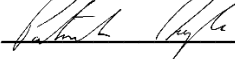


This Report has been cleared for submission to the Board by Programme Manager, David Flynn

Signed: 

Date: 17/01/2019



OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON AN INDUSTRIAL EMISSIONS LICENCE REVIEW, LICENCE REGISTER NUMBER W0140-05

TO: BOARD OF DIRECTORS

FROM: Breen Higgins

DATE: 17th January 2019

Licensee: Starrus Eco Holdings Limited
CRO number: 527552 (status: normal)
Location/address: Rural site located at Rathdrinagh, Beaupark, Navan, Co. Meath
Application date: 21st April 2017

Classes of activity (under EPA Act 1992 as amended/Waste Management Act 1996 as amended):

11.1 The recovery or disposal of waste in an installation, within the meaning of the Act of 1996, which installation 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.

11.4(b) 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):

- (i) biological treatment;
- (ii) pre-treatment of waste for incineration or co-incineration;
- (iii) treatment of slags and ashes;
- (iv) treatment in shredders of metal waste, including waste electrical and electronic and end-of-life vehicles and their components.

Category of activity under IED (2010/75/EU):

5.3(b) 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:

- (ii) pre-treatment of waste for incineration or co-incineration;
- (iii) treatment of slags and ashes.

European Directives/Regulations (and international legal instruments) relevant to this assessment are listed in the appendix of this report.

Main BREF document

Reference Document on Best Available Techniques for the Waste Treatments Industries 2006

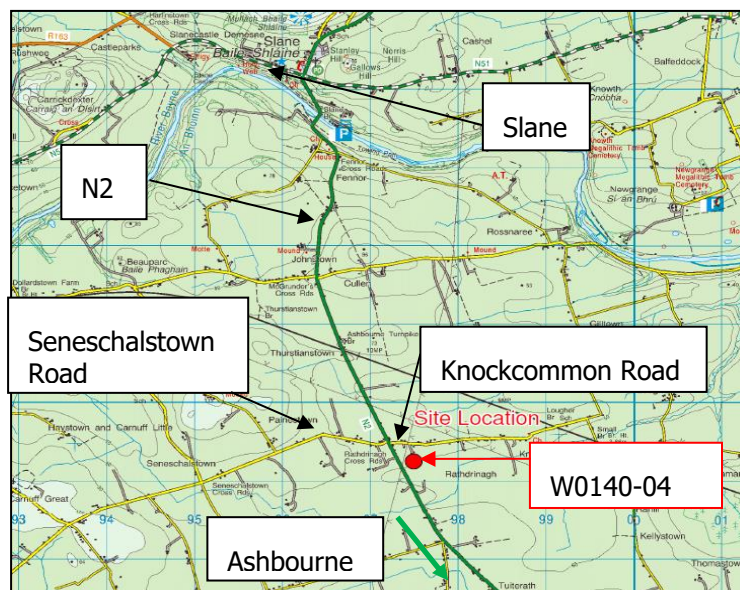
Activity description/background: Integrated waste management installation including non-hazardous materials recovery, refuse derived fuel production, processing of non-hazardous incinerator bottom ash and a civic amenity installation.	
Types of waste accepted: non-hazardous household, commercial and industrial (C&I) waste, construction and demolition (C&D) waste, bio waste and non-hazardous incinerator bottom ash.	
Additional information received:	Yes (14 th July 2017, 17 th October 2017, 27 th June 2018 & 13 th September 2018)
No of submissions received:	Two (One withdrawn)
EIS submitted:	No
Site visit: 11 August 2017 & 19 September 2018	Site notice check: 09 May 2017

1. Activity description/background

Starrus Eco Holding Limited is an existing development authorised as an integrated waste management installation under waste licence register number W0140-04. Starrus Eco Holding Limited (previously Nurendale Limited trading as Panda Waste Services Limited) has operated at this location since 2002.

The installation is located approximately 4km south of Slane on the Slane-Ashbourne Road (N2) which runs adjacent to the western boundary of the installation, see Figure 1. The predominant land use surrounding the site is agricultural and residential. There are also some commercial units on the western boundary of the site.

Figure 1: Location of the installation.



There are 22 residences within a 500m radius of the site. In this zone, there are nine residential dwellings along the Knockcommon Road and 13 residences along the N2 and Seneschalstown Roads.

Currently approximately 70 people are based at the installation.

2. Scope of Review

Proposed change	Details/comment
Site related change	<p>Acceptance and processing of 130,000 tonnes per annum of non-hazardous incinerator bottom ash (IBA) from the Dublin Waste to Energy Limited waste recovery plant at Poolbeg. This includes the construction of a new process building (Building 4).</p> <p>The 130,000 tonnes of IBA replaces existing capacity and does not result in an increased intake on site.</p> <p>It is no longer proposed to pursue the installation of a biological treatment plant permitted under W0140-04.</p>

Proposed change	Details/comment
Decommissioned emission points	Gas utilisation engines: A2-4 & A2-5
Increase in emissions	Potential increase in dust generated on site due to the processing of IBA.
New abatement equipment	Installation of HEPA filtration on air emissions from existing Building 3 and proposed new Building 4.

3. Process Description

An overview of existing and proposed buildings and activities at the installation is shown in Appendix 1.

Waste processing activities have evolved over time in response to changes in waste management policy, the opening of new markets for recyclable materials and the development of new treatment technologies.

Building 1 was originally used to process mixed Municipal Solid Waste (MSW), but is now used to handle non-recyclable dry waste for Solid Recovered Fuel (SRF) production and bulking up of dry mixed recyclables. Building 2 is used to segregate the C&D waste using an automated processing line, while Building 3 is used to produce SRF. An odour abatement system comprising the extraction and treatment of air has been installed in the building.

The licence review in the main seeks to accommodate the mechanical processing of non-hazardous Incinerator Bottom Ash (IBA) and acknowledges that the applicant no longer wishes to proceed with the installation of a biological treatment plant. There will be no overall increase to the tonnage processed on site as a result of the change.

The processing of IBA, which will occur indoors, will be confined to the removal of ferrous and non-ferrous metals which will then be sent for recycling. The treatment plant will comprise a series of conveyors, screens, magnets and eddy current separators.

There are currently no recycling options for treated IBA, but in the medium to longer term it is hoped that there is potential to use it in cement manufacture, etc. Condition 8.13.5 of the RD requires the licensee to submit to the Agency, within 12 months of the date of grant of licence, a feasibility study for alternative uses for the treated IBA. In the short term the treated IBA will be sent for disposal in landfill.

3.1 Opening and operating hours

The licensee has requested that the licence authorise the processing of 130,000 tonnes per annum of non-hazardous IBA together with the operation of a SRF/RDF manufacturing system. **Condition 1.5** of the RD provides for this proposal and **Condition 6.20.2** provides safeguards against noise emissions at night-time.

The waste acceptance and operating times for the remainder of the activities at the installation remain unchanged from the existing licence.

3.2 Waste types and treatment processes

Waste types accepted at the installation include:

- non-hazardous incinerator bottom ash;

- construction and demolition waste;
- source segregated dry recyclables; and
- municipal solid waste.

Table A.2 of ***Schedule A.2: Waste Acceptance*** of the RD elaborates further the types and quantities of wastes to be accepted on site.

The licensee is seeking to surrender the previously granted permission to process bio-waste and organic fines on-site (see Decision in W0140-05).

3.3 Processing of construction and demolition (C&D) waste

The treatment and storage of construction and demolition waste and recovered materials takes place within the existing Building 2. **Condition 3.15** of the RD requires that the construction and demolition waste recovery area shall at a minimum comprise a fully enclosed building or enclosure capable of containing all emissions arising from the recovery activity.

3.4 Processing of source segregated dry recyclables

Dry recyclable waste is currently processed in the existing Buildings 1 and 3.

4. Licence/Permit History

Licence	Details	Date
W0140-01	Waste recovery of 44,563tpa of: non-hazardous household; commercial and industrial; and construction and demolition wastes.	July 2002
W0140-02	Waste acceptance of 165,000tpa to include: additional acceptance of compostable waste and treatment in enclosed composting units; extended operating hours; additional packaging recovery building; and allowance for a civic amenity (CA) installation.	April 2005
W0140-02TA(A)*	Waste acceptance of 165,000tpa. The technical amendment provided for the acceptance of commercial WEEE at the CA installation.	August 2005
W0140-03	Waste acceptance of 250,000tpa. Extension of the site boundary to accommodate a new processing building (Building 3) for the treatment of dry recyclable waste and non-hazardous WEEE. Construction of a constructed wetland for the treatment of site surface water.	March 2009
W0140-03 TA(A)	Waste acceptance of 250,000tpa. Substitution of "Dry Recyclable Household" waste by "Household" waste in Schedule A.1: Waste Acceptance. TA(A) was quashed by Order of the High Court on the 20th December 2013.	June 2012
W0140-04	Extend the licence area to encompass a new building (Building 4), which will be used to biologically treat organic waste and organic fines to produce compost and stabilised waste respectively; use biogas generated by anaerobic digestion to generate electricity and heat in an on-site combined heat and power (CHP) plant; install a solid recovered fuel (SRF)/ refuse derived fuel (RDF) manufacturing plant in building 3, which will utilise waste fractions resultant from the processing of municipal solid waste (MSW); amend Condition 1.5.3 of the existing licence to permit the continuous operation of the biological treatment and the SRF/RDF manufacturing systems; and amend Condition 8.6 of the existing licence to allow the operation of the construction and demolition (C&D) waste processing plant in a dedicated area outside the transfer building.	September 2016

*TA= Technical Amendment

5. Compliance and Complaints Record

Compliance and complaints under existing licence

There were eighteen (18 no.) complaints in relation to the noise and odour, etc. from the operation of this installation under the current licence (W0140-04). These are addressed in section 16 of this report.

There were sixteen (16 no.) non-compliance issues in relation to a range of items including waste handling, operating out of hours, facility infrastructure and odour from the operation of this installation under the current licence (W0140-04). These are addressed in section 16 of this report.

6. Best Available Techniques

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 in the following documents:

- Reference document on Best Available Techniques on Emissions from Storage (July 2006); and,
- Reference document on Best Available Techniques for Energy Efficiency (February 2009); and,
- Commission Implementing Decision (EU) 2018 1147 establishing Best Available Techniques (BAT) conclusions for Waste Treatment (August 2018).

The applicant submitted an assessment of the installation activity against the relevant BAT Conclusion requirements contained in the above BREF documents. The applicant has demonstrated that the installation will generally comply with all applicable BAT Conclusion requirements specified in the main applicable BREF activity (Waste Treatments) and those contained in the additional BREF Documents.

I consider that the applicable BAT conclusion requirements are addressed through: (i) the technologies and techniques as described in the application and (ii) the conditions specified in the RD.

Based on an examination and assessment of the application documentation, I am satisfied that the technologies and techniques, as specified in the application, and as confirmed, modified or specified in the attached RD will ensure that the relevant requirements of BAT as stipulated in the above BAT Reference Documents will be applied at the installation. In addition, the proposed activities, as described in the application, this report and the RD, are effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the location of the installation and to the way in which it is designed, built, managed, maintained, operated and decommissioned.

Regard was also given to the Environment Agency Standard Rules SR2012 No13 for the Treatment of Incinerator Bottom Ash.

7. Planning Permission, EIS and EIA Requirements

7.1 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 activity meets the criteria outlined in Section 83(2A)(b) and 83(2A)(c).

This project involves a change to a previously authorised project. In accordance with the EIA Screening Determination, the Agency examined the characteristics of this project, the location, and the potential impacts and has determined that the activity is not likely to have a significant effect on the environment, and an EIAR is not required.

An EIA was conducted for the previous licence Register Number W0140-04 and an EIS was submitted to the Agency with the application on 23rd May 2014.

7.2 Planning Status

A number of planning applications have been made by the applicant for the proposed developments at the site of the activity since 2002. Details of these planning applications and permissions have been provided in the application.

Previous planning permissions associated with the installation attained by the applicant include register numbers: 01/4304, SA/20106, SA/20249, SA/30347, SA/60656, SA/900875, SA/140011 and SA/140429. Planning permission register numbers SA/60656, SA/900875, SA/140011, SA/140429 and LB/170234 relate to the activities requested in this licence review application and Meath County Council confirmed that an Environmental Impact Assessment (EIA) was not completed as part of these planning applications.

8. Submissions

There were two (2 no.) submissions made on this application one of which was subsequently withdrawn on 03/12/2018.

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

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

Name & Position: Ms Elish O'Reilly, Principal Environmental Health Officer	Organisation: Environmental Health Service (EHS), Co. Clinic, Navan, Co. Meath,
Date Received:	12 June 2017
Issues raised: The Submission raised five main points, as follows;	

1. Public consultation – the EHS recommends that meaningful public consultation is carried out with regards to the proposal.
2. Waste acceptance – it is suggested that there are contradictions within the application regarding the volumes of waste to be accepted at the installation. Clarification on the types and volumes of waste to be accepted should be provided.
3. Nuisance – the EHS recommends that a formal complaints procedure be established to resolve any possible issues in relation to traffic, dust, noise, water or nuisance complaints.
4. Wastewater – the EHS proposes that the integrity of the underground wastewater storage tanks is determined every three years.
5. IBA processing – the applicant suggests that in future the IBA may be further processed on site. It is the view of the EHS that the applicant should assess the direct and indirect impacts of these new waste processes prior to the commencement of any new activity.

Agency Response:

1. Public Consultation – the applicant is required under the Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013, to consult with members of the public by way of (i) publishing notice of the intention to make an application in a newspaper circulating in the district which the activity is or will be situate, and (ii) by erecting a site notice informing members of the public of the applicant’s intention to apply to the Agency for a licence/licence review. Any such notice shall be maintained for a period of at least one month. The applicant is deemed to have complied with the requirements of Regulation 5 and 6 of Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013.
2. Waste acceptance – clarification on the precise nature and quantity of wastes was provided by the applicant in response to a Regulation 10(2)(b)(ii) request issued by the Agency on 01/06/2018.
3. Nuisance – Condition 11.2 of the RD requires the licensee to notify the Agency of a breach of any Condition of the licence as soon as is practicable after the occurrence of said breach. Such notification would include breaches in relation to the types of nuisance listed in the submission, e.g., noise, dust, odour, etc.
4. Wastewater – Condition 6.10 of the RD requires the licensee to examine the integrity every three years in line with the suggestion from the EHS.
5. IBA processing – The potential direct and indirect impacts of the processing of IBA on site are addressed in the application documentation and appropriate mitigation measures are proposed in the RD. Furthermore, Condition 8.13 of the RD specifies the measures that must be undertaken when handling IBA on site.

9. Emissions to Air

An overview of the emission points associated with the installation is shown in Appendix 2.

9.1 Emissions to Air

Point-source emissions to atmosphere will arise at the Incinerator Bottom Ash (IBA) treatment facility (Building 3) and the refuse derived fuel manufacturing facility (Building 1). Should the licensee choose to proceed with the construction of Building 4 it too will have a point-source emission to atmosphere.

The previous licence (W0140-04) authorises five emission points to atmosphere, as follows;

- A2-1: building 4 biofilter - for treatment of air from the composting chambers and the general building;
- A2-2: building 3 woodchip biomass furnace also used for treatment of Municipal Solid Waste in which case a temperature of 800-850°C for 2 seconds is to be maintained to ensure treatment of the off-gas;
- A2-4 and A2-5: two CHP gas engines at building 4; and
- A2-6: building 3 carbon filter (preceded by dust emissions controls).

As the anaerobic digestion plant will not be installed the gas engines (A2-4 and A2-5) will not be required and will be discontinued under the recommended licence. It is intended in the short to medium term to process IBA in Building 3. A point source emission is being requested with a dust emission limit value (ELV) of 10mg/Nm³. In keeping with the Commission Implementing Decision (EU) 2018/1147 establishing best available techniques (BAT) for waste treatment an ELV has been set a 5mg/N m³, as per Schedule B of the RD.

Although it is not intended in the short term to manufacture SRF in Building 3 this may recommence in the medium term and for this reason it is intended to retain the biomass furnace (A2-2). The applicant is seeking the flexibility to process IBA in Building 4 should it be constructed rather than the biological treatment previously proposed. As such an emission point (A2-1) will be created mirroring that in Building 3, i.e., a point source discharge with a dust ELV of 5mg/Nm³.

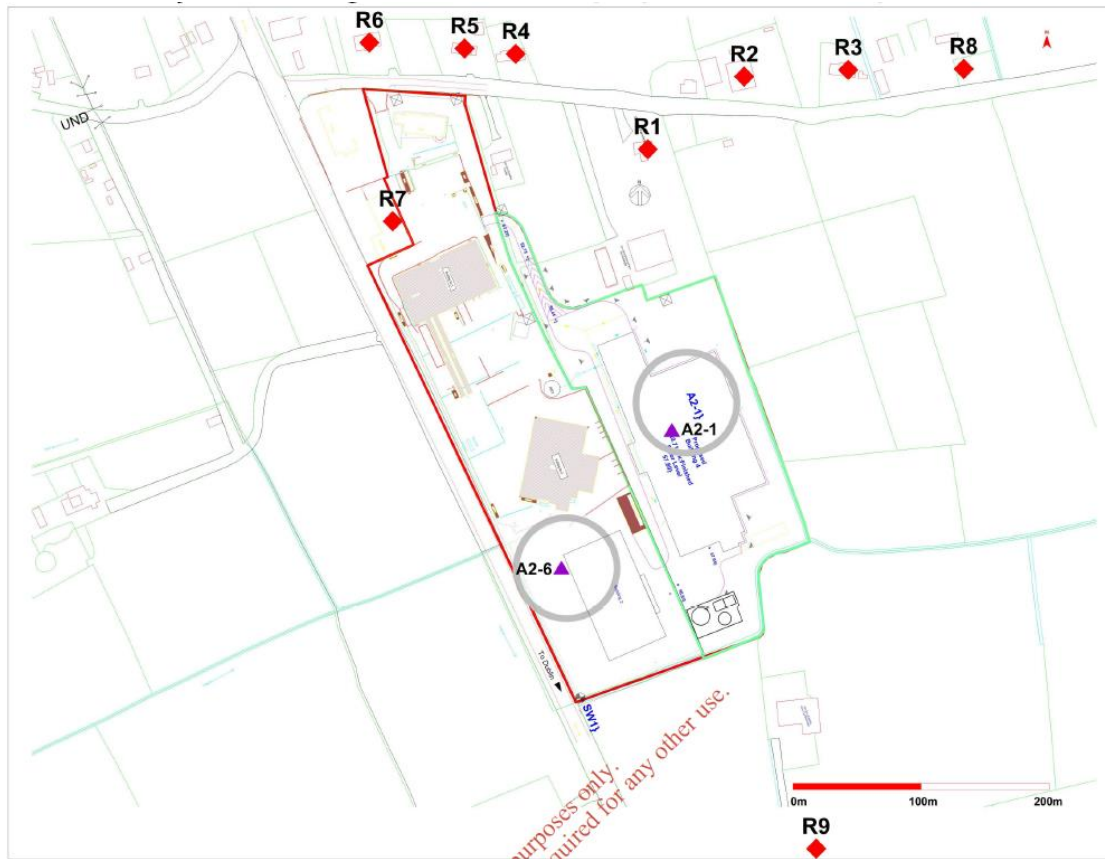
Condition 3.11 requires the installation of dust and odour management infrastructure. The proposed odour management system consists of a biofilter. **Condition 6.16.2** requires the applicant to maintain and implement a programme to demonstrate negative pressure and building envelope integrity.

Air dispersion model

The impact of emissions from the proposed new biofilter (A2-1) and the carbon filter (A2-6) manufacturing facility were modelled for air quality impact at the nine receptors numbered R1 – R9 shown in the figure below. The AERMOD prime model was used and the applicant followed the methodology outlined in the Agency Guidance Note

AG4¹. These receptors were considered to be a good representative sample of the locations likely to be impacted by any potential emissions from the site.

Figure 6 Location of Potential Receptors (red dots)



Air dispersion model

As shown in Table 2, the maximum ground level concentration values modelled are less than the relevant standard for each parameter.

Table 2 Air dispersion modelling

Parameter	Averaging period	Process contribution to Predicted Ground Level Conc. ($\mu\text{g}/\text{m}^3$)	Baseline Conc. Value ($\mu\text{g}/\text{m}^3$)	Baseline + process contribution ($\mu\text{g}/\text{m}^3$)	Limit as per S.I. 180 of 2011 ($\mu\text{g}/\text{m}^3$)	% of the ambient standard
Total particulates	As Total Particulates 90.4th%ile. Max. 24-hour concentration	13	13.25	26.25	50	47.50

¹ Air Dispersion Modelling from industrial Installations Guidance Note (AG4), EPA 2010.

	As Total Particulates, annual average	6	13.25	19.25	40	51.88
	As PM _{2.5} annual average	6	9	15	25	40

With regard to Total particulates and PM_{10/2.5} the maximum ground level concentration plus baseline at worst case sensitive receptors at or beyond the boundary of the facility for Total particulates as PM 10 is 26.25µg/m³ for the maximum 24-hour mean concentration at the 90.40th percentile. When combined predicted and baseline conditions are compared to the S.I. no 180 of 2011 and Directive 2008/50/EC, this is 47.50 percent of the impact criterion for emissions from the activity.

An annual average was also generated to allow comparison against the legislative standards for PM₁₀ and PM_{2.5}. The maximum predicted annual average plus baseline ground level concentration at worst case sensitive receptors at or beyond the facility for PM₁₀ and PM_{2.5} are 19.25 µg/m³ and 15 µg/m³ respectively. When compared, the annual average PM₁₀ and PM_{2.5} air quality impact is less than or equal to 52% and 40% of the impact criterion for emissions from the activity.

9.2 Climate Impact

Climate change is a significant global issue which affects weather and environmental conditions which consequently affects human resources and amenities as well as biodiversity and habitats. 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 activity.

Greenhouse gas emissions	
Sources of GHG emissions from the activity	Combustion of fuels
Relevant GHG gases	Nitrous Oxide

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

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

9.3 Odour

The processing and storage of waste will take place indoors. There is no outdoor storage area at the installation.

The IBA comprises combusted products such as ash and slag and MSW waste materials that did not combust in the incineration plant, e.g. glass, brick, rubble, sand, grit,

metal. The IBA has a low potential to generate odour nuisance. Odours have not been associated with IBA movement and storage at other installations.

There are also a number of conditions relating to odour in the RD:

- Condition 6 of the RD requires all odour forming waste other than wrapped or baled waste to be removed from the installation within 72 hours of its arrival or generation on site. Such waste would include any organic fines generated through treatment of municipal waste.
- Condition 3 of the RD requires the licensee to provide adequate measures for the control of odours from the installation.
- Condition 5 of the RD prohibits the licensee from allowing a nuisance to be caused by odour emissions from the installation.

The RD in condition 3 provides for increased levels of odour control if required by the Agency.

There has been one odour complaint to date in 2018. This complaint was attributed to poor operational controls being employed on-site during the recent hot weather.

10. Discharges to Water

10.1 Discharges to Waters

10.1.1 Emissions to Waters

There are no process emissions to waters at the installation.

The current licence provides for a storm water discharge to surface waters at emission point SW1 via an Integrated Constructed Wetland (ICW) at the southern boundary of the installation (Appendix 2). However, the licensee currently routes storm water through a silt trap and an oil interceptor to storage in holding tanks. The contents of the holding tanks are sent for treatment off-site at a waste water treatment plant.

BAT conclusion No. 45 of the Waste Treatments BREF recommends the installation of an enclosure system whereby rainwater falling on the yards surrounding the processing areas is collected in a combined interceptor. Section 4.5.1.5 of the Draft Waste Treatments BREF covers minimization of waste water generation and water usage and prevention of contamination of ground and surface waters and lists constructed wetlands as a treatment method for surface water to reduce the pollution potential before discharge to local watercourses. An ICW was commissioned in 2016 to treat the run off from the existing building roofs and paved yards prior to discharge to the drain on the site's southern boundary at emission point SW1. **Schedule B.2** sets out the emission limit values of treated run-off to the southern land drain, via the ICW, for BOD, suspended solids and total ammonia.

Condition 3.22 of the RD requires the licensee to carry out a risk assessment to determine if the activity should have a fire-water retention facility. Fire water generated during a previous fire at Building 3 was contained within the installation.

10.2 Emissions to Sewer

10.2.1 Process emissions to sewer

There are no process emissions to sewer at the installation.

10.3 Discharges to ground/groundwater

10.3.1 Emissions to ground/groundwater

There are no direct process emissions to groundwater from this installation.

11. Noise

There were 7 noise complaints made in 2017 and a further 2 complaints so far in 2018. The likely causes of the complaints received by the Agency in 2017 were attributed primarily to inadequate operational procedures/training. The main sources of noise are the SRF processing line, the C&D processing line, mobile grab and front loader and the heavy goods vehicles that access the site. The processing of ash will involve the use of hoppers, conveyors, magnets and mechanical screens.

There was no tonal or impulsive noise emissions from the activity audible at any of the nearest residences during monitoring carried out on site. Noise monitoring results from for each of the four noise sensitive locations demonstrated that noise attributed to the activities at the installation were below the licence threshold. The dominant sources of noise in the area have been reported as originating from the traffic on the adjacent N2 road and the Knockcommon road.

Condition 3.15 requires the C&D Waste Recovery Area to have appropriate and effective noise screening. **Condition 6.20.2** places restrictions on night-time activities at the installation. **Condition 8.12.7** requires that building doors are kept closed. **Condition 6.20.1** of the RD requires the licensee to carry out a noise survey at a frequency agreed with the Agency and in accordance with the methodology specified in the Agency publication '*Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)*'.

12. Waste Generation

Waste generated from the treatment of waste (including refuse derived fuel, treated IBA and material for onward recycling) will be managed in accordance with the conditions of the RD.

13. 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 operation of the installation involves the consumption of water, oil and electricity. The estimated quantities used in 2016 are given below.

Resource	Quantity per annum
Electricity	5,383MWh
Water	234.8 m ³
Kerosene	244 m ³

14. Prevention of Accidents

Potential accidents & measures for prevention/limitation of consequences	
Potential for an accident or hazardous/ emergency situation to arise from activities at the installation	<ul style="list-style-type: none"> • Potential for fire due to large quantities of waste stored at the installation/facility • Contamination of surface water drains due to fire water run off • Contamination of surface water drains by diesel
Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the installation	<ul style="list-style-type: none"> • The installation's Accident Prevention Policy and Emergency Response Procedure are maintained; • Staff are required to comply with on-site safety guidelines regarding access to and from the installation and on-site traffic movement; • The installation has been designed in accordance with the Safety, Health and Welfare at work (General Application) Regulations 2007: Part 8 Explosive Atmospheres at places of Work; • A Hazard Identification study, a Hazard & Operability Study and an Explosion Protection document will be submitted for approval by the Health and Safety Authority before relevant activities commence; and • Preparation of a Fire Prevention and Detection procedure which will take into account the Agency's guidance note on Fire Safety at Non-Hazardous Waste Sites and the UK Environment Agency's Technical Guidance Note TGN7-01 Reducing fire Risk at Sites Storing Combustible Materials. • All surface waters must drain to a Class 1 Oil Interceptor prior to treatment and discharge.

Condition 9 of the RD requires procedures to be maintained to prevent accidents, with an emphasis on preventing accidents with a possible impact on the environment and to respond to emergencies so as to minimise the impact on the environment. In addition, **Condition 8.16** of the RD sets out a requirement to develop and maintain a materials storage plan, which limits the size of stockpiles and the quantity of waste to be stored in designated areas. The plan is required to include a fire quarantine area and any requirements arising from the Fire Risk Assessment required under **Condition 9.5**.

15. Cessation of activity

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

- Removal of all residual waste on-site
- Removal of all fuel and hazardous substances related to the activity from the site
- Clean up of all buildings on-site, and
- Removal of mechanical equipment for use at other Starrus Eco Holdings Limited sites or to be scrapped.

Condition 10 of the RD requires procedures to be put in place to ensure the proper closure of the activity with aim of protecting the environment. In particular, the RD requires that the licensee submits a Closure, Restoration and Aftercare Management Plan (CRAMP). (see Fit and Proper Person Assessment section below for further details).

Baseline Report

The RD as drafted takes account of the requirements of the IED.

A baseline report was provided by the applicant. Diesel and gas oil and relevant hazardous substances are stored and used at the installation.

Six soil samples were taken at the installation: two samples in the footprint of the previously proposed biological treatment facility, two samples adjacent to the oil storage area and one sample directly south of the constructed wetland. These soil samples were tested for a range of aliphatic and aromatic compounds. The soil cores recovered from the borings were visually assessed and field screened for the presence of volatile organic compounds using a photoionization detector and no contamination of this nature was identified.

Groundwater was tested via three wells which were located north/up gradient of the installation, south/down-gradient of building 3 and south/down-gradient of building 4. These groundwater samples were tested for manganese, potassium, sodium, sulphate, chloride, ammoniacal nitrogen, a range of aliphatics, aromatics and volatile organic carbons.

Ammonia was detected in all three wells and exceeded the threshold value² in both down-gradient wells. Extractable Petroleum Hydrocarbons (EPH) were detected in the up-gradient well at levels which exceeded the threshold value; however, it was not detected in either down-gradient well.

Through this testing the baseline condition of the soil and groundwater at the installation has been confirmed with regard to relevant hazardous substances.

The requirement in **Condition 8.6** of the RD to ensure that all waste storage and treatment activities are carried out within designated areas will minimise the risk of contamination of groundwater beneath the installation.

² EC Environmental Objectives (Groundwater) Regulations 2010

On cessation of the activity where the installation has caused significant pollution of soil or groundwater, Condition 10 of the RD requires the licensee to take measures to address the pollution and to return the site to the state established in the Baseline Report, or otherwise to take actions aimed at the removal, control, containment or reduction of hazardous substances so that the site ceases to pose a significant risk to human health or the environment.

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

16. Appropriate Assessment

Appendix 3 lists the European Sites assessed, their associated qualifying interests and conservation objectives along with the assessment of the effects of the activity 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 River Boyne and River Blackwater SAC (Site Code:002299), Boyne Coast and Estuary SAC (Site Code: 001957), River Boyne and River Blackwater SPA (Site Code: 004232), Boyne Estuary SPA (Site Code: 004080) and River Nanny Estuary and Shore SPA (Site Code: 004158).

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.

This determination is based on the following:

- The potential for dust and surface water runoff from the activity to have a significant effect on European Sites.

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 River Boyne and River Blackwater SAC (Site Code:002299), Boyne Coast and Estuary SAC (Site Code: 001957), River Boyne and River Blackwater SPA (Site Code: 004232), Boyne Estuary SPA (Site Code: 004080) and River Nanny Estuary and Shore SPA (Site Code: 004158), 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:

- Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD.

Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to water, air and noise emissions.

- Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.
- Condition 8 of the RD requires that all waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area.
- Condition 5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary.
- Condition 6 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation.
- Condition 4 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations.
- Condition 9 of the RD requires the licensee, to ensure that a documented Accident Prevention Procedure is in place that addresses potential hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. Condition 9 of the RD also 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.
- Condition 2 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.
- Condition 3 of the RD set out the requirements in relation to fire-water retention facilities at the installation.
- Condition 3 of the RD sets out the requirements for the management of tank, container and drum storage areas, and
- Conditions 9 and 11 of the RD specifies requirements for the licensee in the event of an incident.

In light of the foregoing reasons no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of the following European Sites: River Boyne and River Blackwater SAC (Site Code:002299), Boyne Coast and Estuary SAC (Site Code: 001957), River Boyne and River Blackwater SPA (Site Code: 004232), Boyne Estuary SPA (Site Code: 004080) and River Nanny Estuary and Shore SPA (Site Code: 004158).

17. 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.

(i) Legal Standing

Non-compliances:

A number of non-compliances have been logged by the OEE since 2009 as shown in Table 4 below.

Table 4: Non-compliances recorded by the OEE from 2009 – 2018

Year	Non-Compliance Type	Non-compliances	Source
2009	Waste management	3	Audits
2010	Non-notification of incidents	1	Incident notification
2011	Failure to provide/install infrastructure	1	Audits
	Nuisances	1	Site Visits
2012	Documentation and procedures	2	Audit, site visit
	Timber shredder located in the yard.		
2013	N/A	N/A	N/A
2014	N/A	N/A	N/A
2015	An area of land along the western boundary of the installation designated for the constructed wetland was observed to be contaminated with rubble, tiles, ceramics, plastic, glass, wood and metal rebar. The disposal of this waste onsite is not authorised under Waste Licence Reg. No. W0140-03.	3	Site visit
	A quantity of SRF/RDF bales were observed stored in the yard external to building 1. The storage of SRF/RDF bales outdoors in this area is not approved by the Agency.		
	Neither the installation manager nor environmental manager were at the installation upon arrival. No alternative personnel were made available to accompany the Agency inspector on an inspection of the installation.		
13 th December 2017	During a site visit on 13/12/2017, the EPA inspector observed waste awaiting processing being stored outside of the facility Building 2. The inspector also observed processed waste being used for access roads within the facility boundary. CI re-opened on 16/04/2018 following site inspection on 11/04/2018 where the EPA	1	Site Visit

	inspector observed waste awaiting processing being stored outside of Building 2.		
18 th January 2016	The licensee has not made financial provision to cover environmental liabilities to the satisfaction of the Agency as required in Condition 12.2.3.	1	
13 th September 2018	During a site inspection on 13/09/2018, it was observed that all drainage from the site was not being directed to the onsite constructed wetland and subsequent discharge via SW1, storm-water emission from the constructed wetland.	1	Site Visit
13 th September 2018	During a site inspection on 13/09/2018, a number of issues were highlighted with the installation Waste Storage Plan and Fire Risk Assessment. In this regard the licensee is hereby required to undertake an updated fire risk assessment, taking on-board the observations made during the site visit on 13/09/2018 and submit to the Agency an updated Waste Storage Plan in compliance with condition 8.20.	1	Site Visit
03 rd October 2018	During a site visit on 03/10/2018 the following non-compliances were noted; <ul style="list-style-type: none"> • Failure to provide hardstanding and drainage infrastructure adjacent to Building 3. • Quantities of C&D and plastic wastes stored outdoors. • Blocked storm water drains containing contaminated storm water, and • Commencement of drainage works without the prior agreement of the Agency. 	4	Site Visit
16 th October 2018	During a site inspection odours were detected off-site consistent with those experienced in Buildings 1 and 3.	1	Site Visit

Complaints:

Approximately 171 complaints have been received by the OEE since 2009:

Year	No. Of Complaints
2009	3
2010	6
2011	5
2012	34
2013	47
2014	46
2015	3
2016	20
2017	6
2018	5 – to date

The complaints related to odour and air pollution issues, noise, dust, vermin and other issues. The complaints received in 2018 were in relation to noise (3), odour (1) and out of hours operation (1).

Convictions:

On the 15th September 2009, a predecessor company Nurendale Ltd, trading as Panda Waste Services, was convicted at Navan District Court of an offence under Section 39(1) and 39(9) of the Waste Management Acts 1996, as amended. This conviction was in relation to a breach of its previous licence (W0140-02) by accepting a quantity of waste that exceeded the maximum annual tonnage permitted on 31 December 2007.

(ii) Financial Standing

As discussed in section 10.4 the licensee has agreed closure and ELRA costs for existing activities with the Agency. The licensee is engaged with the Agency on making financial provision under the existing licence.

Condition 12.2.3 of the RD requires the licensee to make financial provision to cover any liabilities associated with the operation (including closure and decommissioning) prior to annual waste acceptance exceeding 250,000 tonnes and in any event within six months of the date of grant of this licence.

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 licence.

18. Cross Office Consultation

I consulted with OEE Senior Inspector Brian Meaney and OEE Inspector Cathal Gahan in relation to this site, as well as in relation to individual licence conditions, Jim Moriarity in relation to financial provision, and Dave Matthews and Viktor Amos in

relation to air modelling. In general, the OEE have no significant concerns regarding the proposed changes to the licensable activity.

19. Charges

The annual enforcement charge recommended in the RD is €14,119, which reflects the anticipated enforcement effort required and the cost of monitoring.

20. 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 AA and EIA. 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

A handwritten signature in cursive script that reads "Breen Higgins". The signature is written in black ink and is positioned above a horizontal line.

Breen Higgins

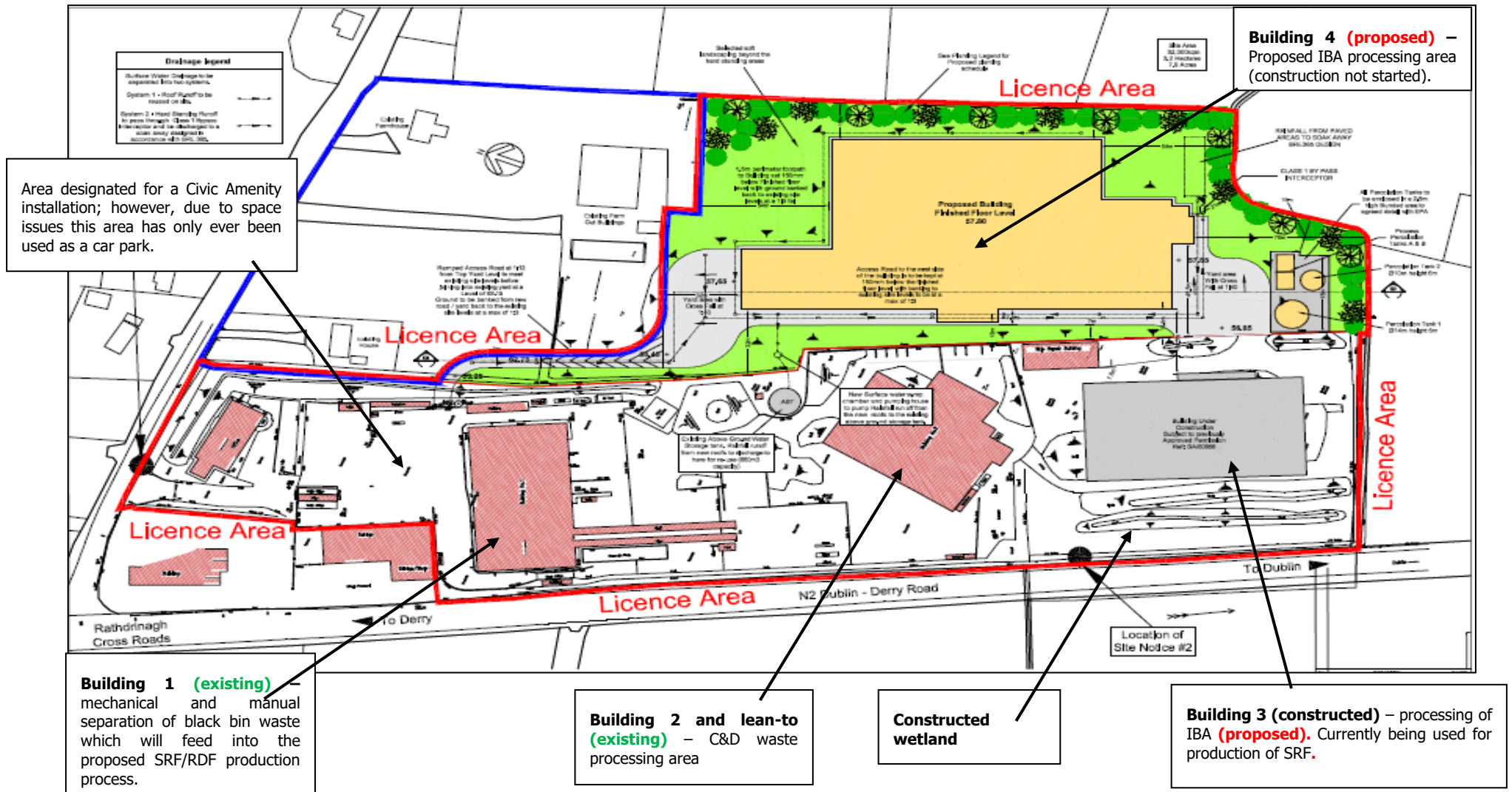
Procedural Note

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

Figure 7: Existing and proposed buildings and activities.



APPENDIX 2

Figure 8: Overview of monitoring locations associated with the installation.

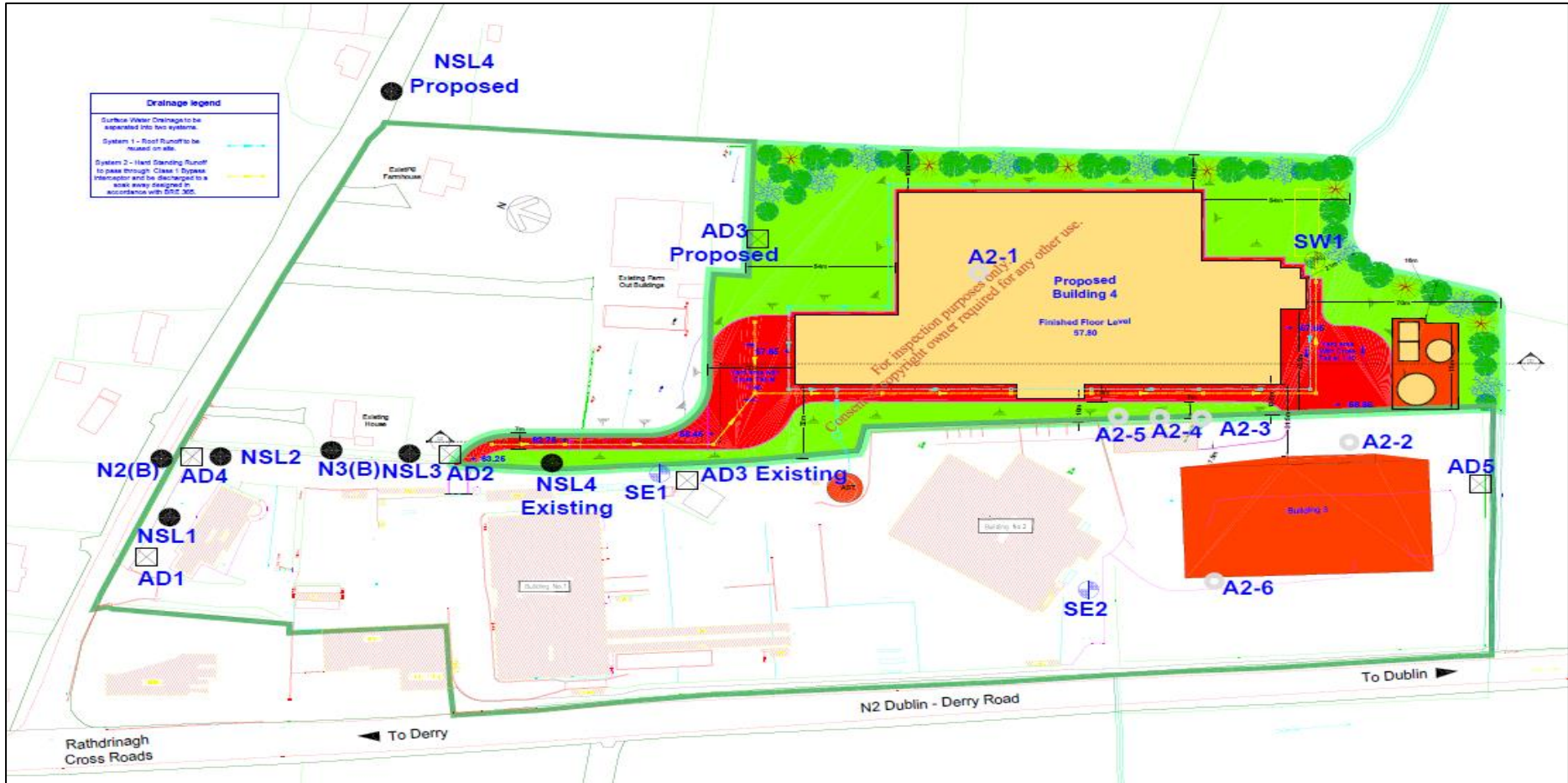
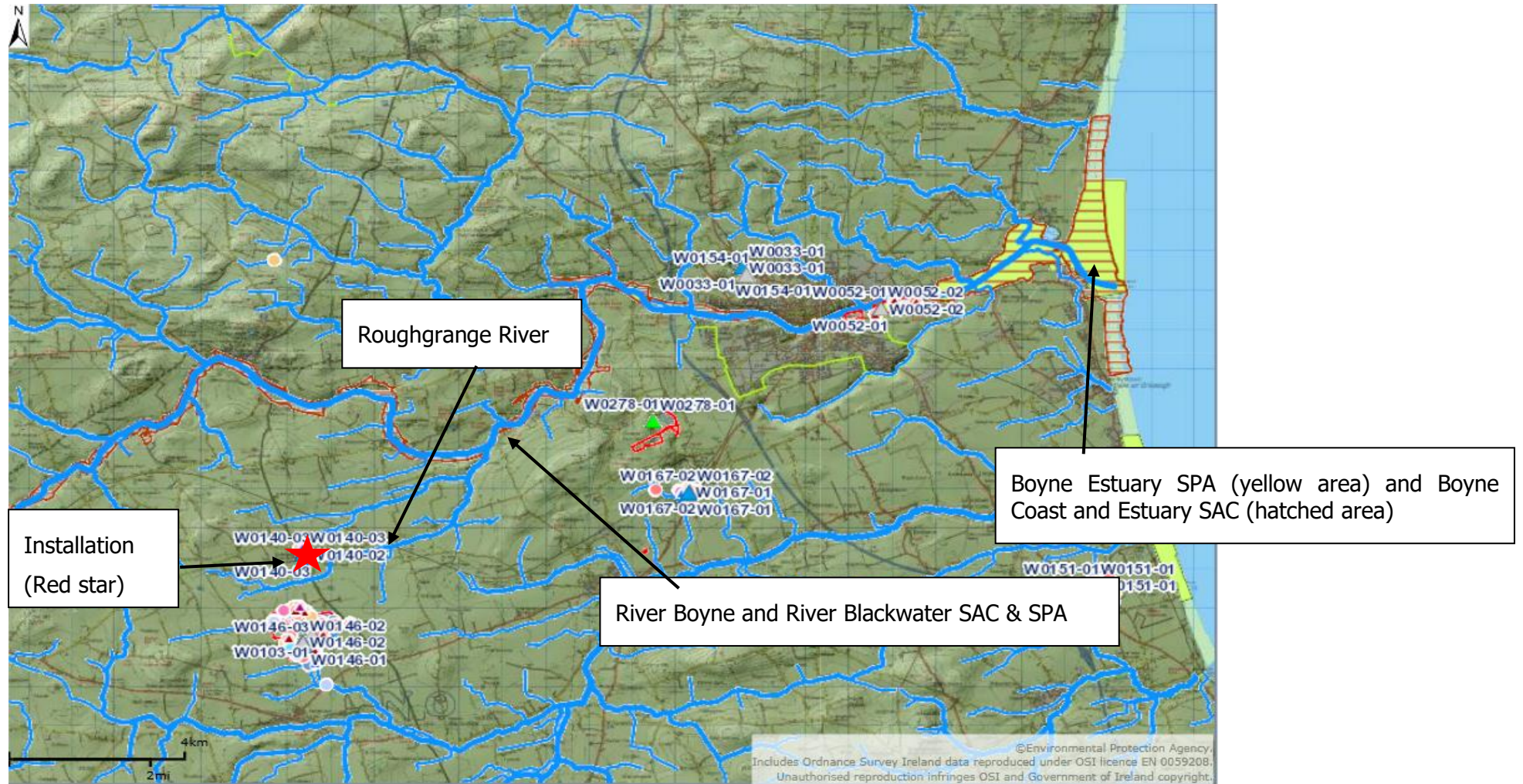


Figure 9: Location of Special Areas of Conservation/Special Protection Areas



Appendix 3: Assessment of the effect(s) of the proposed activities on European site(s) and proposed mitigate measures.

European Site (site code):	River Boyne and River Blackwater SAC (002299)							
Distance/ Direction from discharge(s)	The installation is located approximately 5.5 km from the above SAC via surface water linkages and approximately 2.5 km overland.							
Conservation objectives:	As per NPWS (2018) Conservation objectives for River Boyne and River Blackwater SAC [002299]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.							
Qualifying interests (* denotes a priority habitat)	Assessment							
Habitats:	Emission to Water							
<table border="0"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>7230</td> <td>Alkaline fens</td> </tr> <tr> <td>91E0</td> <td>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)*</td> </tr> </tbody> </table>	Code	Description	7230	Alkaline fens	91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*	<p>Any change in water quality has the potential to impact on water dependant habitats and species.</p> <p>The only emission to water authorised from the installation (SW1) is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. Rainwater from the new concrete yard areas, around Building 4 (following its construction) will pass through existing silt traps and oil separators before it enters a soakaway.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to water. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under</p>	
Code	Description							
7230	Alkaline fens							
91E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)*							
Species:								
<table border="0"> <thead> <tr> <th>Code</th> <th>Common Name</th> <th>Scientific Name</th> </tr> </thead> <tbody> </tbody> </table>	Code	Common Name	Scientific Name					
Code	Common Name	Scientific Name						

<p>1099 River Lamprey <i>Lampetra fluviatilis</i></p> <p>1106 Atlantic Salmon <i>Salmo salar</i></p> <p>1355 Otter <i>Lutra lutra</i></p>	<p>the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.</p> <p>Emission to Air</p> <p>There are three point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with the activity. Poor air quality could potentially impact on qualifying interests sensitive to air pollution.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to air. • Condition 8 of the RD requires that all waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area. • Condition 5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p>Noise emissions:</p> <p>Noise is an emission associated with the activity.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for noise emissions.
<p>The site was not designated for its wintering populations of whooper swan, however, the population has been noted as being of national and at times international importance.</p>	

	<ul style="list-style-type: none"> • Condition 6 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation. • Condition 4 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European site.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact on the receiving water and local air quality and potentially on the nearby European Sites.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 9 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 of the RD also 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. • Condition 2 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach. • Condition 3 of the RD set out the requirements in relation to fire-water retention facilities at the installation.
--	--

	<ul style="list-style-type: none"> • Condition 3 of the RD sets out the requirements for the management of tank, container and drum storage areas. • Conditions 9 and 11 of the RD specifies requirements for the licensee in the event of an incident. <p>The above measures will protect the European Site from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
--	---

European Site (site code):	River Boyne and River Blackwater SPA (004232)		
Distance/ Direction from discharge(s)	The installation is located approximately 5.5 km from the above SPA via surface water linkages and approximately 2.6 km overland.		
Conservation objectives:	As per NPWS (2018) Conservation objectives for River Boyne and River Blackwater SPA [004232]. Version 6.0. Department of Culture, Heritage and the Gaeltacht.		
Qualifying interests		Assessment	
Species:		<u>Emission to Water</u>	
Code	Common Name	Scientific Name	<p>Any change in water quality has the potential to impact on water dependant habitats and species.</p> <p>The only emission to water authorised from the installation (SW1) is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. Rainwater from the new concrete yard areas, around Building 4 (following its construction) will pass through existing silt traps and oil separators before it enters a soakaway.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to water.
A229	Kingfisher	<i>Alcedo atthis</i>	

	<ul style="list-style-type: none"> • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites. <p><u>Emission to Air</u></p> <p>There are three point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with the activity. Poor air quality could potentially impact on qualifying interests sensitive to air pollution.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to air. • Condition 8 of the RD requires that all waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area. • Condition 5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Noise emissions:</u></p> <p>Noise is an emission associated with the activity.</p> <p>Mitigation</p>
--	---

	<ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for noise emissions. • Condition 6 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation. • Condition 4 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European site.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact on the receiving water and local air quality and potentially on the nearby European Sites.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 9 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 of the RD also 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. • Condition 2 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.
--	--

	<ul style="list-style-type: none"> • Condition 3 of the RD set out the requirements in relation to fire-water retention facilities at the installation. • Condition 3 of the RD sets out the requirements for the management of tank, container and drum storage areas. • Conditions 9 and 11 of the RD specifies requirements for the licensee in the event of an incident. <p>The above measures will protect the European Site from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
--	---

European Site (site code):	Boyne Estuary SPA (004080)	
Distance/ Direction from discharge(s)	The installation is located approximately 19.8 km from the above SPA via surface water linkages and approximately 13.5 km overland.	
Conservation objectives:	As per NPWS (2013) Conservation Objectives: Boyne Estuary SPA 004080. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Qualifying interests	Assessment	
Species:	Emission to Water	
Code	Common Name	Scientific Name
A048	Shelduck	<i>Tadorna tadorna</i>
A140	Golden Plover	<i>Pluvialis apricaria</i>
		<p>Any change in water quality has the potential to impact on water dependant habitats and species.</p> <p>The only emission to water authorised from the installation (SW1) is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. Rainwater from the new concrete yard areas, around Building 4 (following its construction) will pass through existing silt traps and oil separators before it enters a soakaway.</p> <p>Mitigation</p>

A141	Grey Plover	<i>Pluvialis squatarola</i>	<ul style="list-style-type: none"> Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to water. Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.</p> <p><u>Emission to Air</u></p> <p>There are three point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with the activity. Poor air quality could potentially impact on qualifying interests sensitive to air pollution.</p> <p><u>Mitigation</u></p> <ul style="list-style-type: none"> Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to air. Condition 8 of the RD requires that all waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area. Condition 5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary. Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Noise emissions:</u></p> <p>Noise is an emission associated with the activity.</p>
A142	Lapwing	<i>Vanellus vanellus</i>	
A143	Knot	<i>Calidris canutus</i>	
A156	Black-tailed Godwit	<i>Limosa limosa</i>	
A162	Redshank	<i>Tringa totanus</i>	
A195	Little Tern	<i>Sterna albifrons</i>	
A130	Oystercatcher	<i>Haematopus ostralegus</i>	
A144	Sanderling	<i>Calidris alba</i>	
A169	Turnstone	<i>Arenaria interpres</i>	
<u>Habitats:</u>			
Code	Description		
A999	Wetlands		

	<p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for noise emissions. • Condition 6 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation. • Condition 4 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European site.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact on the receiving water and local air quality and potentially on the nearby European Sites.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 9 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 of the RD also 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. • Condition 2 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.
--	---

	<ul style="list-style-type: none"> • Condition 3 of the RD set out the requirements in relation to fire-water retention facilities at the installation. • Condition 3 of the RD sets out the requirements for the management of tank, container and drum storage areas. • Conditions 9 and 11 of the RD specifies requirements for the licensee in the event of an incident. <p>The above measures will protect the European Site from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
--	---

European Site (site code):	Boyne Coast and Estuary SAC (001957)	
Distance/ Direction from discharge(s)	The installation is located approximately 20 km from the above SAC via surface water linkages and approximately 14.7 km overland.	
Conservation objectives:	As per NPWS (2012) Conservation Objectives: Boyne Coast and Estuary SAC 001957. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Qualifying interests (* denotes a priority habitat)	Assessment	
Habitats:	Emission to Water	
Code	Description	Emission to Water
1130	Estuaries	Any change in water quality has the potential to impact on water dependant habitats and species.
1140	Mudflats and sandflats not covered by seawtaer at low tide	The only emission to water authorised from the installation (SW1) is of surface water run-off which will be treated via a constructed wetland, silt trap and oil separator. Rainwater from the new concrete yard areas, around Building 4 (following its construction) will pass through existing silt traps and oil separators before it enters a soakaway.

1310	Salicornia and other annuals colonizing mud and sand	<p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to water. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>This shall ensure any discharge will comply with the requirements of the <i>European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended</i>, and as a consequence contribute towards the receiving waters achieving 'good' status as required under the Water Framework Directive. Therefore, protecting the qualifying interests of the European sites.</p> <p><u>Emission to Air</u></p> <p>There are three point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with the activity. Poor air quality could potentially impact on qualifying interests sensitive to air pollution.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to air. • Condition 8 of the RD requires that all waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area. • Condition 5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction.
1330	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	
1410	Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	
2110	Embryonic shifting dunes	
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')	
2130	*Fixed coastal dunes with herbaceous vegetation ('grey dunes')	

	<p>The above measures will protect the European Site from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Noise emissions:</u></p> <p>Noise is an emission associated with the activity.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for noise emissions. • Condition 6 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation. • Condition 4 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European site.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact on the receiving water and local air quality and potentially on the nearby European Sites.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 9 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
--	--

	<p>relation to the prevention of accidents with a possible impact on the environment. Condition 9 of the RD also 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.</p> <ul style="list-style-type: none"> • Condition 2 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach. • Condition 3 of the RD set out the requirements in relation to fire-water retention facilities at the installation. • Condition 3 of the RD sets out the requirements for the management of tank, container and drum storage areas. • Conditions 9 and 11 of the RD specifies requirements for the licensee in the event of an incident. <p>The above measures will protect the European Site from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
--	---

European Site (site code):	River Nanny Estuary and Shore SPA (004158)
Distance/ Direction from discharge(s)	The installation is located approximately 16.2 km from the above SPA overland.
Conservation objectives:	As per NPWS (2012) Conservation Objectives: River Nanny Estuary and Shore SPA 004158. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Qualifying interests (* denotes a priority habitat)	Assessment

<p><u>Species:</u></p> <p>Code Description</p> <p>A130 <i>Oystercatcher Haematopus ostralegus</i></p> <p>A137 <i>Ringed Plover Charadrius hiaticula</i></p> <p>A140 <i>Golden Plover Pluvialis apricaria</i></p> <p>A143 <i>Knot Calidris canutus</i></p> <p>A144 <i>Sanderling Calidris alba</i></p> <p>A184 <i>Herring Gull Larus argentatus</i></p> <p><u>Habitats:</u></p> <p>Code Description</p> <p>A999 Wetlands</p>	<p><u>Emission to Water</u></p> <p>There is no surface water pathway between the installation and the European Site.</p> <p><u>Emission to Air</u></p> <p>There are three point source emissions to air associated with this installation.</p> <p>Dust is also an emission associated with the activity. Poor air quality could potentially impact on qualifying interests sensitive to air pollution.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for emissions to air. • Condition 8 of the RD requires that All waste treatment, processing and storage shall be carried out inside a building or enclosed vessel or, in the case of storage of recycled construction and demolition waste, in an appropriately enclosed or covered area. • Condition 5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the installation or beyond the installation boundary. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from dust deposition and air emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Noise emissions:</u></p> <p>Noise is an emission associated with the activity.</p> <p>Mitigation</p>
---	---

	<ul style="list-style-type: none"> • Condition 5 of the RD requires that no specified emissions from the installation shall exceed the emissions limit values set out in Schedule B of the RD. Condition 6 and Schedule C of the RD sets out the monitoring requirements for noise emissions. • Condition 6 requires the licensee to implement adequate measures for the control of noise from the installation. This condition also puts restrictions on night-time activities at the installation. • Condition 4 requires noise from the installation not to give rise to sound pressure levels measured at the boundary of the installation which exceed limit values. Condition 5 requires no clearly audible tonal component or impulsive component in the noise emissions from the installation at noise sensitive locations. • Condition 2 requires a maintenance programme to be implemented at the installation which is inclusive of preventative maintenance. This reduces the risk of plant malfunction. <p>The above measures will protect the European Site from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European site.</p> <p><u>Potential for Accidents to Arise</u></p> <p>There is the potential for accidents and emergency situations arising at the installation resulting in partially treated or untreated surface water run-off discharging to the southern drain or air emissions discharging to atmosphere. Such incidents or events could lead to the discharge of run-off or air which exceeds emission limit values, which could potentially impact on the receiving water and local air quality and potentially on the nearby European Sites.</p> <p>Mitigation</p> <ul style="list-style-type: none"> • Condition 9 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 of the RD also 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.
--	--

	<ul style="list-style-type: none"> • Condition 2 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach. • Condition 3 of the RD set out the requirements in relation to fire-water retention facilities at the installation. • Condition 3 of the RD sets out the requirements for the management of tank, container and drum storage areas. • Conditions 9 and 11 of the RD specifies requirements for the licensee in the event of an incident. <p>The above measures will protect the European Site from accidents associated with the activity; therefore, protecting the qualifying interests of the European sites.</p>
--	---

Relevant European (and international) legal instruments

<p>The following Irish and European and international legal instruments are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.</p>
<p>Industrial Emissions Directive (IED) (2010/75/EU)</p>
<p>Environmental Impact Assessment (EIA) Directive (85/337/EEC, as amended)</p>
<p>Habitats Directive (92/43/EEC) & Birds Directive (79/409/EC)</p>
<p>Water Framework Directive [2000/60/EC]</p>

The following Irish and European and international legal instruments are regarded as relevant to this application assessment and have been considered in the drafting of the Recommended Determination.
Air Quality Directives (2008/50/EC and 2004/107/EC)
Seveso Directive (2012/18/EU)
Environmental Liability Directive (2004/35/CE)
Waste Framework Directive (2008/98/EC)
Groundwater Directive (80/68/EEC) and 2006/118/EC
Energy Efficiency Directive

Other BREF documents and National BAT notes relevant to this assessment

Horizontal Commission Implementing Decisions	Publication date
COMMISSION IMPLEMENTING DECISION (EU) 2016/902 of 30 May 2016 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for common waste water and waste gas treatment/ management systems in the chemical sector ((EU) 2016/902)	June 2016

COMMISSION IMPLEMENTING DECISION (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants ((EU) 2017/1442)	July 2017
Horizontal BREF	Publication date
Common Waste water and Waste Gas Treatment/Management Systems in the Chemical Sector	July 2014
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
Reference Report on Monitoring of Emissions to Air and Water from IED Installations	July 2018
National BAT notes	Publication date
Final Draft BAT Guidance Note on Best Available Techniques for the Waste Sector: Waste Transfer and Materials Recovery	December 2011