Decision Report

Application for Licence Amendment

Division 3, Part V *Environmental Protection Act 1986*

Licence Number	L8623/2012/1
Applicant	Unigrain Pty Ltd
ACN	120 061 841
File Number	2011/011422 - 1
Premises	Wagin Sheep and Cattle Pellet Facility 31 Stewart Rd WAGIN WA 6135 Legal description - Lot 207 on Deposited Plan 405632 Certificate of Title Volume 2938 Folio 896
Date of Report	13 August 2019
Status of Report	Final

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1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Amended Licence	the amended Licence issued under Part V, Division 3 of the EP Act following the finalisation of this amendment.
Animal feed	means all final products which are a result of any manufacturing or blending of raw materials on the Premises, and for the purpose of consumption by animals
Assigned Level	means a noise level determined under regulation 8 of the Noise Regulations
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CS Act	*Contaminated Sites Act 2003* (WA)
dB	Decibel, a unit of measurement of sound level
dB(A)	A-weighted decibel, a unit of measurement of sound level weighted to reflect the frequency response of the human ear
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
Existing Licence	The Licence L8623/2012/1 issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this amendment
HDPE	High-density polyethylene
kW	kilowatts
Licence Holder	Unigrain Pty Ltd
mg/m^3	milligrams per cubic metre
Mt	Mega tonnes
MW_{th}	megawatts thermal output
Noise Regulations	*Environmental Protection (Noise) Regulations 1997* (WA)
Occupier	has the same meaning given to that term under the EP Act.
PM	Particulate Matter

Term	Definition
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Primary Activities	as defined in Schedule 2 of the Revised Licence
Raw material	means any ingredients used in manufacturing or blending on the Premises to make animal feed
Risk Event	As described in *Guidance Statement: Risk Assessment*
UDR	*Environmental Protection (Unauthorised Discharges) Regulations 2004* (WA)
USEPA	United States Environmental Protection Agency

2. Purpose and scope of assessment

An application was received from Unigrain Pty Ltd (the Licence Holder) on 19 November 2018 to amend the Wagin Sheep and Cattle Pellet Facility (the Premises) Existing Licence L8623/2012/1 to allow for ongoing operation of the biomass boiler constructed under Works Approval W5138/2012/1. The biomass boiler uses oat husk bi-product, generated from onsite operations, as the fuel source, with a fuel burning design capacity of up to 1250kg/hr. The Licence Holder has applied to add the fuel burning activity to the Existing Licence (Prescribed Premises Category 87: Fuel burning).

As part of the application submission, the Licence Holder provided an update to recent noise emissions assessment reporting, boiler emissions to air test results and a review of the current layout and operations at the Premises.

The assessment of this application has been undertaken in accordance with DWER's published Regulatory Framework. The scope of the assessment includes:

- a review of the layout, design and current operation of new and existing infrastructure;
- re - assessment of the key emissions (fugitive dust, noise and emissions to air) from the primary activity of animal feed manufacturing, associated milling activities and ongoing operation of the biomass boiler at the Premises; and
- updating and removing where appropriate Existing Licence conditions in accordance with the outcomes of the operational review and emissions assessments.

The Amended Licence supersedes all authorised licences and amendment notices previously issued in relation to the Premises.

2.1 Application details

Table 2 lists the documents submitted during the assessment process.

Table 2: Documents and information submitted during the assessment process

Document/information description	Date received	DWER Reference Number
Amendment application	19 November 2018	A1740573
Applicant request to extend response date to provide further information	12 December 2018	A1748042
Revised amendment application and further information response	31 January 2019	A1760717
Responses to grain and husk stockpiles enquiry	8 July 2019	A1803984

3. Background

The animal feed (pellet) manufacturing facility was originally built and commissioned in 1989 without a works approval. A licence to operate the facility at 31 Stewart Road, Wagin (L8623/2012/1) was first issued to Morton Seed and Grain Pty Ltd on 26 April 2012. Following purchase of the facility by Unigrain Pty Ltd (Unigrain) on 1 December 2014, the Licence was transferred to Unigrain on 5 February 2015.

The Premises receives bulk supplies of whole oats and a range of other grains and raw materials which are stored in silos, one of two large storage sheds or in covered outdoor bunkers (up to approximately 50,000 tonnes per annum received). Animal feed manufacturing inputs include the use of oat husks generated onsite as a bi-product of oat milling. The milling (de-hulling) and flaking of oats for human consumption does not cause the Premises to become prescribed. However, production of animal feed pellets, utilising the bi-product of the oat milling process and other inputs, does cause the Premises to become prescribed (Category 23: Animal feed manufacturing).

Works Approval (W5318/2012/1) was issued in March 2013 for the installation and commissioning of an oat husk fueled bioenergy cogeneration plant, with the intention that the biomass boilers and associated turbines would become the main source of steam and energy supply for all activities undertaken within the Premises, providing an additional productive use of oat husks as a fuel source. The Works Approval was amended in June 2015 to reflect changes to the infrastructure being installed (one boiler instead of two and changes to proposed turbine/s) and to transfer the Works Approval to Unigrain.

Table 3 lists the relevant Prescribed Premises categories, including the addition of Category 87: Fuel burning, as applied for in this Licence Amendment.

Table 3: Prescribed Premises Categories

Classification of Premises	Description	Approved Premises production or design capacity or throughput	Description of amendment
Category 23	Animal Feed Manufacturing: premises on which animal food is manufactured or processed	< 150,000 tonnes per year[1]	N/A Reported annual production in the last 3 years ranges from 12,700 to 30,484 tonnes per year.
Category 87[2]	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	Design capacity of up to 1250 kilograms per hour	Based on the biomass boiler maximum design capacity as installed under Works Approval W5318/2012/1. Current operational capacity under normal operating conditions results in combustion of 400 - 450kg/hr of oat husks

Note 1: Based on the production capacity of the oat mill providing oats and oat husks for use as animal feed (direct) or in animal feed pellet manufacturing
Note 2: Licence amendment is applying to add this category

4. Overview of Premises

4.1 Operational aspects (from Application)

The Premises currently operates 24 hours a day, 5 days a week (from 6am Monday through to 6am Saturday). The operating hours for key manufacturing and processing activities vary seasonally and according to product demand.

The site consists of a bitumen hardstand surface in key operational areas around sealed buildings and sheds containing the main operational infrastructure, including two boilers operated to generate steam for processing and manufacturing activities. (one diesel fired and one oat husk fired boiler). The remainder of the site has a compacted gravel surface.

Current operations include:

- Truck deliveries of mainly whole grain oats and other grains and raw materials unloaded into silos, bulk storage sheds or otherwise into outdoor (covered) grain storage bunkers;
- Oat milling operations are conducted within an enclosed shed kept under negative pressure and includes:
    i. Pre-sorting and cleaning of raw whole grains, generating chaff, lupin, spear grass and ryegrass bi-product transferred to storage bins for later use in animal feed pellet manufacturing; and
    ii. De-hulling of whole grain oats, separating off the oat husk (bi-product) for transfer and storage into one of three storage bins or into a bulk storage shed;
- Oat husk, along with other bi-products and raw material inputs, are transferred to smaller, temporary storage bins within the pellet mill facility, as required for each type of stock feed manufactured;
- The pellet manufacturing process includes pre-weighing, grinding, mixing and mashing of ingredients, steam conditioning and pellet pressing, followed by the drying and cooling of product prior to storage and packaging;
- Steam used in pellet milling operations is generated by the operation of both a diesel fuelled boiler (generally used for weekly start up only) and the biomass boiler using oat husks as the fuel source; and
- Finished pellet product is either packed and stored in sheds or transferred to silos prior to despatch via truck.

Waste streams include ash produced from operation of the biomass boiler stored within a

hopper inside the boiler shed, prior to temporary outdoor stockpiling and offsite disposal. Particulate matter removed by the multiclone (cyclone) filtering system deposits captured dust into a baghouse with a 200L storage drum, periodically emptied prior to it's use as an ingredient for pellet manufacturing. Combustion of the oat husk also causes the build-up of clinker in the combustion chamber requiring regular cleaning and removal. Clinker waste is temporarily stored in the boiler ash, container prior to offsite disposal. Boiler blowdown water is piped from a temporary storage tank (located inside the biomass boiler shed) to a HDPE lined dam and evaporated onsite.

Stormwater is directed to one of two compacted clay-lined dams for temporary storage and disposal via evaporation. Figure 1 below summarises stored product flow at the site and Figure 2 shows bulk oat husk storage locations.

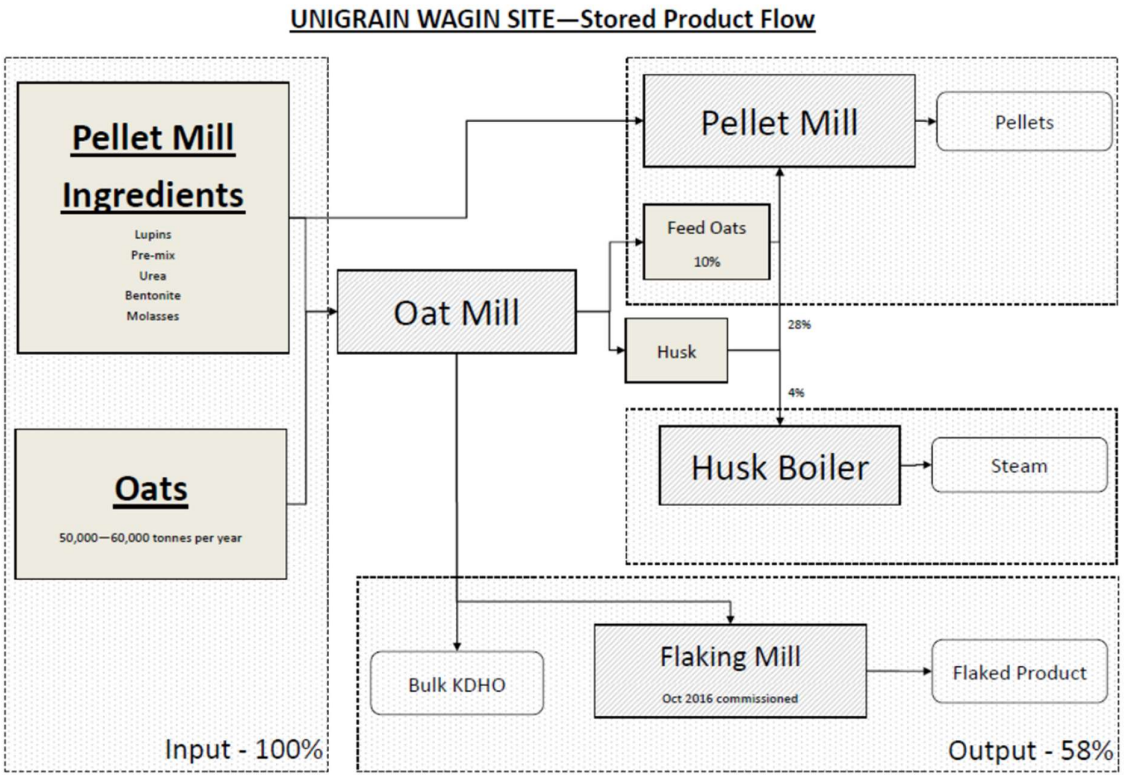

Figure 1: Stored Product Flow at Wagin Pellet Manufacturing Facility

Flow diagram provided as part of Licence Amendment supporting documentation

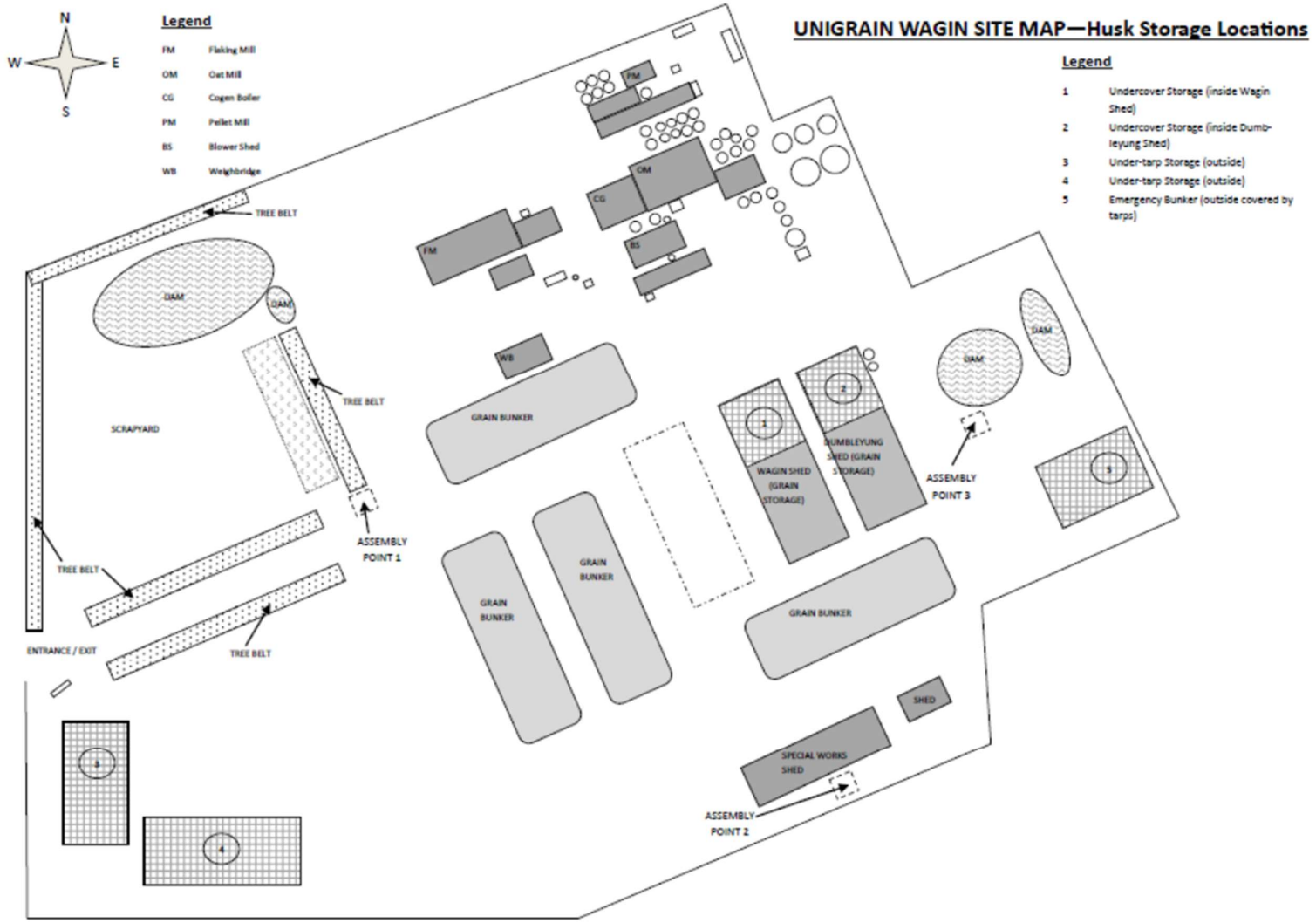

Figure 2: Oat husk storage locations

Plan provided as part of Licence Amendment supporting documentation

4.2 Infrastructure

The Wagin Sheep and Cattle Pellet Facility infrastructure, as it relates to Categories 23 and 87 activities, is detailed in Table 4 and with reference to the Site Plans in Figures 2, 3 and 4.

Table 4: Wagin Sheep and Cattle Pellet Facility infrastructure

Item	Infrastructure	Site Plan Reference
	Prescribed Activity Category 23	
Raw whole oats and other grains and raw materials are received and temporarily stored in silos, storage bins, sheds or covered outdoor bunkers. Oats are cleaned, sized, sorted and de-hulled in the milling plant generating supplies of waste/bi-product including oat husks, spear grass, ryegrass and lupins, temporarily stored prior to their transfer, with other raw material inputs, to the pellet mill. Finished product is packaged or stored in silos prior to despatch via trucks.		
1	Truck unloading of incoming raw materials to either enclosed storage sheds (2), silos or outdoor bunkers. Tarpaulins used to completely cover all outdoor material stockpiles.	Site Plans: Husk storage locations – Figure 2
2	Oat and flaking mills	Site Plans: Husk storage locations – Figure 2
3	Pellet manufacturing facility including: • Input material (chaff, oat husk & other inputs) bins and weigh bins; • Covered conveyors / augers to transfer grain/raw material product into weighing vessels; • Grinding equipment (hammer mill); • Mixer unit (where some water is introduced); • Mash hopper; • Conditioning unit (where steam is introduced); • Pellet press; • Cooling unit; • Cyclones x 2; • Associated fans, hydraulic pumps and conveyors/transfer pipes and fittings; • Finished product storage silos x 3; and • Truck loading bay	Site Plans: Husk storage locations – Figure 2 (PM) Point source emissions – Figure 3
4	Weighbridges (x2) – up to 100 tonne and up to 50 tonne	Site Plans: Husk storage locations – Figure 2
5	Front end loader – used for material transfers between bulk stockpiles (e.g. oat husks) and the pellet mill. - with broom/sweeper attachment for trafficable surfaces cleaning	N/A – mobile equipment
6	Telehandlers - used for material transfers	
	Directly related activities – Category 87: Fuel burning	
A biomass boiler and diesel boiler (weekly start up only) are operated to generate steam used in manufacturing activities. Oat husk bi-product generated from on-site milling provides the fuel source for the biomass boiler.		
1	1 x Uniconfort G300 Global Biomass Boiler (3.43MW_{th}), including: • Automated control system; • Fully enclosed boiler feed system; • Boiler make-up water storage tank (1kL capacity). • Fully enclosed ash management system with a 500 – 750kg storage hopper; • Multi cyclone (Melichiori s.r.l Model MC-100) for dust/particulate capture, precipitated into a 200L steel drum; and • Stack – particulate and gaseous emissions outlet to air, including a low speed (960rpm) induction fan	Site Plans: Point source emissions (Cogen Boiler and Blower sheds) – Figure 3
2	1 x diesel boiler (1.25kW) & 5kL self-bunded diesel storage tank	Site Plans: Point source emissions (Blower shed) – Figure 3
3	Boiler blowdown water - HDPE lined storage dam and associated conveyance pipeline from boiler shed to dam	Water Management Site Plan – Figure 4

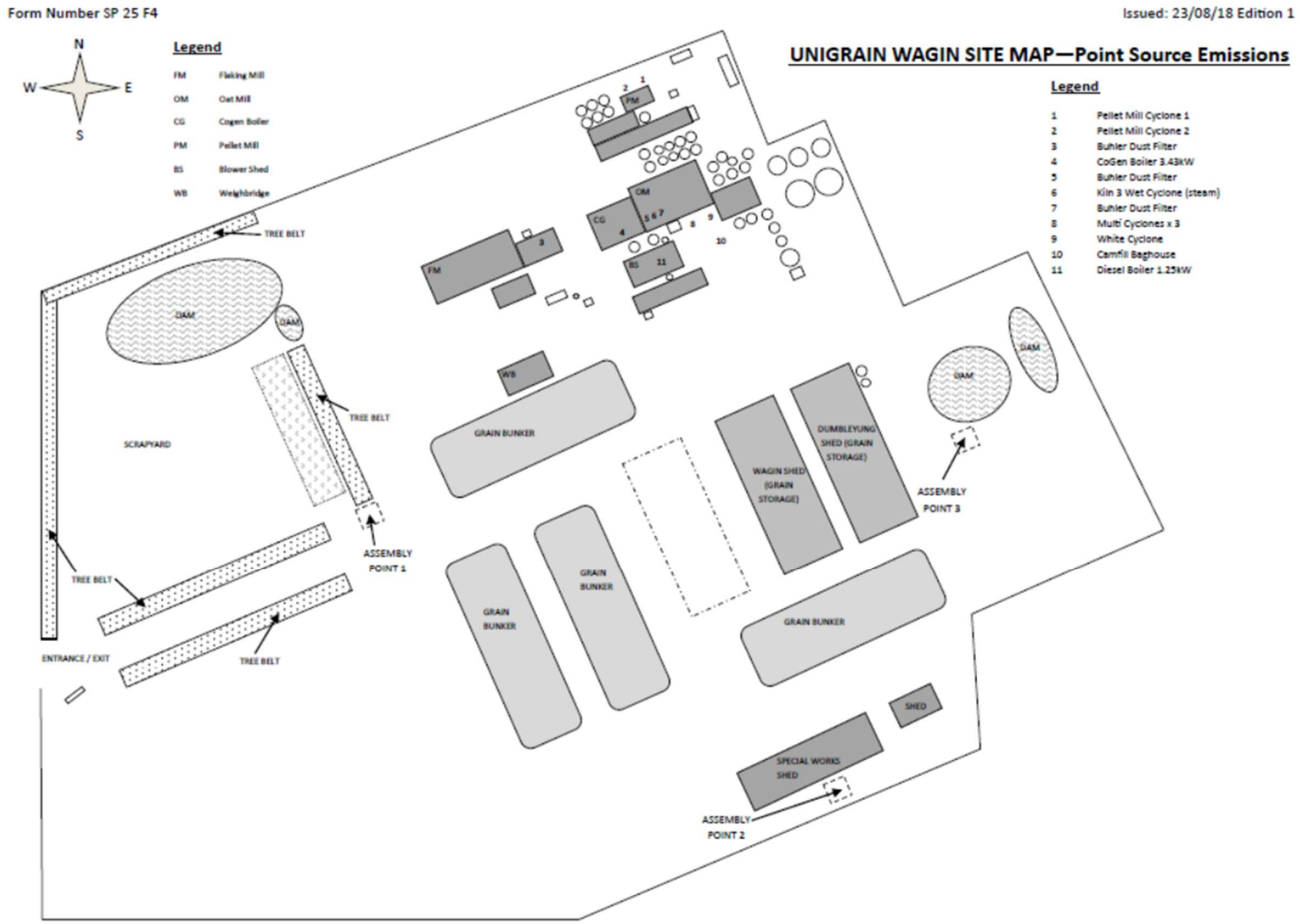

Figure 3: Key infrastructure site plan showing point source emissions locations

Plan provided as part of Licence Amendment supporting documentation

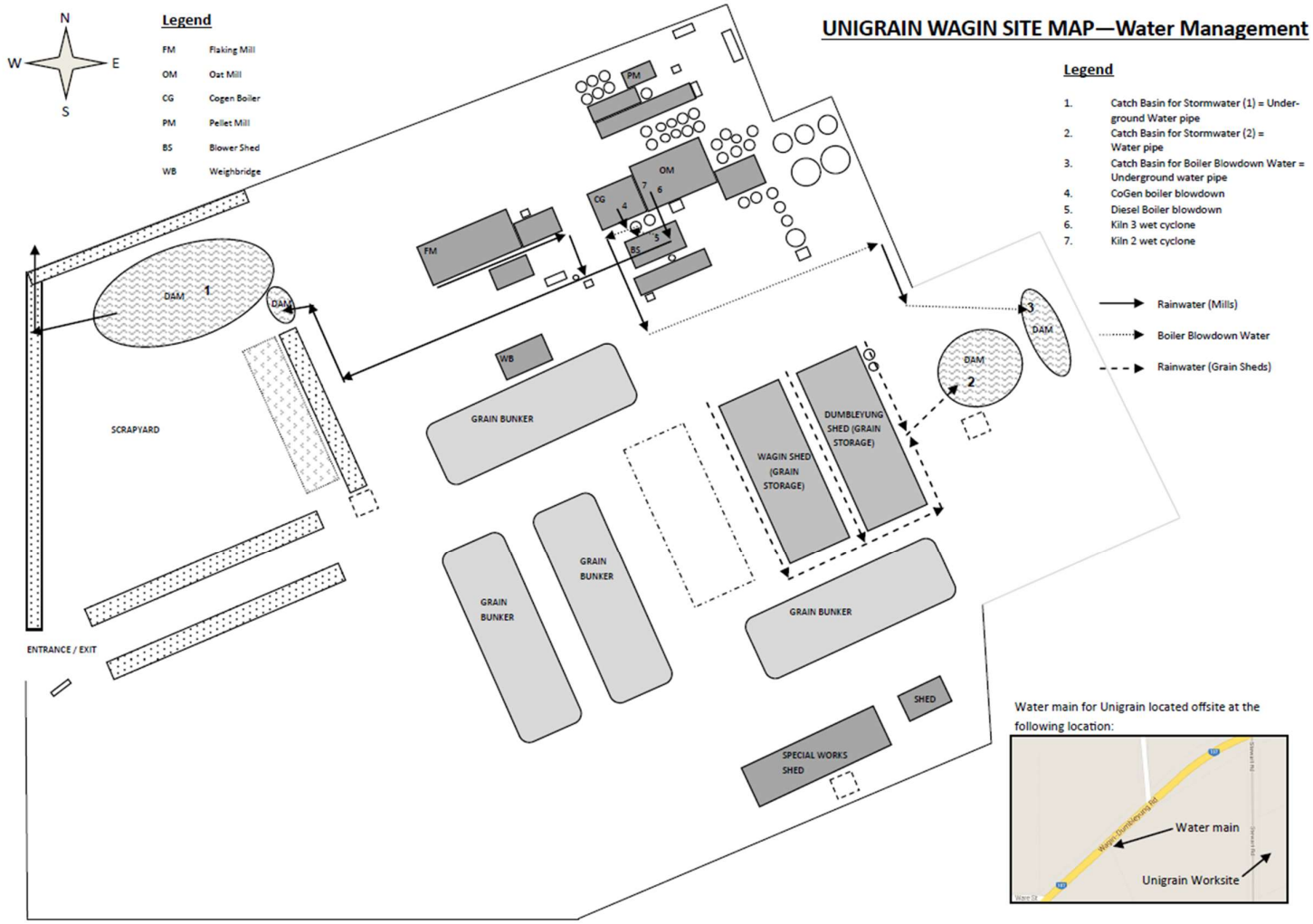

Figure 4: Stormwater collection and boiler blowdown evaporation ponds

Plan provided as part of Licence Amendment supporting documentation

4.3 Exclusions to the Premises

The following infrastructure and its' associated activities are not directly related to the Primary Activities. Therefore this Decision Report does not consider emissions associated with this infrastructure:

- Storage / work sheds on the southern boundary;
- General office and weighbridge office; and
- Outdoor machinery and equipment storage area adjacent to Stewart Road entrance.

5. Legislative context and consultation

DWER consulted with the Shire of Wagin with respect to planning consent history and providing confirmation on land zoning. Lot 207 on Deposited Plan 405632 is zoned rural under the Shire of Wagin's Town Planning Scheme No. 2. The pellet mill is understood to have been constructed and commissioned in 1989 and as such (pre-dating the *Planning and Development Act 2005)*, there is no evidence of consultation with the Shire of Wagin regarding its' establishment.

According to Shire of Wagin records there was no formal development approval / planning consent issued for the installation and operation of the biomass boiler (and associated turbine).

As part of the Licence Amendment application, Unigrain provided a summary of consultations undertaken with immediate neighbours to the Premises, noting that two of the neighbouring Lot owners and occupants are service providers to Unigrain. .

5.1 Part V of the EP Act

5.1.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations. The relevant guidance statements that inform this assessment are listed in Appendix 1. Other applicable legislation includes:

- *Environmental Protection (Noise) Regulations 1997*
- *Environmental Protection (Unauthorised Discharges) Regulations 2004*

5.1.2 Works approval and licence history

Table 5 summarises the works approval and licence history for the Premises.

Table 5: Works approval and licence history

Instrument	Issued	Nature and extent of works approval, licence or amendment
L8623/2012/1	26 April 2012	New Licence (issued to Morton Seed and Grain Pty Ltd)
W5318/2012/1	7 March 2013	Works Approval (issued to Morton Seed and Grain Pty Ltd)
L8623/2012/1	5 February 2015	Licence amendment to transfer occupier to Unigrain Pty Ltd and convert to new licence format (REFIRE)
W5318/2012/1	11 June 2015	Works Approval amendment to transfer to Unigrain Pty Ltd and changes to installed infrastructure updated
L8623/2012/1	29/04/2016	Notice of Amendment of Licence Expiry Dates – extended Licence expiry date to 25 April 2025
L8623/2012/1	13/08/2019	Licence amendment to add fuel burning category and apply updates to infrastructure location and operations, consolidate changes made in Notice of Amendment of Licence Expiry Dates and CEO initiated amendments included.

5.1.3 Works approval

The original licence holder (Morton Seed and Grain Pty Ltd) was issued Works Approval W5318/2012/1 on 7 March 2013 for the installation and commissioning of two biomass boilers and associated steam turbines (three in total) referred to as a 'Bioenergy Cogeneration Plant'. The biomass boilers were to be fuelled by oat husks generated from the oat milling activity onsite and it was determined that, once installed and operated, the boilers would exceed the prescribed premises Category 87: fuel burning threshold, defined under Schedule 1, Part 2 of the *Environmental Protection Regulations 1987*.

Prior to the change in ownership and transfer of the Premises to Unigrain, the initial works approval holder made several significant changes to the proposed infrastructure to be installed, applying to amend the Works Approval as follows:

- install one Uniconfort Global G300 biomass boiler instead of two;
- install one larger Organic Rankine Cycle (ORC) Turbine instead of two small steam turbines and one smaller ORC turbine; and
- install a small desalination unit to treat saline groundwater proposed for use in the boiler.

Investigations and reporting requirements under the Works Approval included submission of a noise emissions assessment and a Commissioning Report for the cogeneration plant to include the results of emissions to air testing from the biomass boiler stack. Construction and commissioning of the new plant took significantly longer than expected, with lengthy periods during which the plant was non-operational. Compliance reporting was not assessed as being complete until 27 June 2018 with submission of the final Commissioning Report.

5.1.4 Compliance inspections and compliance history

The Shire of Wagin reported having one record of a complaint raised in December 2016 in relation to black smoke impacts when a large stockpile of oat husk was burnt off at the Premises. No other complaints for this Premises have been reported to the Shire since June 2015.

DWER's Incidents and Complaints Management System (ICMS) has two records related to operations at the Premises since June 2015, these being;

- ICMS 42725 from 31 October 2016 relating to a non-compliance with stormwater sampling and reporting requirements under Condition 4.1.1 of the Licence. The required sample results have since been submitted and it has been determined that all stormwater is captured and contained within one of two storage ponds and disposed of via evaporation. Incident closed on 6 January 2018.
- ICMS 51415 from 5 October 2018. Owner of rural residence to the south of the premises alleged excessive dust/oat husk material being deposited around the residence / outdoor living space. The complaint was investigated and following consultations with the complainant, the Licence Holder, an adjacent landholder and the Shire of Wagin, the complaint investigation was closed on 12 February 2019.

The most recent compliance inspection was conducted by DWER in May 2017. At the time of the inspection one large, uncovered stockpile of oat husks was observed, but there was no evidence of fugitive dust dispersal from the stockpile at that time.

Table 6 below presents a summary of the 2018-2019 Annual Environmental Report records of complaints received by Unigrain and corrective actions taken.

Table 6: Unigrain complaints register and management

Lot number	Date	Nature of Complaint	Other influences / likely source	Corrective Action taken
Lot 206	17/10/2017	Dust damaging the pool pump	Wind direction and speed blowing sand and dust into the premises	Unigrain replaced pool pump and cover for the pool
Lot 5	July 2018	Smell coming off the dam	Wind direction	Installed an aerator on the dam
Lot 206	30/07/2018	Legal correspondence regarding dust blowing from Unigrain impacting living condition[1]		Ensuring tarmac onsite is maintained

Note 1: Directly relates to DWER record ICMS 51415 above

6. Location and siting

6.1 Siting context

The Premises is located approximately 1.6 km east of the town of Wagin in a predominantly rural area. Wagin is in the Great Southern region, situated approximately 200kms south east of Perth. The Premises is located on land zoned rural under the Shire of Wagin Town Planning Scheme No. 2. It is bordered by Stewart Road to the west, Wagin-Dumbelyung Road to the north, a commercial property (Grainfeeds) immediately to its' NNE, a rural Lot including a trucking business to the west and is otherwise surrounded by cleared rural lots including rural residences.

6.2 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 7. The location of residences on immediate neighbouring lots are shown in Figure 6 in Section 7.1 below.

Table 7: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Adjacent commercial operation (Grainfeeds) Lot 201	50m east, northeast of the pellet mill and northern premises boundary
Adjacent commercial operation (trucking business), including a rural residence within Lot 452	Approximately 240m south, southeast of the pellet mill and 38m from the western premises boundary
Rural residence within Lot 5	Approximately 180m west, southwest of the pellet mill
Rural residence within Lot 206	Approximately 440m south, southeast from the pellet mill and 180m south of the nearest outdoor oat husk stockpile[1]
Rural residence within Lot 435	Approximately 550m west of the western premises boundary
Rural residence within Lot 516	Approximately 730m north west of the northern premises boundary
Town of Wagin	Approximately 1.6km west, noting the distance to the nearest Wagin township residences are approximately 1480m east of the Premises boundary.

Note 1: This location for oat husk storage is described as 'emergency bunker' (see Figure 2)

6.3 Specified ecosystems, groundwater and water sources

There are no specified ecosystems within a five kilometre radius of the Premises. The nearest specified ecosystem to the Premises is for threatened and priority flora present within Crown Reserve 27580 over 8km west of the Premises and vested in the Shire of Wagin. The closest perennial creeklines are the Carbakine Creek at approximately 800m northeast of the premises, which drains into the Coblinine River to the south. The Coblinine River is approximately 1900m south east of the premises at its closest point and flows east, south-easterly into a series of three salt lakes on the southern outskirts of the Wagin townsite.

The Premises is not situated within a proclaimed groundwater area and is approximately 35km away from the nearest Public Drinking Water Supply Area. There are no WIN groundwater bores with standing water levels records available within a 2km radius of the premises.

Process water for the facility is sourced from the Great Southern Towns Water Supply Scheme. A desalination plant installed under the Works Approval (W5318/2012/1) is operated on a short term, occasional basis only (ie once or twice per year).

6.4 Meteorology

The region lies within a temperate climatic zone, experiencing hot, dry summers. The closest Bureau of Meteorology Weather Station is the Wagin weather station (ID: 010647). Climate statistics from this station are summarised as follows:

- Mean annual rainfall is 432mm;
- Mean annual maximum temperature is 31.1ºC (based on 1970-2019 data set);
- Mean annual minimum temperature is 14.9ºC (based on 1970-2019 data set);
- Mean monthly 9am wind speed varies from 6.6-11.7km/h, with wind directions being variable, but predominantly from the east, south east or west (based on 1970-2010 data set); and
- Mean monthly 3pm wind speed varies from 9.6-12.0km/h, with the predominant wind directions being from the west (based on 1970-2010 data set).

7. Emissions

7.1 Noise emissions

7.1.1 Monitoring and modelling of noise emissions

Unigrain commissioned Herring Storer Acoustics to undertake a full environmental noise assessment of the Premises in October 2018. This included an acoustic assessment for worst case climatic conditions and night time operations at the Premises with respect to the nearest noise sensitive receptors on adjoining lots. Of the adjoining lots, one incorporates a trucking business (and includes a rural residence) and Lot 201 to the immediate north, northeast contains the Grainfeeds grain processing business (no residence). The surrounding sensitive receptors including rural residences are shown in Figure 5 below.

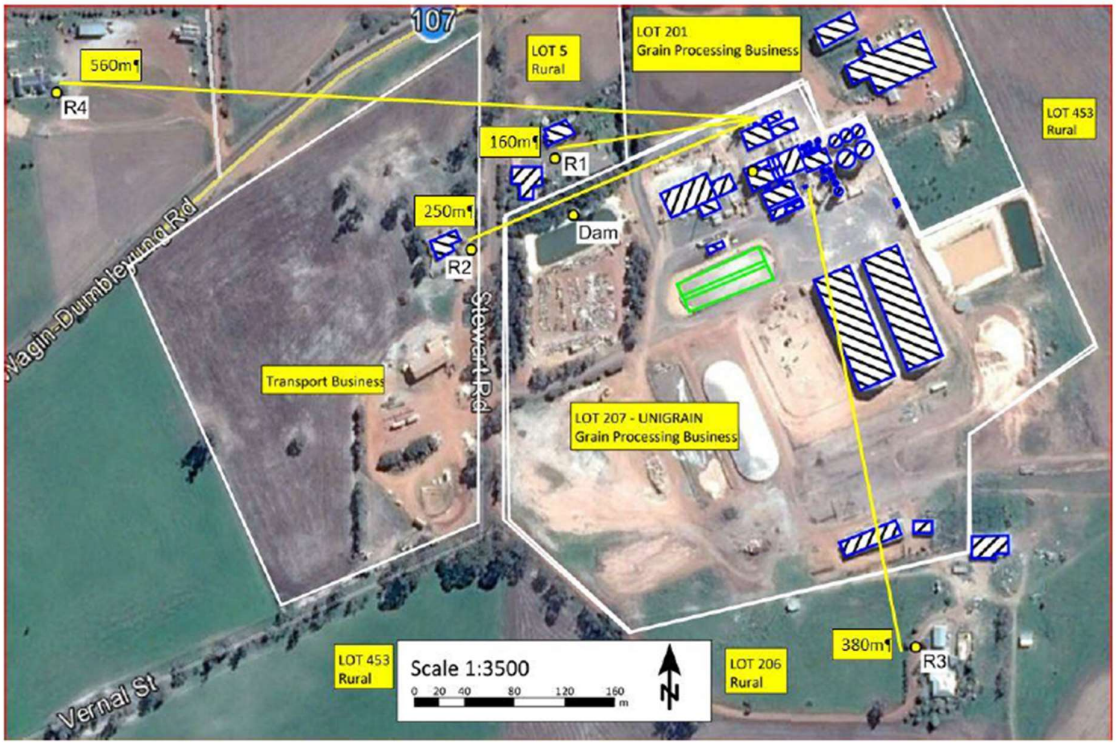

Figure 5: Sensitive receptors surrounding Lot 207 - ***Plan provided as part of Licence Amendment supporting documentation***

The significant noise sources are all related to milling and manufacturing infrastructure located in the northeast corner of the Premises. Results of the noise monitoring and modelling (Figure 6 below) show that noise emissions exceed the Noise Regulations 'assigned levels' at some sections of the common boundary with adjacent premises and at several nearby residential receptors. Based on the (now confirmed) rural zoning of Lot 207 and surrounding lots (Wagin Town Planning Scheme No.2), there is potential for the night time assigned level to be exceeded by as much as 7-20dB(A) at rural residences and by 24dB(A) at adjacent Lot 201 (occupied by Grainfeeds).

The noise assessment report notes that noise emissions from the bioenergy plant (biomass boiler) are low and insignificant relative to other Unigrain noise sources, further noting that at the time of onsite noise monitoring the steam turbine (Turboden ORC 539kW) and its' associated air cooled condensers were not operational (currently decommissioned).

Further to the Herring Storer Acoustics noise monitoring and modelling, Unigrain has been reporting annually since 2016 a noise level profile plan for the Premises based on day time one-off sound levels measured at specified locations across the site. The most current noise level profile plan for June 2019 is shown in Figure 7 below.

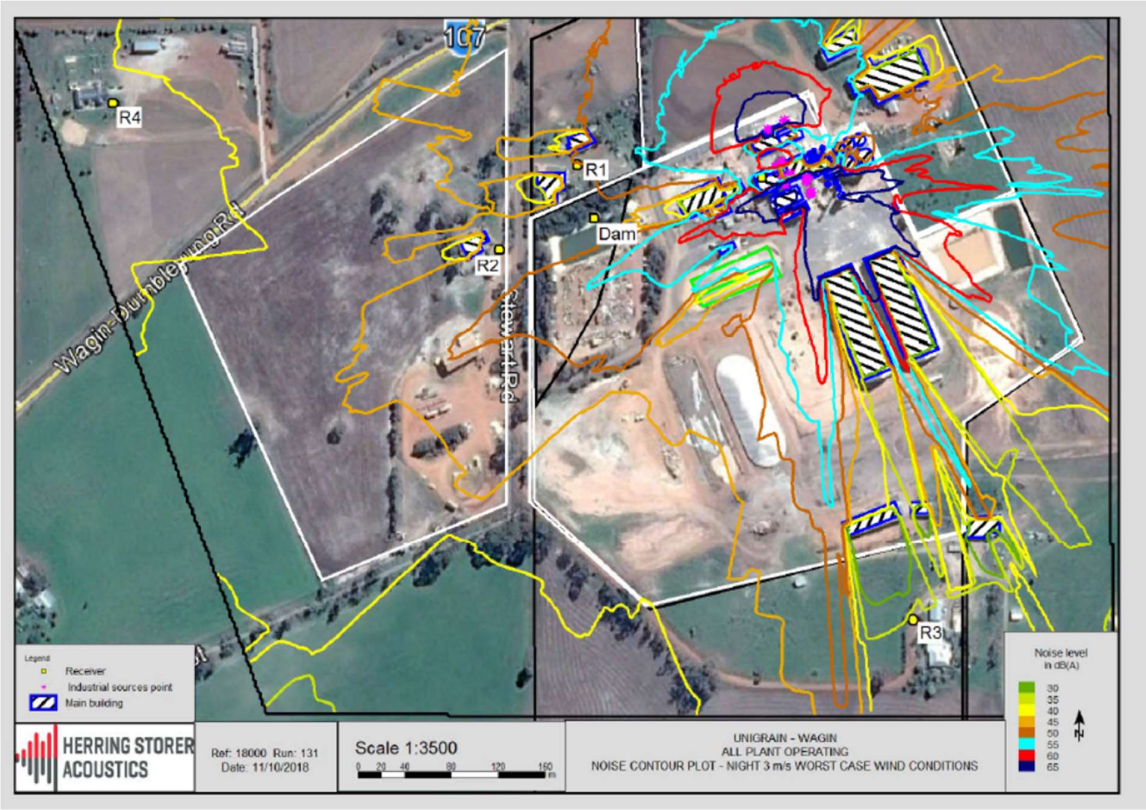

Figure 6: Noise Contour Plot – night, worst case wind conditions – all plant operating

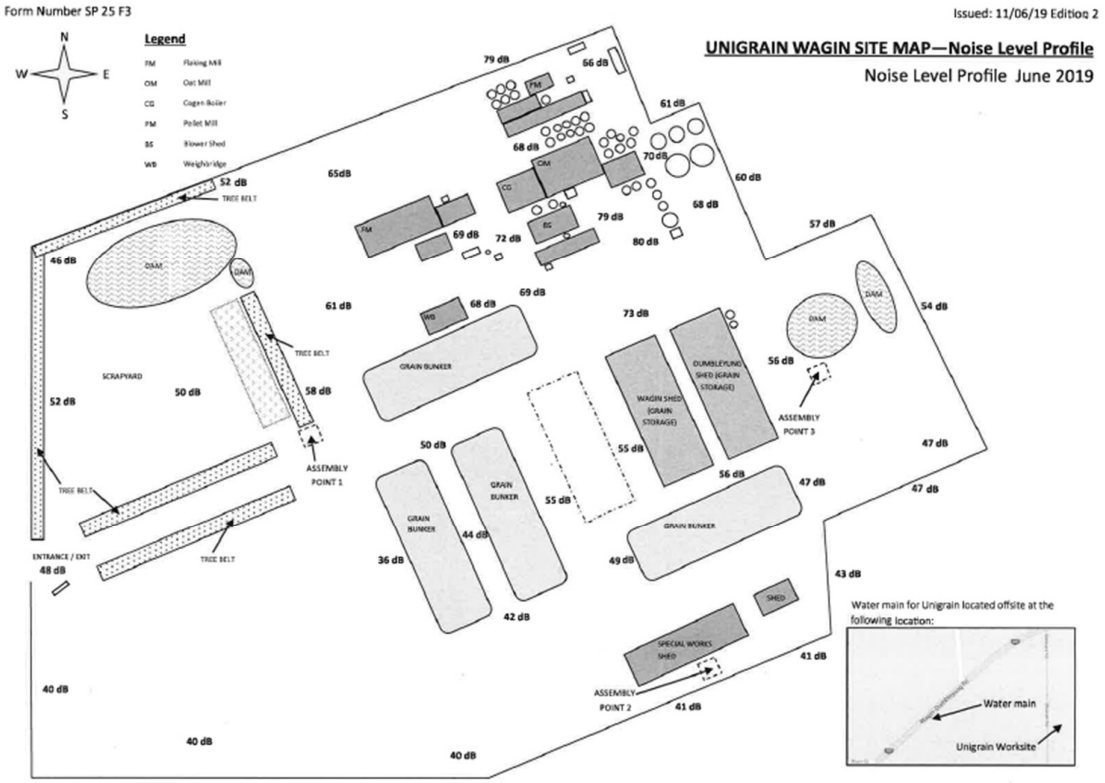

Figure 7: Noise Level Profile June 2019

7.1.2 Noise Management Options

Subsequent to reporting the outcomes of the noise assessment monitoring and modelling (a requirement of the Works Approval reporting), the Licence Holder submitted a further report prepared by Herring Storer Acoustics (January 2019) as part of the Application, detailing environmental noise risk mitigation options. The noise mitigation options for surrounding receptors are presented in Table 8 below.

The pellet mill is noted as being the primary contributor to environmental noise exceedances to receptors located to the west and north, including the closest residential receptor (R1 in Figure 5). Potential actions to reduce noise emissions from this source include:

- provision of an acoustic barrier or screen to the north and northwest sides of the pellet mill; and
- relocation, modification, enclosure or replacement of the dust collector fan.

Unigrain is in regular contact with landowners and business operators immediately surrounding their facility and note there have been no complaints regarding noise.

Table 8: Noise Management / Mitigation Options (from Application)

Receptor Reference (Figure 5)	Noise issue	Management
R1	Regulation exceedance to residence to the north of the site dam. Pellet Mill is primary noise source, with contributions from oat Mill and yard activity (by 20dB(A) adjusted)	Continuation of existing operations which have co-existed without complaint. Unigrain understand the existing noise emission is acceptable to the occupant. Confirmation from current occupier that the current situation is acceptable would provide evidence that the existing noise emissions are considered acceptable. Most significant risk is if the premises is sold or leased to another occupant. An agreement for 'first offer' to purchase or lease the premises in the event of the occupant moving could mitigate future risk as this residence receives much higher noise emissions than others.
R2	Regulation exceedance to unoccupied farmland adjacent Pellet Mill (by 18dB(A) adjusted)	Continuation of existing operations which have co-existed without complaint. No obvious reason for loss of amenity as space unoccupied and nearest buildings used for compatible transport business. Confirmation from current occupier that the current situation is acceptable would provide evidence that the existing noise emissions are considered acceptable. Provision of an acoustic barrier or screen to the north and NW sides of the Pellet Mill (near the railing close to the unit) could reduce noise emissions to northern and western receptors by 5-8 dB(A).
R3	Regulation exceedance to residence to the south of the site. Oat Mill dust collectors are the primary noise source (by 7dB(A) adjusted at night)	Continuation of existing operations which have co-existed without complaint. Unigrain understand the existing noise emission is acceptable to the occupant. Confirmation from current occupier that the current situation is acceptable would provide evidence that the existing noise emissions are considered acceptable. Recent complaints which do not mention noise are evidence that noise is not considered a significant issue by the occupant. Some changes to provide acoustic barriers to some dust collector outlets or re-orient away from R3 has the potential to reduce noise emissions slightly.

Receptor Reference (Figure 5)	Noise issue	Management
R4	Regulation exceedance to residence to the north of the site, approximately 500m NW. Pellet Mill is primary noise source, with contributions from Oat Mill and yard activity. ((by 8dB(A) adjusted at night)	Continuation of existing operations. The Wagin-Dumbleyung road passes between the site and residence – intrusive noise events from passing vehicles could be expected to also affect the receptor which also appears to be the base for a transport business. Confirmation from current occupier that the current situation is acceptable would provide evidence that the existing noise emissions are considered acceptable.

7.2 Emissions to air

7.2.1 Air emissions monitoring

As part of the Application the Licence Holder undertook a full review of site operations, including commissioning emissions to air testing from stationary emission points (stacks) in October 2018 for the new biomass boiler (3.43MW thermal output) and the back-up diesel boiler (1.5kW).

The emissions test results and sampling data reported for the biomass boiler are considered to be representative of normal operating conditions (production feed rate of 400kg/hr and 3Mt of steam) with the average dust (particulate matter) results reported as 260 mg/m3 at an emission rate of 0.70g/sec.

A summary of the results of the emissions testing based on four sampling runs is presented in Table 9 below.

Table 9: Biomass boiler stack emissions

Parameter	Unit	Test Results			
		Run 1	Run 2	Run 3 (Post Cleaning	Run 4 (Post Cleaning)
Carbon monoxide (CO)	**mg/m^3**	-	470*1	610*1	160*1
Sulphur dioxide (SO_2)	**mg/m^3**	-	43	41	58
Oxides of nitrogen (NO_x as NO_2)	**mg/m^3**	-	110	120	130
Total particulates	**mg/m^3**	260	200	310	260
Date	**Dd/mm/yyyy**	26/09/2018	26/09/2018	26/09/2018	27/09/2018
Sample period	**hh:mm**	13:15 to 14:15	16:20 to 17:20	18:04 to 19:04	07:25 to 08:25

*1 *Indicative only*.

The 1.5kW diesel boiler is noted as being typically operated only once per week in order to warm up the operating plant, prior to start up and operation of the biomass boiler. A summary of the emissions test results for the diesel boiler is presented in Table 10 below.

Table 10: Diesel boiler stack emissions

Parameter	Unit	Test Results	
		Run 1	Run 2
Carbon monoxide (CO)	**mg/m^3**	<1.3	<1.3
Sulphur dioxide (SO_2)	**mg/m^3**	<2.9	<2.9
Oxides of nitrogen (NO_x as NO_2)	**mg/m^3**	450*1	460*1
Total particulates	**mg/m^3**	1.8	<0.44
Date	**Dd/mm/yyyy**	27/09/2018	27/09/2018
Sample period	**hh:mm**	10:40 to 11:40	12:24 to 13:24

*1 *Indicative only*.

7.2.2 Emissions to Air – Licence Holder's Controls

Table 11: Biomass Boiler Emissions to Air Controls

Control	Description
Infrastructure	Multi-clone cyclone precipitating particulate matter into a 200kL drum
Procedures / management	Operated in line with original equipment manufacturer's specifications

7.3 Fugitive Dust

The majority of whole grain oats are delivered to the Premises during the harvest season period of Mid- November to Mid -January. Other grains and raw materials, including finer and lighter products prone to dispersal by wind are delivered by truck at variable times of year and transferred upon receipt into either specified storage silos, or for grains, are unloaded into either one of the two bulk storage sheds or into an outdoor grain bunker. Some air lifting and dispersal of chaff and light raw material can be expected to occur over short timeframes during unloading into outdoor bunkers or from vents at the top of storage silos during filling of a silo.

All whole grain stored in outdoor bunkers is covered by tarpaulins at all times, except for temporary cover removal required during loading or unloading and transfer. Oat husks are currently only stored inside one of the two large storage sheds (Storage points 1 and 2 in Figure 2). If outdoor stockpiling of oat husks is required they will be covered by a tarpaulin.

Unigrain operate multiple dust mitigation baghouses, cyclones and multi cyclones accepting dust from various process streams including operations within the pellet mill and biomass boiler.

Table 12: Licence Holder's controls for fugitive dust

Control	Description
Infrastructure	All oat husk and grain is stored under cover (storage shed or outdoor bunker / stockpile)
	Truck trafficable areas have a bitumen surface
	Series of multi-cyclones, cyclones and dust filters (baghouses) operated for milling activities and biomass boiler
Procedures / management	Broom sweeper attachment on the front end loader is used for cleaning surfaces immediately following activities involving accessing and moving raw materials; Contract mechanical sweeper cleans trafficable surfaces every 4-6 weeks; and Traffic Management Plan designed and implemented to ensure that any material or product losses during loading, transfer and unloading activities does not become trafficable prior to clean up.

8. Risk assessment

8.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 13.

The identification of the sources, pathways and receptors to determine Risk Events requiring detailed risk assessment is set out in Table 13 below.

Table 13: Identification of emissions, pathway and receptors *during operation*

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Potential adverse impacts**		
Delivery, handling and storage of whole grains and processed raw material ***Despatch of pellet product***	*Vehicle and machinery movements and equipment operation* *Raw materials, including oat husk handling and stockpiling*	*Fugitive dust*	*Rural residential receptors are located approximately 180m north, 50m west and 80m south of the premises boundary* *Neighbouring commercial premises located within 35m NE of grain/raw material storage silos and 120m north of main storage sheds*	*Air / wind dispersion*	*Potential health and amenity impacts*	*No*	General provisions of the EP Act make it an offence to cause or allow pollution, including fugitive dust emissions that unreasonably interferes with the health, welfare, convenience, comfort or amenity of any person. No DWER verified records of dust complaints since Licence transferred to Unigrain. The Delegated Officer considers the Licence Holder's existing Premises operation condition 1.3.1 and fugitive emissions condition 2.2.1 and the infrastructure and operational controls for fugitive dust (Condition 1.4.1) are adequate to manage fugitive dust risk. Licence complaints recording and reporting requirements (Conditions 4.1.4 & 4.2.1 in the Revised Licence) will determine if amenity impacts arise requiring further mitigation action.
		Noise from vehicles, equipment and machinery			*Potential health and amenity impacts*	*Yes*	*See Section 8.4*

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Potential adverse impacts**		
Pellet Manufacturing, including fuel burning	*Operation of pellet mill and associated boilers*	*Fugitive dust*	*Nearest rural residence is located within 180m west of the pellet mill.* *Neighbouring commercial premises located within 50m NE of pellet mill.*	*Air / wind dispersion*	*Potential health and amenity impacts*	*No*	See above
		Noise from equipment and machinery			*Potential health and amenity impacts*	*Yes*	*See Section 8.4*
		Gaseous and particulate matter emissions from main stack (biomass boiler) and diesel boiler outlet.	*Nearest rural residence is located within 165m west of emission points for the biomass and diesel boilers* *Neighbouring commercial premises located 100m NE of emission points for the biomass and diesel boilers*	*Air / wind dispersion*	*Potential health and amenity impacts*	*No*	Design features that limit air emissions from the biomass boiler include: • A multi-pass, two stage combustion system with high turbulence and low velocity sections to reduce particulate emissions; • Comprehensive control system that allows for fine control of the following based on steam pressure, combustion zone temperatures and oxygen sensors in the exhaust: (i) primary, secondary and tertiary airflow rates; (ii) grate speed; (iii) fuel flow rate; (iv) combustor pressure; and (v) grate temperature • Regular cleaning of multi-clones attached to boiler for particulate removal Current fuel burning levels are well below the stated operational design capacity of the boiler Condition 1.4.1 – infrastructure operational requirements apply.
	Storage, management and disposal of ash & particulate matter from biomass boiler baghouse	*Fugitive dust*	*Nearest rural residence is located 160m west of the biomass boiler shed*	*Air / wind dispersion*	*Potential health and amenity impacts*	*No*	See above.

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
	Storage, management and disposal of boiler blowdown water	*Leaks, spills, overflows or containment failures*	*No nearby sensitive receptors*	*Emission to land*	*Potential for soil contamination*	*No*	The Delegated Officer, taking into consideration distances to sensitive receptors and infrastructure design and location, considers that Condition 1.2.4; and Condition 1.4.1 – infrastructure operational requirements apply and are adequate to manage any risk associated with boiler blowdown storage and management.

8.2 Consequence and likelihood of risk events

A risk rating will be determined for risk events in accordance with the risk rating matrix set out in Table 14 below.

Table 14: Risk rating matrix

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

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 15 below.

Table 15: Risk criteria table

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		The following criteria has been used to determine the consequences of a Risk Event 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	• **onsite impacts**: catastrophic • **offsite impacts local scale**: high level or above • **offsite 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	• **onsite impacts**: high level • **offsite impacts local scale**: mid-level • **offsite 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	• **onsite impacts**: mid-level • **offsite impacts local scale**: low level • **offsite 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	• **onsite impacts**: low level • **offsite impacts local scale**: minimal • **offsite 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	• **onsite 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, DWER may have regard to the Department of Health's *Health Risk Assessment (Scoping) Guidelines.*

"onsite" means within the Prescribed Premises boundary.

8.3 Acceptability and treatment of Risk Event

DWER will determine the acceptability and treatment of Risk Events in accordance with the Risk treatment table 16 below:

Table 16: Risk treatment table

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
High	May be acceptable. Subject to multiple regulatory controls.	Risk Event may 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.

8.4 Risk Assessment – Noise

8.4.1 Description of Risk Event

Noise generated from normal onsite operations being received by and causing a negative impact on the amenity, and potentially the health of, a sensitive receptor.

8.4.2 Identification and general characterisation of emission

Noise generated from normal operations onsite include continuous noise sources and intermittent operational noise sources from milling and manufacturing activities, boiler operation, on-site vehicle movements and mechanical equipment use.

Operation of the pellet mill, and other milling and manufacturing activities at the Premises occur between 6 am Monday to 6am Saturday and are generally operational over a continuous 8-9 hour shift (typical operating timeframes are 06:00 to 14:10; 14:00 to 22:00 and 22:00 to 06:10). Noise monitoring at the Premises noted tonal characteristics associated with operation of the pellet mill, including from its' dust collection fans.

Noise modelling indicates that noise from the Premises exceeds the assigned levels specified in regulation 8 of the Noise Regulations based on predicted modelling for all plant operating under worst case wind conditions at night time.

8.4.3 Description of potential adverse impact from the emission

Noise can be annoying, interfere with speech, disturb sleep or interrupt work, impacting on the quality of life of people located in nearby rural residences. Prolonged exposure to loud noise can also result in increased heart rate, anxiety, hearing loss and other health effects. Annoyance or discomfort experienced may vary depending on the frequency, type, timing and duration of noise emissions.

8.4.4 Criteria for assessment

The Environmental Protection (Noise) Regulations 1997 (Noise Regulations), are applicable for the operation of the Premises.

8.4.5 Licence Holder controls

The Licence Holder has noted that the existence and operation of key site infrastructure contributing to noise (the oat mill and pellet mill), precede the gazetting of the Noise Regulations and have co-existed with adjacent rural residential lots and business premises for a number of years with no record of noise complaints.

Potential measures to mitigate noise generated from operation of the pellet mill were identified in the Licence Amendment application but have not been committed to. No specific operational controls to reduce noise, including restrictive operational hours for specified plant, have been proposed.

8.4.6 Consequence

If noise generated by operations at the Premises is received at nearby sensitive receptors then the Delegated Officer has determined that mid-level impacts on amenity and low level health impacts could occur. Therefore, the Delegated Officer considers the consequence of noise emissions to be **moderate.**

8.4.7 Likelihood of Risk Event

Considering the distance to sensitive receptors, current operating hours and results of noise monitoring and predictive modelling, the Delegated Officer has determined that the likelihood of sensitive receptors experiencing noise levels above the Noise Regulation Assigned Levels is **Likely**. However, taking account of the confirmed history of no reported noise related complaints for the Premises, the Delegated Officer has determined that the likelihood of sensitive receptors being negatively impacted by noise could occur at some time, resulting in the likelihood of noise emissions impacts to be **Possible.**

8.4.8 Overall rating

The Delegated Officer has compared the consequence and likelihood ratings described above for the Risk Criteria (Table 14) and determined that the overall rating for the risk of noise emissions negatively impacting on the amenity or health of sensitive receptors is **Medium/High.**

9. Regulatory Controls

9.1 Licence controls to monitor and mitigate noise emissions

9.1.1 Existing Licence Conditions

The Existing Licence, in the introduction, notes obligations of the Licence Holder under relevant statutory instruments including:

- *Environmental Protection (Noise) Regulations 1987* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

Under information and reporting Condition 5.4.1 the Licence Holder is required to implement a complaints management system to record and report all complaints received and any action taken to address complaints.

9.1.2 Additional Regulatory Controls (Licence Conditions)

Conditions 2.3.1 to 2.3.4 will be added to the Licence to require the Licence Holder to further assess and submit a proposal to undertake noise mitigation measures and, in the event of receiving a noise complaint, a requirement to apply and report on specified management actions to address noise complaints.

Grounds: The Delegated Officer has considered the existing infrastructure, operating hours, distances to sensitive receptors and results of noise monitoring and modelling, indicating a high

likelihood of the current activities at the Premises generating noise that does not meet the *Environmental Protection (Noise) Regulations 1987,* Regulation 8 Assigned Levels at designated sensitive receptors. Reports prepared by Herring Storer Acoustics, submitted as part of supporting documentation for the Application, provided an indication of some noise mitigation actions (infrastructure changes) that could be applied and their potential for reducing measured sound levels attributed to the main noise emitting sources (pellet mill and oat mill). The Delegated Officer notes that the detail on potential infrastructure changes and/or modifications provided to date is insufficient and the Licence Holder has not committed to or submitted a proposal with clear timelines to mitigate noise emissions in line with the requirements of the *Environmental Protection (Noise) Regulations 1987,* Regulation 8 Assigned Levels.

The Delegated Officer has taken into consideration the absence of any recorded or reported noise complaints for the Premises to date in setting timeframes for the Licence Holder to implement new Licence noise regulatory controls conditions.

10. Determination of Amended Licence conditions

The Licence Holder submitted a Licence Amendment application on 19 November 2018 to add Prescribed Premises Category 87: fuel burning to the Licence. The Licence Holder included in this application updated information on all infrastructure and storage facilities and a review of emissions and discharges from the Premises. The Delegated Officer, in applying the requested amendment, and following a reassessment of the key emissions risks (fugitive dust, noise and emissions to air), has issued an Amended Licence.

The conditions in the Amended Licence in Attachment 1 have been determined in accordance with the *Guidance Statements: Risk Assessments and Setting Conditions*. Table 17 provides a summary of the amendments applied to the Revised Licence.

Table 17: Summary of amendments applied to the Amended Licence

Existing Licence	Amended Licence	Description
Expiry date 25 April 2017	Expiry date 25 April 2025	On 29 April 2016, a Notice of Amendment to extend the expiry date of Licences was issued. The Wagin Sheep and Cattle Pellet Facility licence L8623/2012/1, was extended from 25 April 2017 to 25 April 2025.
Lot 200 on Plan 68899	Lot 207 on Deposited Plan 405632	Legal Description - the Premises Boundary and associated Lot number has changed since the Licence was first issued in 2012. The Premises is correctly defined by the cadastral lot boundary Lot 207 on Deposited Plan 405632.
Prescribed Premises: Category 23: Animal feed manufacturing	Prescribed Premises: Category 23: Animal feed manufacturing	Amend the approved Premises production limit down to 36,000 tonnes per year, based on Licence Holder supplied design capacity information.
	Prescribed Premises Category 87: Fuel burning	Added as per Licence Amendment application: Design capacity of biomass boiler – up to 960kg/hr fuel combusted. Normal operating conditions – combusting 400 - 450kg/hr oat husk.
Premises description		Updated to reflect changes in infrastructure and operations at the Premises since completion of works authorised under Works Approval W5318/2012/1 and other relevant information provided as part of the Licence Holder's Licence Amendment Application
Condition 1.1.2		Corrected and updated definitions and terms
Condition 1.3.1		Updated to reflect current dust mitigation practices at the Premises
N/A	1.4.1	New infrastructure and equipment maintenance and operation

Existing Licence	Amended Licence	Description
		requirements condition
2. Emissions	2.3 Noise	New specified management action condition inserted in the event of a noise complaint being registered New investigation and reporting requirements for infrastructure changes to mitigate noise
3. Monitoring	3.1 Process monitoring	Revised to include data collection and reporting on whole grain processing and subsequent production and use of oat husk
4. improvements 4.1.1	N/A - removed	Existing Improvement Condition removed. This condition was put in place to provide further information on point source emissions, production activities and stormwater management following initial Licensing of the Premises in 2012. All the information, monitoring and reporting required under condition 4.1.1 has been provided and incorporated as appropriate in the Revised Licence
5.Information 5.2 Reporting	Now Section 4: Table 4.2.1	Table updated to include reporting of monitoring required by Condition 3.1
Schedule 1		Premises map and site plans updated
Schedule 2		Previous redundant AACR and notification forms removed; and Prescribed Premises category table transferred from Licence cover to Schedule 2
N/A	Schedule 3	Schedule 3 added to define site infrastructure and equipment
Licence condition numbers		Corrected Licence condition numbers following the removal of redundant conditions including ‘ no emission points’ and ‘no monitoring requirements’ headings and in accordance with new conditions added
General changes		Updated the style and appearance of the Licence and corrected clerical mistakes and unintentional errors

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the licence under the EP Act.

11. Licence Holder's comments

The Licence Holder was provided with the draft Decision Report and draft Amended Licence on 19 July 2019. The Licence Holder responded on 9 August 2019 providing minor details regarding infrastructure and current operational procedures which were all incorporated by the Delegated Officer into the final documents.

12. Conclusion

This assessment of the addition of Prescribed Premises Category 87: fuel burning to the Premises Licence and the application of updates to associated risks of all authorised 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).

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

Caron Goodbourn
Manager, Process Industries

Delegated Officer
under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Licence L8623/2012/1 – Wagin Sheep and Cattle Pellet Facility	L8623/2012/1	accessed at www.dwer.wa.gov.au
2.	Works Approval Application – Works Approval Supporting Documentation – Regenerate Industries	Works Approval W5318/2012/1	DWER records A571071
3.	Works Approval W5318/2012/1 – Amendment application – Works Approval Amendment - Regenerate Industries, submitted 17 April 2015	W5318/2012/1 / works approval amendment application	DWER records A896659
4.	Works Approval W5318/2012/1 – Commissioning Report	Commissioning Report	DWER records DWERDT73608
5.	Licence L8623/2012/1 – Annual Environmental Report and AACR: 2016-2017	Annual reporting / Annual Environmental Report	DWER records A1448558
6.	Licence L8623/2012/1 – Annual Environmental Report and AACR: 2017-2018		DWER records A1700012
7.	Licence L8623/2012/1 – Annual Environmental Report and AACR: 2018-2019		DWER records A1800580
8.	DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.	*Guidance Statement: Setting Conditions*	accessed at www.dwer.wa.gov.au
9.	DER, November 2016. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	*Guidance Statement: Risk Assessments*	
10.	DER, November 2016. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.	*Guidance Statement: Decision Making*	

Attachment 1: Amended Licence L8623/2012/1