This Report has been cleared for submission to the Director by Programme Manager, Marie O'Connor

Signed: ***Date: 21/01/2020***

OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON AN INDUSTRIAL EMISSIONS LICENCE REVIEW, LICENCE REGISTER NUMBER W0291-02

TO: DR. EIMEAR COTTER

FROM: Aisling Connolly	**DATE: 21 January 2020**
Licensee:	Forge Hill Recycling Unlimited Company.
CRO number:	551113 (status: normal)
Location/address:	Forge Hill Waste Transfer Station, Forge Hill, Cork
Application date:	05/11/2018
Classes of activity (under EPA Act 1992 as amended):	11.4 (b)(ii) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, (other than activities to which the Urban Waste Water Treatment Regulations 2001 (S.I. No. 254 of 2001) apply): pre-treatment of waste for incineration or co-incineration; (main). 11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.
Categories of activity under IED (2010/75/EU):	5.3 (b)(ii) Recovery, or a mix of recovery and disposal, of non-hazardous waste with a capacity exceeding 75 tonnes per day involving one or more of the following activities, and excluding activities covered by Directive 91/271/EEC: pre-treatment of waste for incineration or co-incineration.
European Directives/Regulations relevant to this assessment are listed in the appendix of this report.	
Main CID document:	Commission Implementing Decision on Waste Treatment, CID (EU) 2018/1147 (August 2018)
Other relevant BREF documents are listed in the appendix of this report.	

Activity description/background:

The operation of a dry recyclable waste recovery and transfer station, accepting dry recyclable waste from household and commercial sources. In this review application, Forge Hill Recycling Unlimited Company has requested authorisation to increase the installation's maximum waste acceptance threshold from 82,000 to 100,000 tonnes per annum.

Types of waste accepted: Household and commercial dry recyclable waste. List of Waste (LOW) codes are detailed in the appendix of this report.	
Additional information received:	Yes (20/11/2018, 12/09/2019, 27/09/2019, 09/10/2019, 11/10/2019, 15/11/2019)
No of submissions received:	One.
EIAR submitted: Yes (05/11/2018)	NIS submitted: Yes (11/10/2019)
Site visit: 05/09/2019	Site notice check: 01/12/2018

1. Activity description/background

The current licence names the licensee as Forge Hill Recycling Limited; however, the Companies Registration Office has registered the licensee as Forge Hill Recycling Unlimited Company under CRO Number 551113. The licence review application was submitted under this name and CRO number and thus, these are the details used in the Recommended Determination (RD).

Forge Hill Recycling Unlimited Company is currently licenced to operate a dry recyclable waste recovery and transfer facility at Forge Hill Industrial Estate, County Cork. The site was first acquired by the current landowner and leased to Forge Hill Recycling Unlimited Company in 2015. At the time, a Waste Permit was granted by Cork County Council to operate the site as a recycling and transfer facility with a maximum waste acceptance threshold of 49,999 tonnes per annum. In August 2017, the EPA issued Forge Hill Recycling Unlimited Company a Waste Licence (Reg. No W0291-01), which authorised the acceptance and sorting of 82,000 tonnes of waste.

The installation accepts recyclable waste from household and commercial sources. The types of waste accepted are mixed dry recyclables including paper and cardboard packaging, wooden, metallic and glass packaging, wood and plastics. Waste is recovered via sorting into single stream recyclable waste and dispatched to authorised recycling facilities overseas. Non-recyclable residues, which are the product of contamination amongst accepted waste, are sent to waste processing facilities in Ireland where they are used to produce solid recovered fuel (SRF).

To accommodate the proposed waste acceptance increase, the licensee sought and received planning permission for two extensions to the physical infrastructure on-site. Construction is complete on a new 1,468m^2 waste reception area at the north-eastern elevation of the waste processing building and a second, smaller extension at the south-eastern elevation is planned, to allow for possible future reconfigurations of the waste processing equipment.

2. Scope of Review

Proposed change	Details/comment
Waste acceptance change	Proposed increase of the waste acceptance threshold from 82,000 to 100,000 tonnes per annum.
Hours of operation/waste acceptance change	Proposed extension of hours of waste acceptance and extension of hours of operation to 24 hours/day, 7 days a week.
Site related change	Proposed external storage of ferrous and non-ferrous metals.
New abatement equipment	Installation of an automatic shut-off valve on the SW-1 outlet.

Waste acceptance threshold

Schedule A.2 Waste Acceptance of the RD recommends the conditional increase of the waste acceptance threshold from 82,000 to 100,000 tonnes per annum. Condition 12.3.3 requires that the licensee shall make financial provision to cover any liabilities associated with the operation of the site for 100,000 tonnes of waste per annum.

The licensee has stated this increase will provide the installation with the capacity to process more than 75 tonnes of waste per day, the activities are therefore required to be brought into conformity with the Industrial Emissions Directive (IED) (2010/75/EC). From the date of grant of this review, the licence (W0281-02) shall be deemed to be an Industrial Emissions Licence granted under Part IV of the Environmental Protection Agency Act 1992 as amended and shall not be a waste licence.

Hours of waste acceptance and operation

Table 1. below shows the hours of waste acceptance and operation authorised by the current licence, proposed by the licensee, in the conditions of planning permission and those hours recommended in the RD.

Table 1. Hours of waste acceptance and hours of operation (shaded cells).

	Current licence Register Number W0291-01	Applicant Proposed	Planning Permission Reference no. 185176	Recommended Decision (RD)
Monday - Friday	**06:30 – 23:30**	**24h/7d**	**06:00 – 23:30**	**06:00 – 23:30**
	06:00 – 24:00	**24h/7d**	**24h/7d**	**24h/7d (Subject to agreement with the Agency)**
Saturday	**06:30 – 17:30**	**24h/7d**	**06:00 – 18:00**	**06:00 – 18:00**
	06:00 – 18:00	**24h/7d**	**24h/7d**	**24h/7d (Subject to agreement with the Agency)**
Sunday and Bank Holiday	**08:30 – 17:30**	**24h/7d**	**08:00 – 18:00**	**08:00 – 18:00**
	08:00 – 18:00	**24h/7d**	**24h/7d**	**24h/7d (Subject to agreement with the Agency)**

The licensee seeks to extend the existing hours of waste acceptance to accommodate the increased waste acceptance threshold and to schedule waste deliveries outside of peak traffic periods. Planning permission were not in favour of waste acceptance 24 hours/day, 7 days a week. The extended hours of waste acceptance, generally 30mins extra, that were granted by the planning permission, are reflected in the Recommended Determination.

The licensee has additionally requested to extend the hours of operation to 24 hours/day, 7 days a week. It is stated in the submitted EIAR that this is proposed to enable occasional processing of waste between 24.00 and 06.00 hours when backlogs of waste arise for example, due to plant breakdown.

Condition 1.8 of the RD recommends authorisation of this extension to operating hours, however it is subject to agreement with the Agency. This allows the agency the flexibility to modify the operating hours, if 24 hour operation is found to interfere with the installation's ability to comply with the licence.

External storage of waste

The RD does not authorise external storage of baled metal waste at the installation, as was requested in the review application. Best practice is to store waste and materials that may generate diffuse emissions indoors (CID 2018/1147/EU). As part of unsolicited information submitted on the 27th September 2019, the licensee informed the EPA that the stormwater gully which is adjacent to the proposed metal storage area would be decommissioned. However, the existing layout of stormwater gullies in the yard area mean two stormwater drains run through the south-eastern yard where the metal storage area is proposed and thus, the risk of contamination of stormwater remains. An overview of the surface water drainage layout is provided in Appendix 1, diagram 1. The risk posed by external storage of metal waste to stormwater, is further discussed in section 9.1.2 of this report.

Firewater Abatement Equipment

The underground stormwater retention tank at the installation also serves as the on-site firewater retention tank. Currently, this firewater retention tank feeds-out, via a rising main at SW-1, to the Lehenagh Beg Stream. The licensee states in the EIAR that in the event of a fire, emergency response actions include switching off the pump in the balance tank and manually closing the manual shut-off valve at SW-1. Section 5 of the EPA draft guidance note on fire water retention states that, "All potential retention infrastructure, as outlined below, must be automatically activated in the event of a fire alarm being activated. Reliance on manual intervention to deploy retention is not acceptable." Therefore, Condition 3.14 (i) of the RD recommends for the installation of an automatic shut-off valve at SW-1, connected to the fire-detection system. The risk to stormwater avoided by installing the automatic shut-off valve is discussed in section 9.1.2 of this report.

Stormwater Monitoring

The stormwater monitoring parameter, Biological Oxygen Demand (BOD), has been removed from the RD as compared to the current licence (W0291-01). Total Organic Carbon (TOC) and Chemical Oxygen Demand (COD) are sufficient parameters in the RD, for which trigger levels must be set, to detect contamination at stormwater discharge SW-1. The Environmental Protection Agency "Guidance on the setting of trigger values for stormwater discharges to off-site surface waters at EPA IPPC and Waste licensed facilities" was consulted in establishing this updated list of trigger level parameters.

3. Licence/Permit History

Licence	Details	Date
W0291-01	Waste Licence issued by the EPA for a dry mixed recyclables recovery and transfer facility, accepting a maximum of 82,000 t/a of household and commercial waste.	21st August 2017
W0173-01 Transfer and ultimate surrender	Transfer of the licence to Greenstar Environmental Services Limited. Greenstar suspended waste activities at the facility in Sep. 2011. Greenstar went into receivership in August 2012. Starrus Eco Holdings Ltd purchased the business and assets of Greenstar in March 2014. A transfer of the licence to Starrus Eco holdings Ltd (trading as Greenstar) was completed in March 2014. The licence was surrendered on the 4th May 2016.	4th May 2016 (date the licence was surrendered)
WFP-CK-15-0148-01	Waste facility Permit issued by Cork County Council to Forge Hill Recycling Limited.	21st December 2015
W0173-01 Technical Amendment A	Technical amendment to provide for changes relating to energy efficiency, discharge to sewer and decommissioning and residuals management.	8th January 2003
W0173-01	This licence was granted to IPODEC Ireland Limited on the 9th September 2003 for a materials recovery and transfer facility with a maximum waste acceptance of 82,000 t/a of household, commercial, industrial and construction & demolition waste. IPODEC was subsequently renamed Onyx and then Veolia Environmental Services (Ireland) Ltd.	9th September 2003
WFP 02/01	Waste facility Permit issued by Cork County Council to IPODEC Ireland Limited to operate a Materials Handling and Recycling Facility.	1991 – 2003

4. Compliance and Complaints Record

Compliance and complaints under existing licence

Under the existing licence (W0291-01), there were three complaints received between the 26th – 27th August 2019, in relation to the odour from the operation of this installation, these are addressed in section 8.3 of this report.

There have been twenty-five non-compliances issued to the licensee in relation to waste storage practices, dust, leachate and exceedances of emission limit values (ELV) at the foul water discharge point (FW-1) under the current licence (W0291-01). These are addressed in sections 8.2, 8.3, 9.1 and 9.2 of this report. None of the incidents were classified as on-going and all non-compliance cases have been closed.

5. Best Available Techniques

BAT for IED installations

Section 86A(3) of the EPA Act 1992 as amended, requires that the Agency shall apply BAT conclusions as a reference for attaching one or more conditions to an Industrial Emissions Directive (IED) licence, or revised IED licence. Therefore, BAT for the installation was assessed against the BAT conclusions/guidance contained in the relevant Commission Implementing Decision (CID)/BREF documents. The table in appendix 3 sets out a summary of how the BAT conclusions published in the CID have been taken into account in the licence.

For existing installations, for which a CID on BAT conclusions is published, article 21(3) of the IED (in relation to the main activity of the installation) requires that within four years, the EPA must ensure that 'all permit/licence conditions for the installation concerned are reconsidered, and where necessary updated' and 'ensure compliance with the BAT'.

BAT for the installation was assessed against the BAT Conclusions contained in the following documents:

- Commission Implementing Decision on Waste Treatment, CID (EU) 2018/1147 (August 2018)
- Reference Document on Best Available Techniques on Energy Efficiency (February 2009)
- Reference Document on Best Available Techniques on Emissions from Storage (July 2006)

The assessment has demonstrated that the installation will comply with all applicable BAT Conclusion requirements specified in the CID and will be in line with the guidance specified in the relevant BREF Documents.

I consider that the applicable BAT Conclusion requirements are addressed through the technologies and techniques as described in the application, as well as the standard conditions specified in the RD. No additional conditions to address CID/BAT Conclusion requirements are specified in the RD.

6. Submissions

There was one submission made on this application.

The submission is noted and was taken into consideration during the preparation of the Recommended Determination.

Submissions			
1	Name & Position: Mr Declan Hamilton, Principal Environmental Health Officer	Organisation: Health Service Executive (HSE)	Date received: 7th December 2018
	Issues raised: Mr Hamilton refers to a previous submission of the HSE from December 2016 (W0291-01), in which they had no response to make regarding the application. The HSE have no additional comments to make further to this review application (W0291-02).		**Agency response:** Submission noted.

7. Planning Permission, EIAR and EIA Requirements

7.1 Planning Status

A number of planning applications have been made in relation to activities within the site boundary since 2003. Details of these planning applications and permissions have been provided in the application form.

Cork County Council determined that the expansion development associated with an increase in waste tonnage and hours of waste acceptance and operation, is likely to have a significant effect on the environment and that an EIAR was required in support of the planning application (Planning reference: 185176). The licensee has, with the licence review application, submitted the EIAR that relates to this planning application reference. Planning permission for the extension was granted by Cork County Council, subject to conditions on 10th May 2018.

The planning permission permits the installation to process a maximum of 100,000 tonnes of waste per annum. The planning permission permits waste acceptance/deliveries and external housekeeping and maintenance at the installation from 06:00 to 23:30 Monday to Friday inclusive, 06:00 to 18:00 Saturdays and 08:00 to 18:00 Sundays and Bank Holidays.

In relation to the hours of operation, Condition 1 of the schedule of conditions granted by the planning permission states the development shall be carried out in accordance with the plans lodged with the application and this includes the plan to increase hours of operation to 24 hours.

These extended hours of waste acceptance and operation are reflected in the Recommended Determination, with the extended hours of operation being subject to agreement with the Agency (as previously discussed in Section 2).

7.2 EIA Screening

In accordance with Section 83(2A) of the EPA Act 1992 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 activities meets the criteria outlined in Section 83(2A)(b) and 83(2A)(c). In accordance with the EIA Screening Determination, the Agency has determined that the activities are likely to have a significant effect on the environment and accordingly, has carried out an assessment for the purposes of EIA.

The Environmental Impact Assessment Report (EIAR) was submitted by the licensee in support of the review IE licence application on the 15th November 2018.

7.3 Content of Environmental Impact Assessment Report (EIAR) and licence application

I have considered and examined the content of the licence application, the EIAR and other relevant material submitted with it. Further information was sought from the applicant on the following issues:

1. Clarification that the new paved yard area east of the extension drains to stormwater as well as to foul sewer.

2. The request was made for revised foul and surface drainage layout drawings, respectively, to reflect accurate foul and surface water gully locations on-site.

On receipt of further information from the applicant, all of the documentation received was examined and I consider that the EIAR complies with the requirements of the *EPA (Industrial Emissions)(Licensing) Regulations 2013*, when considered in conjunction with the additional material submitted with the application when supplemented by my assessment as contained in this report.

7.4 Consultation with Competent Authorities

Consultation was carried out between Cork County Council and the Agency under the relevant section of the EPA Act. No issues were raised in relation to the licence application or EIAR.

7.5 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 activities on the environment, as respects the matters that come within the functions of the Agency, for each of the following environmental factors: human beings, flora, fauna, soil, water, air, climate, the landscape, material assets and cultural heritage.

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 activities 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 activities 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: W0291-01;
- the review application, Register Number: W0291-02 and the supporting documentation received from the applicant;
- the EIAR;
- the submission received;
- the documents associated with the assessments carried out by Cork County Council planning authority, in particular the Decision Maker's Order and Schedule of Conditions Grant, dated 8th October 2018, and the issues that interact with the matters that were considered by that authority and which relate to the activities.

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 of Environmental Factors

Environmental Factor	**Addressed in the following Sections:**
Human Beings	Greenhouse gases and climate impact, fugitive dust, odour, air emissions, direct stormwater discharges to waters, emissions to sewer, noise, waste generation, prevention of accidents and interaction of effects.
Flora and Fauna	Greenhouse gases and climate impact, fugitive dust, direct stormwater discharges to waters, odour, emissions to sewer, noise, waste generation, appropriate assessment, prevention of accidents and interaction of effects.
Soil	Greenhouse gases and climate impact, prevention of accidents and interaction of effects.

Environmental Factor	Addressed in the following Sections:
Water	Greenhouse gases and climate impact, direct stormwater discharges to waters, emissions to sewer, prevention of accidents and interaction of effects.
Air	Air emissions, greenhouse gases and climate impact, fugitive dust, odour, waste generation and prevention of accidents.
Climate	Greenhouse gases and climate impact, prevention of accidents and interaction of effects.
Landscape	Effects on landscape, material assets and cultural heritage, and interaction of effects.
Material Assets	Greenhouse gases and climate impact, effects on landscape, material assets and cultural heritage, use of resources, material assets, and interaction of effects.
Cultural Heritage	Greenhouse gases and climate impact, effects on landscape, material assets and cultural heritage, and interaction of effects.

8. Emissions to Air

8.1 Greenhouse Gases and Climate Impact

Climate change is a significant global issue which affects weather and environmental conditions (air, water and soil) which consequently affects human resources (human beings) 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.

The table below outlines the sources of GHG emissions from the activities (proposed and existing).

Greenhouse gas emissions	
Sources of GHG emissions from the activities	Vehicles
Relevant GHG gases	Carbon Dioxide

The acceptance, sorting and distribution of dry mixed recyclable waste are not activities listed in Schedule 1 of the European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 and as such do not require a GHG Emissions Permit.

The additional movement of waste transfer vehicles to facilitate an increase in tonnage of waste accepted to the installation will also result in increased greenhouse gas emissions. The EIAR suggests that this increase in emissions will be offset somewhat

by the installation's involvement in the production of SRF, which is a replacement for fossil fuels. There will be no changes to the processing equipment used on-site and no new emission points to the atmosphere.

With regard to reducing the climate impact of the installation under IED, the RD 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 activities, in a national context, I consider that the impact of any emissions from the installation on climatic considerations should be minimal.

The installation is located in an industrial estate and is surrounded by commercial units except for the eastern boundary which is adjacent to a greenfield site and the national primary road N27. Any carbon dioxide the vehicles at the installation generate will be minimal in comparison to any emissions caused by vehicles using the N27 road. Therefore, it is concluded that the impact will be on going, negative yet imperceptible from the existing operation, on the climate.

Based on the above assessment, I am satisfied that there will not be significant effects on climate from the operation of the activities when the installation is operating in accordance with the conditions of the Recommended Determination.

8.2 *Fugitive Dust*

Dust generation is associated mainly with vehicle movements within the installation during dry weather. The EIAR submitted by the licensee states there will be one additional daily truck movement to transport the increased waste tonnage accepted. There will be no change to the number of staff car movements as no additional staff recruitment is required. Fugitive dust emissions from processing and storage of mixed dry recyclables are unlikely given both take place entirely indoors.

For the purposes of EIA, the environmental factors potentially affected by dust emissions from the activities include: Human beings, flora and fauna and air.

Dust arising from the activities 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.

Condition 6 of the existing licence (W0291-01) requires quarterly dust deposition monitoring to be carried out at four specified monitoring locations. Since August 2017, there have been six non-compliances issued in relation to dust and exceedance of the licence emission limit value of 350mg/m^2/day;

- Two exceedance events occurred due to construction and stockpiling of dust from the construction of the first of the two extensions planned. Construction has since ceased.
    - Condition 3.19 of the RD provides for agreement with the Agency for future specified engineering works.
- One exceedance was due to contamination with organic matter as a result of high leaf fall around the monitoring location. Following this, the licensee

consulted their neighbour regarding trimming their trees to avoid further exceedances.
    - Condition 9.3.3 of the RD required the licensee to put in place measures to avoid a reoccurrence of the incident and any other appropriate remedial actions.
- One exceedance was attributed to ambient dust levels due to extremely dry weather conditions at the time (15/06/2018). A further exceedance event occurred due to a failure to use water in the road sweeper, causing dust to be dispersed into the air. It was agreed following the incident, that water would be used in the sweeper in all cases.
    - Condition 6.21 of the RD provides for site roads and any other areas used by vehicles to be sprayed with water in dry weather to minimise dust emissions.
- A non-compliance was issued for unacceptable levels of airborne dust in the processing building. The dust curtains on the main access door were in poor condition/partially missing and the purpose-built dust extraction system was not operating at the time of the site visit (26/04/2018). The dust curtains have since been repaired.
    - Condition 3.26 of the RD requires that the dust curtains are maintained.

Dust emission exceedances such as those above can be avoided by complying with the conditions in the RD which require good housekeeping, including keeping the concrete surfaces of the installation in a clean condition.

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. 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, installations 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 installation boundary.

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

8.3 Odour

The installation only accepts dry mixed recyclable waste which is not odorous. While the annual waste intake is proposed to increase, there will be no change to either the types of waste accepted or the method of processing. Odour emissions from the installation are unlikely due to the nature of the waste accepted and the fact that all waste is stored and processed indoors.

For the purposes of EIA, the environmental factors potentially affected by odour emissions from the activities include: Human beings, fauna and air.

Odour arising from the activities 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 installation.

The licensee commissioned consultants SLR, to complete an odour impact assessment in 2016. The assessment included all potentially sensitive receptors within 250m of the site. The assessment concluded that the potential risk of odour nuisance at all of the receptor locations was negligible due to;

- the non-odorous waste types accepted at the installation;
- waste processing and storage taking place indoors only;
- the use of roller shutter doors on the waste processing building.

Under the existing licence (W0291-01), there were three complaints received between the 26th – 27th August 2019, in relation to the odour from the operation of this installation. The three complainants, who are all members of surrounding businesses within the business park, described an intermittent rotten waste smell. No odour complaints were received by the EPA prior to this.

As part of a non-compliance for dust issued by OEE on the 26th April 2018, foul odours were noted as emanating from the building via an open pedestrian door and via the main access door, which was left open for extended periods of time when not in use.

- Condition 3.26 requires the maintenance of the dust curtains and roller shutter doors which are required to be kept closed when not in use.
- Condition 8.10 prohibits food, residual or odour-forming wastes from being accepted at the installation and requires that any rejected waste moved to the quarantine area, is stored under appropriate conditions to avoid putrefaction or odour generation.

Therefore, the risk of future odour emissions from the installation is combatted by complying with the conditions in the RD.

There are a number of additional conditions which control and mitigate odour:

- Condition 6 requires the floor of the building to be cleaned on a weekly basis;
- Condition 8 requires all waste processing and storage to be carried out inside the waste treatment building;
- Condition 8 requires the maintenance of a waste storage plan which limits the quantity of waste stored in the processing building and the maximum holding period for which waste can remain in each storage area;
- Condition 6 provides for the carrying out of an odour assessment, and any recommendations resultant from this assessment would be required to be implemented once agreed by the Agency.

Accidental odour emissions could occur if contaminated waste was accepted at the installation. 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, installation or activities in the industrial estate which are likely to give rise to odours that could lead to likely or significant cumulative effects from odour beyond the installation boundary.

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

8.4 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, human beings, flora and fauna or any other aspect of the environment from air emissions arising from the operation of the activities when operated in accordance with the conditions of the Recommended Determination.

9. Discharges to Water and Ground

9.1 Direct Discharges to Waters

9.1.1 Direct Process Emissions to Waters

There are no direct process emissions to waters at the installation.

9.1.2 Direct stormwater discharges to waters

The table below gives details of the installation's stormwater discharge to water, the sources of potential contamination of this discharge, the type of on-site abatement, as well as details of the receiving water.

Stormwater discharge point details			
Emission Reference	Proposed / Existing	Monitored parameters (monitoring frequency)	Trigger levels established (Y/N)
SW-1	Existing	Visual (daily); pH, temperature, conductivity, TOC, Total suspended solids, COD, Total Ammonia, Total Nitrogen, Mineral oils (weekly). (RD Schedule C.2.3)	Y
Drainage areas:		Roof of processing building, all concrete yard areas, site roads, walkways and car parking area.	
Abatement:		Class I by-pass interceptor (required by RD).	
Receiving water:		The Lehenagh Beg Stream which in turn flows into the Tramore River (also referred to as the Douglas (Lee) River).	

Automatic diversion in place:	Yes (collected in an attenuation tank before discharging to the stream)

For the purposes of EIA, the environmental factors potentially affected by stormwater discharges to waters include: Water, soil, flora and fauna, and human beings.

Should an accidental emission occur, e.g. diesel spill as a result of bund failure of the outdoor steel container storing diesel, it has the potential to discharge through SW-1 to the Lehenagh Beg Stream. This could affect surface water quality downstream, as well as aquatic habitats within that surface water. Should an accidental emission discharge to ground as a result of, for example, an oil leak from a car, 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

Under the existing licence (W0291-01), non-compliances have been issued for failure to integrity test an existing "bund shed" (26/04/2018), and for the storage of two 5 litre drums of oil in an unbunded area (20/02/2019). The licensee additionally failed to maintain a daily surface water visual inspection log as was required in Condition 6.13.1 of the licence. A further non-compliance was issued for failing to notify the Agency of an oil spill incident by the following day (21/02/2019). The RD addresses these issues with the following conditions:

- Condition 6.19.4 requires that fuels shall be stored only at appropriately bunded locations at the installation.
- Condition 3.9 of the RD requires integrity and water tightness testing of all tanks, bunding structures, containers and underground pipes.
- The RD provides for the maintenance of a daily surface water visual inspection log.
- Condition 11.3 provides for the notification, as soon as practicable, of any incident at the installation.

There is no significant potential risk to surface water from the currently proposed storage of a diesel IBC in the north-east yard of the site as it will be stored in a fully bunded steel container, fitted internally with a steel floor plate and 300mm steel upstand around the perimeter. The container has been fully integrity tested. The IBC will not store more than 1000 litres of diesel on site, at any time. The IBC must comply with the design requirements specified in Condition 3.9 of the RD.

The licensee is required to maintain an impermeable concrete surface in all areas of the installation. This measure mitigates any risk of any contamination going to groundwater.

There are no drinking water abstraction points downstream from the installation.

Condition 2.2.2.14 of the RD requires the licensee to maintain a preventive maintenance programme which should ensure both the silt traps and oil separators are fully operational at all times.

The existing licence (W0291-01) requires quarterly monitoring of stormwater discharge at SW-1. Monitoring submitted from Q1 of 2019 has shown all of the parameters to be below respective trigger levels, with the exception of biological oxygen demand (BOD) in the sample collected on 16th January. An incident report was submitted to the Agency. No direct cause of the elevated BOD level was identified**.** As a preventative measure, the licensee intensified litter patrol and yard cleaning protocols. The subsequent BOD levels were all below the trigger level. The RD addresses stormwater emissions via the following conditions;

- Condition 6.13 of the RD requires the licensee to monitor the stormwater discharge at SW-1 for TOC and COD, as well as several other parameters laid out in Schedule C.3.2. Monitoring of Storm Water Emissions.
- The RD requires a visual inspection of the stormwater discharge weekly.
- A response programme must be maintained to address incidents of trigger level exceedances.

If baled metal waste was to be stored externally in the yard area of the installation, even with a roof overhang covering the waste as was proposed by the licensee, there would be a potential risk of the metals creating contaminated run-off which could enter the stormwater drains which run through the yard, and feed out to the Lehenagh Beg Stream. Condition 5.1 of the RD states only uncontaminated stormwater may be discharged to surface water.

During a site visit on the 20th February 2019, a non-compliance was issued due to a number of baled aluminium cans containing a high level of contamination (cardboard, plastics, wood, textiles). Such was the level of mixed waste within the bales, that the inspectors were satisfied that the bales comprised of a mixture of waste, rather than a single waste stream as licenced. The transport of this waste was not pre-notified, which is contrary to the requirements of Regulation (EC) No. 1013/2006. A similar non-compliance was previously issued in April 2018 for a contaminated shipment of waste which was repatriated from Dublin Port. To ensure only uncontaminated waste is accepted at the installation;

- Condition 8.10 of the RD requires the licensee to maintain detailed waste acceptance and characterisation procedures.
- Condition 8.10.6 requires that any waste deemed unsuitable for processing at the installation and/or in contravention of this licence shall be immediately separated and removed from the installation at the earliest possible time.

Condition 8.2 of the RD requires all waste remain stored and processed indoors. This condition removes the risk of contaminated stormwater from waste, entering the stormwater drains in the yard area. Additionally, the RD contains standard conditions in relation to the storage and management of materials and wastes. The waste storage plan has been updated to take into consideration the increase in waste tonnage accepted and thus, waste to be stored.

The Fire Risk Assessment for the installation has been updated to take into consideration the extension and increase in waste tonnage acceptance. Following an upgrade from a manual to an automatic shut-off valve on SW-1 as recommended in condition 3.14.1 of the RD, there is not likely to be significant effects on the environment from the firewater retention tank/stormwater attenuation tank in the

event of a fire. The installation of an automatic shut-off valve on SW-1 will greatly reduce the risk of firewater captured in the firewater retention tank, entering the Lehenagh Beg Stream via the connecting overflow pipeline. Condition 9.5 of the RD requires the licensee to arrange, within **three months** following installation of the automatic shut-off valve, and every three years thereafter, for the completion of an updated fire risk assessment for the installation. Condition 3.14 of the RD requires that the licensee shall have regard to any guidelines issued by the Agency with regard to firewater retention.

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 13 below. These measures will help to control any impacts which could occur should any mitigation measures fail.

Therefore, it is considered that there will be no significant cumulative effect from stormwater emissions and other process water emissions from the activities or other water emissions from other activities/developments in the area to the Lehenagh Beg Stream. It is also considered that no indirect effects are likely as a result of these surface water emissions from the activities.

I am satisfied that based on the above assessment, the nature of the activities and the mitigation measures in place, that the stormwater emissions through SW-1 are not likely to have a significant effect on the environment when the installation is operating in accordance with the conditions of the Recommended Determination.

9.2 Emissions to Sewer

9.2.1 Process emissions to sewer

The table below gives details on the installation's emissions to the sewer; the processes which contribute to the emissions, the type of on-site treatment (if any), off-site treatment (if any) and the proposed maximum daily flows.

On-site treatment				
Emission Reference	Proposed / Existing	Process Description	Abatement	Proposed max. flow (m^3/day)
FW-1	Existing	Runoff from yard areas which could potentially be soiled by waste, e.g. the wash areas and the apron of the building exit doors, is directed to an Irish Water sewer via an oil interceptor.	Class I full retention oil interceptor. Irish Water authorised discharge to sewer.	100m^3
Off-site treatment				
Name of sewer network/agglomeration: Cork City				
Normal daily flow rate in network (m^3/day): 120565				

Responsible authority for network/agglomeration: Irish Water
Type of treatment: Secondary
Receiving water name (and waterbody type): Lough Mahon (transitional water body)
Waste water discharge authorisation: Reg. No. D0033-01, for Cork City Waste Water Treatment Plant located at Carrigrenan on Little Island.
The maximum emission volumes from the installation represent about 0.0008% of effluent discharge volumes from the Irish Water wastewater treatment plant (WWTP). The most recent AER for the agglomeration (2018) indicates that this WWTP is in compliance with the discharge limits for BOD, COD, ammonia and suspended solids, but not in compliance for total phosphorous or total nitrogen. The WWTP does not have a nutrient treatment facility in place leading to these on-going, intermittent exceedances. However, works are scheduled to resolve this given the receiving water (Cork Harbour) is designated a nutrient sensitive water.

For the purposes of EIA, the environmental factors potentially affected by a process emission to sewer include: Quality, Flora and fauna, Human beings.

Should emission levels in the discharge to sewer cause an exceedance of Water Quality Standards at the discharge point of Cork City waste water treatment plant, this could have implications for aquatic flora and fauna and their habitats at that discharge point.

Assessment and mitigation

The emission to sewer is authorised by the existing licence (W0291-01) and emission limit values (ELV) and daily and maximum flow rate limits have been specified. The proposed changes will not result in any exceedance of the ELVs and flow rates.

There are 15 parameters characterising the foul water emissions from the installation, these are detailed in the application form.

On the 25th of July 2019, construction of the extension led to a non-compliance for Total Suspended Solids (TSS) at FW-1 (696 mg/l vs. the ELV of 500 mg/l). Construction has since ceased. A further TSS sample at FW-1 was non-compliant in August 2019 (1232 mg/l vs. the ELV of 500 mg/l). This was attributed to the sampling equipment capturing the first flush of foul water after an intense stormwater event which had followed a period of dryness. There was minimal impact as the discharge is to sewer.

- The RD addresses the re-occurrence of such events in Condition 2.2.2.10 of the RD which requires the licensee to maintain a preventive maintenance programme which should ensure the silt trap and oil separator are fully operational at all times. The submitted AER for 2018 shows all monitoring of emissions to sewer to be compliant with the ELVs.

Emissions to sewer are considered by the Agency, and the IED, as an indirect discharge to waters; and are assessed as such. Characteristics of the emissions to sewer from the installation are detailed in the application form and the RD.

In considering the process emissions to sewer, the Agency assessed the proposed emission limit values (ELV's) for these parameters against the following three criteria:

	Criteria	Assessment

1.	The treatment provided on-site at the installation must satisfy the consent conditions specified by Irish Water, as required by Section 99E of the EPA Act 1992 as amended.	Irish Water, under Section 99E of the EPA Act 1992 as amended, gave its consent for the discharges from the installation, specifying certain ELVs, as well certain other conditions and monitoring requirements. These ELVs (or stricter limits) have been incorporated into the RD.
2.	It must be demonstrated that the level of treatment of an installation's effluent, on and off site, is collectively equivalent to BAT.	In considering the combination of emission limits proposed for the on-site treatment, and for the Irish Water discharge (as well as the accepted percentage reductions achievable for WWTP) it can be considered that the level of treatment of the installation's discharges is equivalent to BAT.
3.	In granting a licence for an installation, and in accordance with Section 83(5)(a)(iii) of the EPA Act 1992 as amended, as well as in accordance with Articles 5 and 7 of S.I. 272 of 2009, the Agency must ensure that the quality of any relevant receiving water is not impaired or that the relevant Environmental Quality Standards are not exceeded.	It has been determined that at the point of discharge from the Irish Water agglomeration, it is highly unlikely that the environmental quality standards[1] (EQSs) for the receiving water will be breached due to the installation's emissions.

Given the above it is considered that the recommended ELVs for this discharge to sewer are considered to satisfy the requirements of the IED, the WFD, and the EPA Act 1992 as amended.

Additional requirements specified by Irish Water

In addition to the ELVs, Irish Water also specified 12 additional requirements relating to the discharges to sewer. Six of these requirements are provided for in the standard conditions of the RD. However, the remaining 6 requirements have been transposed into the RD as new conditions and schedules.

These are: Condition 5 (Emissions to Sewer)*;* Condition 6.2 (sampling and analysis), Condition 12 (Irish Water charges), and Schedule C: *Control and Monitoring*.

Accidental emissions to sewer could occur if the oil interceptor malfunctioned, causing an untreated discharge to sewer. However, the likelihood of accidental emissions to sewer 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.

[1] EQSs as specified in Schedule 5 of *European Communities Environmental Objectives (Surface Waters) Regulations 2009* as amended.

The emissions to sewer from the installation are not nitrate nor phosphate rich, meaning they are not major contributors to the current intermittent nutrient exceedances at Cork City WWTP.

The installation is located in an industrial estate connected to a municipal sewer controlled by Irish Water and treated by a WWTP. The installation is a minor contributor to the effluent discharge volume however, the assessment carried out above takes account of total flow in the sewer network from all discharges into the agglomeration. Therefore, it is considered that there will be no significant cumulative effect from sewer emissions from the activities and other sewer emissions generated by other activities/developments in the area. It is also considered that no indirect effects are likely as a result of sewer emissions from the activities.

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

9.3 Discharges to ground/groundwater

9.3.1 Emissions to ground/groundwater

There are no process emissions to ground/groundwater at the installation.

There is no history of ground or groundwater contamination at this installation.

There are two underground tanks at the installation for the storage of firefighting water and for stormwater attenuation. Condition 6.10 requires the integrity testing of underground tanks and pipework.

The installation is fully concreted, processing and storage activities are confined indoors, and all run-off from the site is diverted for appropriate collection.

A groundwater monitoring well is located at the installation (GW-1). The applicant compared groundwater monitoring results from 2018 to the groundwater trigger levels (GTLs) approved by the Agency in December 2011. None of the results exceed the GTLs. Specific groundwater parameters have only been monitored since August 2017 therefore it was not possible to produce a 5 year trend.

- Condition 6.18.1 of the RD requires groundwater monitoring to be carried out at least annually, unless a case for less frequent monitoring is agreed by the Agency. Monitoring shall be carried out in accordance with Schedule C.6 Groundwater Monitoring.

9.4 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 human beings, flora and fauna, water quality, soil quality or any other aspect of the environment from emissions to water and ground arising from the operation of the activities when the installation is operating in accordance with the conditions of the Recommended Determination.

10. Noise

Noise arising from increased hours of waste acceptance and the operation of the installation 24 hours/day 7 days a week, could have the potential to cause nuisance for those living in the vicinity of the activities or to noise sensitive species near the site.

For the purposes of EIA, the environmental factors potentially affected by noise emissions from the activities include: human beings and flora and fauna.

Assessment and Mitigation

The installation is bounded to the north and south by other industrial and commercial premises. It is bounded to the west by a public road (Forge Hill) with other industrial premises on the opposite side of the road. To the east of the site is an area of undeveloped greenfield land and beyond that is the N27 Kinsale Road. The closest residential properties are approximately 80m to the north-west and 120m to the east.

The existing licence requires the licensee to carry out a noise monitoring survey when required by the Agency. There is no history of noise complaints or breaches of the noise limits in the licence at the three noise sensitive monitoring locations (NSL1-NSL3). The sources of noise emissions are the waste processing and handling equipment including a trommel, two bailers, a loading shovel and a forklift.

The licensee carried out a noise assessment in November 2017. The results stated that noise levels sampled at all seven stations were chiefly influenced by offsite road traffic, which remained significant through the evening and into the night. Site emissions were inaudible at the three offsite stations. Site operations did not give rise to tones or impulses at the offsite stations, indicating the noise impact of the installation is low. However, the installation was not operational past 24:00 during this noise assessment.

In order to monitor the impact of 24 hours operation on noise emissions from the installation;

- the RD requires a noise survey to be carried out within three months of implementing operation of the installation 24 hours/day 7 days a week, and as otherwise required by the Agency.
- Standard noise conditions and noise limits for day/evening/night have been included in the RD.

Accidental noise emissions could occur if the doors of the installation remained open when not in use or if plant is not maintained, causing noise ELV exceedances at the noise sensitive locations. 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.

The applicant's 2017 noise survey identified the nearby N27 National Primary Road and the Forge Hill Road as the dominant noise sources in the area. There are no other 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.

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

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 activities when the installation is operating in accordance with the conditions of the Recommended Determination.

11. Waste Generation

The treatment of mixed dry recyclable waste generates dry material fines (over 550 – 1,200 tonnes per month) which are not suitable for recovery. These fines are removed from the installation by an authorised waste collector for either the production of SRF or disposal in a landfill facility. The RD requires that all waste generated on site is transported and recovered/disposed off-site in accordance with national and European legislation.

The RD requires that disposal or recovery of waste on-site shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.

For the purposes of EIA, the environmental factors potentially affected by waste generated by the activities include: human beings, flora, fauna and air.

The storage of uncovered wastes at the installation could generate dust. If dry material fines contain any organic fractions they 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

The extension to the waste processing building enables the trailer which collects the dry material fines to remain fully enclosed within the waste processing building, whilst being loaded. The trailer is then closed before leaving the building through a shuttered exit. The risk of dust, odour emissions or vermin is therefore very low.

There is no history of complaints or non-compliances in regard to storage of the dry material fines;

- In relation to dust and odour generation, mitigation measures have been discussed in sections 8.2 and 8.3.
- Condition 6.24 of the RD requires the establishment and implementation of a programme for the control and eradication of vermin.

If dealt with in accordance with the conditions of the RD, the management of waste generated at the installation will be in accordance with the requirements of Article 11(e) of the Industrial Emissions Directive.

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

Therefore, significant cumulative effects on the environment from the generation of waste by this installation and other developments are not likely.

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 activities or from pests or vermin when the

installation is operating in accordance with the conditions of the Recommended Determination.

12. Use of Resources

The applicant has provided a comprehensive list of resources consumed at the installation; these are listed in the review application form. The processing of additional waste will result in an increase in diesel and electricity consumption.

The operation of the installation involves the consumption of water, oil and electricity. The estimated quantities are given below.

Resource	**Quantity per annum**
Electricity	1.55 million units
Water	Unknown (mains source)

Hazardous Materials

Forty tonnes of diesel (H351, H411), 0.025 tonnes of hydraulic oil (H351, H411) and 1 tonne of lubricating oil (H351, H411) are stored on-site annually. None of the above substances are emitted directly to the environment.

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 activities will not be significant;

- Condition 7 of the licence provides for the efficient use of resources and energy in all site operations. This condition also requires an energy audit to be carried out and repeated at intervals as required by the Agency. The BREF on Energy Efficiency should be referred to in the context of the Resource Use and Energy Programme.

The hydraulic oil (1 No. 205 litre drum) and lubricating oils (5 No. 205 litre drums) for plant maintenance purposes, will be stored in a bunded pallet inside the processing building;

- The bunded pallet must comply with the design requirements specified in Condition 3.9 of the RD.
- As discussed in detail in sections 9.1.2, diesel is stored in a bunded IBC in an enclosed, fully bunded container situation in the yard.
- Section 9.1.2 additionally lists the conditions in place in the RD to ensure there is no impact on stormwater. Therefore, the likelihood of accidental releases of these substances to the environment, as a result of the licensable activities, is low.

The installation is located in an industrial area with most of the developments in the vicinity of the installation being commercial premises, all of which use various levels

and types of resources. Therefore, significant cumulative effects on the environment from the use of resources by this installation 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 activities when the installation is operating in accordance with the conditions of the Recommended Determination.

13. Prevention of Accidents

Potential accidents & measures for prevention/limitation of consequences	
Accidental emissions due to waste management practices.	The RD limits the waste types and quantities accepted into the installation and require these waste types to be characterised. The RD limits the waste activities that can take place at the installation. The RD also sets out requirements in relation to operation, control and monitoring of activities.
Accidental emission to air from site vehicles which may impact the climate.	The RD requires a preventative maintenance programme which will include vehicles and plants used at the installation.
Dust emissions resulting from: (i) Dirty concrete surfaces; (ii) Build-up of waste; and (iii) Incoming waste not adequately inspected and segregated.	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.
Accidental odour emissions resulting from the acceptance of contaminated waste.	In addition to the above the RD requires the licensee to reject unacceptable incoming waste.
Accidental emissions to sewer resulting from a malfunction of the class 1 oil interceptor.	The interceptors are included in the installation's preventative maintenance programme and are required to be properly maintained at all times.
Accidental emissions to surface water resulting from a malfunction of the stormwater silt trap and interceptor.	In addition to the above the RD requires a stormwater management system.

Potential accidents & measures for prevention/limitation of consequences	
Accidental noise emissions from the installation due to open doors or from plant which is not maintained.	The RD requires the installation of roller shutter doors which are to be kept closed when not in use. The RD requires all plant, equipment and vehicles to be maintained.
Accidental emissions to ground from a failure of the run-off collection system or due to seepage through damaged concrete.	The RD requires any cracks in the concrete to be repaired and for all underground pipes to be integrity tested. The RD requires provision and maintenance of adequate bunding.
Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the installation.	The RD requires: Maintenance of a Fire Risk Assessment and for any relevant recommendations to be incorporated into the waste storage plan; Fire breaks and separation distances enforced within waste stockpile (waste storage plan); A sprinkler system is in place at the installation; The applicant has calculated the fire water retention capacity of the building to be adequate. Fire hydrants are on-site. Diesel and oil stored in bunded areas; Integrity of bunds to be assessed every 3 years and maintenance carried out as required (Condition 6.10).
Additional measures provided for in the RD	The RD requires: Adequate training of staff; A suitably qualified and experienced person to be on site at all times; Stormwater discharge points to be visually monitored (Condition 6.13.1); Accident prevention and emergency response requirements (Condition 9).

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. An Environmental Liabilities Risk Assessment (ELRA) has also been submitted with the application (see Fit and Proper Person Assessment section below for further details).

In the case of a fire at the installation, a ring main connected to the Irish Water mains water supply is designed to discharge 1,591 litres/min of water to 4 no. fire hydrants

in the yard. An additional 90m^3 of fire-fighting water is permanently available in the underground water storage tank, which is readily accessible by the Fire Service.

The licensee submitted a revised calculation of the likely firewater volume arising due to a fire in the, now extended, process building. The volume of firewater to be retained following an 8 hour fire would be 1,126 m^3. The combined available retention capacity of the process building (acts as a retention facility due to inset floors) and the underground tank is 1,296m^3.

- Conditions 9.5 of the RD requires the licensee to arrange, following installation of the automatic shut-off valve (linked to the site's fire detection system) on surface water drainage outlet Reference No. SW-1, an updated fire risk assessment for the installation. This must be re-assessed every three years thereafter.
- Condition 8.12.4 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.

14. Cessation of activity

The application details a range of measures to be employed upon cessation of the activities in the company's Emergency Response procedure. These include:

- Removal of all waste materials from the installation for recovery or disposal at an authorised facility;
- Clean down of plant and equipment to attain a positive value or removal from site for recovery or disposal;
- Cleaning of indoor floor areas and the yard area;
- Cleaning interceptors and silt traps of all contaminants;
- Removal of all potentially polluting materials e.g. oil drums off site for reuse;
- Completion of a closure validation report;
- Condition 10 of the RD requires procedures to be put in place to ensure the proper closure of the activities with the aim of protecting the environment. The licensee submitted a Closure and Decommissioning Plan with this application. (See Fit and Proper section below for further details).

Baseline Report

Article 22(2) of the IED requires that where the activities involves the use, production or release of relevant hazardous substances and having regard to the possibility of soil and groundwater contamination at the site of the installation, the operator shall

prepare and submit to the competent authority a baseline report before the revision of a licence.

A baseline report in accordance with Section 86B of the EPA Act 1992 as amended was not provided with the licence application. However, a baseline screening assessment was undertaken by the applicant in accordance with Stages 1 to 3 of the European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU on industrial emissions.

The applicant states that the activities involve the use of small amounts of hazardous substances; a small amount of diesel and hydraulic and lubricating oil for refuelling and plant machinery. However, they state that limited quantities will be stored on site at any one time and materials will be stored in designated areas with minimal if any risk of soil/groundwater contamination.

Taking into account the small quantities of substances used, the location of these substances on the site, in view of the soil and groundwater characteristics, and the measures to be taken to prevent accidents and incidents, the possibility of soil and groundwater contamination at the site of the installation is considered to be low. Having regard to the possibility of soil and groundwater contamination and to the European Commission Guidance concerning baseline reports under Article 22(2) of Directive 2010/75/EU the Agency is satisfied that a baseline report is not required.

The measures to be taken upon cessation of the activities 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 activities when the installation has been operated in accordance with the conditions of the Recommended Determination.

15. Other matters

15.1 Effects on landscape, material assets and cultural heritage

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

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 planning authority has considered the effect to be acceptable.

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

(b) Landscape, visual and cultural effects

Any disturbance of the landscape or the cultural heritage of an area has the potential to impact on 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 planning authority has considered the effects to be acceptable.

The site is located in an area zoned industrial and is not within a formal or proposed designated landscape area. The installation does not infringe on heritage. The applicant identified the increase in tonnage of waste accepted at the installation as a having a positive effect in terms of material assets, as the installation is needed to manage increased quantities of dry recyclable waste collected from households in Cork, Kerry, Clare and Limerick.

No mitigation measures have been proposed in relation to (a) and (b) above.

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 activities.

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

15.2 Interaction of effects

I have considered the interaction between human beings, flora and fauna, soil, 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 installation are summarised below:

Interaction of effects

	Human Beings	Flora and Fauna	Soil	Water	Air	Climate	Material assets, landscape, cultural heritage
Human Beings							
Flora and Fauna							
Soil							
Water	✓	✓					
Air	✓						
Climate	✓				✓		
Material assets, landscape,							

cultural heritage							

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

Human Beings and dust, odour, noise and traffic

The proposed increase in waste tonnage accepted and hours of operation of the installation has the potential to impact human beings from dust, odour and noise. The method of operation of the installation has taken account of these emissions and effective mitigation measures have been identified. These measures are described in detail in sections 8, 10 and 13.

There will be an increase of 1 waste transport vehicle movement per day to accommodate the increase in tonnage of waste accepted. Therefore, there is a potential to impact on human beings from increased traffic. As assessed in the submitted EIAR, local road network and junctions have the capacity to accommodate additional traffic movements. Additionally, the proposed increase in hours of waste acceptance/dispatch will allow for vehicle movements outside of rush hour and thus, will not give rise to congestion.

Water and flora and fauna

Accidental discharge of contaminated stormwater or oils to surface water may directly and indirectly effect surface water quality downstream, aquatic habitats and aquatic flora and fauna. As discussed in section 9 above, such effects are considered not to be likely or significant. By storing waste and substances in accordance with the RD and following 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 activities.

16. 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 activities 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 activities are carried out in accordance with the RD and the conditions attached, the operation of the activities 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.

17. Appropriate Assessment

Appendix 2, Table 1. lists the European Sites assessed, their associated qualifying interests and conservation objectives, along with the assessment of the effects of the activities on the European Sites.

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 Great Island Channel SAC (001058) and Cork Harbour SPA (004030).

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 cannot 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 required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination is based on the following:

- The licensee proposed to store bailed metal waste in the yard area of the installation which drains to stormwater. The stormwater discharges into the Lehenagh Beg Stream, ultimately draining (via Lough Mahon) into Cork Harbour (004030) and Great Island Channel SAC (001058).

- The shut-off valve on the on-site firewater retention facility must be manually closed in the case of a fire. The retention facility feeds-out, via a rising main at SW-1, to the Lehenagh Beg Stream.

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Great Island Channel SAC (001058) and Cork Harbour SPA (004030), having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this recommended determination and the conditions attached hereto for the following reasons:

- The RD shall require all waste to remain stored indoors, including baled metals. All on-site fuels must be stored only at appropriately bunded locations and integrity and water tightness testing must be carried out on all tanks, bunding structures, containers and underground pipes. The risk of contaminated run-off draining to stormwater and ultimately, to Cork Harbour (004030) and Great Island Channel SAC (001058), is therefore removed.

- The RD requires an automatic shut-off valve, connected to the fire-detection system, to be installed at the SW-1 outlet. Should the fire alarms be activated, the valve to the surface water outlet shall immediately close, removing any potential significant effects from firewater, on the Lehenagh Beg Stream and ultimately on, Cork Harbour (004030) and Great Island Channel SAC (001058).

- The RD requires the licensee to maintain a preventive maintenance programme which will ensure all stormwater silt traps and oil separators are fully operational at all times. Condition 6.13 requires stormwater discharge at SW-1 to be monitored for TOC and COD, as well as several other parameters laid out in Schedule C.3.2. Monitoring of Storm Water Emissions. The RD requires a visual inspection of the stormwater discharge weekly. The risk of contaminated stormwater draining to Lehenagh Beg Stream and ultimately, to Cork Harbour (004030) and Great Island Channel SAC (001058), is therefore removed.

In light of the foregoing reasons no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Site(s) at Great Island Channel SAC (001058) and Cork Harbour SPA (004030).

18. Fit & Proper Person Assessment

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

Technical Ability

The licensee has provided details of the qualifications, technical knowledge and experience of key personnel. The licence application also includes information on the on-site management structure. It is considered that the licensee has demonstrated the technical knowledge required.

Legal Standing

Neither the licensee nor any relevant person has relevant convictions under the Environmental Protection Agency Act 1992, as amended, or under any other relevant environmental legislation.

Financial Provision/Strength

ELRA, CRAMP & FP

The licence category and installation were 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, C&D and FP were required.

In 2017, under the current licence (W0291-01), the licensee commissioned a Closure and Decommissioning Plan and an ELRA for the facility, which were costed at approximately €24,550 and €170,478 respectively.

An updated Closure and Decommissioning Plan and ELRA were submitted as part of this review licence application and were costed in accordance with the Agency's latest

guidance. The costs were estimated at €93,150 and €440,349 respectively. A review of both, as well as approval of Financial Provision, is required under the RD.

Fit & Proper Conclusion

It is my view, and having regard to the Conditions of the RD, that the applicant can be deemed a Fit & Proper Person for the purpose of this review.

19. Cross Office Consultation

I consulted OEE Inspector, Thomas Wallace in relation to this site, as well as OEE Inspectors Stuart Huskisson, Ciaran Cuddihy and Patrick Chan in relation to Financial Provision. Thomas informed me that there were no major concerns in regard to the site. I additionally consulted Larry Kavanagh in relation to enforcement charges. In general, the OEE have no significant concerns regarding the proposed changes to the activities.

20. Charges

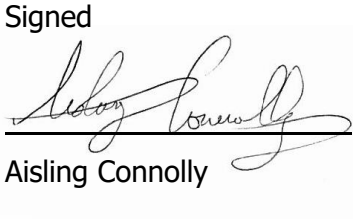
The annual enforcement charge recommended in the RD is €13,476, which reflects the anticipated enforcement effort required and the cost of monitoring. This represents an increase when compared to the Agency's 2017 enforcement charge of €5,628. This considerable increase is due to the implementation of a revised method of calculating OEE enforcement charges for industrial & waste licences in conjunction with a revised risk model. This revised scheme facilitates full cost recovery for the EPA based on the 'polluter pays principle' which ensures that fees are consistent across licensed activities of a similar risk category, and that charging is more responsive to the performance history of the installation.

21. Recommendation

The RD specifies the necessary measures to provide that the installation shall be operated in accordance with the requirements of Section 83(5) of the EPA Act 1992 as amended, and has regard to the NIS and EIAR. The RD gives effect to the requirements of the Environmental Protection Agency Acts 1992 as amended and has regard to submissions made.

I recommend that a Proposed Determination be issued subject to the conditions and for the reasons as drafted in the RD.

Signed



Aisling Connolly

Procedural Note

In the event that no objections are received to the Proposed Determination on the application, a licence will be granted in accordance with Section 87(4) of the Environmental Protection Agency Acts 1992 as amended, as soon as may be after the expiration of the appropriate period.

Appendices

Appendix 1.

Diagram 1. Surface Water Drainage Layout of Forge Hill Waste Transfer Station.

Appendix 2.

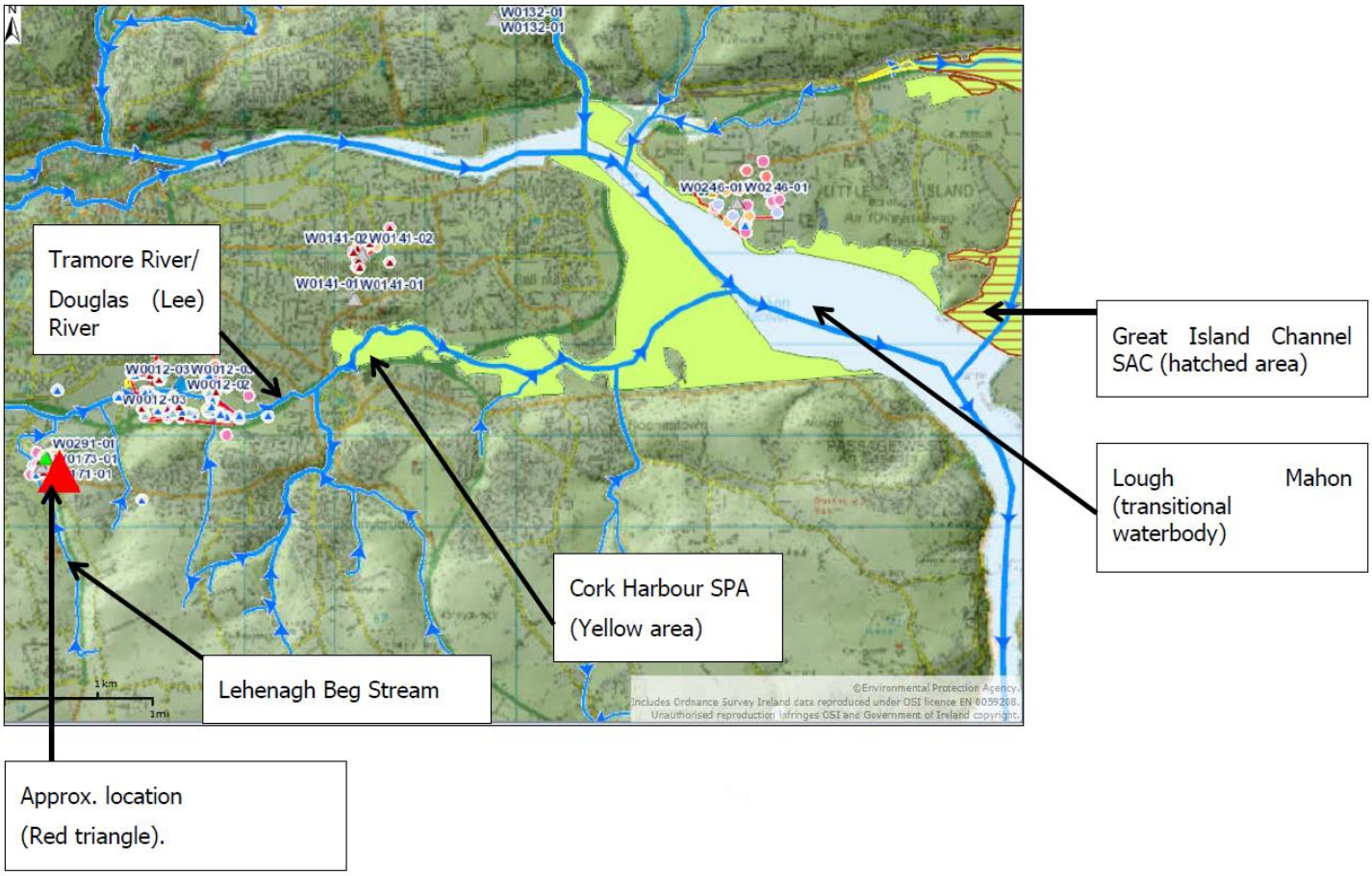


Diagram 1. Overview of the waterbody and designated site network in the vicinity of the installation.

AA table

Table 1. Assessment of the effect(s) of **discharges** on European sites and proposed mitigation measures.

Site Name	Great Island Channel SAC (Site Code: 001058)
Distance To (Km)	9.94 Km north-east downstream of the installation.
Conservation Objectives	*NPWS (2014) Conservation Objectives: Great Island Channel SAC 001058. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*
Qualifying Interests (* denotes a priority habitat)	<u>Habitats</u> 1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)*

Assessment

Emissions to Water

All the qualifying interests of the SAC are sensitive to surface water pollution. Any change in water quality has the potential to impact on the water dependant habitats.

Mitigation

The RD, as proposed, requires that the following controls are in place to protect the qualifying interests of the SAC:

• Condition 5.1 of the RD requires that no specified emission from the installation shall exceed the emission limit values set out in *Schedule B: Emission* Limits of the RD. There shall be no other emissions of environmental significance. *Schedule C: Control and Monitoring* of the RD sets out the monitoring requirements for emissions to sewer and surface water.

• Condition 6.13.2 of the RD requires suitable trigger levels for conductivity, total suspended solids, TOC, COD and mineral oils in stormwater discharges such that stormwaters exceeding these levels will be retained and disposed of suitably.

• Condition 3.14 of the RD requires an automatic shut-off valve, connected to the fire-detection system, to be installed at the SW-1 outlet. Should the fire alarms be activated, the valve to the surface water outlet shall immediately close, removing any potential significant effects from firewater.

• Condition 8.2 of the RD requires that all waste processing and storage shall be carried out inside the waste treatment building. Condition 6.13.3 of the RD requires that run-off from process areas of the installation used for the holding, storage and treatment of waste shall not be discharged to the stormwater drainage system.

Emissions to Air

The qualifying interests of the SAC may be sensitive to air pollution. There is potential for fugitive dust emissions to arise during operation of the installation.

Mitigation

The RD, as proposed, requires that the following controls are in place to protect the qualifying interests of the SAC:

• Condition 4.4 of the RD requires that dust and particulate matters from the activities shall not give rise to deposition levels which exceed the limits specified in *Schedule B.1.2 Dust Deposition Limits*. Schedule C.6.1 of the RD sets out the control and monitoring requirements for dust deposition.

• Condition 3.26 of the RD requires the licensee to maintain adequate measures for the control of dust emissions, including fugitive dust emissions, from the installation including; dust curtains and roller shutters on the entrances which must remain closed when not in use.

• Condition 6.21 of the RD requires that in dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance. The licensee shall undertake regular sweeping of the yard and hardstanding areas using a mechanical sweeper to remove any debris or deposited materials that could create dust, without delay.

Potential for Accidents to Arise

There is a potential for accident and emergency situations arising from the operation of the installation. Such accident and emergency situations could have implications for the qualifying interests of the SAC.

• Condition 9.1 of the RD requires the licensee, to ensure that a documented Accident Prevention Procedure is in place that addresses that hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. Condition 9.2 of the RD requires the licensee to have a documented Emergency Response Procedure in place that addresses any emergency situation on-site which should include provision for minimising the effects of any emergency on the environment. Automatic.

• Condition 3.9 of the RD requires that all tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004), which will minimise the potential for contamination of soil/groundwater or stormwater.

• Condition 6.10 of the RD requires that the integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee at least once every three years.

• Condition 8.5 and 8.6 of the RD requires that all material and waste shall be loaded, unloaded and stored in designated areas protected as may be appropriate against spillage and leachate run-off.

• Condition 3.19 of the RD sets out requirements and specifications for all future specified engineering works, to ensure they are carried out to the appropriate standards and that future construction of the remaining planned extension is monitored and completed appropriately.

• Condition 3.15 of the RD requires the licensee to ensure that all pump sumps and storage tanks from which spillage of environmentally significant materials might occur in such quantities as area likely to breach local or remote containment or separators, are fitted with high liquid level alarms.

• Condition 3.14 of the RD requires an automatic shut-off valve, connected to the fire-detection system, to be installed at the SW-1 outlet. Should the fire alarms be activated, the valve to the surface water outlet shall immediately close, removing any potential significant effects from firewater.

• Condition 9.5 of the RD requires the licensee to carry out an updated fire risk assessment following installation of the automatic shut-off valve (linked to the site's fire detection system) on surface water drainage outlet Reference No. SW-1. Any recommendations in the fire risk assessment shall be implemented by the licensee.

Site Name	Cork Harbour SPA (Site Code: 004030)
Distance To (Km)	Approx. 3.31 Km north-east downstream of the installation.
Conservation Objectives	*NPWS (2014) Conservation Objectives: Cork Harbour SPA 004030. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.*
Qualifying Interests (* denotes a priority habitat)	<u>Habitats</u> A999 Wetlands <u>Birds</u> A056 Shoveler *(Anas clypeata)* A149 Dunlin *(Calidris alpina)* A140 Golden Plover *(Pluvialis apricaria)* A050 Wigeon *(Anas penelope)*

	A028 Grey Heron *(Ardea cinerea)* A069 Red-breasted Merganser *(Mergus serrator)* A142 Lapwing *(Vanellus vanellus)* A130 Oystercatcher *(Haematopus ostralegus)* A141 Grey Plover *(Pluvialis squatarola)* A052 Teal *(Anas crecca)* A054 Pintail *(Anas acuta)* A157 Bar-tailed Godwit *(Limosa lapponica)* A162 Redshank *(Tringa totanus)* A183 Lesser Black-backed Gull *(Larus fuscus)* A179 Black-headed Gull *(Chroicocephalus ridibundus)* A004 Little Grebe *(Tachybaptus ruficollis)* A160 Curlew *(Numenius arquata)* A182 Common Gull *(Larus canus)* A048 Shelduck *(Tadorna tadorna)* A017 Cormorant *(Phalacrocorax carbo)* A193 Common Tern *(Sterna hirundo)* A005 Great Crested Grebe *(Podiceps cristatus)* A156 Black-tailed Godwit *(Limosa limosa)*
Assessment	

Emissions to Water

All the qualifying interests of the SPA are sensitive to surface water pollution. Any change in water quality has the potential to impact on the water dependant birds and wetland habitat.

Mitigation

The RD, as proposed, requires that the following controls are in place to protect the qualifying interests of the SPA:

• Condition 5.1 of the RD requires that no specified emission from the installation shall exceed the emission limit values set out in Schedule B: Emission Limits of the RD. There shall be no other emissions of environmental significance. Schedule C: Control and Monitoring of the RD sets out the monitoring requirements for emissions to sewer and surface water.

• Condition 6.13.2 of the RD requires suitable trigger levels for conductivity, total suspended solids, TOC, COD and mineral oils in stormwater discharges such that stormwaters exceeding these levels will be retained and disposed of suitably.

• Condition 3.14 of the RD requires an automatic shut-off valve, connected to the fire-detection system, to be installed at the SW-1 outlet. Should the fire alarms be activated, the valve to the surface water outlet shall immediately close, removing any potential significant effects from firewater.

• Condition 8.2 of the RD requires that all waste processing and storage shall be carried out inside the waste treatment building. Condition 6.13.3 of the RD requires that run-off from process areas of the installation used for the holding, storage and treatment of waste shall not be discharged to the stormwater drainage system.

Emissions to Air

The qualifying interests of the SPA may be sensitive to air pollution. There is potential for fugitive dust emissions to arise during operation of the installation.

Mitigation

The RD, as proposed, requires that the following controls are in place to protect the qualifying interests of the SPA:

• Condition 4.4 of the RD requires that dust and particulate matters from the activities shall not give rise to deposition levels which exceed the limits specified in *Schedule B.1.2 Dust Deposition Limits*. Schedule C.6.1 of the RD sets out the control and monitoring requirements for dust deposition.

• Condition 3.26 of the RD requires the licensee to maintain adequate measures for the control of dust and odour emissions, including fugitive dust emissions, from the installation including; dust curtains and roller shutters on the entrances which must remain closed when not in use.

• Condition 6.21 of the RD requires that in dry weather, site roads and any other areas used by vehicles shall be sprayed with water as and when required to minimise airborne dust nuisance. The licensee shall undertake regular sweeping of the yard and hardstanding areas using a mechanical sweeper to remove any debris or deposited materials that could create dust or odour, without delay.

• Condition 5.2 of the RD requires that no emissions, including odours, from the activities shall result in the impairment of, or an interference with the environment beyond the installation. Condition 6.21.4 requires a daily odour inspection, or as required by the agency, to be carried out. Any recommendations arising from such an odour assessment shall be implemented following approval by the Agency.

Noise & Vibrations

The qualifying interests of the SPA may be sensitive to noise pollution. Furthermore, some of the qualifying interests of the SPA, may be sensitive to vibrations from the activity.

Mitigation

The RD, as proposed, requires that the following controls are in place to protect the qualifying interests of the SPA:

• Condition 5.1 of the RD requires that no specified emission from the installation shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

• Schedule B.4 of the RD requires that there shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.

• Condition 6.23.2 of the RD requires the licensee to carry out a noise survey of the site operations within three months of implementing operation of the installation 24 hours/day, 7 days a week, and as otherwise required by the Agency.

Potential for Accidents to Arise

There is a potential for accident and emergency situations arising from the operation of the installation. Such accident and emergency situations could have implications for the qualifying interests of the SPA.

Mitigation

RD, as proposed, requires that the following controls are in place to protect the qualifying interests of the SPA:

• Condition 9.1 of the RD requires the licensee, to ensure that a documented Accident Prevention Procedure is in place that addresses that hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. Condition 9.2 of

the RD requires the licensee to have a documented Emergency Response Procedure in place that addresses any emergency situation on-site which should include provision for minimising the effects of any emergency on the environment. Automatic. • Condition 3.9 of the RD requires that all tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004), which will minimise the potential for contamination of soil/groundwater or stormwater. • Condition 6.10 of the RD requires that the integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee at least once every three years. • Condition 8.5 and 8.6 of the RD requires that all material and waste shall be loaded, unloaded and stored in designated areas protected as may be appropriate against spillage and leachate run-off. • Condition 3.19 of the RD sets out requirements and specifications for all future specified engineering works, to ensure they are carried out to the appropriate standards and that future construction of the remaining planned extension is monitored and completed appropriately. • Condition 3.15 of the RD requires the licensee to ensure that all pump sumps and storage tanks from which spillage of environmentally significant materials might occur in such quantities as area likely to breach local or remote containment or separators, are fitted with high liquid level alarms. • Condition 3.14 of the RD requires an automatic shut-off valve, connected to the fire-detection system, to be installed at the SW-1 outlet. Should the fire alarms be activated, the valve to the surface water outlet shall immediately close, removing any potential significant effects from firewater. • Condition 9.5 of the RD requires the licensee to carry out an updated fire risk assessment following installation of the automatic shut-off valve (linked to the site's fire detection system) on surface water drainage outlet Reference No. SW-1. Any recommendations in the fire risk assessment shall be implemented by the licensee.

Appendix 3.

Relevant European (and international) legal instruments

The following Irish and European and legal instruments are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.
Industrial Emissions Directive (IED) (2010/75/EU)
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]
Environmental Liability Directive (2004/35/CE)
Waste Framework Directive (2008/98/EC)

The following Irish and European and legal instruments are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.
Groundwater Directive (80/68/EEC) and 2006/118/EC
Energy Efficiency Directive.

Other BREF documents and National BAT notes relevant to this assessment

Horizontal BREF	Publication date
Reference Document on the Best Available Techniques on Emissions from Storage	July 2006
Reference Document on the Best Available Techniques for Energy Efficiency	February 2009
National BAT notes	Publication date
BAT Guidance Note - Waste Sector (Transfer & Materials Recovery)	December 2011

BAT compliance conditions

CID Document: Commission Implementing Decision on Waste Treatment, CID (EU) 2018/1147 (August 2018).		
BAT Number	**BAT employed / to be employed at this installation**	**Condition/ Schedule**
1	A certified environmental management system (EMS) is in place.	Condition 2.2 (EMS)
2	Waste characterisation, supplier screening and pre-acceptance procedures are in place. Detailed records of each waste load accepted and dispatched from the installation are maintained as well as an output quality management system.	Condition 8.11, 11.11,
3	An inventory of waste water emissions is in place.	Condition 2.2 (EMS)
4	A Waste Storage Plan, subject to review and update as required, is in place for the installation.	Condition 8.13
5	Handling and transfer procedures are in place.	Condition 2.2 (EMS)

6	Key process parameters are monitored at key locations.	Condition 6
7	Not applicable as waste is not treated on-site.	--
8	Not applicable as there are no channelled emissions to air from activities.	--
9	No applicable as solvents are not regenerated or treated at the installation.	--
10	Odour emissions are monitored daily.	Schedule C
11	The annual consumption of water, raw material as well as the generation of residues and wastewater is monitored annually and reported in the Annual Environmental Report (AER).	Schedule E
12	An ISO 14001 Odour Management Plan is in place. Additionally, a complaints procedure is in place that identifies the actions taken in response to odour complaints.	Condition 3.26
13	It is an objective to consign the processed wastes within 48 hours of receipt. Longer residence times of up to a week may be necessary during periods of high demand such as Christmas. Given the nature of the waste accepted, chemical treatment and aerobic treatments are not required.	Condition 8.13
14	Diffuse emissions to air are reduced via containment, cleaning of waste treatment and storage areas and equipment maintenance.	Condition 3.26, 6.19, 6.1
15	Not applicable as no flares on-site.	--
16	Not applicable as no flares on-site.	--
17	Not currently applicable as noise nuisance not expected.	--
18	All waste processing is carried out inside the building.	Condition 8.3
19	Waste Processing Building is roofed, and surface is impermeable to the leachate concerned, automatic shut-off valve to be installed on fire-water storage tank, all waste stored indoors thereby avoiding contact with rain water and the potential for leachate generation. Regular inspections are carried out for potential leaks.	Condition 3, 6.10, 8.2
20	Silt traps and oil interceptors in place on the foul and surface water drains.	Condition 3.9
21	Protection measures are maintained at the site to prevent/control emissions in the event of an accident/incident. A contingency arrangement is in place to manage incidents. A revised Environmental Liability Risk	Condition 3, 9, 12.3.2

	Assessment (ELRA), addressing the proposed increases in the annual waste acceptance rates, has been carried out.	
22	Not applicable given nature of activities, to substitute materials with waste.	--
23	An energy efficiency audit has been commissioned and the findings will be implemented.	Condition 7
24	Given the nature of the activities, re-use of packaging is not applicable.	--

Appendix 4.

List of Waste codes

'List of Waste' (LOW) Code	LOW Description, before treatment	Applicant's Description of Waste Accepted
15 01 07	Glass packaging	Municipal Dry Recyclable Waste
15 01 04	Metallic packaging	Dry mixed recyclables/Municipal Dry Recyclable Waste
15 01 01	Paper and cardboard packaging	Municipal Dry Recyclable Waste
15 01 02	Plastic packaging	Municipal Dry Recyclable Waste
15 01 03	Wooden packaging	Municipal Dry Recyclable Waste
15 01 06	Mixed packaging	Municipal Dry Recyclable Waste
20 01 01	Paper and cardboard	Municipal Dry Recyclable Waste
20 01 38	Wood other than that mentioned in 20 01 37	Municipal Dry Recyclable Waste
20 01 39	Plastics	Municipal Dry Recyclable Waste
20 03 01	Mixed municipal waste	Municipal Dry Recyclable Waste