

This Report has been cleared for submission to the Board by Programme Manager, David Flynn

Signed: [Signature] **Date: 29/11/2018**



OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON A WASTE LICENCE REVIEW, LICENCE REGISTER NUMBER W0217-02

TO: DIRECTORS

FROM: Caroline Murphy

DATE: 29TH NOVEMBER 2018

Licensee: Killarney Waste Disposal Unlimited Company trading as KWD Recycling.
CRO number: 126626 (status: normal).
Location/address: Rural location approximately 4.5km northwest of Killarney town in the townland of Aughacurreen.
Application date: 16th July 2010.

Classes of activity applied for (under the Waste Management Act 1996, as amended):

R 3 (Principal activity) Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals.

R 4 Recycling/reclamation of metals and metal compounds.

R 5 Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials.

R 11 Use of waste obtained from any of the operations numbered R 1 to R 10.

R 12 Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11).

R 13 Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in Section 5(1)), pending collection, on the site where the waste is produced).

D 13 Blending or mixing prior to submission to any of the operations numbered D 1 to D 12 (if there is not other D code appropriate, this can include preliminary operations prior to disposal including pre-processing such as, amongst others, sorting, crushing, compacting, pelletising, drying, shredding, conditioning or separating prior to submission to any of the operations numbered D1 to D12).

	<p>D 14 Repackaging prior to submission to any /of the operations numbered D 1 to D 13.</p> <p>D 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in Section 5(1)), pending collection, on the site where the waste is produced).</p>
Category of activity under IED (2010/75/EU):	Not applicable.
European Directives/Regulations relevant to this assessment are listed in the appendix of this report.	
Main BAT note:	BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery (December 2011).
<u>Activity description/background</u> : In this review application, the licensee has requested authorisation to increase the facility's maximum waste acceptance threshold from 40,000 to 59,000 tonnes per annum and has sought a change to the hours of operation.	
<u>Types of waste accepted</u> : Mixed municipal waste, organic waste (kitchen and canteen), dry recyclable waste and non-hazardous C&D waste. List of Waste (LOW) codes are detailed in the appendix of this report.	
Additional information received:	Yes (01/09/2010, 11/10/2011, 20/09/2012, 25/09/2012, 01/10/2012, 30/09/2013, 22/04/2014, 16/05/2014, 16/09/2014, 27/11/2015, 11/01/2017, 02/01/2018, 15/01/2018 and 17/05/2018).
No of submissions received:	3.
EIS/EIAR submitted: Yes (16 th July 2010, 2 nd January 2018).	NIS submitted: No.
Site visit: 22 nd September 2017	Site notice check: 16 th September 2010

1. Activity description/background

The current licence names the licensee as Killarney Waste Disposal Limited; however, the Companies Registration Office has registered the licensee as Killarney Waste Disposal Unlimited Company under CRO Number 126626. This name and CRO number have been used in the Recommended Decision (RD).

Killarney Waste Disposal Unlimited Company (hereafter the licensee) was granted Licence Register Number W0217-01 on the 1st August 2006 for a materials recovery facility. Current activities at the facility include:

- (i) the treatment and storage of mixed municipal waste resulting in metal, organic and residual waste fractions (in the main building);
- (ii) the sorting and storage of dry recyclables (main building and the baled plastics shed (the latter storage only));
- (iii) the sorting and storage of C&D waste (main building);

- (iv) the storage of municipal organic waste (from kitchens and canteens) (fully enclosed structure¹);
- (v) the cutting, baling and storage of metals sorted from C&D waste (outdoor metal baling area);
- (vi) the storage and shredding of timber sorted from C&D waste (outdoor timber storage area).

An overview of the location of the site, the site layout plan and emissions points are shown in drawings in the Appendix.

The licensee confirmed that the existing infrastructure and processing equipment has the capacity to accommodate the proposed waste acceptance increase and that the proposed development does not involve the construction of any new buildings.

2. Scope of Review

Proposed change	Details/comment
Site related change	<ul style="list-style-type: none"> - Increase of the waste acceptance threshold from 40,000 to 59,000 tonnes per annum. - Increase of hours of operation from 07:00 – 20:00 to 06:00 – 24:00, Monday to Saturday.
New/relocated/decommissioned emission points	<ul style="list-style-type: none"> - The existing authorisation for emission to air reference number A-5 was not included in the RD as this emission was not commissioned and there is no proposed need for the vortex dryer. - <i>Schedule B.1</i> recommends a new emission point to air, reference number A-1, from the odour control unit.
Increase in emissions	<i>Schedule B.1</i> recommends a new emission point to air, reference number A-1, from the odour control unit.
New abatement equipment	An odour control unit comprising a dust filter and a carbon filter, which will release an emission to air via emission point reference number A-1.
Other	None.

Waste acceptance threshold

Schedule A.2 Waste Acceptance recommends the conditional increase of the waste acceptance threshold from 40,000 to 59,000 tonnes per annum. Condition 12.2.3 recommends that prior to increasing the waste acceptance threshold that the licensee

¹ This structure is a concrete building with a side door and a retractable roof. This structure houses a trailer into which municipal organic waste is loaded via the building's retractable roof. Once the waste is loaded into the trailer for bulking up the trailer is covered and the retractable roof is closed.

shall make financial provision to cover any liabilities associated with the operation of the facility. Additional measures have been recommended in Section 4 below.

Hours of operation

Table 1 below shows the hours of waste acceptance and operation authorised by the current licence, proposed by the licensee, outlined in the 2018 Environmental Impact Assessment Report (EIAR), in the conditions of planning permission and those hours recommended in the RD.

Table 1: Hours of waste acceptance and *hours of operation (red)*.

	Current licence Register Number W0217-01	Review application Register Number W0217-02	EIAR - noise assessment	Planning Permission Reference Number 2131/04 & 4355/05	Recommended Decision (RD)
Monday – Saturday	07:30 – 19:30 07:00 – 20:00	07:30 – 19:30 06:00 – 24:00	Daytime period only for 2017.	Not specified.	07:30 – 19:30 07:00 – 20:00
Sunday and Bank holiday	Not authorised.	No change proposed.	N/A	Not specified.	Not authorised.

Condition 1.8 does not recommend any change to the current hours of operation, this has been discussed further in Section 13 - Noise.

Waste acceptance

The licensee submitted a range of list of waste codes for waste proposed for acceptance at the facility.

The list of waste codes which have been recommended for acceptance under *Schedule A.2* of the RD are listed in the Appendix.

The list of waste codes not recommended for acceptance are listed in Table 2 below.

Table 2: *List of waste codes not included in Schedule A.2 of the RD.*

List of Waste Code	Reason <u>not</u> recommended in the RD
16 05 04*, 17 05 03*, 17 06 01*, 17 06 03*, 17 08 01*, 17 09 01*, 17 09 02*, 17 09 03*, 19 12 11*, 20 01 21*, 20 01 23*, 20 01 33*, 20 01 35*, 20 01 37*.	The current licence does not provide for the acceptance of hazardous waste.
17 01 11	This is not a valid list of waste code.
16 01 03	The nature of this facility (municipal and C&D waste) does not accommodate the acceptance of end-of-life tyres.
16 03 06	This waste is described as organic waste from off-specification batches and unused products.

	<p>The source of this waste is not specified.</p> <p>The nature of this facility does not accommodate the acceptance of such widely scoped sources of waste.</p>
16 05 05	The nature of this facility (municipal and C&D waste) does not accommodate the acceptance of gases in pressurised containers.
18 01 04	The nature of this facility (municipal and C&D waste) does not accommodate the acceptance of waste from natal care, diagnosis, treatment or prevention of disease in humans.
19 08 01, 19 09 02	The nature of this facility (municipal and C&D waste) does not accommodate the acceptance of screenings from waste water treatment and sludges from drinking water clarification.
19 12 08, 19 12 09, 19 12 10 19 12 01, 19 12 02, 19 12 03, 19 12 04, 19 12 05, 19 12 07, 19 12 12.	The nature of this facility (municipal and C&D waste) does not accommodate the acceptance of textiles, minerals, RDF imported from mechanical treatment of waste facility/facilities and waste from the mechanical treatment of waste. In any event, waste from the mechanical treatment of waste is generated at this facility.
20 01 34, 20 01 36, 20 01 38, 20 02 02, 20 02 03, 20 03 02, 20 03 03, 20 03 07, 20 03 99.	<p>The nature of this facility does not accommodate the acceptance of batteries, accumulators and waste electric and electronic equipment (WEEE), waste wood from municipal sources, soil and stones, non-biodegradable waste from garden and parks, waste from markets, street cleaning residues, bulky waste and municipal waste not otherwise specified.</p> <p>The nature of this facility does not accommodate the acceptance of such widely scoped sources of waste.</p>

3. Licence/Permit History

Licence/Permit	Details	Date
WP23/03	Waste Facility Permit issued by Kerry County Council to operate a materials recovery facility.	December 2003
W0217-01	Licence granted for a materials recovery facility with a maximum waste acceptance of 40,000 tonnes per annum of mixed municipal waste, organic waste, dry recyclable waste and construction & demolition waste.	1 st August 2006
W0217-01 Technical Amendment A	Technical amendment to provide for changes relating to the glossary, materials handling, waste storage, and accident prevention and emergency response.	29 th June 2016

4. Compliance and Complaints Record

Since 2016 there has been one complaint recorded, in January 2016, regarding flies, odours and operating times. Section 8.4 discusses nuisance controls regarding odour and flies.

A total of 40 non-compliances have been recorded since 2016 as shown in the Table 3 below.

Table 3: Non-compliances reported in 2016, 2017 and 2018.

Non-Compliance	Number of Non-Compliances		
	2016	2017	2018
Bunding & materials handling	9	2	0
Failure to provide/install infrastructure	8	0	0
Waste Management	3	0	0
Documentation and procedures	2	0	0
ELV exceedance	2	0	1
Exceedance of licensed waste quantity	2	0	0
Miscellaneous	2 <small>Note 1</small>	1 <small>Note 2</small>	0
Monitoring	2	0	0
Non-notification of incidents	2	0	0
Unapproved alterations/modifications to activity/site	2	1	0
Nuisances	1	0	0
Total	35	4	1

Note 1: Unlicensed emissions of environmental significance.

Note 2: Facility Manager or deputy not present at the facility.

The non-compliance in 2018 was relating to an exceedance of dust deposition levels. The related incident report determined that the likely cause of the exceedances may be the location of the dust samplers near vegetation. Dust emissions are discussed further in section 8.3 below.

I have recommended a series of infrastructural improvements that are necessary at the site. The Recommended Decision requires that these are completed to the satisfaction of the Agency prior to the increase of the facility's maximum waste acceptance threshold from 40,000 to 59,000 tonnes per annum. These improvements include:

- Condition 3.5.2 - the provision of impermeable concrete surfaces;
- Condition 3.11 - an assessment to determine the volume of process effluent storage capacity at the facility and the provision of additional capacity where required;
- Condition 3.25.4 - the provision of negative air pressure in areas used to store odour-forming waste and the abatement of extracted air prior to emission;
- Condition 6.15.6 - an investigation into the suitability of the storm water drainage and treatment system and the implementation of any measures identified; and
- Condition 8.15 – the removal of waste and equipment not listed on the maintenance programme from outdoor areas of the facility.

5. Best Available Techniques

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached Recommended Decision comply with the requirements and principles of BAT. I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may

be relevant - to the way the facility is located, designed, built, managed, maintained, operated and decommissioned.

Section 4.3.2.1 of the Agency's *Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery (December 2011)* provides management and control techniques to minimise emissions to air. The BAT for the management and control of odour emissions and the recommended controls for the facility have been discussed in Sections 8.1 and 8.4.

6. Planning Permission, Environmental Impact Statement (EIS) and Environmental Impact Assessment (EIA) Requirements

6.1 EIA Screening

In accordance with Section 40(2A) of the Waste Management Act 1996 as amended, the Agency must ensure that before a licence or revised licence is granted, that the application is made subject to an environmental impact assessment (EIA), where the activity meets the criteria outlined in Section 40(2A)(b) and 40(2A)(c). In accordance with the EIA Screening Determination, the Agency has determined that the activity is likely to have a significant effect on the environment, and accordingly is carrying out an assessment for the purposes of EIA.

6.2 Planning Status

Four planning applications have been made in relation to activities within the facility boundary since 2003.

- The first planning permission for this facility, file number 03/337, was finalised on the 19th November 2003. Permission was granted on this date to construct a new office building with ancillary site services, to retain the existing building and for a change of use to a materials recovery facility with ancillary site services.
- The second planning permission for this facility, file number 04/2131, was finalised on the 5th January 2005. Permission was granted on this date to construct an extension to the existing materials recovery facility.
- The third planning permission for this facility, file number 05/4355, was finalised on the 31st June 2006. Permission was granted on this date to construct an office block with connection to the existing wastewater treatment unit and ancillary site works.
- The fourth and final (to-date) planning permission, file number 10/453, was finalised on the 5th July 2010. Permission was granted to construct a medium-voltage electrical sub-station building and associated switch/meter room within the confines of the existing waste collection facility. This decision was appealed to An Bord Pleanála via Reference Number PL 08.237229 and permission was subsequently granted on the 23rd November 2010.

It is not clear whether EIA was completed by the planning authority as part of the above grants of permission for the facility (See Section 6.5).

An EIS, dated January 2005, was received with the facility's first application for a waste licence (Register Number W0217-01). This same EIS was submitted with the waste licence review application (Register Number W0217-02). An updated EIS was provided by the licensee in the form of an Environmental Impact Assessment Report (EIAR) on the 2nd January 2018.

6.3 Content of EIS and licence application

I have considered and examined the content of the licence application, the EIS, the EIAR and other relevant material submitted.

Further information was sought from the applicant on the following issues:

- (i) Applicability of the First Schedule of the EPA Act 1992, as amended;
- (ii) Completion of tables in the application form;
- (iii) Drawings showing the current facility layout, proposed layout, site boundary and drainage arrangements;
- (iv) Waste acceptance threshold and waste storage plan;
- (v) Current and proposed waste activities, outdoor activities and treatment capacity;
- (vi) Current and proposed emissions, negative air pressure, thermal rated input of generators and monitoring results;
- (vii) Odour dispersion modelling;
- (viii) Planning permission, ELRA, CRAMP, BAT and Screening for Appropriate Assessment;
- (ix) C&D waste deposits at the facility and invasive plant species;
- (x) Training programs and self-auditing; and
- (xi) Application of the waste hierarchy.

On receipt of further information from the applicant, all of the documentation received was examined and I consider that the EIS (inclusive of the EIAR update) complies with the requirements of the *Waste Management Licensing Regulations, 2004, as amended, Statutory Instrument 395 of 2004*, when considered in conjunction with the additional material submitted with the application when supplemented by my assessment as contained in this report.

6.4 Environmental Impact Assessment Directive

Having specific regard to EIA, this Inspector's Report as a whole is intended to identify, describe and assess for the Agency the likely significant direct and indirect effects of the proposed activity on the environment, as respects the matters that come within the functions of the Agency, for each of the following environmental factors: population and human health, biodiversity, land and soils, water, air, climate, materials assets, cultural heritage and landscape.

This Inspector's Report addresses the interaction between those effects and the related development forming part of the wider project. The cumulative effects, with other developments in the vicinity of the activity have also been considered, as regards the combined effects of emissions. The main mitigation measures proposed to address the range of predicted significant effects arising from the activity have been outlined. This Inspector's Report proposes conclusions to the Agency in relation to such effects.

In preparing this Inspector's Report I have considered and examined:

- the existing licence, Register Number: W0217-01;
- the review application, Register Number: W0217-02 and the supporting documentation received from the applicant;
- the EIS and the EIAR submitted with the review application;
- the submissions received;
- correspondence with the Planning Department of Kerry County Council.

While the environmental factors have been considered throughout my entire assessment, the following table identifies, for ease of reference, the sections of this report where each environmental factor has been predominantly discussed.

Table 4: Environmental Factors

Environmental Factor	Addressed in the following Sections:
Population and human health	Channelled emissions to air, climate impact, fugitive dust, odour, storm water emissions, sanitary effluent, soil and groundwater contamination, noise, waste generation, prevention of accidents and other matters relating to EIA.
Biodiversity	Channelled emissions to air, climate impact, fugitive dust, odour, storm water emissions, sanitary effluent, soil and groundwater contamination, noise, waste generation, prevention of accidents and other matters relating to EIA.
Land and soils	Climate impact, storm water emissions, sanitary effluent, soil and groundwater contamination, prevention of accidents, cessation of activity and other matters relating to EIA.
Water	Climate impact, storm water emissions, sanitary effluent, soil and groundwater contamination, prevention of accidents and cessation of activity.
Air	Channelled emissions to air, climate impact, fugitive dust, odour, waste generation and prevention of accidents.
Climate	Climate impact and prevention of accidents.
Landscape	Other matters relating to EIA.
Material Assets	Climate impact, waste generation, use of resources and other matters relating to EIA.
Cultural Heritage	Climate impact and other matters relating to EIA.

6.5 Consultation with Competent Authorities

The Agency informed Kerry County Council of the receipt of an application for a waste licence review application and an EIS on the 23rd July 2010 in accordance with Articles 18(1) and 18(3) of the Waste Management (Licensing) Regulations 2004. No observations were received from the Council.

The Agency requested a declaration from the Planning Department of Kerry County Council on 18th December 2015 under Section 5 of the Planning and Development Act 2001, as amended, as to whether the licensee's proposal to increase the facility's waste intake to a quantity greater than 40,000 tonnes per annum is or is not development or exempted development within the meaning of the Act. The Agency also highlighted the need for consultation as part of the EIA process. The Council responded on the 27th January 2016. In this response, the Council confirmed that no condition was attached to planning permission Reference Number 04/2131 restricting waste intake and requested the Agency to clarify the criteria used in making the determination that an EIA is required. The Agency provided a response to the Council on the 4th February 2016. No further response was received from the Council until the 22nd October 2018 in which the council stated that they have no record of receiving a response to their

correspondence of January 2016 and have thus closed the section 5 referral file. It should be noted that the Agency did provide a response to the Council on the 4th February 2016.

The Environment and Planning Departments of Kerry County Council were informed, on the 17th January 2018, of the receipt of the EIAR by the Agency and they were advised that any person may make a submission to the Agency, in respect of the application, pursuant to article 15 of the Waste Management (Licensing) Regulations 2004, as amended, and that the Agency will have regard to any submission. To-date the Council have not made any submission to the Agency on the EIAR.

7. Submissions

There were three submissions made on this application.

While the main points raised in the submissions are briefly summarised in the table below, the original submission should be referred to at all times for greater detail and expansion of particular points.

The issues raised in the submission are noted and addressed in this Inspector's Report and the submission was taken into consideration during the preparation of the Recommended Decision.

It should be noted that only one complaint has been recorded in the last 4 years and two of the submissions below were made in 2011.

Table 5: Submissions received by the Agency.

Submissions			
1	<p>Name & Position: Peter & Diane O'Leary. Local residents.</p>	<p>Organisation: N/A</p>	<p>Date received: 23rd November 2011</p>
	<p>Issues raised: The submission highlighted that the submitter's have outstanding issues with the company which include:</p> <ul style="list-style-type: none"> (i) Frequent nauseating odour and ongoing problems with fly infestations from the facility which affect the submitters home; (ii) The plant at the facility can be heard, from their residence, operating during 6:00 to 2:00; (iii) Noise emissions causing their family to wake and vibrations of their home due to the movement of HGVs outside the facility's licenced hours of operation e.g. 21:00 - early morning, 7 days a week. (iv) The parking of HGVs outside the submitters property blocking the entry/exit to/from their home. This parking issue is caused from queues of HGV traffic awaiting entry to the facility; (v) Damage to the road surface of the Aughacurreen Road caused by the volume and weight of HGV traffic on a road not built to accommodate this traffic type; (vi) The volume and speed of truck traffic causing a safety concern, in particular for children, in this residential area; 		<p>Agency Response:</p> <ul style="list-style-type: none"> (i) Condition 6.17.5 requires the completion of an odour assessment as required by the Agency. Condition 6.19 requires the maintenance of a programme for the control and eradication of vermin, wasps and flies. (ii) Condition 1.8 does not recommend any change to the current hours of waste acceptance. (iii) Condition 1.8

Submissions			
	<p>(vii) The facility's new contract with Kerry County Council causes the submitter's concern due to the proposed waste acceptance increase and the knock-on impacts taking into consideration their proximity to the facility.</p> <p>The submitter's stated that if they are experiencing serious problems with the company under their existing licence that they will most certainly will encounter more problems in the future if their proposals are agreed to.</p>	<p>(iv) – (vi) these matters are outside the scope of this licence.</p> <p>(vii) <i>Schedule A.2</i> recommends an increase to the waste acceptance threshold only if specific conditions are met.</p>	
2	<p>Name & Position: Peter & Diane O'Leary. Local residents.</p>	<p>Organisation: N/A</p>	<p>Date received: 31st July 2012</p>
	<p>Issues raised:</p> <p>Peter and Diane O'Leary made an additional submission to highlight:</p> <ul style="list-style-type: none"> (i) Their increasing annoyance they are experiencing from the facility daily; (ii) The traffic associated with the facility has increased dramatically over the past 12 months; (iii) This traffic travelling at speed from morning to night and it is felt that this is a safety issue; (iv) Their family are regularly woken between 4:00 and 5:00 due to the movement of HGV and trucks from the facility. This is causing the family great distress. For this reason, the family are very concerned about any increase to the existing waste acceptance threshold for the facility; (v) The facility is operating outside licensed operating hours. <p>The submitters strongly object to an increase in the facility's existing tonnage and request that HGVs or trucks should not be licensed to leave to facility before a reasonable hour e.g. 7:30 hrs.</p>	<p>Agency Response:</p> <p>Nuisance from traffic to and from the facility is outside the scope of this licence.</p> <p>Condition 1.8 does not recommend any change to the current hours of waste acceptance.</p>	
3	<p>Name & Position: Mr Brendan Dunne.</p>	<p>Organisation: Health Service Executive (HSE).</p>	<p>Date received: 19th February 2018</p>
	<p>Issues raised:</p> <p>The HSE confirmed in their Environmental Health Report that:</p> <ul style="list-style-type: none"> (i) they completed a site visit on the 23rd January 2018; (ii) they have received no environmental complaints in relation to the past or present operation at this facility; and (iii) provided the measures outlined in the EIAR are strictly adhered to and that best available techniques for waste treatment are complied with that the HSE would have no other response to make in relation to the proposal. 	<p>Agency Response:</p> <p>See Section 5 regarding BAT.</p>	

8. Emissions to Air

This section addresses the following:

- channelled emissions to air
- climate impact
- Fugitive dust
- Odour

8.1 Channelled Emissions to Air

For the purposes of EIA, the environmental factors potentially affected by air emissions from the activity include: Climate, population and human health, biodiversity and air.

Currently there are no channelled emissions to air in use at the facility.

8.1.1 Obsolete emission to air currently authorised.

The current licence (Condition 5.5 and *Schedule B.1*) authorises emission point reference number A5 from the vortex dryer. It was proposed to install this dryer to provide for the drying of organic substances. *Schedules C.1.1* and *C.1.2* of the current licence sets out the control and monitoring requirements for an emission to air at A5.

Assessment and mitigation

The licensee has not installed the vortex dryer and does not propose to proceed with the drying of organic substances. Emission point no. A5 is no longer required for this purpose. *Schedule A.1* of the RD no longer provides for the drying of organic substances. Condition 5, *Schedule B* and *Schedule C* of the RD no longer provide for an emission to air from the vortex dryer (emission point A5).

8.1.2 Diesel generators.

Two diesel fuelled generators are used at the facility.

The generator with a thermal rated input of 0.52 Megawatt (MW) is used to power the timber shredder. The operation of this shredder ceased in October 2016; however, the licensee plans to restart the shredding activity once an enclosure has been provided. Condition 8.13.1 requires all waste processing and storage to take place in suitably enclosed areas.

The generator with a thermal rated input of 0.12MW is used as a back-up in the event of a disruption to the mains supply. This generator is located beside the administrative building. This generator is only used during periods of power failure or maintenance.

Assessment and mitigation

Regulation 4 of the European Union (Medium Combustion Plants) Regulations 2017 (Statutory Instrument Number 595 of 2017) states that these Regulations only apply to combustion plants with a rated thermal input greater than or equal to 1 Megawatt (MW) and less than 50 Megawatt irrespective of the fuel they use. The generators at the facility do not meet the criteria of medium combustion plant.

8.1.3 Recommended emission to air (new emission point).

Odour forming waste is stored in the main building and in the outdoor enclosed structure. Mixed municipal waste is treated in the main building and the

subsequent organic fines fraction is stored in the main building. Municipal organic waste is bulked up in a trailer in the outdoor enclosed structure.

The licensee feels that as the facility does not have a significant history of odour complaints that the installation of negative air pressure in these areas with the subsequent treatment of ventilated air is unwarranted.

The licensee has stated that should local conditions change they would install negative air pressure with an odour control system to treat the ventilated air which would include:

- Extraction of air from the main building and the outdoor enclosed structure by using a centrifugal fan located in the main building which is connected to ducting suspended from the ceiling. This ducting is proposed to be extended from the main building to the outdoor enclosed structure;
- A minimum of 2.6 air changes/hour in the main building;
- Air intake into the main building controlled by wall mounted, negative pressure controlled louvers that automatically open and close depending on the air pressure inside the building;
- Treatment of extracted air from both buildings using an odour control unit, located to the west of the main building, comprising of a dust filter and a carbon filter;
- Emission of the treated air to atmosphere via a 12m high stack.

Assessment and mitigation

The facility has not received any complaints regarding emissions to air or odour in the last two years.

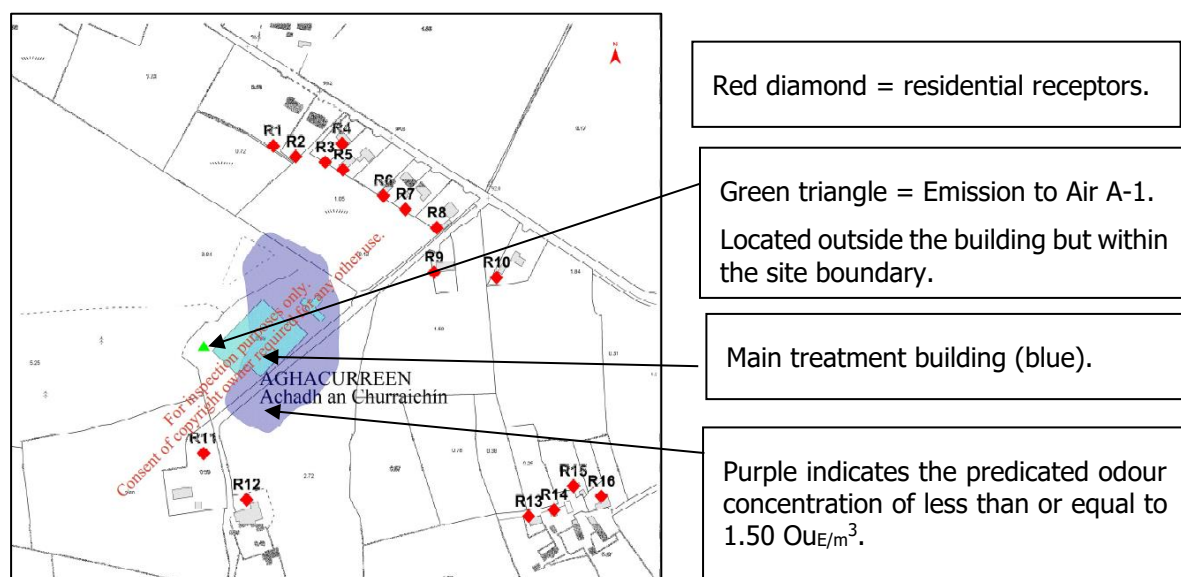
BAT² to control odour emissions includes the handling and treatment of malodorous waste in an enclosed area suitable for the capture, containment and treatment of odours. BAT also requires the use of appropriate odour abatement equipment. Condition 3.25.4 recommends that within 6 months of the date of grant of a licence that all buildings used for the storage and treatment of odour-forming waste are maintained at negative air pressure with ventilated gases being subject to treatment. *Schedule B.1* provides for a new emission to air reference number A-1 from the odour control unit.

The emission of odorous air from the proposed emission to air (A-1) were modelled for odour impact at 16 receptors, numbered R1 – R16 shown in the figure below. The AERMOD prime model was used and the applicant followed the methodology outlined in the Agency Guidance Note AG4³.

² BAT Guidance Notes for the Waste Sector: Waste Transfer and Materials Recovery (December 2011).

³ Air Dispersion Modelling from Industrial Installations Guidance Note (AG4), EPA 2010.

Figure 1: Locations of Odour Receptors



A summary of the odour modelling results is set out in Table 6 below.

Table 6: Summary of Odour Dispersion Modelling Results

Emission point number: A-1

Odour Emission Concentration (input to dispersion model): 1,000 O_{uE}/m^3

Ambient standard: 1.50 O_{uE}/m^3

Maximum Predicted Concentration at Receptor Locations. 98 th Percentile of 1-hour averages (O_{uE}/m^3)							
R1	R2	R3	R4	R5	R6	R7	R8
0.43	0.84	1.07	1.01	1.07	1.18	1.12	0.91
R9	R 10	R 11	R 12	R 13	R 14	R 15	R 16
0.99	0.70	0.50	0.81	0.64	0.57	0.43	0.39

An odour emission concentration of 1,000 O_{uE}/m^3 was chosen for modelling.

The applicant proposed the use of the ambient standard of 3.0 O_{uE}/m^3 which, according to the EPA's Guidance Note AG4, relates to a facility which would be considered to have a medium level of relative odour offensiveness. The ambient standard of 1.5 O_{uE}/m^3 is more suitable to an activity involving the treatment of mixed municipal waste and municipal organic waste. The model predicted odour concentrations at each of the 16 receptors less than 1.5 O_{uE}/m^3 . Taking the above into consideration the emission limit value recommended in *Schedule B.1* is 1,000 O_{uE}/m^3 for emission point A-1.

Emission point number A-1 is the only recommended channelled emission to air from the facility.

It is considered that the likelihood of accidental emissions occurring which could affect the atmosphere is low in light of the measures outlined in the "Prevention of Accidents" section below and the proposed conditions in the Recommended Decision.

Based on the assessment and mitigation above, it is therefore considered that emissions to air at the facility will not cause any direct or cumulative impact and there will be no significant effect on the environment.

8.2 Climate Impact

Climate change is a significant global issue which affects weather and environmental conditions (air, water, land and soils) which consequently affects population, human health and amenities (material assets and cultural heritage) as well as biodiversity and habitats (flora and fauna). Climate change is caused by warming of the climate system by enhanced levels of atmospheric greenhouse gases (GHG) due to human activities.

Table 7: Sources of GHG emissions from the activity.

Greenhouse gas emissions	
Sources of GHG emissions from the activity	(i) Vehicles and two diesel generators; (ii) Heavy goods vehicles.
Relevant GHG gases	(i) Carbon dioxide (CO ₂); (ii) Nitrous oxide (N ₂ O).
GHG Permit Number	Not applicable.
Estimate of the total annual emission of CO ₂ from the activity	Not applicable.

Assessment and mitigation

The licensee confirmed that engines are only turned on when waste is being processed, facility vehicles are required to be turned off when not in use and that this practice also applies to waste transport vehicles visiting the facility.

Heavy goods vehicles accessing the facility are fitted with Selective Catalytic Reduction (SCR) systems. The product "Adblue" is used in the SCR systems to reduce the nitrous oxide levels in the exhaust gases.

The proposed waste activities are not activities listed in Schedule 1 of the European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 and as such this activity will not require a GHG Emissions Permit.

The generators either individually or combined do not meet the criteria for Medium Combustion Plant. These generators are not operated on a continuous basis and Condition 2.2.2.7 requires them to be maintained in accordance with the maintenance programme which includes preventative maintenance.

With regard to reducing the climate impact of the facility, the Recommended Decision requires an energy efficiency audit and an assessment of resource use efficiency to be undertaken in accordance with Condition 7.

It is considered that the likelihood of accidental emissions occurring which could affect climate is low in light of the measures outlined in the "Prevention of Accidents" section below and the proposed conditions in the RD.

Given the small quantity of climate altering substances that could be released from the activity, in a national context, I consider that the impact of any emissions from the facility on climatic considerations should be minimal.

This facility is in a rural area near local roads and approximately 2.6Km from the N22 national primary road. Any carbon dioxide the vehicles at the facility generate will be minimal in comparison to any emissions caused by vehicles using the N22 road. Therefore, significant cumulative effects on the environment from the use of energy by this facility are not likely.

I am satisfied that there will not be significant effects on climate from the operation of the activity when the facility is operating in accordance with the conditions of the Recommended Decision.

8.3 Fugitive Dust

Dust will mainly be generated from the processing and storage of C&D waste, timber and dry recyclables. Dust will also be associated with vehicle movements within the facility during dry weather.

For the purposes of EIA, the environmental factors potentially affected by dust emissions from the activity include: Population and human beings, biodiversity and air.

Dust arising from the activity could have the potential to deposit beyond the site boundary, causing nuisance for those living nearby and potentially affect habitats located close to the site boundary.

Assessment and mitigation

There are two main areas at the facility with the potential to generate dust:

- (i) The storage and treatment of C&D waste and dry recyclables takes place in the main building;
- (ii) Wood storage and timber shredding is carried out in the outdoor timber storage area; however, the licensee ceased the operation of the timber shredder in this area in October 2016 as it is the intention to enclose this activity.

Table 8: Recommended conditions to ensure compliance with BAT⁴

BAT for the control of dust includes:	Recommended Decision
Enclosed waste handling and storage areas for waste with the potential to generate dust.	Condition 8.13.1 requires all waste processing and storage activities to take place in suitably enclosed areas. Condition 3.25.2 requires dust curtains to be fitted to the entry and exit points of the main building and the enclosed timber shredding area.
Use dust extraction system to remove dust and particulates from working areas/buildings where applicable.	Condition 3.25.4 requires the installation of negative air pressure within 6 months and for extracted air to be subject to treatment.

⁴ BAT Guidance Notes for the Waste Sector: Waste Transfer and Materials Recovery (December 2011).

BAT for the control of dust includes:	Recommended Decision
Regular sweeping of access roadways and areas of hard-standing and main transfer station area.	Section 10.6.2 of the EIAR confirms that all open yard areas are routinely cleaned using a road sweeper and that there is a 20km/h speed limit on all vehicle movements within the facility. Condition 6.17 requires the licensee to: - regularly sweep the yard and hardstanding areas of the facility; - spray areas used by vehicles with water in dry weather.

Dust is monitored at three locations: (i) front office, (ii) road and (iii) behind the main building.

Quarterly dust deposition monitoring results for 2016, 2017 and the first quarter of 2018 resulted in exceedances of the licensed dust deposition limit value (350 mg/m²/day). These exceedances were attributed to contamination of the collector gauge with e.g. algal residue, vegetation and insects. The licensee has proposed to ask their contracted laboratory to check the locations of the gauge bottles to ensure they are located at optimum positions for the collection of samples.

Condition 9.3.3 of the Recommended Decision requires the licensee to put in place measures to avoid a reoccurrence of the incident and any other appropriate remedial actions.

Schedule C.6.1 requires continued dust monitoring at the above locations and any additional locations required by the Agency.

Accidental fugitive dust emissions could occur if the concrete work surface is not kept clean, if activities are not carried out in enclosed areas, if dust curtains are not fitted, if dust filters (A-1) are not working, if waste is allowed to build-up and if incoming waste isn't adequately inspected and segregated. However, the likelihood of accidental fugitive dust emissions is considered low in light of the measures outlined in the "Prevention of Accidents" section below and in light of the proposed conditions discussed above.

There are no other developments, facilities or activities in the vicinity which are likely to release significant quantities of dust that could lead to likely or significant cumulative effects from dust deposition on any area beyond the facility boundary.

Based on the above assessment, I consider that dust emissions from the operation of the activity are not likely to have a significant effect on the environment when the facility is operating in accordance with the conditions of the Recommended Decision.

8.4 Odour

There are two main activities carried out at the facility with the potential to generate odour:

- (iii) The licensee accepts municipal organic waste for storage and bulking up prior to dispatch off-site for recovery. This waste is unloaded through the retractable roof of a fully enclosed area directly into a trailer housed in this area.
- (iv) The treatment of mixed municipal waste in the main building results in the generation of organic fines. These fines are stored and bulked-up in a trailer in the main building prior to dispatch off-site for treatment.

Odour generated from the activity could have the potential to disperse beyond the site boundary, causing nuisance for those working and living nearby and potentially affecting habitats located close to the site boundary. Condition 5 of the RD prohibits the licensee from allowing a nuisance to be caused by odour emissions from the facility.

For the purposes of EIA, the environmental factors potentially affected by odour emissions from the activity include: Population and human beings, biodiversity and air

Odour arising from the activity could have the potential to cause nuisance for those living nearby. Flies and vermin also have the potential to cause nuisance as they are attracted to odourous waste types.

Assessment and mitigation

The licensee does not currently extract air for treatment from the main building or the municipal organic waste storage area. Reference section 8.1.3 above regarding the recommendation to extract air for treatment from these areas.

One complaint regarding odour and flies was made in January 2016. No odour complaints were recorded in 2017 or to-date in 2018.

BAT⁵ to manage odour emissions includes that all putrescible wastes should be removed from the premises as soon as practicable and, in any case, within 48 hours of arrival or within 72 hours at public holiday weekends. The licensee confirmed that all odour forming wastes are typically removed from the facility within 24 hours of arrival and never remain on site for greater than 72 hours. Condition 6.17.1 of the RD reflects the requirements of BAT and requires the removal of odour-forming waste within 48 hours of arrival or within 72 hours of arrival at public holiday weekends.

Condition 6.17.5 of the RD requires the licensee to annually undertake an odour assessment which shall identify and quantify all significant odour sources at the facility, the adequacy of the system to deal with these emissions and the implementation of any recommendations arising from the assessment.

Mitigation measures, in addition to those listed in sections 8.1 and 8.3, to minimise the nuisance from odour and vermin recommended in the RD include:

- Condition 6.25 requires the floor of the main building and of all enclosed areas used to store and treat waste to be cleaned on a weekly basis;
- Condition 8.12 requires the establishment of a waste storage plan which will limit the quantity of waste stored at specified locations within the building and the maximum holding period for which waste can remain in each storage area;
- Condition 8.10.5 requires that rejected waste moved to the quarantine area is stored under appropriate conditions to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition;
- Condition 6.19 requires the maintenance and implementation of a programme for the control and eradication of vermin and flies. Section 9.6 of the EIAR confirms the licensee's intention to appoint a vermin and pest control contractor;

⁵ BAT Guidance Notes for the Waste Sector: Waste Transfer and Materials Recovery (December 2011).

- Condition 6.18 requires nuisance monitoring to be carried out at weekly intervals.
- Conditions 5.2 and 5.6 require that odour and vermin do not cause nuisance.

Accidental odour emissions could occur if contaminated waste was accepted at the facility or if odorous waste was not stored correctly. However, the likelihood of accidental odour emissions occurring is considered low in light of the measures outlined in the "Prevention of Accidents" section below and in light of the proposed conditions relating to odour emissions discussed above.

There are no other developments, facilities or activities in the vicinity which are likely to generate significant quantities of odour that could lead to likely or significant cumulative effects from odour on any area beyond the facility boundary.

Based on the above assessment, I consider that the odour emissions from the activity are not likely to have a significant effect on the environment when the facility is operating in accordance with the conditions of the Recommended Decision.

Overall Conclusions in relation to effects of air emissions from the activity on the environment.

I am satisfied that there will not be significant effects on climate, air quality, population and human health, biodiversity or any other aspect of the environment from air emissions arising from the operation of the activity when operated in accordance with the conditions of the Recommended Decision.

9. Storm Water Emissions

There are three storm water emissions from the facility as detailed in Table 9 below.

Table 9: Storm water discharges from the facility.

Storm water discharge point details			
Emission Reference	Proposed / Existing	Monitored parameters (monitoring frequency)	Trigger levels established (Y/N)
R1	Existing	Visual (weekly); pH, conductivity, ammonia (as N), suspended solids, sulphate, chloride, heavy metals (annually).	Y
R2	Existing		Y
SW1	Existing	Visual (daily); pH, conductivity, ammonia (as N), suspended solids, sulphate, chloride (weekly); Heavy metals (biannually).	Y
Drainage areas:			
		R1 and R2: Roof of the main building. SW1: Outdoor non-processing <u>and</u> waste processing areas.	
Abatement:			
		R1 and R2: None. SW1: settling tanks, silt trap, oil separator and reed bed.	
Receiving environment:			
		R1: Discharge to the road drain on the facility's south-eastern boundary which merges into the Aughacurreen Drain.	

	R2: Discharge to the Aughacurreen Drain.
	SW1: on- site discharge to ground.
Automatic diversion in place:	No; however, required by Condition 6.15.2 of the RD.
Firewater retention infrastructure:	Required by Condition 3.18.3 of the RD.

For the purposes of EIA, the environmental factors potentially affected by storm water discharges to waters and ground include: Water, land and soils, biodiversity, population and human health.

Should any accidental emission, e.g. process effluent entering the storm water collection and treatment system, occur this could have the potential to affect surface water quality downstream, as well as aquatic habitats within that surface water body. Should any accidental emission discharge to ground as a result of a leaking tank, pipes, bunds or process effluent being discharged to ground (refer to Section 12 below), this could potentially affect the quality of soil and groundwater directly, which could affect those using the groundwater body as a source of drinking water and could potentially indirectly affect surface quality downstream.

Assessment and mitigation

Abatement:

The current licence and the RD do not require the treatment of storm water from the roof of the main building prior to discharge at roof storm water discharge points R1 and R2.

Condition 3.10 of the current licence requires the treatment of storm water from yard areas as described in Drawing Number, 02-034-J4-MCOS2F03; however, this is not reflected on-site as described in Table 10 below. The above drawing and a drawing of the current site drainage are shown in figure 8 and 9 of the Appendix.

Table 10: treatment of storm water run-off at the facility.

Abatement Type	Abatement required by Condition 3.13.2 of W0217-01	Abatement <i>in-situ</i>	Abatement recommended in the RD
Settling	Lagoon	Three storm water settling tanks	
Separation	Solids separator	Silt trap	Silt trap (Condition 3.17)
		Full retention oil separator	Oil interceptor (Condition 3.17)
Reed bed treatment		Glass reed bed	
	Reed bed	Lagoon reed bed	
Monitoring point	SW1	SW1	SW1 ^{Note 1}
Percolation to ground	Percolation area (design includes use of 120m piping)	Percolation ditch (undefined design)	Percolation area (design includes use of 120m piping) (Condition 6.15.5)

Note 1: monitoring is recommended to remain in place at monitoring location SW1 which is situated after the final treatment step and prior to discharge into the percolation area.

- Condition 8.13.1 requires all waste storage and processing to occur inside a building or suitably enclosed structure;
- Condition 6.15.6 requires the licensee to investigate the suitability of the current storm water treatment system, identify any process effluent contamination in the system and to implement any measures arising from the investigation;
- Condition 6.15.2 requires the licensee to divert for retention any storm water that exceeds trigger levels;
- Condition 5.4 prohibits the contaminated storm water or effluent being discharged to surface water courses, ground or groundwater.

Monitoring:

The current licence requires the monitoring of discharges from R1, R2 and SW1. The monitoring results for 2016 and 2017 were reported in the associated Annual Environmental Reports.

Table 11: Annual Environmental Report storm water monitoring results.

	2016 R1	2017 R1	2016 R2	2017 R2	2016 SW1	2017 SW1	Trigger levels
	mg/l						
Ammonia (as N)	1.07	0.18	0.34	0.09	0.32	0.21	0.7
Conductivity (µS/cm)	27.7	56	316	237	263	322	R1: 239.03 R2: 615.01 SW1: 1000
Suspended solids	62	<2	2	34	17	7.6	R1 & R2: 17.65 SW1: 50
Chloride	N/A	15	24	20	26	23	R2: 41 SW1: 48
COD	N/A	N/A	N/A	N/A	N/A	51	0.7

As indicated in the above table ammonia and suspended solids have been found to exceed trigger levels. Process effluent from the processing and storage of waste outdoors is currently at risk from entering the storm water treatment system.

- Condition 8.13.1 requires all waste treatment and storage activities to take place indoors;
- Condition 3.5.2 requires the provision of impermeable concrete surfaces and the remedy of any defects within 5 working days;
- Condition 3.10 requires storm water infrastructure to at a minimum to prevent the discharge of contaminated water into ground or surface water drains and courses;
- Condition 6.10 requires the integrity testing of all underground pipes;
- Condition 3.17 requires storm water run-off from yard areas to be treated via a silt trap and oil separator. Condition 6.15.5 requires this treated storm water to be directed to a percolation area as describe drawing number 02-034-J4-MCOS2F03;
- *Schedule C.2.3 Monitoring of Storm Water Discharges* requires the continued monitoring of these storm water discharges and recommends an increase of the monitoring frequency from annual and weekly for roof and yard storm

- water respectively, to the monitoring of all storm water discharges on a weekly basis;
- Condition 6.15.2 requires the establishment of trigger levels for each parameter listed in *Schedule C.2.3* which includes the parameters total ammonia, chloride, total suspended solids, chemical oxygen demand (COD), conductivity and mineral oils;
 - The exceedance of a trigger level requires the reporting of an incident to the Agency;
 - Condition 9.3.3 requires the follow-up of incidents with remedial actions;
 - Should the discharges from these points improve the monitoring frequency can be reduced in accordance with Condition 6.8.

Schedule C.6 of the current licence requires receiving water body monitoring at locations 'Site B' and 'Site D'. The OEE have confirmed that these locations are not satisfactory. *Schedule C.6.2* of the RD recommends monitoring at upstream and downstream locations to be agreed by the Agency on the land drain which connects to the Aughacurreen Drain and the Aughacurreen Drain to which emission points R1 and R2 discharge respectively.

The RD contains standard conditions in relation to the management of materials and wastes. The RD also requires that accident and emergency response procedures are put in place. The controls pertaining to accidents and emergencies are addressed in Section 16 below. These measures will help to control any impacts which could occur should any mitigation measures fail. It is therefore considered that direct impacts as a result of storm water emissions are considered to be neither likely nor significant.

It is therefore considered that direct effects as a result of storm water emissions are considered to be neither likely nor significant.

As the facility is in a rural area cumulative impacts of rainwater run-off from the facility and any other source are unlikely. It is also considered that no indirect effects are likely as a result of these surface water emissions from the activity.

Based on the above assessment, I consider that the storm water emissions from the roof of the main building are not likely to have a significant effect on the environment when the facility is operating in accordance with the conditions of the Recommended Decision.

10. Process Effluent

The current licence does not authorise the discharge of process effluent from the facility.

Process effluent generated in the main building is diverted for storage in an underground effluent tank prior to dispatch off site for treatment. The current licence and the RD requires all process effluent at the facility to be diverted for storage prior to dispatch.

Currently not all waste storage and treatment activities at the facility take place indoors e.g. metal and timber recovery activities. Process effluent has the potential to contaminate the storm water run-off treatment system.

Section 4.3.2.1 of the BAT Guidance Note on *Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery* (December 2011) states that a control technique for dust and fine particulates is to enclose waste handling and storage areas for waste with the potential to generate dust or particulate emissions. Condition 8 of

planning permission Reference Number 2131/04 states that "*Building [sic] for storage and sorting of waste must be enclosed and have doors capable of being closed. No finished materials or materials waiting to be processed shall be stored outside*".

- Condition 8.13.1 requires all waste activities to be carried out in enclosed areas with process effluent diversion systems;
- Condition 8.15 requires all waste to be removed from open outdoor areas within six months;
- Condition 6.12 requires all process effluent to be collected and stored in effluent holding tanks prior to disposal off-site;
- Condition 3.11 requires the licensee to investigate the sufficiency of their process effluent storage capacity and determine whether additional capacity is required.

11. Sanitary Effluent

Treated sanitary effluent emissions to ground could potentially affect the quality of soil and groundwater directly, which could affect those using the groundwater body as a source of drinking water and could have the potential to indirectly affect surface quality downstream.

For the purposes of EIA, the environmental factors potentially affected by sanitary effluent emissions on-site include: Water quality, land and soils, biodiversity, Human health and population.

Should the sanitary effluent system fail or become overloaded, untreated sewage could potentially affect the quality of soil in the percolation area and groundwater.

Assessment and mitigation

Currently sanitary effluent from the office area is treated in a puraflo system and this system discharges to a dedicated percolation area.

The licensee has confirmed that the proposed development will not involve any changes to the quality or volume of discharge to ground from the sanitary waste treatment system, that the treatment plant is functioning properly and meets the performance standards specified in the Agency's waste water treatment system guidance.

- *Schedule C.3.3* recommends the monitoring of the treated sanitary effluent prior to discharge to the percolation area.
- Condition 6.14.1 requires the establishment of trigger levels for the treated output from the puraflo system.
- *Schedule C.6.2* recommends the upstream and downstream monitoring of the water drain adjacent to the sanitary effluent percolation area.
- *Schedule C.6.3* requires groundwater monitoring up-gradient and down gradient of the facility.
- Each of the above schedules recommends the monitoring of faecal and total coliforms.

Condition 3.23 requires the sanitary effluent treatment system to be maintained in a manner which satisfies the criteria set out in the *Code of Practice Wastewater Treatment and Disposal Systems serving Single Houses (p.e. ≤10)*.

It is therefore considered that direct effects as a result of sanitary effluent emissions are considered to be neither likely nor significant.

There are 16 residential dwellings near the facility. The sanitary effluent from these dwellings is also required to be treated in accordance with the conditions of planning permission for each dwelling and cumulative impacts from treated sanitary effluent are unlikely. It is also considered that no indirect effects are likely because of these treated sanitary effluent emissions from the activity.

Based on the above assessment, I consider that the sanitary effluent emissions from the puraflo system are not likely to have a significant effect on the environment when the facility is operating in accordance with the conditions of the Recommended Decision.

12. Soil and Groundwater Contamination

Soil and groundwater contamination could potentially affect the quality of soil and groundwater directly, which could affect those using the groundwater body as a source of drinking water and could have the potential to indirectly affect surface quality downstream.

For the purposes of EIA, the environmental factors potentially affected by soil and groundwater contamination include: Water quality, land and soils, biodiversity, Human health and population.

Assessment and mitigation

Use of unsealed outdoors areas for storage, the deposition of waste at the facility and presence of knotweed:

During a site visit on the 22nd September 2017 I noted that there was equipment, plant and vehicles stored at various outdoor locations around the facility including areas which had not been concreted. It was noted that construction and demolition waste had been deposited in an area behind the reed beds and a stand of knotweed was growing in this area.

- Condition 3.5.2 requires the provision of an impermeable concrete surface in all areas of the facility within six months of the date of grant of this licence.
- Condition 8.15 requires equipment, plant and vehicles not listed in the maintenance programme to be removed from outdoor areas of the facility. Condition 11.7 requires records to be maintained for any decommissioning of infrastructure, plant or equipment at the facility;
- Condition 3.27 requires vehicle maintenance to take place in a fully bunded enclosed area where drainage is diverted for collection and safe disposal.
- Condition 8.15 requires the removal of all construction and demolition waste deposited at the facility and that any construction and demolition waste potentially contaminated with knotweed is managed in accordance with the Invasive Species Prevention and Eradication Plan required by Condition 2.2.2.9 to be established within three months of the date of grant of a licence.

Section 9.6 of the EIAR confirmed that the licensee has engaged a specialist contractor to eradicate the knotweed in a controlled manner.

Underground tanks and channels:

The OEE have highlighted that a record has not been made available of the decommissioning of the old underground effluent holding tank (4.55m³ capacity) and that there is a concern that there may be drains and channels, not identified on the site layout plan, that have not been decommissioned.

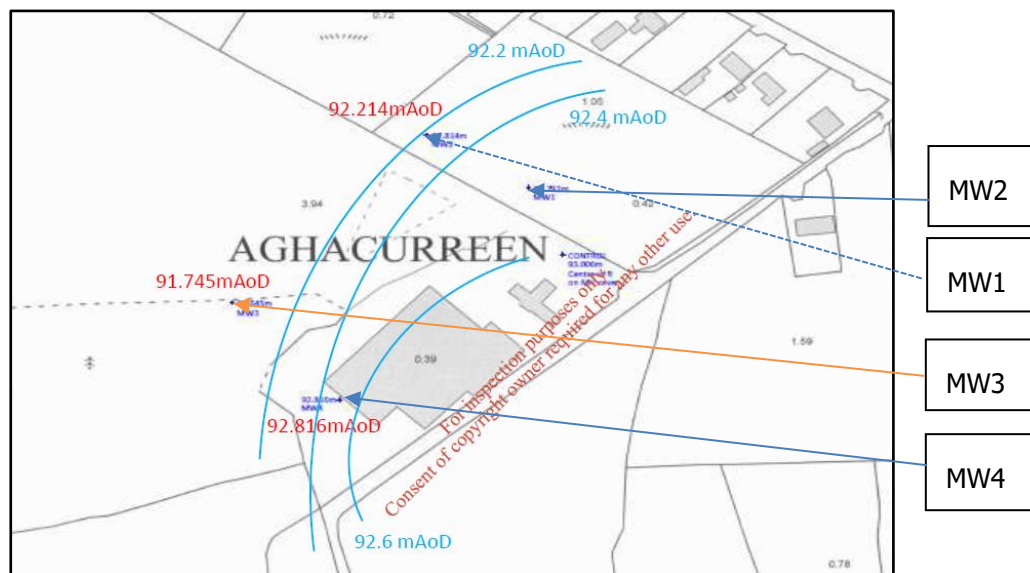
- Condition 11.7 requires the licensee to maintain up-to-date drawings of infrastructure at the facility and to make records of all decommissioning of infrastructure, plant or equipment available to the Agency for inspection.

The OEE have concerns regarding whether the effluent storage capacity at the facility is adequate. Condition 3.11 requires the licensee to complete an assessment to determine whether there is adequate effluent storage capacity at the facility within three months of the date of grant of the licence and in the event, additional capacity is required that this is provided within six months. Condition 6.12 of the RD requires the licensee to collect process effluent and store it in effluent holding tanks as agreed by the Agency. Any new tank that is introduced on site will require integrity testing in accordance with Condition 6.10.

Groundwater contamination:

Groundwater is monitored via four monitoring boreholes biannually: MW1, MW2, MW3 and MW4.

Figure 2: Groundwater borehole locations and groundwater contour (June 2016).



The OEE have concerns regarding the location of the above monitoring boreholes and whether they sufficiently represent up-gradient and downgradient locations in the Scartaglin groundwater body beneath the facility.

- *Schedule C.6.3* of the RD requires three monitoring points up-gradient and down gradient of the facility to be agreed with the Agency. This schedule also requires the biannual monitoring of groundwater at these locations.

Biannual groundwater monitoring demonstrates an on-going exceedance of the total ammonia threshold in the EC Environmental Objectives (Groundwater) Regulations 2010, as amended. The licensee has indicated that the exceedance is up-gradient of the facility and that persistent elevated ammonia levels where other indicators such as chloride and nitrate are not elevated is indicative of contamination by organic sources, e.g. animal slurry, rather than from waste at the facility.

- Section 10 describes the process effluent controls recommended at the facility;
- *Schedules C.6.3* requires the monitoring of total ammonia at each groundwater monitoring location.

Total coliforms and faecal coliforms were monitored for the first time in 2017. Samples from locations MW3 and MW4 were demonstrated to be above threshold. The licensee

confirmed that as the well headworks on both of these up-gradient wells are damaged and that the high coliform levels may be due to faecal contamination from birds and small animals and off-site sources such as land spreading.

- Condition 3.21 of the RD requires wellheads to be adequately protected to prevent physical damage.
- *Schedule C.3.3* requires the monitoring of the discharge from the sanitary effluent treatment system prior to percolation and Condition 6.14 requires the establishment of trigger levels on this discharge which include faecal and total coliforms.
- *Schedules C.6.3* requires the monitoring of faecal coliforms and total coliforms at each groundwater monitoring location.

The Annual Environmental Reports for 2016 and 2017 demonstrated levels of Diesel Range Organics as:

- All locations were <10µg/l in 2016;
- locations MW3 and MW4 remained at <10µg/l in 2017;
- locations MW1 and MW2 showed increased levels of 79µg/l and 91µg/l respectively in 2017.

In addition to those measures listed above:

- Condition 6.24.1 requires the licensee to demonstrate compliance with the Environmental Objectives (Groundwater) Regulations 2010; any actions required shall be implemented within a period agreed by the Agency.
- Condition 8.4 requires waste and materials to be stored in designated areas, protected as may be appropriate against spillage and leachate run-off.
- Conditions 3.15 and 6.10 requires appropriate bunding for tank and drum storage areas, with routine integrity testing.
- Condition 3.18 requires appropriate drainage incorporating firewater retention facilities.
- *Schedules C.6.3* requires the continued monitoring of diesel range organics at each groundwater monitoring location.

It is considered that the risk of ground or groundwater contamination due to the proposed activity is low on the basis of the requirement to carry out all waste activities in enclosed areas where any process effluent is collected for dispatch off-site and the above measures.

The RD also requires that accident and emergency response procedures are put in place. The controls pertaining to accidents and emergencies are addressed in Section 16 below. These measures will help to control any impacts which could occur should any mitigation measures fail.

It is therefore considered that direct effects as a result of other emissions to ground or groundwater are not considered to be likely nor significant.

The facility is in a rural area and the licensee has identified that land spreading near the facility may have cumulative or indirect impacts on the groundwater beneath the facility. *Schedule C.6.3* requires biannual monitoring of groundwater up-gradient and down gradient of the facility. It is considered that there will be no significant cumulative effect from emissions to ground through the sanitary effluent percolation area and the surface storm water percolation area to ground/groundwater. It is also considered that no secondary or indirect effects are likely as a result of these emissions to ground from the activity.

Based on the above assessment, I consider that the emissions to ground are not likely to have a significant effect on the environment when the facility is operating in accordance with the conditions of the Recommended Decision.

Overall Conclusions in relation to effects of emissions to water and ground on the environment

I am satisfied that there will not be significant effects on population and human health, biodiversity, water quality, land and soil quality or any other aspect of the environment from emissions to water and ground arising from the operation of the activity when the facility is operating in accordance with the conditions of the Recommended Decision.

13. Noise

The main sources of noise at the facility include vehicles, operation of the shredder and the diesel generator.

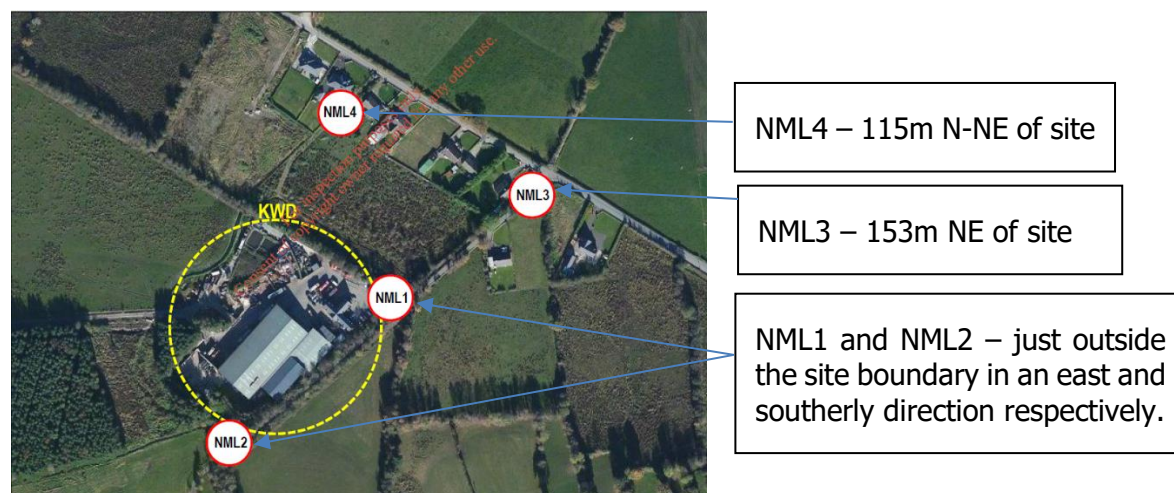
For the purposes of EIA, the environmental factors potentially affected by noise emissions from the activity include: population and human health and biodiversity.

Noise arising from site could have the potential to cause nuisance for those living in the vicinity of the activity or on noise sensitive species near the site. As shown in Figure 3 of the Appendix the facility is located within 200m of approximately 16 residences.

Assessment and Mitigation

The licensee monitors noise levels at 4 locations. The results of noise monitoring completed in 2004, 2012, 2015, 2016 and December 2017 was submitted with the review application.

Figure 4: Noise monitoring locations NML1, NML2, NML3 and NML4.



The noise survey completed in 2004 recommended that specific mitigation measures would be required if the facility was to operate outside the hours of 08:00 to 22:00 as the generator and site activity noise can exceed the night time ELV of 45dB(A) L_{Aeq} (15 minutes) on the eastern site perimeter. The recommended measures included:

- moving the generator to an open enclosure on the south west corner of the building;
- enclosing the timber shredding activity;
- enclosing loading and unloading activities.

The licensee ceased the outdoor operation of the timber shredder in October 2016. There are currently two generators at the facility as described in section 8.12.

The noise survey completed in September 2012 was completed to assess the impact of noise during the hours of 19:00 – 21:00 while processing activity was taking place within the building. *Schedule B.4* of the current licence specifies daytime and night-time emission limit values of 55dB_{L(A)eq}(30 minutes) and 45dB_{L(A)eq}(30 minutes) respectively. The noise measured at four noise sensitive monitoring locations was less than 45dB_{L(A)eq}(15 minutes). No audible tonal or impulsive component was noted during the survey. The survey highlighted that noise levels at the site were attenuated by the enclosing of significant noise generating machinery within buildings.

The noise monitoring results from 2015 and 2016 demonstrate that noise was within limits at 3 out of 4 sensitive receptor locations. The noise monitoring location at the facility entrance (NSL1) was outside limits during daytime hours and within limits during night-time hours; however, it should be noted that evening time operation is authorised until 20:00 and night-time operation at the facility is not authorised.

The noise survey completed in December 2017 covered daytime hours only. The dominant intermittent noise source detected during this survey was resultant from:

- vehicles entering and exiting the facility;
- an excavator working at the southern end of the site; and
- road traffic.

The conclusion of this survey was that noise emissions from the facility were audible at the noise sensitive locations situated at nearby dwellings (NSL1, NSL2, NSL3) and that these emissions did not exceed the daytime noise threshold of 55dB. No tones or impulses were noted in site emissions.

Condition 1.8 does not recommend extending the hours of operation from 06:30 to 24:00 because:

- the noise surveys did not include night-time hours;
- the survey completed in 2017 took place while the facility was being operated; however, the plant or equipment in use and the activities taking place at the facility during the survey period was not identified.
- the site notice erected at the time the licence review application was made did not indicate the intention to increase the hours of operation at the facility.

The current hours of operation, 07:00 – 20:00, have been recommended in Condition 1.8. These hours exceed daytime limits by one hour (07:00 – 19:00); however, it was taken into consideration that the facility hasn't received a noise complaint since 2012.

- Condition 2.2.2.7 requires a preventative maintenance programme at the facility to maintain plant operating effectively.
- Condition 6.21 requires the licensee to carry out a noise survey as required by the Agency.
- Condition 1.8 sets out the hours of waste acceptance and operation of the facility.
- Standard noise conditions and limit values, which apply at the noise sensitive locations, have been included in the RD. In accordance with the EPA document *Guidance Note for Noise: Licence Applications, Surveys and Assessments in relation to Scheduled Activities (NG4) (2016)*, the day time limit has been changed from 55dB LAeq to 55dB LAr,T to allow for corrections for tonal noise, and an evening time emission limit value has been introduced.

- *Schedule C.5* of the RD requires monitoring at noise sensitive locations NSL1, NSL2, NSL3 and NSL4 and any other location required by the Agency.

Six noise complaints were received by the Agency in 2011 and 2012. No noise complaints have been recorded since 2012.

Accidental noise emissions could occur if the doors of the facility remained open, if a greater number of vehicle movements occurred per day, if the shredder was operated in an open area or the diesel generator was not maintained correctly, causing noise ELV exceedances at the noise sensitive receptors. However, the likelihood of accidental noise emissions occurring is considered low in light of the measures outlined in the "Prevention of Accidents" section below and in light of the proposed conditions discussed above.

It is therefore considered that direct significant effects as a result of noise from the activity are unlikely.

The N22 and N72 national roads are located approximately 2.6km east and 2km south of the facility. The Local road L2019 is located approximately 1.5km east of the facility. Killarney Tree Felling Limited is located approximately 100m south of the facility; however, noise surveys did not report any noise from this location. There are no other developments, installation, facilities or activities in the vicinity that are likely to generate noise to an extent that could lead to likely or significant cumulative effects beyond the site boundary.

Therefore, it is considered that there will be no significant cumulative impact from noise emissions from the activity and other noise emissions generated by other activities in the area. It is also considered that no indirect effects are likely as a result of noise emissions from the activity.

Overall Conclusions in relation to effects of noise emissions from the activity on the environment

Based on the above assessment and the controls in place, I am satisfied that there will not be significant effects on the environment from noise from the activity when the facility is operating in accordance with the conditions of the Recommended Decision.

14. Waste Generation

The treatment of waste at the facility will generate fines which are not suitable for recovery. These fines will be removed from the facility by an authorised waste collector.

For the purposes of EIA, the environmental factors potentially affected by waste generated by the activity include: material assets, population and human health, biodiversity and air.

The storage of organic fines and other waste generated at the facility may generate odour or attract vermin. Dust deposition, odour and vermin have negative secondary effects for humans in terms of amenity and could also be an issue for flora and fauna beyond the facility boundary.

Assessment and mitigation

There are conditions in the RD pertaining to the storage and management of waste generated at the facility. The RD requires that all waste generated on site is transported off-site in accordance with national and European legislation. Condition 8.14 prohibits the disposal of waste which was accepted at the facility for recovery.

Condition 8.12.3 requires a maximum storage or holding period for waste in waste stockpiles to be identified and adhered to as part of the Waste Storage Plan and for the recommendations of the Fire Risk Assessment (Condition 9.5) to be taken into consideration in the Waste Storage Plan.

The OEE have concerns regarding whether the effluent storage capacity at the facility is adequate. Condition 3.11 requires the licensee to complete an assessment to determine whether there is adequate effluent storage capacity at the facility within three months of the date of grant of the licence and in the event, additional capacity is required that this is provided within six months. Condition 6.10 requires integrity testing of underground tanks and pipes within six months of the date of grant to this licence.

In relation to dust and odour generation and vermin, mitigation measures have been discussed in Sections 8.3 and 8.4.

If dealt with in accordance with the conditions of the RD, the management of waste generated at the facility will be in accordance with the requirements of Section 29 (2A) of the Waste Management Act 1996 as amended.

Significant cumulative effects on the environment from the generation of waste by this facility and other activities are not likely.

The controls in the RD in relation to waste will prevent the occurrence of possible direct and indirect negative effects on the environment.

Overall Conclusions in relation to effects of the generation of waste from the activity on the environment

Based on the above assessment and the mitigation measures in place, I am satisfied that there will not be significant effects on the environment from the generation of wastes from the operation of the activity or from pests or vermin when the facility is operating in accordance with the conditions of the Recommended Decision.

15. Use of Resources

The operation of the facility involves the consumption of water, diesel and electricity.

Table 12: Estimated resources used at the facility in 2016.

Resource	Quantity per annum
Electricity	1199MWhrs consumed.
Water	Unknown (mains source).
Heavy fuel oil	1.2m ³
Light fuel oil	160m ³

For the purposes of EIA, the environmental factors potentially affected by resource use include material assets.

Assessment and mitigation

The use of natural resources by the activity will not be significant.

Condition 7 of the licence provides for the efficient use of resources and energy in all site operations. It requires a Resource Use and Energy Programme to be established

and an energy audit to be carried out and repeated at intervals as required by the Agency.

The facility is in a rural area with most of the developments near the facility being dwelling houses and farm yards, all of which would use minimal amounts of resources. There are no other waste activities in the area. Therefore, significant cumulative effects on the environment from the use of resources by this facility and other developments are not likely.

Overall Conclusions in relation to effects of the use of resources by the activity on the environment

I am satisfied that there will not be significant effects on the environment from the use of natural resources from the operation of the activity when the facility is operating in accordance with the conditions of the Recommended Decision.

16. Prevention of Accidents

Table 13: Potential accidents & measures for prevention/limitation of consequences.

Potential Accident.	Measures for prevention/limitation of consequences.
Accidental emissions due to waste management practices.	<p>The RD limits the waste types and quantities accepted into the facility and require these waste types to be characterised.</p> <p>The RD limits the waste activities that can take place at the facility.</p> <p>The RD also sets out requirements in relation to operation, control and monitoring activities.</p>
Accidental emission to air from site vehicles which may impact the climate.	The RD requires a preventative maintenance programme which will include vehicles, plant and generators used at the facility.
Dust emissions resulting from: <ul style="list-style-type: none"> (i) Dirty concrete surfaces; (ii) Waste activities taking place outdoors; (iii) Dust curtains not fitted to buildings and enclosed areas; (iv) Build-up of waste; and (v) Incoming waste not adequately 	In addition to the above the RD sets out requirements in relation to concrete surfaces, dust suppression, waste storage controls, the inspection of incoming waste and the maintenance of a quarantine area.

inspected and segregated.	
Accidental odour emissions resulting from the acceptance of contaminated waste or if odourous waste is not stored correctly.	In addition to the above the RD requires the licensee to reject unacceptable incoming waste, to store waste in suitably enclosed areas and requires odourous waste to be removed from the facility within 48 – 72 hours from the time of arrival.
Accidental emissions to surface water resulting from contaminated storm water from the roof of the main building.	The RD requires a storm water management system and requires underground pipework to be integrity tested.
Accidental emissions to ground resulting from contaminated surface storm water.	The RD requires the storm water management system to be capable of diverting contaminated storm water for collection prior to safe disposal off-site.
<p>Accidental emissions to ground from:</p> <p>(i) a failure of the run-off collection system or due to seepage through damaged concrete;</p> <p>(ii) a failure in the process effluent diversion system;</p> <p>(iii) inappropriate storage of diesel and vehicle maintenance in outdoor unsealed areas;</p> <p>(iv) leakage of tanks and underground pipes.</p>	<p>The RD requires:</p> <ul style="list-style-type: none"> - any cracks in the concrete to be repaired and for all underground pipes to be integrity tested; - the provision of an integrity tested process effluent collection system; - the diesel tank to be bunded and for any effluent from this area to be directed for safe disposal; - vehicle maintenance to in a bunded and suitably enclosed area; - routine integrity testing of tanks and underground pipes.
<p>Accidental noise emissions from the facility due to:</p> <p>(i) open doors;</p> <p>(ii) plant which is not maintained;</p> <p>(iii) greater number of vehicle movements;</p>	<p>The RD requires doors to waste buildings and enclosed areas to be kept closed when not in use.</p> <p>The RD requires all plant, equipment and vehicles to be maintained.</p> <p>The RD limits the hours of waste acceptance.</p> <p>The RD requires the shredder to be operated in a suitably enclosed area.</p>

(iv) shredder operated in an open area.	
Potential for an accident or emergency to arise from activities at the facility.	<p>Oil spill from a tanker during offloading operations;</p> <p>Contaminated fire water retention;</p> <p>Spillage of hazardous substances e.g. hydraulic oil;</p> <p>Contamination of soils due to tank overflows, spillages, leaks outside of bunds, hose failure or failure of a coupling tanker.</p> <p>Potential for fire due to large quantities of waste stored at the facility</p>
Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the facility.	<p>The RD requires:</p> <ul style="list-style-type: none"> - diesel and oil to be stored in bunded areas; - refuelling to take place within the waste treatment building; - the maintenance of a spill kit at the facility; - the completion of a risk assessment to determine if the activity should have a fire water retention facility; - drums, containers and tanks to be stored in bunded areas the effluent from which is directed for safe disposal; - the integrity of tanks to be assessed every 3 years and maintenance carried out as required; - the completion of a Fire Risk Assessment and for any relevant recommendations to be incorporated into the waste storage plan. <p>A sprinkler system is in place in the main building. Section 9.6 of the EIAR demonstrates the licensee's intention to complete staff training on appropriate incidents and emergency response actions.</p>
Additional measures provided for in the RD	<p>The RD requires:</p> <ul style="list-style-type: none"> - adequate training of staff; - a suitably qualified and experienced person to be on site at all times; - process effluent from outdoor areas to be diverted for collection and disposal; - an assessment of process effluent storage capacity. - wellheads to be adequately protected; - the provision of a vehicle and bin wash facility; - vehicle maintain to take place in an enclosed bunded area;

	<ul style="list-style-type: none"> - the maintenance of a sanitary effluent treatment system which satisfies the criteria of the code of practice; - the provision and maintenance of adequate bunding; - accident prevention and emergency response requirements.
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Condition 9 of the RD requires procedures to be put in place to prevent accidents with a possible impact on the environment and to respond to emergencies so as to minimise the impact on the environment. A Closure Plan and Environmental Liabilities Risk Assessment (ELRA) was submitted with the application. (See Fit and Proper section below for further details).

The licensee completed a Firewater Risk Assessment in June 2017. This report recommends the upgrading of the current sprinkler system in the main building to an automated fire suppression system and to extend this system to the workshop area.

This assessment does not take into consideration the RD recommendation for all waste activities to take place in buildings or suitably enclosed areas. Conditions 9.5 and 3.18 require a revised fire risk assessment and a revised fire-water retention risk assessment to be submitted within 3 months of the date of grant of this licence. Condition 8.12 requires any recommendations from the fire risk assessment to be considered as part of the Waste Storage Plan.

The risk of accidents and their consequences, and the preventative and mitigation measures listed in the table above, have been considered in full in the assessments carried out throughout this report.

It is considered that the conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

17. Cessation of activity

The application details a range of measures to be employed upon cessation of the activity. These include:

- Consultation with the Agency;
- Implementation of the Environment Management System;
- Decontamination of all plant;
- Documented removal of all waste materials from the facility for recovery or disposal at an authorised facility;
- Maintenance of access to monitoring locations;
- Surface water monitoring;
- Ensuring that soil within the site boundary is not contaminated;
- Maintenance of site security;
- Condition 10 of the RD requires procedures to be put in place to ensure the proper closure of the activity with aim of protecting the environment. The Licensee submitted a Closure Plan with this application. (see Fit and Proper Person Assessment section below for further details).

The measures to be taken upon cessation of the activity have been considered in full in the assessments carried out throughout this report.

I am satisfied that there will not be significant effects on the environment from the measures that will be taken upon cessation of the activity when the facility has been operated in accordance with the conditions of the Recommended Decision.

18. Other matters relating to EIA

18.1 Effects on landscape, material assets and cultural heritage

(a) Disturbance of archaeology and architecture from the operation of the activity

Any loss of archaeological or architectural heritage could impact negatively on human beings. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on site and are not controlled by the Agency.

The licensee has confirmed that:

- the Sites and Monuments Records Map and the Registered Monuments Manual do not contain any record of any archaeological features within the site and confirm that there are no listed monuments within 500m of the facility;
- there is no record of any protected structures within the site boundary; and
- there are 6 recorded archaeological sites within 1km of the site boundary in surrounding townlands.

There are no buildings or features of architectural significance and no known archaeological features at or near the site of the facility, and it is very difficult to envisage any pathway by which emissions from the operation of the activity could impact any feature which might be present.

No mitigation measures have been proposed.

(b) Landscape, visual and cultural effects

Any disturbance of the landscape or the cultural heritage of an area has the potential to impact on land and soils, and human beings and their enjoyment of the surrounding area. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on site and are not controlled by the Agency.

The licensee confirmed that:

- the proposed activity does not involve any material change to existing buildings;
- the facility is not visually intrusive and the proposed activity does not alter the external appearance of the facility; and
- there is no record of cultural heritage feature on the site.

The facility is located in an agricultural area that is not highly populated. Emissions from the operation of the activity will not affect the agricultural landscape and culture of the area.

No mitigation measures have been proposed.

(c) Material assets

Any adverse effect on material assets has the potential to impact on population and human health and their enjoyment of the current amenity value and socio-economic activity.

The licensee confirmed that:

- current operations are not a source of adverse environmental nuisance or impairment of the amenities outside the site boundary and that the local road network has the capacity to deal with the increase in traffic.
- the proposed activity will have a slight socio-economic benefit associated with maintaining local employment levels.
- the proposed activity will result in an increase in fuel consumption.

Proposed mitigation measures include the maintenance of nuisance control measures and the application of resource consumption control measures to minimise usage.

Overall Conclusions in relation to effects on landscape, material assets and cultural heritage from the activity

I am satisfied that there will not be significant effects on landscape, material assets and cultural heritage from the operation of the activity.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution.

18.2 Interaction of effects

I have considered the interaction between population and human health, biodiversity, land and soils, water, air, climate, landscape, material assets, cultural heritage and the interaction of the likely effects identified throughout this report.

The interaction between factors as a result of the operation of the facility are summarised below:

Table 14: Interaction of effects

	Climate	Traffic	Soils and Geology	Water	Biodiversity	Air	Noise	Landscape	Public health	Heritage	Material Assets
Climate		✓				✓					
Traffic						✓			✓		
Soils and Geology											
Water					✓						
Biodiversity											
Air									✓		
Noise									✓		
Landscape											
Public Health											
Heritage											
Material Assets											

The most significant interactions, as addressed in the earlier parts of this report, are as follows:

Population and human health, air and noise

The proposed activity has the potential to impact on human beings from noise, dust and vehicle exhaust emissions. As demonstrated in Sections 8 and 10 above, such impacts are considered not likely to be significant. In addition, if the activity is carried out in accordance with the RD and the conditions attached it will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

Based on the assessment carried out throughout this report, and the mitigation measures proposed (including the relevant conditions in the licence), I do not consider that the interactions identified are likely to cause or exacerbate any potentially significant environmental effects of the activity.

19. Reasoned Conclusion on Environmental Impact Assessment

Having regard to the effects (and interactions) identified, described and assessed throughout this report, I consider that the mitigation measures proposed will enable the activity to operate without causing environmental pollution. I also consider that the potential effects on the environment identified above, even if they occur, are unlikely to damage the environment, and the risk of them occurring is not unacceptable.

Accordingly, if the activity is carried out in accordance with the RD and the conditions attached, the operation of the activity will not cause environmental pollution. The conditions of the RD and the mitigation measures proposed will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

20. Appropriate Assessment

The nearest designated site to the facility is Castlemaine Harbour SAC (site code 000343). Its connection to the facility is via surface water. The RD authorises only clean storm water to be discharged from the facility to the Aughacurreen drain. This drain flows approximately 540m northeast of the facility before it connects to the Aghalee Beg River (River Order 1). This River feeds into the Glanooragh River (River Order 3) approximately 1.8Km downstream. The Glanooragh River feeds into Castlemaine Harbour SAC approximately 2.2Km downstream. Overall, the distance from the drain adjacent to the facility to the SAC is approximately 4.5Km.

Table 15 of the Appendix lists the European Site assessed, it's associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Site(s) at Castlemaine Harbour SAC (site code: 000343).

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was not required.

The reasons for this determination are as follows:

- (i) The current licence provides for two clean rainwater discharges from the roof of the main building directly to land drain at discharge locations R1 and R2.
- Emission point R1 discharges to the road drain on the facility's south-eastern boundary which merges into the Aughacurreen Drain on the facility's north-eastern boundary;
 - Emission point R2 discharges directly to the Aughacurreen Drain;
 - The Aughacurreen Drain connects to the Aghalee Beg River located approximately 540m from the facility. From this point the Aghalee Beg River flows approximately 1.8km until it merges with the Glanooragh River. The Glanooragh River flows another approximately 2.2km until it feeds into the Castlemaine Harbour SAC;
 - The River waterbody Water Framework Directive Status for 2010 – 2015 for the Aughacurreen Drain and the Aghalee Beg River are unassigned. The status for the Glanooragh River is assigned, approximately 0.4km upstream of the SAC, as good status;
 - Rainwater discharges from the roof of the facility's main treatment building are unlikely to have any impact on the Castlemaine Harbour SAC located approximately 4.5km from the above SAC.
- (ii) There are two percolation areas at the facility which provide for discharges to ground of treated sanitary effluent and of treated effluent from outdoor yard areas. Emissions to ground from the facility may indirectly impact the Aughacurreen Drain.

Schedule C.6 of the current licence (Register Number W0217-01) requires biannual receiving body monitoring of the groundwater body beneath the facility and the land drain both upstream of the site boundary and just downstream of the facility.

- Biannual groundwater monitoring has demonstrated that groundwater up-gradient of the facility has high ammonia and faecal coliform levels; however, due to other indicative parameters such as chloride and nitrate not being elevated this contamination has been attributed to agricultural activity rather than from down gradient on-site organic waste sources.
- The Scartaglin groundwater body (European Code: IE_SW_G_073) is located beneath the site and the designated site is located on a surface waterbody approximately 2.2km north of the facility. It is unlikely that any groundwater beneath the site will impact the designated site which is situated on a surface water body.
- Monitoring of the land drain upstream and downstream of the facility do not show an impact from discharges to ground at the facility.
- Monitoring from 13th December 2017 demonstrated that ammonia and pH were 0.02mg/l and 7.2 respectively in the upstream sample and 0.09mg/l and 7.3 in the downstream sample. These results are below the Environmental Quality Standard⁶ for a river water body of good status.

⁶ S.I. No. 272/2009 – *European Communities Environmental Objectives (Surface Waters) Regulations 2009*, as amended.

- The River water body Water Framework Directive Status for 2010 – 2015 for the Aughacurreen Drain and the Aghalee Beg River are unassigned. The Glanooragh River is assigned approximately 0.4km upstream of the SAC as good status.
- (iii) Currently there are no point source emissions to air from the facility. As part of the licence review it has been proposed to channel the air from buildings storing putrescible waste to an odour abatement system which has a point source emission to air. An odour dispersion model was submitted with the application and it predicts that the emission will not have an impact on the receptors around the facility. The prevailing wind is from the southwest and the above designated site is located to the northeast; however, the emission to air from the facility is not likely to have an impact on the designated site located approximately 2.3km northeast of the facility.

21. Fit & Proper Person Assessment

The Fit & Proper Person test requires three elements of examination:

Technical Ability

The licensee has been licensed by the Agency for the operation of a waste recovery facility at this location since August 2006.

Legal Standing

Neither the licensee nor any relevant person has relevant convictions under the Waste Management Act 1996, as amended, or under any other relevant environmental legislation.

Financial Provision/Strength

The licence category and proposed facility was assessed for the requirements of Environmental Liabilities Risk Assessment (ELRA), Closure, Restoration and Aftercare Management Plan (CRAMP) and Financial Provision (FP), in accordance with Agency guidance. Under this assessment it has been determined that ELRA, CRAMP and FP were required.

The licensee completed a Closure Plan and Environmental Liabilities Risk Assessment in 2016 and submitted this with the application. Total closure costs were estimated at approximately €117,942 (inclusive of a 10% contingency). The costing of the plausible worst case scenario in the ELRA was estimated at €511,260. (inclusive of a 20% contingency).

Condition 10.2.1 requires the revision of the closure and decommissioning plan within two months of the date of grant of the recommended licence. Condition 12.2.2 requires the revision of the ELRA within two months.

Condition 12.2.3 recommends that prior to increasing the waste acceptance threshold from 40,000 to 59,00 tonnes per annum the licensee make financial provision to cover any liabilities associated with the operation.

Fit & Proper Conclusion

It is my view, that the applicant can be deemed a Fit & Proper Person for the purpose of this review.

22. Cross Office Consultation

In preparing this report and Recommended Decision, the following technical and sectoral advisors were consulted:

<i>Consulted with the OEE:</i>	<i>Assistance Provided</i>
Mr Joe Hunter	Site visit on the 22 nd September 2017.
Ms Pamela McDonnell, Mr Caoimhín Nolan and Mr Joe Hunter	Enforcement concerns.
Ms Denise O’Riordan	ELRA, closure and decommissioning, and financial provision.
Mr Brian Meaney	The control of waste activities and emissions.
Mr Larry Kavanagh	Annual enforcement charge.

23. Charges

The annual enforcement charge recommended is €9,599. This charge is comparable to the current charge for the facility.

24. Recommendation

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed



Caroline Murphy

Inspector

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Act 1996 as amended, as soon as may be after the expiration of the appropriate period.

Appendices

Maps/drawings

Figure 3: Overview of the location of the facility.

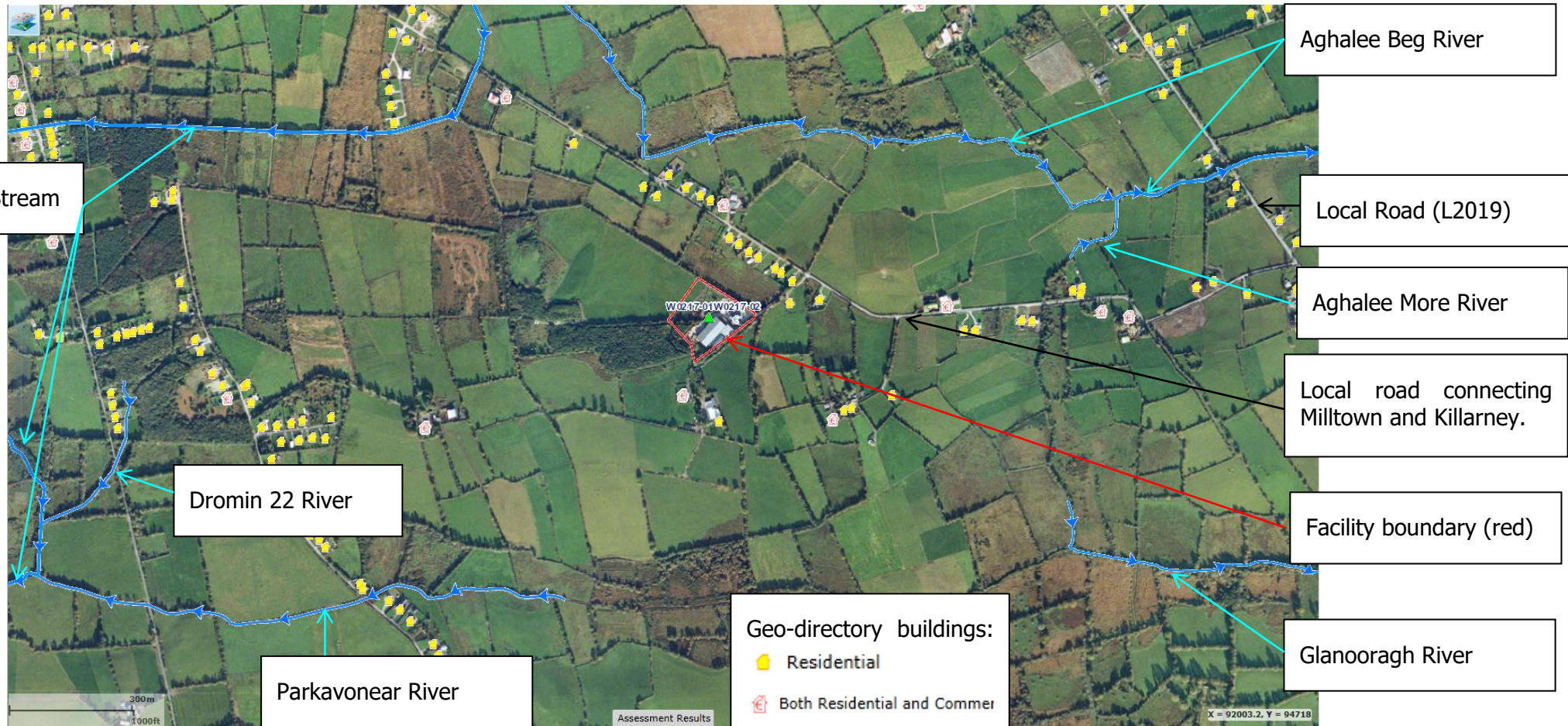


Figure 6: Site Layout Plan – treatment areas.

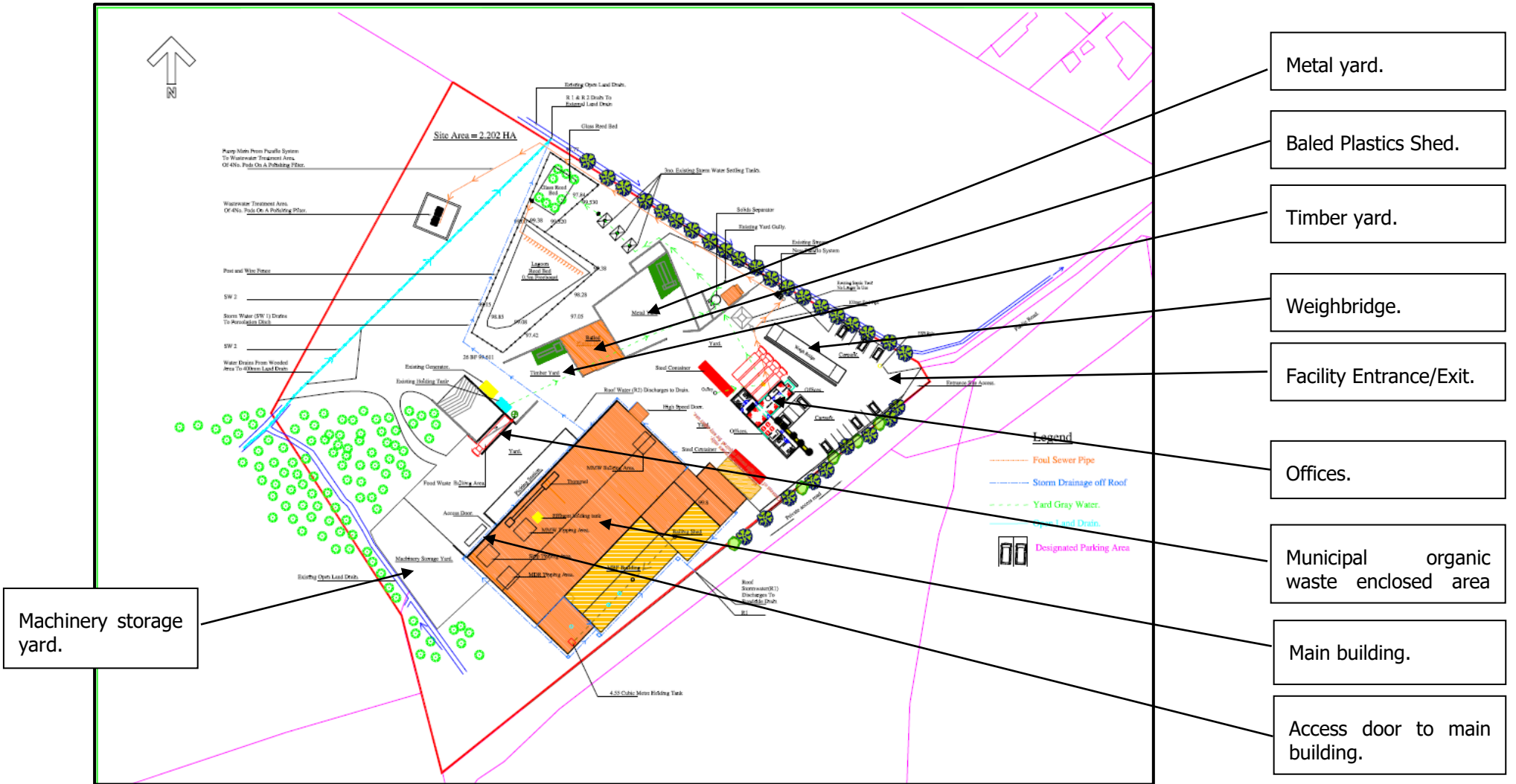


Figure 7: Site Layout Plan – location of emission points, generator and process effluent holding.

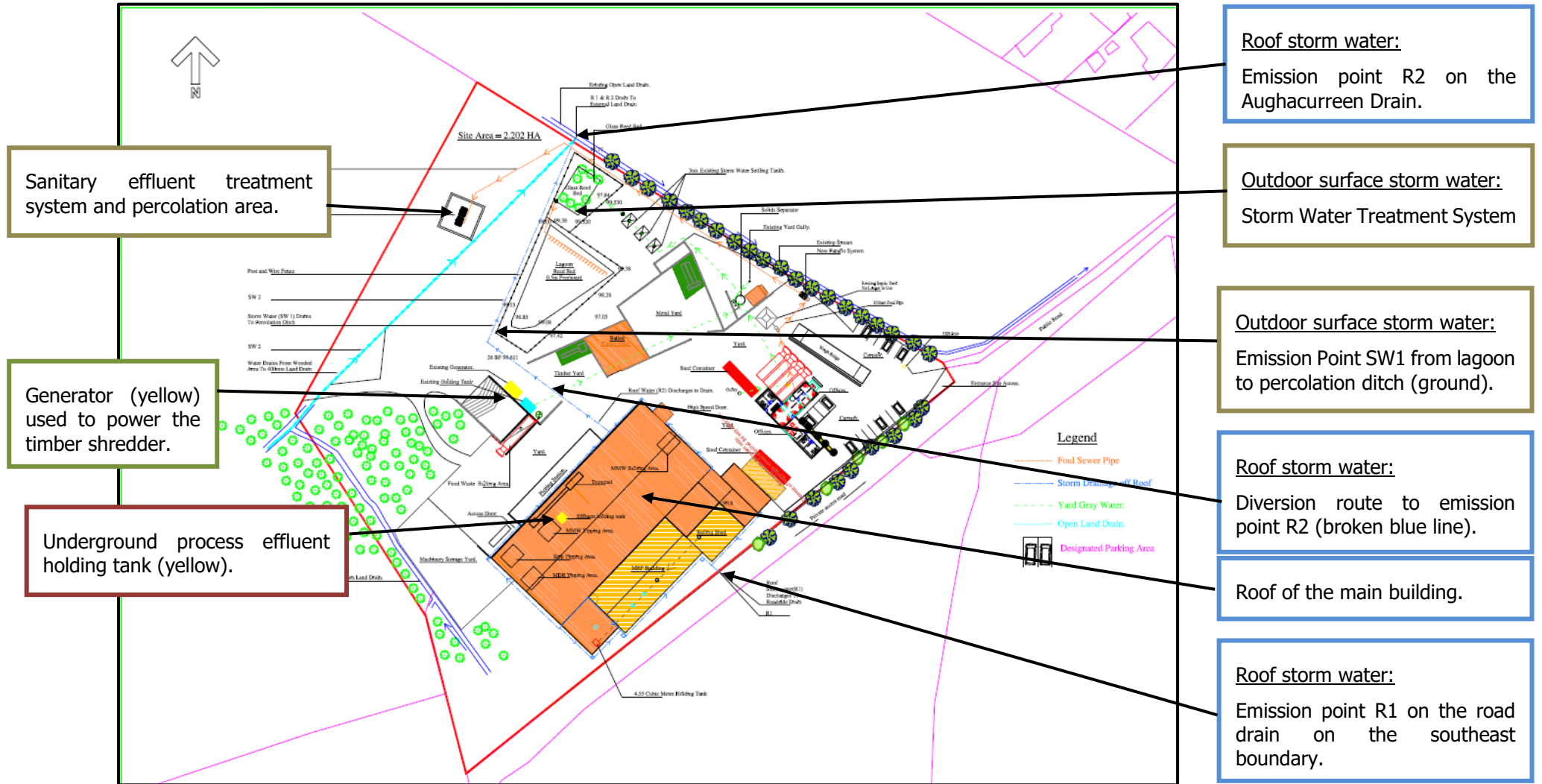
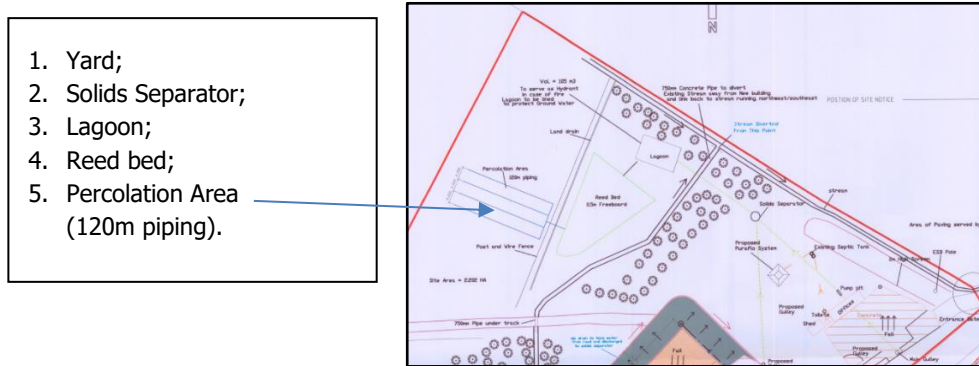


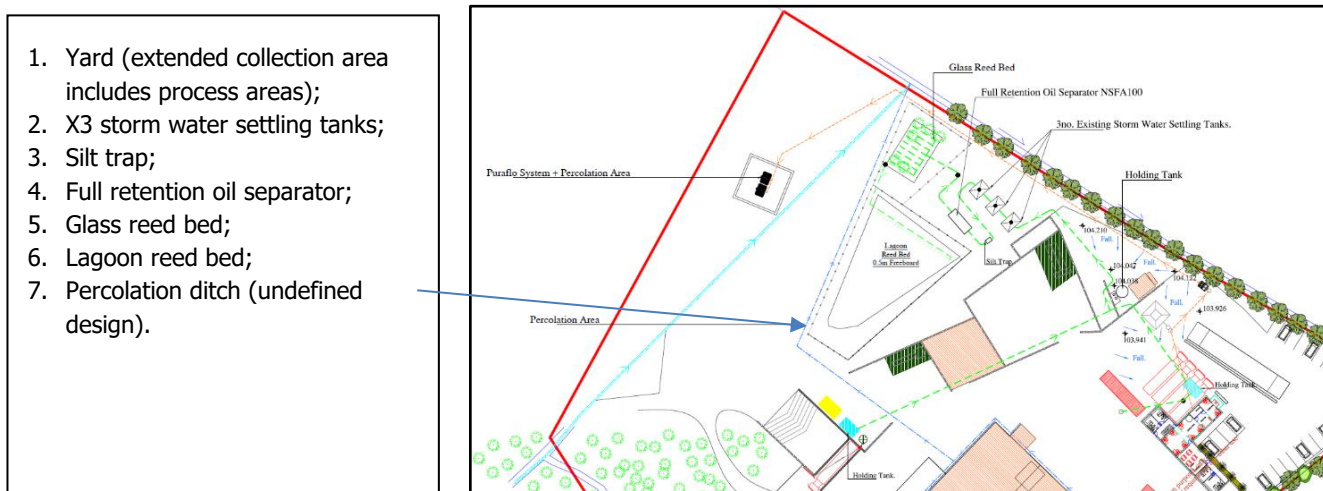
Figure 8: Authorised sequence of yard drainage to ground (Condition 3.13.2, W0217-01).



1. Yard;
2. Solids Separator;
3. Lagoon;
4. Reed bed;
5. Percolation Area (120m piping).

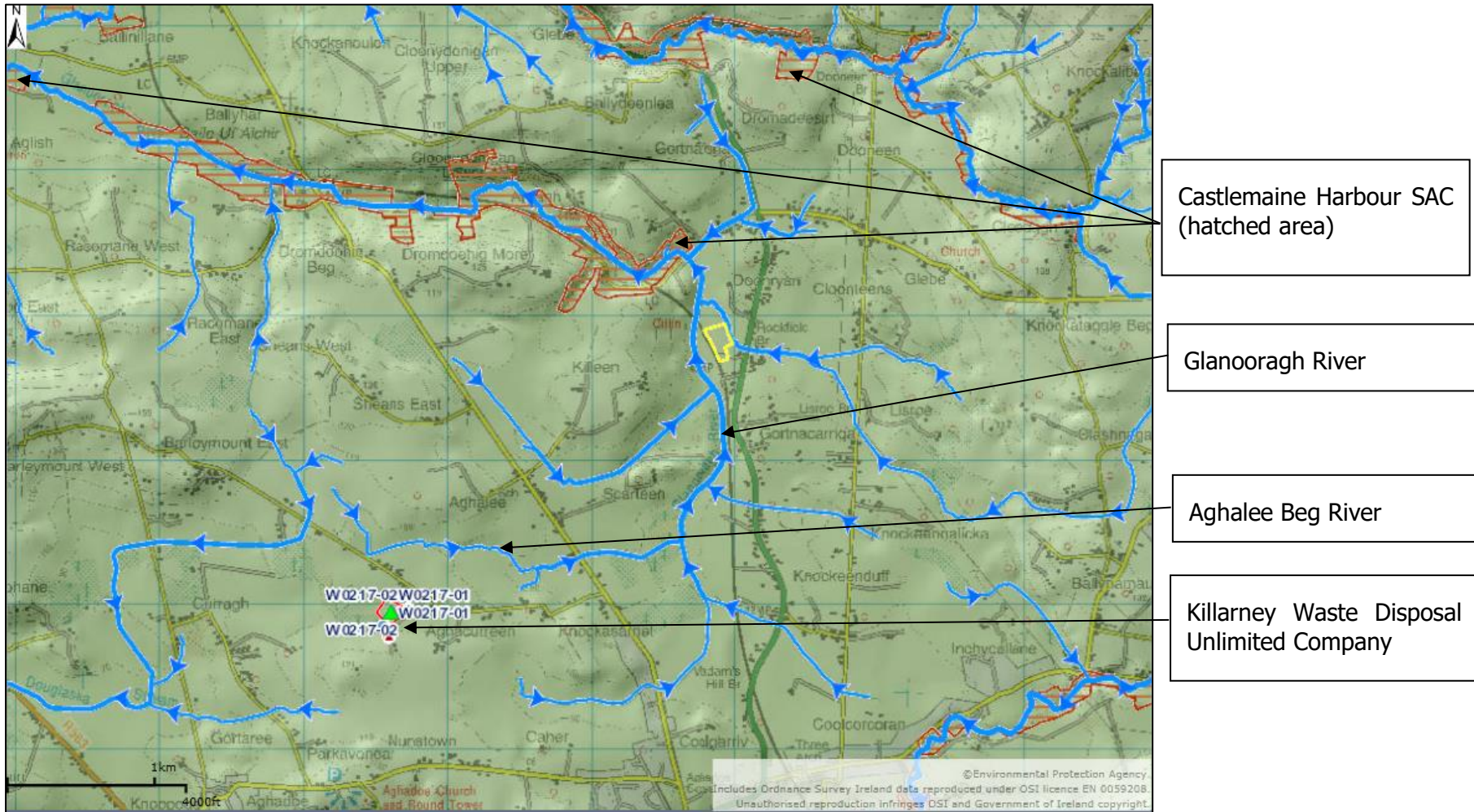
The current drainage and treatment system in place at the facility does not match the drawing above, as shown in Figure 7 below (Drawing Number 02).

Figure 9: Current sequence of yard drainage to ground.



1. Yard (extended collection area includes process areas);
2. X3 storm water settling tanks;
3. Silt trap;
4. Full retention oil separator;
5. Glass reed bed;
6. Lagoon reed bed;
7. Percolation ditch (undefined design).

Figure 10: Site Layout Plan – location of emission points, generator and process effluent holding.



AA Screening

Table 15: List of European Sites assessed, their associated qualifying interests and conservation objectives.

European Site (site code):	Castlemaine Harbour SAC (Site code 000343).	
Distance/ Direction from facility:	Approximately 4.5km north-northeast downstream of the facility.	
Conservation objectives:	As per NPWS (2014) Conservation objectives: Castlemaine Harbour SAC 000343 and Castlemaine Harbour SPA 004029. Version 2.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (dated 19 July 2011).	
Qualifying interests (* denotes a priority habitat)		
1095	Sea lamprey	<i>Petromyzon marinus</i>
1099	River lamprey	<i>Lampetra fluviatilis</i>
1106	Atlantic salmon	<i>Salmo salar</i>
1130	Estuaries	
1140	Mudflats	
1210	Annual vegetation of drift lines	
1220	Perennial vegetation of stony banks	
1310	<i>Salicornia</i> and other annuals colonizing mud and sand	
1330	Atlantic salt meadows	<i>Glauco-Puccinellietalia maritimae</i>
1355	Otter	<i>Lutra lutra</i>
1395	Petalwort	<i>Petalophyllum ralfsii</i>
1410	Mediterranean salt meadows	<i>Juncetalia maritimi</i>
2110	Embryonic shifting dunes	
2120	Shifting dunes along the shoreline with <i>Ammophila Arenaria</i> ("white dunes")	
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes") *	
2170	Dunes with <i>Salix repens</i> species. <i>Argentea</i>	<i>Salix arenariae</i>
2190	Humid dune slacks	
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	<i>Alno-Padion, Alnion incanae, Salicion albae</i>

Relevant European (and international) legal instruments

Table 16: Relevant legal instruments.

The following Irish and European instruments are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.
Environmental Impact Assessment (EIA) Directive (85/337/EEC, as amended)
Habitats Directive (92/43/EEC) & Birds Directive (79/409/EC)
Water Framework Directive (2000/60/EC), as amended by Directive (EU) 2018/851.
Waste Management (Licensing) Regulations, 2004, as amended, (S.I. Number 395 of 2004).
Environmental Liability Directive (2004/35/CE)
Waste Framework Directive (2008/98/EC)
Groundwater Directive (80/68/EEC) and 2006/118/EC
EC Environmental Objectives (Groundwater) Regulations, 2010 (S.I. Number 9 of 2010).
Medium Combustion Plant Directive (EU) 2015/2193
European Union (Medium Combustion Plants) Regulations 2017 (S.I. Number 595 of 2017).
European Communities (Greenhouse Gas Emissions trading) Regulations 2012 (S.I. Number 502/2012).
Energy Efficiency Directive.

List of Waste codes

Table 17: List of waste codes requested by the licensee and listed in Schedule A.1 of the Recommended Decision.

'List of Waste' (LoW) Code	LoW Description, before treatment
02 03 04	Materials unsuitable for consumption or processing.
02 06 01	Materials unsuitable for consumption or processing.
15 01 01	Paper and cardboard packaging.
15 01 02	Plastic packaging.
15 01 03	Wooden packaging.
15 01 04	Metallic packaging.
15 01 05	Composite packaging.
15 01 06	Mixed packaging.
15 01 07	Glass packaging.
15 01 09	Textile packaging.
17 01 01	Concrete.
17 01 02	Bricks.
17 01 03	Tiles and ceramics.
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06.
17 02 01	Wood.
17 02 02	Glass.
17 02 03	Plastic.
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01.
17 04 01	Copper, bronze, brass.
17 04 02	Aluminium.
17 04 03	Lead.
17 04 04	Zinc.
17 04 05	Iron and steel.
17 04 06	Tin.
17 04 07	Mixed metals.
17 05 04	Soil and stones other than those mentioned in 17 05 03.
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03.
17 08 02	Gypsum-based construction materials other than those mentioned in 17 08 01.
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03.
20 01 01	Paper and cardboard.
20 01 02	Glass.
20 01 08	Biodegradable kitchen and canteen waste.
20 01 11	Textiles.
20 01 39	Plastics.
20 01 40	Metals.
20 02 01	Biodegradable waste.
20 03 01	Mixed municipal waste.