17 below.

Table 17: Risk rating of emissions

	Emission		Pathway and Receptor	Licence Holder controls	Impact	Risk Rating	Acceptability with treatment (conditions on instrument)
	Type	Source					
1.	Fugitive dust	Infrastructure and handling process Spillage, entrainment or accumulation in outside areas	Air / wind dispersion Dwellings, residential neighbours, schools	Infrastructure and management controls	Public health and amenity	Moderate consequence Unlikely **Medium risk**	Acceptable subject to Licence Holder controls conditioned and regulatory controls
2.	Odour	Infrastructure and handling process	Air / wind dispersion Dwellings, residential neighbours, schools	Infrastructure	Amenity	Moderate consequence Unlikely **Medium risk**	Acceptable subject to Licence Holder controls conditioned and regulatory controls
3.	Noise	Infrastructure and handling process including vehicle movements within premises boundary	Air / wind dispersion Dwellings, residential neighbours, schools	Infrastructure and management controls	Amenity	Moderate consequence Unlikely **Medium risk**	Acceptable subject to Licence Holder controls Regulated by Noise Regulations
4.	Point source particulate emissions to air	Infrastructure via stacks	Air / wind dispersion Dwellings, residential neighbours, schools	Infrastructure and management controls	Public health and amenity impacts	Slight consequence Almost Certain **Medium risk**	Acceptable subject to Licence Holder controls conditioned
5.	Discharge of contaminated stormwater to land	Spillage / accumulation of raw materials or product, trafficked material, liquid storage loss of containment or overflows	Direct discharge and infiltration to groundwater	Infrastructure and management controls	Groundwater contamination, groundwater dependent ecosystem impacts	Moderate consequence Unlikely **Medium risk**	Acceptable subject to Licence Holder controls conditioned and regulatory controls

8. Determined Regulatory Controls

8.1 Summary of Controls

		Controls		
		8.2 Infrastructure and Equipment	8.3 Point Source Emissions to Air	8.4 Specified Action
Risk Items (see section 7)	1. Fugitive dust	●		●
	2.Odour			●
	3. Noise	●		
	4. Point source particulate emissions to air	●	●	
	5. Discharge of contaminated stormwater to land	●		●

8.2 Infrastructure and Equipment

8.2.1 Dust Management

The following environmental controls, infrastructure and equipment must be maintained and operated onsite for dust management:

- Bulk meals intake – Fully enclosed shed with separate roller doors for truck entry and exit. At least one door is closed at all times during meal unloading.
- Bulk grains intake – Closable screen utilised during grain unloading. The screen remains intact and fit for purpose.
- Grain silos are fitted with level alarms and overfill prevention interlocks.
- Silos, bins and hoppers in the Mill Building and Mill Warehouse are enclosed, and dust sweepings from upper floors are directed in chutes to collection bins at ground level.
- All material and product conveyors are enclosed.
- The product storage hoppers are fitted with chute extensions that are maintained intact and utilised during product loading into trucks.
- The internal ring road is sealed with bitumen.
- A road sweeper is used on a daily basis to clean external trafficable areas and internal floors within the Mill Building and Mill Warehouse. An industrial vacuum system is used to clean and remove accumulated dust from surfaces and equipment.

8.2.2 Point source emissions to air

The following environmental controls must be undertaken in respect of pollution control equipment for point source emissions to air:

- Baghouse filters are fitted with a broken bag detection system and inspected on at least a daily basis.
- Cyclones are inspected on at least a daily basis, and accumulated material is removed.

8.2.3 Noise management

The following environmental controls, infrastructure and equipment must be maintained and operated onsite for noise management:

- Cyclone fans are fitted with noise attenuators;
- Mill Building Stacks 1 and 2 are fitted with noise silencers; and
- External sections of the product conveyor system are inspected daily and serviced or repaired to address any abnormal noises.

8.2.4 Stormwater contamination prevention

The following environmental controls, infrastructure and equipment must be maintained and operated onsite for preventing stormwater contamination:

- Tallow intake has a concrete collection bund for tallow drips and spillages during unloading.
- Tallow and liquid additive storage vessels are enclosed and located within a sealed concrete secondary containment compound.
- Accumulated stormwater is removed from bunds and secondary containment areas.
- Intermediate bulk containers (IBCs) within the Mill Building and Mill Warehouse are located on self-bunded containment equipment.

Note: Specified infrastructure requirements are derived from those currently undertaken by the Licence Holder as described in sections 7.4.3, 7.6.2, 7.7.3 and 7.8.3.

Grounds: The infrastructure and equipment are currently used by the Licence Holder and considered necessary based on the risk assessment outcomes in section 7. The condition requires the continued use of the infrastructure and equipment and ensures regulatory oversight.

8.3 Point Source Emissions to Air

8.3.1 Particulate matter emissions

There will be a requirement to ensure pollution control equipment is operating as per Table 18 while the corresponding emissions sources are emitted from the corresponding emission points.

Table 18: Point Source Emissions to Air Table

Discharge Point	Pollution Control Equipment	Emission Source
Mill Building Stacks 1 and 2	Two cyclones	Pellet Mills and Counterflow Coolers
Baghouse emission vent 1	Two baghouse filters	Grain off grinder and two expansion hoppers
Baghouse emission vent 2	One baghouse filter	Industrial vacuum system
Baghouse emission vent 3	One baghouse filter	Enclosed conveyor system
Baghouse emission vent 4	One baghouse filter	Additive intake blower system
Baghouse emission vent 5	One baghouse filter	Bulk meals intake system
Baghouse emission vent 6	One baghouse filter	Micro ingredients system
Baghouse emission vent 7	One baghouse filter	Transit separator system

Note: The requirements are derived from those currently undertaken by the Licence Holder as described in section 7.7.3.

Grounds: The pollution control equipment on point source emission to air are currently used by the Licence Holder and considered necessary based on the risk assessment outcome in section 7.7. The condition requires the continued use of the pollution control equipment and ensures regulatory oversight.

8.4 Specified Actions

8.4.1 Fugitive dust, odour and stormwater contamination prevention

There will be a specified action to require that raw materials and product is only stored or stockpiled within dedicated bins, silos, hoppers or the general storage shed.

Note: While the Licence Holder may already undertake this requirement, it was not necessarily confirmed through the site visit by DER officers on 11 August 2016 or review of DER records. The specified action is, therefore, a CEO derived requirement.

Grounds: This is required to ensure the raw materials and product are not stored or stockpiled in open areas where they can be exposed to wind that can generate airborne dust and rainfall or surface water runoff that can contaminate stormwater and be discharged to land. Stockpiled materials can also become odorous in circumstances where it is static and exposed to rainfall or moisture.

8.5 Licence Duration

The Revised Licence will be issued for a period of five years including the six-month duration extension issued via Amendment Notice on 5 October 2016.

Grounds: The Delegated Officer has had regard to the published *Guidance Statement: Licence duration* and *Guidance Statement: Land use planning* in determining the licence duration for the Amended Licence. City of Wanneroo correspondence dated 19 August 2016

included an agenda report with statements to the effect that the feedmill is compliant in terms of planning with no stated restriction on time. Whilst the *Guidance Statement: Licence duration* provides for the granting of a licence for up to 20 years duration, the Delegated Officer has also considered City of Wanneroo advice in the above-mentioned correspondence regarding discussion with the Licence Holder about the relocation of the premises. A five-year licence duration allows time for the City of Wanneroo to conclude ongoing discussions with the Licence Holder regarding a relocation strategy.

9. Setting Conditions

The conditions in the Issued Licence have been determined in accordance with DER's *Guidance Statement on Setting Conditions*.

Condition Ref	Grounds
Environmental Compliance Condition 1	Environmental compliance is a valid, risk-based condition to ensure appropriate linkage between the licence and the EP Act.
Notification of Material Change Conditions 2, 3 and 4	These conditions are valid, risk-based and enable flexibility in operations.
Infrastructure and Equipment Conditions 5 and 6	These conditions are valid, risk-based and contain appropriate controls (see section 7 of this Decision Report).
Specified Actions Condition 7	This condition is valid, risk-based and contain appropriate controls (see section 7 of this Decision Report).
Point Source Emissions to Air Condition 8	This condition is valid, risk-based and is an appropriate control (see section 7 of this Decision Report).
Emissions Condition 9	This condition is a valid, risk-based condition to ensure appropriate linkage between the licence and the EP Act.
Information Conditions 10, 11, 12, 13 and 14	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

The Delegated Officer notes the appropriateness and adequacy of controls may be reviewed at any time, and that following a review, amendments to the licence may be initiated under the EP Act.

With respect to complaint recording and reporting conditions 9 and 10 on previous licence L8101/2004/3, the Delegated Officer considered appeal determinations as outlined in section 0 against complaints records, compliance, and the risk assessment in section 7. Condition 18 of Licence L8101/2014/4 continues to require the Licence Holder to record complaints and actions undertaken; however, the requirement to report complaints on a quarterly basis is not considered necessary based on the review of historical complaint data.

10. Licence Holder's Comments

The Licence Holder was provided with the draft Decision Report and draft Revised Licence on 16 December 2016. Comments from the Licence Holder were received by DER on 6 January 2017. A summary of the Licence Holder's comments and the Delegated Officer's considerations is contained in Appendix 3.

11. Conclusion

This assessment of the risks of activities on the premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this Decision Report (summarised in Appendix 1). This assessment was also informed by a site visit by DER officers on 11 August 2016.

Based on this assessment, it has been determined that the Revised Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Jonathan Bailes
A/Senior Manager – Industry Regulation (Process Industries)

Delegated Officer under section 20 of the Environmental Protection Act 1986

Appendix 1: Key Documents

	Document Title	Availability
1	Previous licence L8101/2004/3	www.der.wa.gov.au
	Environmental Assessment Report for Licence L8101/2004/3 granted on 20 September 2012	DER records
2	Email from Licence Holder regarding capacity of the gas-fired steam generator dated 23/08/2016	
3	*Preliminary Odour Dispersion Modelling Study, Feed Mill and Broiler Farm, Draft report*, The Odour Unit, April 2005	
4	Letter from Licence Holder regarding noise investigations and planning noise improvements dated 1 February 2012	
5	Appeal Report and Ministers Determination for Appeal Numbers 411-412 of 2006	www.appealsconvenor.wa.gov.au
6	DER *Guidance Statement on Regulatory principles*	www.der.wa.gov.au
7	DER *Guidance Statement on Setting conditions*	
8	DER *Guidance Statement on Decision Making*	
9	DER *Guidance Statement on Risk Assessment*	
10	DER *Guidance Statement on Licence duration*	
11	*Guidance Statement: Land use planning*	
12	*Environmental Protection Act 1986*	www.slp.wa.gov.au
13	*Environmental Protection Regulations 1987*	
14	*Environmental Protection (Noise) Regulations 1997*	

Appendix 2: Summary of submissions

Table 19: Summary of public submissions

Comments Received		Environmental Risk	Additional Notes
Public Authorities and Groups			
1	*City of Wanneroo* Council considered this matter at its meeting on 16 August 2016 and resolved as follows: 1. Council has not supported the continued operation of the feedmill and related operations since 2004 as the operation would create a further nuisance with respect to pollution emissions and impact on the amenity of the general surrounding area; 2. The facility is no longer appropriate within a growing town centre; 3. The operation of the facility is seen as incompatible with future and existing surrounding land uses; and 4. The operation of the feed mill and related activities on the site substantially reduces the amenity of the local community through odour that the premises produce, the high volume of large vehicle traffic entering the site, and excessive noise. The City's position remains unchanged from feedback given in its previous responses of 11 September 2012, 28 August 2016 and 17 September 2016 to renewal applications. A copy of the Council meeting agenda report was attached. Discussions have commenced between the City and Ingham's on the preparation of an exit strategy for the operation. It is understood that Inghams' consultants are currently investigating the planning requirements necessary to facilitate relocation.	Odour impacts on amenity Noise impacts on amenity. General pollution emissions.	The submission mentions feedmill and 'related activities', but it is uncertain whether the City is referring to activities directly related to the feedmill or other activities on the overall parcel of land (i.e. the poultry farm). The submission did not provide any supporting information to validate claims in point 4 regarding odour and noise impacts on surrounding areas and whether these are attributed solely to the feedmill. Issues concerning truck movements and truck noise outside of the licensed premises are not matters considered in the risk assessment of emissions and discharges for prescribed activities within the premises boundary. The following statement was noted with the Council meeting agenda report: *"Administration has since carried out extensive investigations into the history of planning approvals over the site. The result of those investigations, which included advice from the City's Legal Team, was that the feedmill must be considered as an existing use and as such deemed compliant in terms of planning approvals."* The Delegated Officer has considered this statement in determining licence duration in section 8.5 of this Decision report. The Delegated Officer considered City of Wanneroo comments regarding ongoing discussions in relation to an exit strategy for relocation.

Comments Received		Environmental Risk	Additional Notes
2	*Petition* • Strongly objected to the renewal of the licence and urged DER not to renew it; • Area is far too often affected by strong foul odours from the feedmill; • People with breathing problems, such as asthma, are forced to keep indoors until the smell passes. Older residents and young children are also seriously affected; • The Wanneroo/Sinagra area is now quite heavily built up; it seems totally unacceptable to have such a polluting influence in the community.	Odour impacts on amenity and health. Increased risk of impacts from emissions due to lack of separation from receptors	Concerns with odour were raised. However, there was no description of odour to assist in delineation of potential odour from the feedmill and the poultry farm co-located on the same parcel of land.
Residents			
1	• Does not support the licence renewal • Farm needs to be relocated to a rural location • It has a disgusting stink • Attracts flies to the area	Odour impacts on amenity.	Concerns with odour were raised. However, there was no description of odour to assist in delineation of potential odour from the feedmill and the poultry farm co-located on the same parcel of land. Planning aspects are a matter for the Local Government Authority.
2	• Odour impacts • Continual truck movements as the facility has no restriction on hours of operation • Noise impacts due to lack of maintenance on the conveyor system • Licence should be restricted to 2 years to enable Inghams to move their operation to an industrial area where the manufacturing plant would be more suited. Neerabup is an ideal location. • Damage to road median strip from trucks turning in and out of the facility and often block four lanes of Wanneroo Rd. • Time of operation should be limited to a more reasonable set of	Odour impacts on amenity. Noise impacts on amenity.	Issues concerning truck movements and truck noise outside of the licensed premises are not matters considered in the scope of risk assessment of emissions and discharges for prescribed activities within the premises boundary. Structural damage to roads and median strips and traffic congestion on public roads are not matters considered in the scope of risk assessment of emissions and discharges for prescribed activities within the premises boundary. Concerns with odour were raised. However, there was no description of odour to assist in delineation of potential odour from the feedmill and the poultry farm co-located on the same parcel of land.

Comments Received		Environmental Risk	Additional Notes
	hours varying the effect on neighbours;		
3	• No issues with current levels of activity or production on the site. • Have lived in relative peace for over 22 years now and find that Inghams does not harm or affect that peace and enjoyment of our lifestyle whatsoever. • Find that it enhances our quality of life, with no further residential housing development on this large parcel of land, which would cause increased traffic noise and the loss of this amazing, peaceful, green acreage, in the heart of Wanneroo. • On occasion, smells are experienced in the late afternoon or evening, but this only occurs a few times a year and is quite acceptable to us. • Inghams should have their licence renewed.	Odour impacts on amenity.	Concerns with odour were raised. However, there was no description of odour to assist in delineation of potential odour from the feedmill and the poultry farm co-located on the same parcel of land.
4	• Family has been directly affected by the feedmill business for the last 2 decades. • Incompatibility of land uses and belief the feedmill should move. • Land use restrictions for properties within the “buffer zone” and has caused large land tax bills and land rate bills. • Inghams have had sufficient time to develop an exit strategy and have dragged their feet because the authorities keep renewing their licence. • The licence should not be renewed. • Inghams will most likely have a “closed-door” meeting with DER in the same way they command that from the Shire of Wanneroo. This is not democratic or transparent, otherwise supply all the correspondence surrounding this renewal and any meeting minutes to all stakeholders. • Would like to know if there is a financial component to the licence renewal and how much that is. • Would like a personal response from the decision making as to why and how they make their decision. Also supply the scientific		Issues concerning land use planning (including buffers), relocation and rates are a matter for the Local Government Authority. Issues concerning land tax are not a matter considered in the scope of risk assessment of emissions and discharges for prescribed activities within the premises boundary. The *Environmental Protection Act 1986* requires that an application for licence be accompanied by the prescribed fees. The Licence Holder paid the fees as per its statutory requirement. Access to documentation can be applied for through the Freedom of Information process. Further information on how to make an application is available on DER’s website at www.der.wa.gov.au. This decision report will be published with the licence. Respondents will be notified of the decision. The respondent advised of direct impacts but did not provide any specific detail on the nature of these impacts.

Comments Received		Environmental Risk	Additional Notes
	findings that drive these decisions as I have found it very hard to find any data regarding the odour and noise problems that apparently go into making decisions about buffer zones.		
5	• Visiting potential land prior to purchase, was not aware of or exposed to the smell. Could not believe how bad the smell could be at times, as it goes in cycles. • Often is summer we cannot use out air conditioner as it brings in the smell and the heat is better than the smell. • Pool gets a film which we know is from the plant and as a result we are constantly cleaning it to ensure a safe environment. • Land use compatibility issues with homes, schools, medical centre, workplaces and shopping areas in close proximity. • Deny the application and look at moving the plant to a more suitable rural location so jobs are preserved.	Odour impacts on amenity and lifestyle. Emissions impacts on amenity.	Planning aspects are a matter for the Local Government Authority. Concerns with odour were raised. However there was no description of odour to assist in delineation of potential odour from the feedmill and the poultry farm co-located on the same parcel of land.
6	• Subjected to foul odours from the feedmill forcing you to stay indoors with all windows closed. • Partner suffers a respiratory illness and cannot withstand the pollution. • Complained many times to the Pollution Hotline. • Feedmill was first licensed in 2006 when there was already considerable residential development in the area so Inghams cannot claim that "*development has encroached on the premises.*" • The executive summary of proposal and assessment states DER has "a record of odour complaints from neighbourhood residents. Investigation has identified the chicken farm to be the source of nuisance." It also mentions "low level odour emissions (of dog biscuit characteristic)." This does not come close to describing the odour, which is overpowering, disgusting and far from the smell of dog biscuits. • The 2015 renewal of licence removed the condition regarding fugitive dust emissions and that the amendment does not re-assess the risk of fugitive emissions. It is to be hoped that such emissions form part of the assessment for the renewal of the	Odour impacts on health and amenity. Fugitive dust impacts.	Site operations commenced in the 1960's. As outlined in Section 2 of this report, the City of Wanneroo approached the then DEC with information regarding production levels and the site was first licensed in 2006 after consultation with Inghams and the City. The removal of the fugitive dust condition in 2015 was related to broader administrative changes to all new licences and works approvals granted as published on DER's website at www.der.wa.gov.au. Provisions in s 49 on the *Environmental Protection Act 1986* regarding unreasonable emissions, causing pollution and environmental harm continue to apply. This decision report assesses the risk of impacts from fugitive dust and conditions have been applied on a risk-basis. DER respects the primacy of land use planning decisions as outlined in its published *Guidance Statement: Land use planning*. Any licence granted will take into consideration statutory planning decisions and any imposed time limits in determination the duration of a licence.

Comments Received		Environmental Risk	Additional Notes
	licence in 2016. • The licence should be cancelled because the council doesn't support the continued operation of the feedmill as stated in the 2015 renewal document. • Do not allow the renewal of the licence for the Feedmill.		
7	• Disagree with the proposal to renew the licence for the feedmill. • People of the surrounding area have to live with a smell that is so bad, on many summer days/nights, that it is impossible to describe. It is also impossible to sit in the back garden in the cool of the evening because of the smell. • It is devaluing the price of houses around the area, especially in the new Sinagra Garden Park Estate. • The large trailer trucks turning from Wanneroo Rd into the Inghams lot cause traffic jams, which during peak hour can hold up cars for quite a while. • Under the impression the feedmill would be wound down and closed in 2016/2017 instead we now learn that Inghams are looking for licence renewal, a move which we and our neighbours are not happy about.	Odour impacts on amenity.	Planning aspects are a matter for the Local Government Authority. Issues concerning truck movements, congestion and devaluation of land are not matters considered in the scope of the risk assessment of emissions and discharges for prescribed activities within the premises boundary.

Appendix 3: Summary of Licence Holder's Comments on Draft Risk Assessment and Draft Revised Licence

No.	Section / Condition	Comments received	Environmental risk	Delegated Officer consideration
Draft Decision Report				
1	Section 7.4.3 (Table 11)	Change wording from: *"Daily use of road sweeper on external trafficable areas and internal floors within the Mill Building/Mill Warehouse"* to the following: *"Use of a road sweeper during production days on external trafficable areas (subject to wet weather and road sweeper breakdown) and internal floors within the Mill Building/Mill Warehouse)"*	Fugitive dust	Updated Licence Holder control consistent with comment. The Delegated Officer agreed that use of the sweeper is inherently subject to weather conditions, occasional breakdowns or routine servicing and operational status.
2	Section 7.5.3 (Table 12)	Change wording from: *"Solids stored within enclosed silos"* to the following: *"Solids stored within enclosed silos and the general storage shed"*	Odour	Updated Licence Holder controls consistent with comments.
3	Section 7.5.3 (Table 12)	Change wording from: *"Liquids stored within enclosed tanks"* to the following: *"Liquids stored within enclosed tanks and IBC's"*	Odour	
4	Section 7.8.3 (Table 16)	Change wording from: *"Enclosed silos, bins and hoppers for raw materials and product"* to the following: *"Enclosed silos, bins, hoppers and the general storage shed for raw materials and product"*	Contaminated stormwater discharges to land	
5	Section 7.8.3 (Table 16)	Change wording from: "*Daily use of a road sweeper vehicle to clean hard surfaces and collect spilt material*;" to the following: "*Use of a road sweeper vehicle on production days (subject to wet weather and road sweeper breakdown) to clean hard surfaces and collect spilt material."*	Contaminated stormwater discharges to land	As per point 1.
Draft Amended Licence				
6	Condition 7	Change wording from: "*The Licence Holder must ensure all* ***Raw Materials*** *and product is only stored or stockpiled within dedicated bins, silos, hoppers or the general storage shed."* to the following: *"The Licence Holder must ensure all* ***Raw Materials*** *and product is only stored or stockpiled within dedicated bins, silos, hoppers, tanks, IBC's, or the general storage shed."*	Fugitive dust, odour and contaminated stormwater discharges to land	The definition of 'Raw material' in the licence is provided as *"grains, meals and other additives in solid form used in the animal feed manufacturing process."* This definition specifically excludes liquid inputs. In that regard, the intent of condition 7 relates specifically to storage and stockpiling of materials in solid form.

No.	Section / Condition	Comments received	Environmental risk	Delegated Officer consideration
				The Licence Holder requested the addition of 'tanks' and 'IBCs' which are related to liquid storage and outside the scope of condition 7. The Delegated Officer also noted controls for liquid storage including tanks and IBCs are specified in Schedule 3, Table 5 (points 11-13).
7	Condition 9 (Table 2)	Change wording from: *"Subject to compliance with:* • *rows 1 to 7 of* • *Table 5 in Schedule 3; and* • ***Condition 7.**"* to the following: *"Subject to compliance with:* • *rows 1 to 7 of Table 5 in Schedule 3; and* • ***Condition 7.**"*	Fugitive dust	Typographical error. Amended consistent with Licence Holder's comment.
8	Condition 9 (Table 2)	Change wording from *"Subject to compliance with:* • *row 8 of* • *Table 5 in Schedule 3; and* • ***Condition 8;"*** to the following: *"Subject to compliance with:* • *row 8 of Table 5 in Schedule 3; and* • ***Condition 8;"***	Point source emissions to air	
9	Schedule 2 (Table 3 – Point 7)	Change wording from: *"Tallow and liquid additive storage."* to the following: *"Tallow and liquid additive storage including IBC's."*	Contaminated stormwater discharges to land	IBCs are part of the liquid storage infrastructure and equipment. Amended consistent with Licence Holder's comment.
10	Schedule 2 (Table 4)	Change wording from: *"Up to 200,000 tonnes (produced)."* To the following: *"Up to 220,000 tonnes (produced)."* The Licence Holder outlined market needs to increase domestic local poultry feed supply and also increasing poultry production. The Licence Holder advised that there was no change required to layout, infrastructure or equipment and the mill would not exceed its rated hourly capacity. The Licence Holder intended to achieve the increase by additional operating hours in a week and reducing downtime between changeovers in feed type. The Licence Holder believes that as the rated capacity will not change, the existing controls for dust, emissions, noise and stormwater management are adequate to deal with the additional volume.	Point source emissions to air, noise, odour, fugitive dust	The Delegated Officer noted that the Licence Holder does not propose any changes to infrastructure and equipment at the premises. The production increase is to be achieved through existing operations by longer operating hours and run-time efficiencies. The increase in production does not involve an action, change or alteration to the premises specified in s. 53 of the EP Act. The Delegated Officer is satisfied that the increase in production will not alter the risk profile of emissions as per section 7 of this Decision Report and the determined controls in section 8 remain appropriate. The Delegated Officer amended Table 4 in Schedule 2 to specify 220,000 tonnes (produced).

No.	Section / Condition	Comments received	Environmental risk	Delegated Officer consideration
11	Schedule 3 (Table 5 – Point 7)	Change wording from: *"Road sweeper is used at least daily on all external trafficable areas and internal floors within the Mill Building and Mill Warehouse. Industrial vacuum system available for cleaning and removing accumulated dust from surfaces and equipment."* To the following: *"Road sweeper is used at least once on each day of production on all external trafficable areas (subject to wet weather conditions and road sweeper breakdowns) and internal floors within the Mill Building and Mill Warehouse. Industrial vacuum system available for cleaning and removing accumulated dust from surfaces and equipment."*	Fugitive dust, contaminated stormwater discharges to land	As per point 1.
12	Schedule 3 (Table 5 – Point 12)	Change wording from: *"Enclosed storage vessels that are located within a concrete secondary containment compound."* To the following: *"Enclosed storage vessels that are located within a concrete secondary containment compound and IBC's."*	Contaminated stormwater discharges to land	Amended consistent with Licence Holder's comment.

Appendix 4: General Layout Map

LEGEND

- Road Centrelines
- Cadastre

Perth Metropolitan Area Central 15cm Orthomosaic - Landgate 2015

** Project Data. This data has not been quality assured. Please contact map author for details.*

N

0 62 m

Scale 1:2394

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

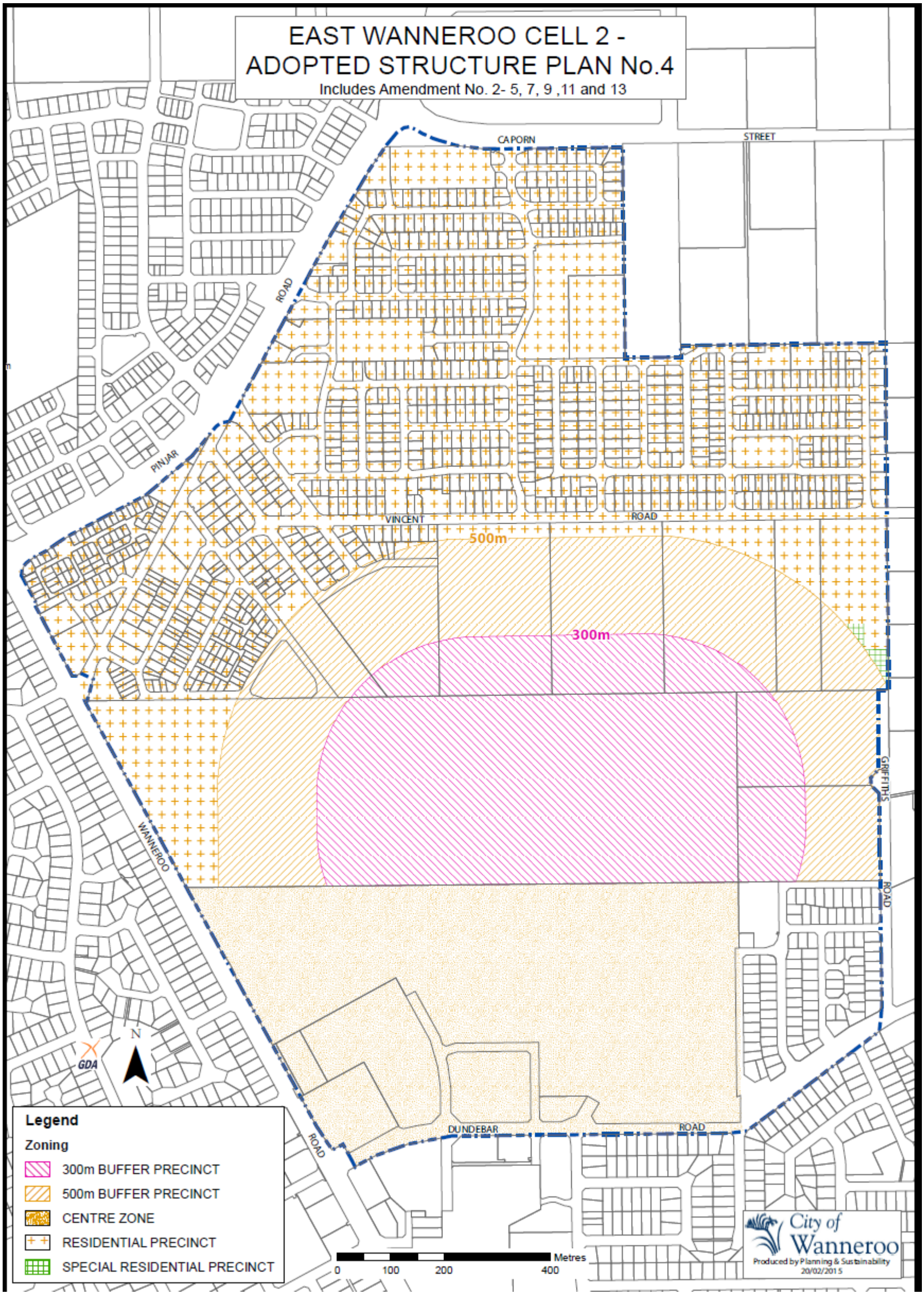
Prepared by: chrism
Prepared for: L8101/2004/3
Date: 3/10/2016 10:44:57 AM

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.

Government of Western Australia
Department of Environment Regulation

Appendix 5: Structure Plan Map

Source: *East Wanneroo Cell 2 (Sinagra) Agreed Structure Plan (As Amendment)*, City of Wanneroo



Attachment 1: Revised Licence L8101/2004/3