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

Signed: Poolen Kearey Date: 13/03/2019



OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON A WASTE LICENCE APPLICATION, LICENCE **REGISTER NUMBER W0265-01**

TO: **DIRECTOR**

DATE: 13th March 2019 FROM: Ewa Babiarczyk

Applicant: Clashford Recovery Facilities Limited

CRO number: 368960 (status: normal)

Location/address: Naul Townland, Naul, County Meath.

The facility is located in a semi-rural area.

13th February 2009 Application date:

Classes of activity (under Waste Management Act 1996 as amended) applied

(RD):

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

for and proposed in Recommended Decision

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

where the waste is produced).

European Directives/Regulations relevant to this assessment are listed in Appendix 2 of this report.

Activity description/background:

The applicant proposes to continue restoration of the quarry through the recovery of waste soil and stones and dredging spoil. 2,270,000 tonnes of material has been used to backfill the quarry to date. The remaining, to be filled, capacity is 348,000 tonnes. The proposed maximum annual intake is 170,000 tonnes of waste soil and stone and dredging spoil.

The applicant seeks also to accept inert construction and demolition (C&D) waste and produce secondary aggregates from this waste. The proposed maximum annual intake of C&D waste for this purpose is 20,000 tonnes. Planning permission (planning ref. AA180893) was granted for this activity on 19th February 2019.

Types of waste sought for acceptance and recommended to be authorised in the RD:

C&D waste recovery facility

- Concrete (LoW code 17 01 01);
- Bricks (LoW code 17 01 02);
- Tiles and ceramics (LoW code 17 01 03); and
- Mixtures of concrete, bricks, tiles and ceramics (LoW code 17 01 07).

The quarry

- (a) soil and stones from construction sites (LoW codes 17 05 04); and
- (b) dredging spoil (LoW code 17 05 06).

Types of waste sought for acceptance at the C&D waste recovery facility and recommended to be refused:

- (a) Track ballast other than those mentioned in 17 05 07* (Low code 17 05 08). Track ballast is not listed among the authorised for acceptance waste types in Planning permission granted for the C&D waste recovery activity (planning ref. AA180893). Accordingly, it is recommended that the acceptance of this waste category be refused.
- (b) Mixed construction and demolition waste other than those mentioned in 17 09 01*, 17 09 02* and 17 09 03* (17 09 04).

Acceptance of this waste category is recommended to be refused due to the risk of this waste being contaminated with hazardous or organic substances. Also, this waste type is not listed among the authorised for acceptance waste types in Planning permission (planning ref. AA180893).

Article 14 Replies (10th October 2011, 11th

Additional information received:	 April 2014 and 21st March 2016). Unsolicited Information (18th October 2017). Article 16 Replies (two replies received on the 	
s	ame date, 27 th August 2018).	
No of submissions received: Four		
EIS submitted: Yes (10 th October 2014) EIAR submitted: Yes (27 th August 2018)	NIS submitted: No	
	Site notice check: 13 th April 2009	
Site visit: 23 rd September 2016	The timely processing of this application is associated with the delayed responses to the requests for further information issued to the applicant.	

1. Activity description/background

Clashford Recovery Facilities Limited are the owners of the site. The facility is located immediately north of the village of Naul and between River Delvin and the Fourknocks River (each covered by Waterbody Code: IE_EA_08_238) as shown in Figure 1. The application boundary covers an area of 24.2 hectares and includes the quarry void, surrounding land already restored and site infrastructure (e.g. weighbridge, wheelwash, site office, canteen, fuel storage).

The licence application relates to the importation and use of waste soil and stone and dredging spoil to complete the backfill of the worked-out quarry and the operation of the C&D waste recovery facility for purposes of production of secondary aggregate.

The only active area of the quarry is marked as Phase 3 (P3) as shown in Figure 2. The backfilling of the quarry void will facilitate the restoration of the site and its return to agricultural use.

The secondary aggregate which is proposed to be produced in the C&D waste recovery facility will be used in construction of on-site haul roads or will be sold off-site. Planning permission (Ref. AA180893) was granted for this activity by Meath County Council on 19th February 2019. The C&D waste recovery facility will be developed in the western part of the site on an area of 0.8 hectares (see Figure 3). The infrastructure will consist of a mobile crushing and screening plant, weighbridge, hard standing area with drainage to an interceptor and other ancillaries. As part of the construction works, the applicant proposes also to relocate and upgrade the existing wheelwash, relocate the site office and welfare facilities, and construct a septic tank and a percolation area.

Various types of unauthorised C&D waste, such as metal and plastic, were observed in Phase 3 during the site visit on 23rd September 2016. Condition 3.19 prohibits acceptance of waste or soil and stone by-product until the unauthorised waste has been removed from the facility.



Figure 1: Location and extent of facility

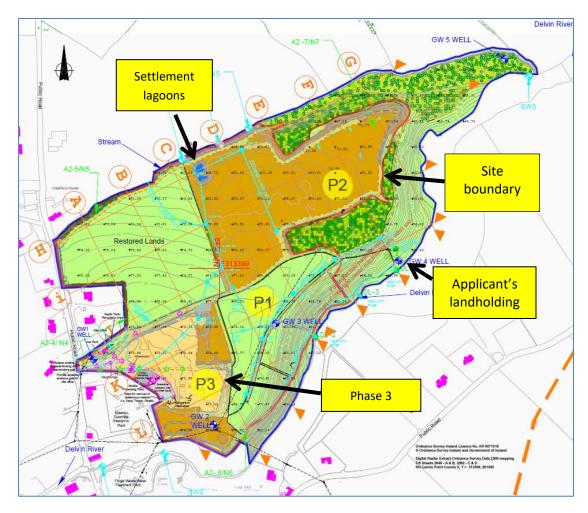


Figure 2: Site plan

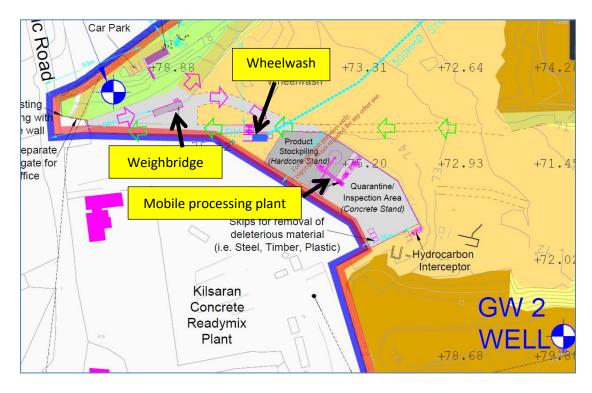


Figure 3: C&D waste recovery facility

2. Licence/Permit History

Date	Event	Comment	
1987	Planning permission granted - PA Ref. 85/512 - ABP Ref. PL.17/5/72181	This permission authorised extraction of sand and gravel at the facility and was valid for a period of 10 years and	
	(appeal)	Plans for restoration to be submitted to the planning authority under Condition 2 of this planning permission.	
2001	Grant of Waste Management Permit Ref. 2001/6	Permit authorised importation of waste for purposes of land reclamation of Phase 1.	
30 th May 2005	Grant of Waste Management Permit Ref. 2005/13	This permit expired in 2006.	
30 th November 2005	Grant of Waste Management Permit (ref. WMP 2005/25)	The permit authorised acceptance of soil and stone (waste code 17 05 04) at the facility and concrete waste (waste code 17 01 01) in construction of a haul road.	
		This permit expired in 2009.	

18 th April 2007	Section 261 Registration - P.A. Reg. Ref. QY/36 - QC 17.QC2085	Condition 2 of the planning permission refers to the restoration of the site. Condition 16 requires a landscaping and restoration programme to be agreed with the Council.
2 nd December 2016	Grant of Planning permission Ref. AA161106	Construction of a hay and straw barn, machinery storage shed, horse stables, dung shed and soiled water tank within Phase 2.
29 th March 2017	Section 55 notice issued by Meath County Council	
19 th February 2019	Grant of Planning permission application Ref. AA180893	Planning application for C&D waste recovery activity for purposes of production of secondary aggregates.

3. Best Available Techniques

Although the facility is not a landfill (i.e. it is a backfilling project which is a waste recovery activity, not a waste disposal activity) BAT for the activity is taken to be best represented by the guidance given in the Agency's Guidance Note on Best Available Techniques for the Waste Sector: Landfill Activities (2011), insofar as it relates to the backfill activities at this facility.

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached Recommended Decision (RD) comply with the requirements and principles of BAT. I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the facility is located, designed, built, managed, maintained, operated and decommissioned.

4. Planning Permission, EIAR and EIA Requirement

4.1 EIA Screening

The date for transposition of Directive 2014/52/EU amending the 2011 EIA Directive is 16th May 2017. The Directive has not, however, been transposed into Irish legislation to date. In accordance with the advice on administrative provisions in advance of transposition contained in the Department of Housing, Planning Community and Local Government Circular Letter PL1/2017, it is proposed to apply the requirements of Directive 2014/52/EU.

The applicant was requested to update the EIS in accordance with the requirements of the 2014 EIA Directive on 8th December 2017.

In accordance with the provisions of the Planning and Development Regulations 2001 as amended, an EIA is required for a project classified as item 11(b) of Part 2 of Schedule 5:

Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule.

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

4.2 Planning Status

A Section 261 Registration decision by the Planning Authority was issued under of the Planning & Development Act 2000 for the soil and stone recovery activity (file ref. number QY/36) on 18th April 2007. The decision of Meath County Council was appealed to An Bord Pleanála. Details of the said decision and the subsequent determination by An Bord Pleanála on the appeal have been provided in the application form.

Planning permission for the C&D waste recovery activity was granted by Meath County Council on 19th February 2019. The County Council confirmed that no EIA was required for the planning purposes.

Having specific regard to EIA, this Inspector's Report is intended to identify, describe and assess for the Agency the direct and indirect effects of the proposed activity on the environment, as respects the matters that come within the functions of the Agency, including any interaction between those effects and the related development forming part of the wider project, and to propose conclusions to the Agency in relation to such effects.

The EIAR submitted, the licence application, the submissions received from third parties, the assessment carried out by the planning authority, consultations with the planning authority, the relevant planning decisions and any additional information submitted by the applicant have been examined and assessed and are considered below for that purpose.

4.3 Environmental Impact Assessment Directive

Having specific regard to EIA, this Inspector's Report as a whole is intended to identify, describe and assess for the Agency the likely significant direct and indirect effects of the proposed activity on the environment, as respects the matters that come within the functions of the Agency, for each of the following environmental factors: population and human health, biodiversity, land, soil, water, air and 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 activity have also been considered, as regards

the combined effects of emissions. In addition, the vulnerability of the activity to risks of major accidents and/or disasters has been considered. The main mitigation measures proposed to address the range of predicted significant effects arising from the activity have been outlined. This Inspector's Report proposes conclusions to the Agency in relation to such effects.

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. See also Section 14 Environmental Impact Assessment of this report.

<u>Table of Environmental Factors</u>

Environmental Factor	Addressed in the following Sections:
Population and Human Health	Emissions to Air, Discharges to Water and Ground, Noise, Waste Generation, Other matters relating to EIA
Biodiversity	Emissions to Air, Discharges to Water and Ground, Noise, Waste Generation
Land	Discharges to Water and Ground, Other matters relating to EIA
Soil	Discharges to Water and Ground
Water	Discharges to Water and Ground
Air	Emissions to Air
Climate	Emissions to Air
Landscape	Other matters relating to EIA
Material Assets	Other matters relating to EIA
Cultural Heritage	Other matters relating to EIA

4.4 Consultation with Competent Authorities

The Agency consulted with Meath County Council and An Board Pleanála under the relevant section of the Waste Management Act.

Table 1: Correspondence with Meath County Council and An Board Pleanála

	Notice to Meath County Council and other Specified Bodies. The notice informed of the receipt of EIS and invited submissions.
Issued: 20 th October 2014	

Notice under Section 42(1I)(e)(i) of the Waste Management Act 1996 as amended. Issued: 20 th October 2014	Notice to Meath County Council (Planning Section) and An Board Pleanála. The notice informed of the receipt of EIS and requested observations in relation to the licence application and the EIS.	
Response to the notice under Section 42(1I)(e)(i) Received: 10 th November 2014	Response from An Board Pleanála received or 10 th November 2014. The response stated tha the Agency request under Section 42 of the WMA Act, does not apply to applications made unde Section 261 of the Planning and Developmen Act (file ref. 17.QC.2085).	
Email Clarification in respect of the Section 42 (1I)(e)(i) notice Received: 10 th November 2014	Email from An Board Pleanála received of 13 th November 2014 upholds the information in the earlier response of 10 th November 2014.	
Response to the notice under Section 42(1I)(e)(i) Received: 26 th November 2014	Response from Meath County Council (Planning Section). See below this table for details.	
Response to the notice under Section 42(1I)(e)(i)	(Environment Section).	
Received: 2 nd December 2014	See below this table for details.	
Notice under Section 42(1I)(e)(i) of the Waste Management Act 1996 as amended. Issued: 21st September 2016	Notice to Meath County Council (Planning Section). The notice informed of the receipt of EIS and included questions to County Council in relation to the facility.	
Notice under Section 42(1I)(e)(i) of the Waste Management Act 1996 as amended. Issued: 1 st November 2017	Notice to Meath County Council (Planning Section). The referred to the outstanding response to the notice of 21 st September 2016 and requested further information in respect of the facility.	
Notice under Section 42(1I)(e)(i) of the Waste Management Act 1996 as amended. Issued: 14 th September 2018	Notice to Meath County Council (Planning Section and Environmental Section). The notice informed of the receipt of EIAR and requested observations in relation to the application and EIAR.	
Response to the notice under Section 42(1I)(e)(i) Received: 22 nd November 2017	Response from Meath County Council (Environment Section). See below this table for details.	

Response to the notice under Section 42(1I)(e)(i)

Received: 21st September 2018

Response from Meath County Council (No section specified). See below this table for details.

The County Council's response was received on 26th November 2014 and 2nd December 2014, 22nd November 2017 and 21st September 2018.

The response of 26th November 2014 states that Meath Co. Co. have No comment on this application. The response of 2nd December 2014 states that Environment Section of Meath County Council have No objection to the granting of a licence.

Response of 22nd November 2017 states that the facility is planning compliant by way of its compliance with the restoration condition of its quarry registration under QY23. It further states that this restoration condition does not permit the processing of C&D waste. The response includes also a drawing showing areas authorised by waste facility permits issued for the facility. The response referred also to Section 55 notice which was issued to the applicant and includes a water sampling report for a groundwater monitoring well GW5.

Response received on 21st September 2018 states that Meath County Council have no further observations or submissions to make in respect of the licence application and the EIAR.

5. Submissions

Four submissions were received on this application.

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

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

Submission No. 1

Name & Position:	Organis	ation: Date received:
Ms. Carmel Lynch, Environmental Health Officer	Health Se	ervice Executive (HSE) 24 th March 2009
Issues raised:		Agency response:
The submission suggests that ac monitoring of groundwater, do noise is carried out in order to e accurate background condition assess any environmental impact to Agency's decision on the app	ust and establish ns and cts prior	Groundwater monitoring and information submitted in relation to dust and noise were considered as part of this application assessment. - Condition 6.12 of the RD specifies measures for the control of dust and noise. Specifically, Condition 6.12.2 requires that in dry weather all stockpiles, site roads and any other

	areas used by vehicles shall be sprayed with water.
	 Condition 5.5 requires that the licensee shall ensure that dust associated with the activity does not result in an impairment of, or an interference with, amenities beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
	 Schedule B.3 specifies noise emissions and 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.
	 Schedule C.2 requires noise monitoring at noise sensitive locations.
	- Schedule C.3 requires dust monitoring.
	- Schedule C.5 requires groundwater monitoring.
The HSE suggests that the applicant should clarify their statement that that there is no evidence to suggest that dust of respirable sizes could be present. The submission states that the applicant should provide evidence that this statement is true.	See measures for management and control of dust above.
The submission states that the applicant should provide further information regarding the location, design and operation of the proposed reed bed.	The reed bed for the discharge to the Fourknocks River is no longer planned. There are settlement lagoons, a screen and a hydrocarbon interceptor installed for the storm water overflow to the Fourknocks River.

Submission No. 2

Name & Position:	Organisation:		Date received:
Mr. Larry Whelan	Meath County Council,		23 rd October 2015
Senior Executive Officer			
Issues raised:		Agency Response:	

The Council states that following an inspection of the facility there are some concerns that while an expanded area of the activity is shown in the licence application, this area is beyond the area permitted under waste facility permit.

The observation is noted.

Submission No. 3

Name & Position: Organisation: Date received:

Mr. Thomas Maguire, Health Service Executive (HSE) 27th November 2014

Senior Environmental Health

Officer

Issues raised:

Groundwater

The submission recommends that groundwater qualitative monitoring within the application site and in the immediate locality. The submission further states that all wells within 500m of the site should be identified and that parameters tested should reflect potential impacts from incidents such as petro-chemical spillage.

Agency response:

- Only clean soil and stone will be authorised for acceptance as the backfill material and only inert C&D waste will be authorised for acceptance at the C&D waste recovery facility.
- Condition 8.13 requires waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) waste at the facility.
- Schedule A.2 specifies waste acceptance criteria.

Additionally, Condition 8.10 requires that all vehicle and machinery refuelling and maintenance is carried out in designated areas protected against spillage and run-off. All fuels and liquid chemicals must be stored in bunded areas. These measures address a number of key provisions of the Groundwater Directive (2006/118/EC), namely that hazardous substances should not be allowed to enter groundwater, and will ensure with compliance the European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended.

It is considered that the measures for protection of groundwater, as set out in the RD, are adequate.

Surface water The applicant should provide further information regarding the location, design and operation of the proposed reed bed.	The reed bed for the discharge to the Fourknocks River is no longer planned. There are settlement lagoons, a screen and a hydrocarbon interceptor installed for the storm water overflow to the Fourknocks River.
Air Quality It is recommended that static/mobile wet dust suppression system should be installed.	 Condition 6.12.1 requires implementation of adequate measures for dust control.
	 Condition 6.12.2 requires that in dry weather all stockpiles, site roads and any other areas used by vehicles shall be sprayed with water.
	 Condition 5.5 requires that the licensee shall ensure that dust associated with the activity does not result in an impairment of, or an interference with, amenities beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
	It is considered the above measures are adequate to control dust at the facility.
The submission further states that Meath Environmental Health Department has received no complaints regarding the facility.	The observation is noted.

Submission No. 4

Name & Position: Ms. Lisa Maguire,	Organisation: Health Service Executive (HSE)		Date received: 18 th October 2018
Issues raised:		Agency response:	
HSE recommends that the public are informed of the proposal to continue the operation of the waste recovery facility and a public consultation is carried out with regards to this proposal. The submission further states that the applicant should address any		Information related to the licence application is available to view by members of public on the Agency's website. There is also a period for submissions to be made to the Agency prior to issue of Proposed Decision and a period for objections following the issue of the Proposed	

concerns that the public may have in relation to the operation.

Decision where any concerns raised by the public are considered.

Condition 2.2.2.6 of the RD requires that a Public Awareness and Communications Programme to ensure that members of the public can obtain information at the facility at all reasonable times concerning the environmental performance of the facility.

The HSE recommends that up to date baseline monitoring data is used to establish the existing noise environment. An assessment of the predicted noise impact from the facility should include the predicted increase in noise exposure above the existing noise environment, at noise sensitive locations.

The RD includes conditions in relation to noise and emission limit values, which will apply at the noise sensitive locations.

- Condition 6.12.1 requires implementation of adequate measures of the control of noise from the facility.
- Schedule B.3 specifies noise emissions and 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.
- Schedule C.2 requires noise monitoring at noise sensitive locations.

The proposal to install a septic tank and percolation area has the potential to be a source of contamination to groundwater and the location of the proposed percolation area is of the upmost importance. The proposal to install a new septic tank and percolation area should be included in the "EIA process".

Septic tank and percolation area were considered in the EIAR.

The RD includes a standard condition which requires the applicant to provide and maintain a wastewater treatment plant for the treatment of sanitary effluent. The waste water treatment system is to satisfy the requirements of Condition 3.21 of the RD.

The applicant must ensure all water provided to staff for drinking and food preparation purpose is potable and should meet the requirements of the Drinking Water Regulations.

Matters relating to quality of water available to staff in welfare facilities are outside of the remit of the Agency.

Suitable and adequate sanitary facilities must be provided on the site, i.e., handwashing facilities with instantaneous hot and cold running water, liquid soap and a means of hand-drying.

All waste, including canteen and office waste, should be segregated for recycling off site. All waste storage facilities shall be covered to prevent litter blowing.

Condition 6.14 requires litter control measures. These include:

 Removal of all loose litter or other waste, present on or in the vicinity of the facility, other than in accordance with the requirements of the licence, and

The requirement for all vehicles delivering waste to, and removing waste and materials from, to be appropriately covered. Only clean soil and stone will be authorised Leachate from contaminated infill could for acceptance as the backfill material. lead to the contamination groundwater. Condition 8.13 requires waste acceptance procedures to prevent the acceptance of All waste shall be accounted for and fully unauthorised (including contaminated) traceable, characterisation testina waste at the facility. should be undertaken in advance of Schedule A.2 specifies waste acceptance acceptance of this waste at the facility criteria. site. All vehicle and machinery refuelling and maintenance operations will be carried out The site management visit each in areas protected against spillage and runsignificant source site to inspect the off (Condition 8.10). nature of the development in advance Non-conforming waste will be stored in of the commencement of reception of designated areas, protected against material from that site. spillage and leachate run-off. Routing sampling of waste accepted at Schedule C.5 requires monitoring of the facility should be carried out and groundwater. tested for compliance indicators. Conditions 11.9 and 11.10 specify information that shall be recorded in respect of waste arriving at the facility. Only clean soil and stone is recommended to be The submission recommends that all wells in the vicinity of the site are authorised for acceptance as the backfill identified by means of a site visit and material. Only inert C&D waste will be accepted the that their exact location is identified at the C&D waste recovery facility. on a map. These wells should be C.5 Schedule requires monitoring of included in the EIA process to ensure groundwater. they are not negatively impacted by the activity. The submission recommends that the The RD recommends monitoring of sampling of groundwater is carried out groundwater and surface water at frequencies as set out in Schedules C.5 and C.1.2., bi-annually and the surface water quality is monitored quarterly. respectively. It is considered that the monitoring frequencies set out in these schedules are adequate. The assessment of agricultural practices Matters related to agricultural practices on the restored areas of the facility lie outside the on the reinstated lands should be carried out and a site specific nutrient remit of the Agency. management plan should implemented to reduce adverse impacts on water quality.

The submission recommends that a "formal complaints procedure" is implemented to resolve any possible issues or community concerns in relation to traffic, dust, noise, water or nuisance.

The submission refers also to the methodology in BS4142 Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas.

- Condition 11.4 requires recording of complaints of an environmental nature related to the operation of the activity and the response made in the case of each complaint. The complaints summary is required to be submitted to the Agency as part of an Annual Environmental Report.
- Schedule B.3 specifies limits on noise emissions. The RD includes noise conditions and emission limit values, which will apply at the noise sensitive locations. Condition 6.13 requires the applicant to carry out noise survey.
- Condition 3.5.2 requires that the facility entrance and hardstanding areas shall be maintained in clean condition.
- Condition 5.5 requires that the licensee shall ensure that dust associated with the activity does not result in an impairment of, or an interference with, amenities beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary.
- Condition 6.12 requires measures for dust and noise control.
- Condition 6.14 lists litter control measures.

It is considered the above measures are adequate to control dust and noise at the facility.

Matters relating to traffic outside of the facility are a matter for the planning authority.

The submission recommends that "environmental monitoring" is carried out for a minimum of two years after closure of the facility. The submission further states that a closure validation report should be completed and carried out by a competent engineer.

Condition 10 requires a Closure, Restoration and Aftercare Management Plan (CRAMP) and specifies information that should be included therein. One of the required items are details of the long-term supervision, monitoring, control and maintenance and reporting requirements.

6. Emissions to Air

This section addresses the following:

- greenhouse gases and climate impact
- dust
- odour

6.1 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 beings and amenities (material assets and cultural heritage) as well as biodiversity and habitats (biodiversity). Climate change is caused by warming of the climate system by enhanced levels of atmospheric greenhouse gases due to human activities.

Operation of heavy goods vehicles (HGVs) bringing and collecting waste to and from the C&D waste recovery facility will generate exhaust gases with greenhouse gas potential. Also, the operation of vehicles and machines in the soil and stone recovery facility will generate exhaust gases with greenhouse gas potential.

With regard to reducing the climate impact of the facility, 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 impact on climate is low in light of the measures outlined in the "Prevention of Accidents" section below and the proposed conditions in the RD.

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

- The facility is located in a semi-rural area with residences in close proximity to the site.
- There is a waste water treatment plant (WWTP) that serves Naul Agglomeration and discharges 240m upstream of the applicant's site. This plant is governed by Waste Water Discharge Certificate of Authorisation (Reg. No. A0103-01).
- There are no licensed waste or industrial sites in the immediate vicinity of the facility.
 - The closest licensed site is a landfill located 4km south-east of the facility and operated by Murphy Environmental Hollywood Limited (Licence Reg. No. W0129-02).

The WWTP and the landfill facility operated by Murphy Environmental Hollywood Ltd. and residences would use modest amounts of energy and will not be significant contributors of climate altering substances. Therefore, significant cumulative effects on the environment from the use of energy by this facility and other developments are not likely.

Based on the above assessment, I am satisfied that there will not be significant effects on climate from the operation of the activity.

6.2 Fugitive Dust

Dust from the facility is the main potential emission to air that could affect air quality.

Dust generation during dry weather is associated mainly with the operation of vehicles arriving to and departing from the C&D waste recovery facility and the filling activity. In addition, the processing of construction and demolition waste for recovery using crushing plant has the potential to generate dust emissions, if not managed properly.

Dust from the facility is the main potential emission to air that could affect air quality. The development of a construction and demolition waste processing area at the facility presents the opportunity to reach a high standard of best practice, including the provision of a roofed structure for the screening and crushing plant (Condition 3.10.1) and covering of all stockpiles (Condition 3.10.2), which will be effective in the minimisation of dust emissions.

The mitigation measures proposed by the applicant include:

- spraying water on haul roads and waste stockpiles during dry weather;
- providing vegetation on restored areas; and,
- routing waste vehicles through the wheelwash.

Condition 6.12.1 requires implementation of adequate measures for control of dust. Condition 6.12.2 requires that in dry weather all stockpiles, site roads and any other areas used by vehicles shall be sprayed with water. Condition 3.8.2 requires that all vehicles leaving the facility shall use the wheel cleaner. Schedule B.4 of the RD sets a limit on ambient dust deposition at the facility boundary while Schedule C.3 requires bi-annual monitoring of ambient dust deposition.

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

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

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 sources of significant dust emissions in the general vicinity of the site. A licensed site comprising of a landfill located 4km south-east of the facility and operated by Murphy Environmental Hollywood Limited (Licence Reg. No. W0129-02). The said licence requires measures for dust mitigation measures.

Based on the above assessment, I am satisfied that there will not be significant effects on the environment from dust emissions from the activity.

6.3 Odour

There will be no odorous waste accepted either at the C&D waste recovery facility or the soil and stone recovery facility. Accordingly, there is no potential for odour emissions from waste activities.

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

Odour is not expected to be an issue due to the fact that no odorous waste will be accepted at the facility. Accordingly, no specific mitigation measures are proposed. The applicant will be required to implement waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) waste at the facility (Condition 8.13).

Accidental odour emissions could occur if odorous waste is accepted at the facility, causing odour nuisance beyond the facility boundary. However, the likelihood of accidental odour emissions occurring is considered low in light of waste acceptance

limitations, 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 sources of significant odour emissions in the general vicinity of the site. A licensed site is a landfill located 4km south-east of the facility and operated by Murphy Environmental Hollywood Limited (Licence Reg. No. W0129-02). The said licence requires measures for odour prevention.

Based on the above assessment, I am satisfied that there will not be significant effects on the environment from odour emissions from the activity.

6.4 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, biodiversity or any other aspect of the environment from air emissions arising from the operation of the activity.

7. Discharges to Water and Ground

This section addresses the following:

- Direct discharges to waters
- Indirect process emissions to waters (emissions to sewer),
- Emissions to ground/groundwater
- Storm water discharges

7.1 Discharges to Waters

7.1.1 Direct Process Emissions to Waters

There are no direct process emissions to waters from the facility.

The application states that waste water arising from the wheelwash was being combined with a storm water overflow from the quarry and was discharging to the Fourknocks River. Condition 3.8.2 requires the all water and residue from the wheel cleaning area shall be directed to a vehicle wash water interceptor sump and be sent off-site for disposal. There has been no monitoring of the discharges from the facility carried out in recent years. The RD provides for trigger levels to be established for storm water discharges and diversion of any storm waters that exceed these trigger levels for retention and suitable disposal (Condition 6.11.2).

7.1.2 Direct storm water discharges to waters

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

Emission Reference	Potential contamination	Abatement	Receiving water
DL-1 (discharge point to River Fourknocks) DL-2 to DL-5 (discharges to River Delvin)	Discharge of polluted water could cause contamination to the receiving waterbody. There is a risk of fuel and oil spillages arising from the operation of vehicles and machinery within the C&D waste recovery facility and the soil and stone recovery facility. This may cause storm water pollution. Also, contaminated waste could cause pollution of storm water.	There are settlement lagoons, a screen and a hydrocarbon interceptor installed for the storm water overflow to the Fourknocks River. Condition 3.15.1 requires that all storm water, other than from roofs, arising from the facility shall pass through the settlement lagoons (or in case of discharges to Delvin River, other settlement infrastructure), screening barrier and oil separators in advance of discharge. Condition 3.8.2 requires the all water from the wheel cleaning area shall be directed to a vehicle wash water interceptor sump and be sent off-site for disposal.	River Fourknocks and River Delvin (each covered by Waterbody Code: IE_EA_08_238) Both of these waterbodies have been assigned an overall status designation of "Moderate" and are noted as being at "At Risk".

Rain that falls on the site either runs to the quarry void, percolates to ground or is intercepted by site drainage. Surface water drainage within the Phase 2 area drains via existing settlement lagoons into River Fourknocks which forms a tributary of River Delvin. Surface water run-off from the Phase 1 area and Phase 3 area is collected in a system of underground storm water drains which discharges to the Delvin River at four separate locations.

The most recent monitoring of River Fourknocks and River Delvin was carried out on 13th March 2018. The analysis of surface water samples did not detect any significant levels of pollutants in the samples besides high coliform and orthophosphate concentrations. The analysis stated that high levels in these two parameters were not unexpected as the surrounding land use includes a large degree of agriculture and the Naul WWTP is located upstream of the facility.

The RD provides for trigger levels to be established for storm water discharges and diversion of any storm waters that exceed these trigger levels for retention and suitable disposal (Condition 6.11.2), and for the separation of storm waters that have the potential to become contaminated through contact with construction and demolition

waste from storm waters that do not have the potential to become contaminated through contact with construction and demolition waste (Condition 6.11.4).

Condition 3.15.1 requires that all storm water, other than from roofs, arising from the facility shall pass through the settlement lagoons (or in case of discharges to Delvin River, other settlement infrastructure), screening barrier and oil separators in advance of discharge.

For the purposes of EIA, the environmental factors potentially affected by storm water discharges to waters include: water, soil, biodiversity, and human beings.

Deposit of non-conforming waste in the fill area could potentially affect the quality of soil and groundwater. Condition 8.13 requires waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) waste at the facility.

Condition 3.11 requires a storm water management infrastructure to be capable of the prevention of discharge of contaminated water into surface water drains or watercourse. Schedule C.1.2 requires that the discharge from settlement lagoons is visually inspected and monitored for total petroleum hydrocarbons and other parameters.

The RD contains standard conditions in relation to the storage and management of materials and waste. 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 11 below. These measures will help to control any impacts which could occur should any mitigation measures fail.

It is therefore considered that direct or indirect impacts as a result of storm water emissions from the facility are considered to be neither likely nor significant.

• The aforesaid discharge from the WWTP is governed by Certificate of Authorisation (Reg No. A0103-01). There are no significant discharges to River Fourknocks or River Delvin from other developments.

I am satisfied that based on the above assessment, the nature of the activity, the mitigation measures in place, and the conditions in the Recommended Decision that the likelihood of a significant effect on the environment occurring as a result of storm water emissions from the facility is negligible.

7.2 Emissions to Sewer (Indirect Discharges to Water)

7.2.1 Process emissions to sewer (Indirect process emissions to waters)
There are no process emissions to sewer at the facility.

7.3 Discharges to ground/groundwater

The rock underlying the northern and principal area of the site is mapped as part of the Duleek groundwater body (GWB) and classified as a poorly productive bedrock. The southern tip of the site is mapped as part of the Lusk-Bog of the Ring GWB, which extends as far west as Garristown and is classified as a productive fissured bedrock. The majority of groundwater flow in this area is considered to take place in the upper weathered zone of the aquifer. Groundwater flow at the site is to the east-southeast towards the Delvin River. The groundwater vulnerability rating for the majority of the site is classified as High. An area along the southern boundary is classified as 'Extreme'.

7.3.1 Direct process emissions to ground/groundwater

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

7.3.2 Storm water discharges to ground

Rain that falls on the site either runs to the quarry void, percolates to ground or is intercepted by site drainage as described in Section 7.1.2 above.

Condition 3.8.2 requires the all water from the wheel cleaning areas shall be directed to a vehicle wash water interceptor sump and be sent off-site for disposal. Condition 3.11 requires a storm water management infrastructure to be capable of the prevention of discharge of contaminated water into ground or surface water drains or courses. Condition 6.11.2 requires trigger levels to be established in storm water discharges. Condition 3.15.1 requires that all storm water, other than from roofs, arising from the facility shall pass through the settlement lagoons (or in case of discharges to Delvin River, other settlement infrastructure), screening barrier and oil separators in advance of discharge.

7.3.3 Other emissions to ground/groundwater

Septic tank

For the purposes of EIA, the environmental factors potentially affected by a percolation area discharge to ground/groundwater include: groundwater and surface water quality, biodiversity, soil and humans.

The wastewater from welfare facilities will discharge to a septic tank and associated percolation area constructed in accordance with EPA 'Code of Practice Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. < 10)' or 'Wastewater Treatment Manuals: Treatment Systems for Small Communities, Business, Leisure Centres and Hotels'.

The RD includes a standard condition which requires the applicant to provide and maintain a wastewater treatment plant for the treatment of sanitary effluent. The waste water treatment system is to satisfy the requirements of Condition 3.21 of the RD.

In the unlikely event of the septic tank failing, the impact in the percolation area would be localised and groundwater would not be impacted significantly. It is therefore considered that direct impacts as a result of sewage emissions to ground/groundwater are considered to be neither likely nor significant.

I am satisfied that based on the above assessment, the nature of the activity, the mitigation measures in place, and the conditions in the RD that the likelihood of a significant effect on the environment occurring as a result of domestic sewage emissions to ground through the percolation area is negligible.

Groundwater quality

2018 laboratory analysis of groundwater did not detect any significant levels of pollutants in the groundwater samples taken at the facility. However, elevated levels of iron, manganese, arsenic, barium, chloride, potassium and

ammonium were recorded. The detections of iron, manganese, and ammonia are attributed to natural background conditions underlying the site. A likely source of elevated nitrogen, potassium and chloride is land spreading of organic fertilizer to aid in the revegetation process at the site. The other detections (arsenic and barium) are considered to be minor exceedances.

Groundwater flow is confirmed as being to the east-southeast towards the Delvin River. Groundwater elevations at the site vary between ~43.9 and ~68.45 mOD. Water levels fluctuate seasonally between 1-2m in all on site monitoring wells.

The mapped groundwater vulnerability rating for the majority of the site is classified as 'High (H)' by the GSI. An area along the southern boundary of the site is mapped as 'Extreme (E)' and 'Rock at or near surface (X)'.

The results of the site investigation indicate that the depth to bedrock within the southern area of investigation ranges from 14 m (GW3) to 6.8 m below ground level (GW4). The depth to bedrock is shallower at the base of the embankment beside the Delvin River with higher subsoil thicknesses associated with the restored areas of the site. The groundwater vulnerability is High beneath the southern section of the site. The groundwater flows in the northwest to southeast direction.

Condition 6.19 requires the annual assessment of groundwater monitoring results against the requirements of the European Communities Environmental Objectives (Groundwater) Regulations 2010, as amended.

7.4 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, biodiversity, water quality, soil quality, material assets or any other aspect of the environment from emissions to water and ground arising from the operation of the activity.

8. Noise

There will be waste vehicles, machines and other equipment in operation at the facility, all with the potential for noise emissions. The nearest sensitive receptor is located adjacent to the facility boundary.

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

The noise impact assessment completed by the applicant predicted that noise levels from the proposed activity will not exceed 55dB(A).

Some of measures that will be utilised to mitigate the noise impact include:

- screening banks;
- use of designated haul roads to ensure that on-site traffic is away from nearest noise sensitive receptors;
- switching vehicle engines off when not in use.

The RD includes standard noise conditions and emission limit values, which apply at the noise sensitive locations. It is therefore considered that direct significant impacts as a result of noise are unlikely. There are no other developments or activities in the vicinity that are likely to generate noise to an extent that could lead to likely or significant cumulative effects beyond the site boundary.

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 facility.

9. Waste Generation

The activity does not produce significant quantities of waste and is limited to municipal type waste from office and welfare facilities onsite. Only operators and haulage firms authorised under waste collection permits will be engaged to transfer these waste streams to waste disposal or recovery facilities.

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

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

There are standard conditions in the RD pertaining to the storage and management of waste generated at the facility.

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

 Most of the developments in the vicinity of the facility are dwelling houses and agricultural lands, all of which would not generate significant amounts of waste. Also there will be no waste generated by the aforesaid WWTP (Certificate of Authorisation Reg No. A0103-01) or the facility operated by Murphy Environmental Hollywood Limited (Licence Reg. No. W0129-02). Therefore, significant cumulative effects on the environment from the generation of waste by this facility 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 waste from the operation of the activity.

10. Use of Resources

The operation of the facility will involve consumption of electricity and fuel. Electricity will be used for lighting, heating, weighbridge, office and welfare facilities and security camera. Diesel, hydraulic oil and engine oil will be used to operate a bulldozer and the on-site plant and machinery. Water will be supplied from two on-site groundwater wells (GW1 and GW2).

Condition 7 of the RD sets out the requirements with regard to resource use and energy efficiency.

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

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.

Water abstraction

There are two water wells at the southwestern part of the site, GW1 and GW2. Well GW1 is located near the western site boundary to the north side of the site entrance. Well GW2 is located in the southern part of the site. The two wells are approximately 273 m apart. GW1 supplies water for the office, canteen and toilet facilities. GW2 supplies the site sprinkler system and farmland areas and livestock.

Hazardous Materials

There is a risk of fuel spillages that could cause groundwater pollution. Condition 8.10 requires that all vehicle and machinery refuelling and maintenance is carried out in designated areas protected against spillage and run-off. All fuels and liquid chemicals must be stored in bunded areas. These measures address a number of key provisions of the Groundwater Directive (2006/118/EC), namely that hazardous substances should not be allowed to enter groundwater, and will ensure compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010.

 The applicant, the nearby developments, the aforesaid WWTP (Certificate of Authorisation Reg No. A0103-01) or facility operated by Murphy Environmental Hollywood Limited (Licence Reg. No. W0129-02) do not use resources to an extent that could lead to likely or significant cumulative effects beyond the site boundary.

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

I am satisfied that there will not be significant effects on the environment from the use of natural resources from the operation of the activity.

11. Prevention of Accidents

Measures to be taken to prevent accidents and limit consequences

Table 1 Summary of potential accidents and prevention/mitigation measures

Potential for an accident or hazardous or emergency situation to arise at the facility	Due to the non-hazardous and inert nature of the waste to be accepted at the facility, the risk of adverse effects on human beings and the environment as a result of an accident is low.
	The risk of fire is low due to the absence of flammable waste at the facility.

Preventative and Provision and maintenance of adequate bunding. The mitigation measures to RD requires the licensee to: reduce the likelihood of implement waste acceptance procedures to accidents and mitigate prevent the acceptance of unauthorised the effects of the (including contaminated) waste at the facility consequences of an (Condition 8.13); accident at the facility employ a suitably qualified and experienced facility manager (Condition 2.1.1); put in place a documented Accident Prevention Procedure which addresses all hazards on-site (Condition 9.1); put in place an Emergency Response Procedure which will ensure any effects of an emergency onsite are minimised (Condition 9.2); implement а preventative maintenance programme (Condition 2.2.2.7); and implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled (Condition 2.2.2.4). Integrity of tanks to be assessed every 3 years and Additional measures maintenance carried out as required (Condition 6.7).

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.

12. Cessation of activity

provided for in the RD

The application details measures to be employed upon cessation of the activity. These include removal of all plant, machinery and site infrastructure.

Condition 10 of the RD requires 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).

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

I am satisfied that there will not be significant effects on the environment from the measures that will be taken upon cessation of the activity.

13. Other matters relating to EIA

13.1 Effects on landscape, material assets and cultural heritage

- <u>Disturbance of archaeology and architecture from the operation of the activity</u>

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 impacts to be acceptable.

- 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 impacts to be acceptable.

It is not envisaged that emissions from the operation of the activity will impact on the site's surrounding landscape and culture of the area.

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

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

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

13.2 Interaction of effects

I have considered the interaction between human beings, biodiversity, 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 facility are summarised below:

Interaction of effects

	Human Beings	Biodiversity	Soil	Water	Air	Climate	Material assets, landscape, cultural heritage
Human Beings		✓	✓	√	√	✓	✓
Biodiversity			✓	√	✓	✓	
Soil				✓	✓	✓	
Water						✓	✓
Air						✓	
Climate							

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

Human beings and groundwater and soil

In the event of waste acceptance criteria not being adhered to, and the acceptance of contaminated waste, filling such waste may impact directly on quality of groundwater and soil and indirectly on surface water quality if polluted groundwater discharges into a surface waterbody.

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

14. Environmental Impact Assessment

14.1 Statutory Provisions

This EIA has had regard to the information provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information where appropriate and includes the licence assessment completed in this report.

I have carried out an examination, analysis and evaluation of the information provided by the applicant, including the EIAR, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. A summary of the submissions is provided in Section 5 of this report.

Having regards to the requirements of the EIA Directive 2014/52/EU, I am satisfied that:

- (i) the environmental effects arising as a consequence of the proposed activity have been satisfactorily identified, described and assessed in accordance with the requirements of Article 3;
- (ii) the information contained in the EIAR has been prepared by competent experts and complies with the provisions of Article 5;
- (iii) the EIAR contains a non-technical summary in accordance with the requirements of Article 5;
- (iv) the public have been given early and effective opportunity to participate in the environmental decision-making procedure.

14.2 Alternatives

Article 5(1)(d) of the Directive 2014/52/EU requires:

(d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main

reasons for the option chosen, taking into account the effects of the project on the environment;

Annex IV of the Directive (Information for the EIAR) provides more detail on 'reasonable alternatives':

2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.

The matter of alternatives is addressed in Chapter 3 of the EIAR. The site for the facility was considered favourable.

In this regard, I consider that the matter of the examination of alternatives has been satisfactorily addressed.

14.3 Likely Significant Direct and Indirect Effects

The likely significant direct and indirect effects of the development are considered in this Inspector's Report under the following headings, after those set out in Article 3 of the EIA Directive 2014/52/EU:

- (a) population and human health;
- (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
- (c) land, soil, water, air and climate;
- (d) material assets, cultural heritage and the landscape;
- (e) the interaction between the factors referred to in points (a) to (d).

14.3.1 Population & human health

Overall Conclusions

The likely significant direct and indirect effects of the development on population and human health has been identified, described and assessed in this Inspector's Report. I have examined all the information on population and human health, provided by the applicant, received through consultation, written submissions as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of population and human health.

14.3.2 Biodiversity

Overall Conclusions

The likely significant direct and indirect effects of the development on biodiversity has been identified, described and assessed in this Inspector's Report. I have examined all the information on biodiversity provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation

of the activity is not likely to have any unacceptable direct or indirect effects in terms of biodiversity.

14.3.3 Land and soil

Overall Conclusions

The likely significant direct and indirect effects of the development on land and soil have been identified, described and assessed in this Inspector's Report. I have examined all the information on land and soil provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of land and soil.

14.3.4 Water

Overall Conclusions

The likely significant direct and indirect effects of the development on water have been identified, described and assessed in this Inspector's Report. I have examined all the information on storm water discharges provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of storm water discharges.

14.3.5 Air

Overall Conclusions

The likely significant direct and indirect effects of the development from emissions to air have been identified, described and assessed in this Inspector's Report. I have examined all the information on air provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of air.

14.3.6 Climate

Overall Conclusions

The likely significant direct and indirect effects of the development under the heading climate has been identified, described and assessed in this Inspector's Report. I have examined all the information on climate provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation

of the activity is not likely to have any unacceptable direct or indirect effects in terms of climate.

14.3.7 Landscape, Material Assets and Cultural Heritage

Overall Conclusions

The likely significant direct and indirect effects of the development under the headings material assets, cultural heritage and the landscape has been addressed in Section ??? this Inspector's Report. I have examined all the information on material assets and cultural heritage and the landscape provided by the applicant, received through consultation, written submissions, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of material assets, cultural heritage and the landscape.

14.3.8 Interactions of the foregoing

I have considered the interaction between population and human health, biodiversity, land, soil, water, air, climate, landscape, material assets, cultural heritage and the interaction of the likely effects identified throughout this Inspector's Report. The interaction between factors as a result of the operation of the facility, and as addressed in the earlier parts of this report, are summarised below:

Population and human health and biodiversity

Potential impacts due to noise and water. As demonstrated in earlier parts of this report such effects are not considered significant.

Water, soil, biodiversity and population & human health

Accidental discharges or spills may directly and indirectly effect soil, ground water quality, surface water quality downstream, aquatic habitats and aquatic biodiversity. As demonstrated above, in earlier parts of this report such effects are considered not to be likely or significant.

Overall Conclusions

I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures proposed and through the conditions of the Recommended Decision. I am, therefore, satisfied that the operation of the activity is not likely to have any unacceptable direct or indirect effects in terms of the interaction between the foregoing environmental factors.

14.4 Cumulative Effects

Overall Conclusion

The cumulative effects of the development have been identified, described assessed in this report. I have examined all the information provided by the applicant, received through consultation and written submissions. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the Recommended Decision.

14.5 Vulnerability of the Project

The Seveso Directive and Regulations are not applicable at the facility. The risks of accidents associated with the activity are dealt with in Section 11 of this report.

Consequently, no specific mitigation measures have been proposed in relation to these effects.

The vulnerability of the facility to natural disasters has been examined. Flooding was considered to be the only natural disaster potentially relevant to the facility. Climate changes impacts such as heat waves, droughts, extreme rainfall, storms and winds, landslides and rising sea levels could impact negatively on populations and human health, biodiversity, land, soil, water, air material assets, cultural heritage and landscape. The only potential impact of climate change on the installation is the potential for flooding to occur.

The PFRA mapping shows that the facility lies adjacent to the 100-year fluvial flood zone along the Delvin River. However, there is no risk of fluvial flooding as the land rises steeply from the northern bank of the Delvin River. Small areas of 100-year pluvial flood zone are identified within the site however these are not representative of the current site elevation and topography. The EIS states that there is no risk of pluvial flooding at the site as the majority of rainfall landing in the site percolates through the site surface into the underlying fill or is held in the topsoil cover in the site.

Accordingly no mitigation measures have been proposed in the RD.

Conclusion

The vulnerability of the project to risks of major accidents and/or disasters has been identified, described and assessed. I have examined all the information provided by the applicant, received through consultation, written submission, as well as considering any supplementary information, where appropriate. I am satisfied that the potential effects identified will be avoided, managed and mitigated by the measures identified and through the proposed conditions of the Recommended Decision.

14.6 Reasoned Conclusion on the significant effects

Having regard to the examination of environmental information contained above, and in particular to the content of the EIAR and supplementary information provided by the applicant, and the submissions received in the course of the application, it is considered that the significant direct and indirect effects of the activities on the environment are as follows:

- Storm water discharges
- Emissions to air
- Noise emissions
- Accidental leakages or spills

Having assessed those potential effects, the Agency has concluded as follows:

- Storm water discharges to River Fourknocks and River Delvin will be mitigated through imposing trigger levels on the discharges (Condition 6.11.2) and implementing monitoring, maintenance and control measures;
- Emissions to air will be mitigated through: implementing monitoring, maintenance and control measures;
- Noise emissions will be mitigated through: imposing daytime, evening-time and night-time noise limits at noise sensitive locations; implementing of monitoring, maintenance and control measures;
- Accidental leakages or spills will be mitigated through inspection and maintenance of bunds and tanks and accident and emergency requirements specified in the RD.

Having regard to the effects (and interactions) identified, described and assessed throughout this report, I consider that the monitoring, mitigation and preventative measures proposed will enable the activity to operate without causing environmental pollution, subject to compliance with the licence.

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

15. Appropriate Assessment

There are ten European Sites in the vicinity of the facility, as follows:

- River Nanny Estuary and Shore SPA (Site Code: 004158)
- Boyne Coast and Estuary SAC (Site Code: 001957)
- Boyne Estuary SPA (Site Code: 004080)
- Rockabill to Dalkey Island SAC (Site Code: 003000)
- Rockabill SPA (Site Code: 004014)
- Skerries Islands SPA (Site Code: 004122)
- Rogerstown Estuary SAC (Site Code: 000208)
- Rogerstown Estuary SPA (Site Code: 004015)
- Lambay Island SAC (Site Code: 000204)
- Lambay Island SPA (Site Code: 004069)

Appendix 1 lists the European Sites assessed, their associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at River Nanny Estuary and Shore SPA (Site Code: 004158), Boyne Coast and Estuary SAC (Site Code: 001957), Boyne Estuary SPA (Site Code: 004080), Rockabill to Dalkey Island SAC (Site Code: 003000), Rockabill SPA (Site Code: 004014), Skerries Islands SPA (Site Code: 004122), Rogerstown Estuary SAC (Site Code: 000208), Rogerstown Estuary SPA (Site Code: 004015), Lambay Island SAC (Site Code: 000204) and Lambay Island SPA (Site Code: 004069).

The activity is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activity, 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 activity was not required.

The reasons for which the Agency determined that an Appropriate Assessment of the activity is not required are as follows:

- There will be no significant emissions to air from the facility.
- The only emissions from the facility will be the discharges of storm water into River Delvin and River Fourknocks which ultimately discharge into a coastal waterbody, 9km downstream of the facility. The Water Framework Directive (WFD) status of this costal waterbody is 'Good'.
- The nearest European Site, River Nanny Estuary and Shore SPA (Site Code: 004158), is located 10 km downstream of the facility, in this coastal waterbody.

16. 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 applicant nor any relevant person has relevant convictions under the Waste Management Act 1996, as amended, or under any other relevant environmental legislation.

Financial Provision

The licence category and proposed facility was assessed for the requirements of Environmental Liabilities Risk Assessment (ELRA), Closure, Restoration and Aftercare Management Plan (CRAMP) and Financial Provision (FP), in accordance with Agency guidance. Under this assessment it has been determined that ELRA, costed CRAMP and FP are not required.

Condition 10.2 of the RD requires a Closure, Restoration and Aftercare Management Plan (CRAMP), uncosted, within six months of the grant of the licence. In accordance with EPA policy, there is no apparent need to require the preparation of an Environmental Liabilities Risk Assessment or the making of financial provision. This is based on the fact that only non-hazardous, inert wastes will be deposited at the facility therefore, the environmental risk posed is low.

Fit & Proper Conclusion

It is my view, and having regard to the provisions of Section 40(7) of the Waste Management Act 1996 as amended, and the Conditions of the RD, that the applicant can be deemed a Fit & Proper Person for the purpose of this application.

17. Cross Office Consultation

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

Inspector	Assistance provided
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Leo Sweeney (OES)	Matters related to Environmental Impact
	Assessment.

18. Charges

The annual enforcement charge recommended in the RD is €6,171, which reflects the anticipated enforcement effort required and the cost of monitoring.

19. Recommendation

The RD specifies the necessary measures to provide that the facility shall be operated in accordance with the requirements of Section 40(4) of the Waste Management Act 1996 as amended, and has regard to the AA screening and EIA. The RD gives effect to the requirements of the Waste Management Act 1996 as amended.

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

Signed

Ewa Babiarczyk

Procedural Note

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

Appendix 1

Assessment of the effects of the activity on European Sites and proposed mitigation measures.

Site Name	Distance and direction from the site	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
Rogerstown Estuary SAC (Site Code: 000208)	12 km to the south-east of the facility	Habitats 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*	NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (14 August 2013).
Boyne Coast and Estuary SAC (Site Code: 001957)	12.4 km to the north-north-east if the facility	Habitats 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*	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 (31 October 2012).

Site Name	Distance and direction from the site	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
Rockabill to Dalkey Island SAC (Site Code: 003000)	14.6 km to the east of the facility	Habitats 1170 Reefs Species 1351 Harbour Porpoise (Phocoena phocoena)	NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (7th May 2013).
Rockabill SPA (Site Code: 004014)	14.6 km to the east of the facility	A148 Purple Sandpiper <i>Calidris maritima</i> A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i>	NPWS (2013) Conservation Objectives: Rockabill SPA 004014. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (8th May 2013).
River Nanny Estuary and Shore SPA (Site Code: 004158)	7.7 km to the north-north-east of the facility	Birds A143 Knot (Calidris canutus) A144 Sanderling (Calidris alba) A140 Golden Plover (Pluvialis apricaria) A130 Oystercatcher (Haematopus ostralegus)	NPWS (2012) Conservation Objectives: River Nanny Estuary and Shore SPA 004158. Version 1.0. National

Site Name	Distance and direction from the site	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
		A184 Herring Gull <i>(Larus argentatus)</i> A137 Ringed Plover <i>(Charadrius hiaticula)</i> Habitats Wetlands	Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (21st September 2012).
Rogerstown Estuary SPA (Site Code: 004015)	12.3 km to the south-east of the facility	Birds A046 Light-bellied Brent Goose (Branta bernicla hrota) A141 Grey Plover (Pluvialis squatarola) A043 Greylag Goose (Anser anser) A143 Knot (Calidris canutus) A137 Ringed Plover (Charadrius hiaticula) A130 Oystercatcher (Haematopus ostralegus) A048 Shelduck (Tadorna tadorna) A056 Shoveler (Anas clypeata) A149 Dunlin (Calidris alpina) A162 Redshank (Tringa totanus) A156 Black-tailed Godwit (Limosa limosa) Habitats Wetlands	NPWS (2013) Conservation Objectives: Rogerstown Estuary SPA 004015. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (20th May 2013).
Skerries Islands SPA (Site Code: 004122)	12.7 km to the east of the facility	Birds A169 Turnstone <i>(Arenaria interpres)</i> A046 Light-bellied Brent Goose <i>(Branta bernicla hrota)</i> A017 Cormorant <i>(Phalacrocorax carbo)</i> A184 Herring Gull <i>(Larus argentatus)</i>	NPWS (2018) Conservation objectives for Skerries Islands SPA [004122]. Generic Version 6.0. Department of Culture, Heritage and

Site Name	Distance and direction from the site	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
		A148 Purple Sandpiper <i>(Calidris maritima)</i> A018 Shag <i>(Phalacrocorax aristotelis)</i>	the Gaeltacht (21st February 2018).
Boyne Estuary SPA (Site Code: 004080)	14 km to the north of the facility	Birds A048 Shelduck (Tadorna tadorna) A140 Golden Plover (Pluvialis apricaria) A162 Redshank (Tringa totanus) A144 Sanderling (Calidris alba) A143 Knot (Calidris canutus) A156 Black-tailed Godwit (Limosa limosa) A195 Little Tern (Sterna albifrons) A169 Turnstone (Arenaria interpres) A141 Grey Plover (Pluvialis squatarola) A142 Lapwing (Vanellus vanellus) A130 Oystercatcher (Haematopus ostralegus) Habitats Wetlands	NPWS (2013) Conservation Objectives: Boyne Estuary SPA 004080. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (26th February 2013).
Lambay Island SAC (Site Code: 000204)	19.7 km to the south-east of the facility	Habitats 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1364 Grey seal <i>Halichoerus grypus</i> Species 1365 Harbour seal <i>Phoca vitulina</i>	NPWS (2013) Conservation Objectives: Lambay Island SAC 000204. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and

Site Name	Distance and direction from the site	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
			the Gaeltacht (22 nd Jul 2013).
Lambay Island SPA (Site Code: 004069)	19.7 km south-east of the facility	A009 Fulmar Fulmarus glacialis A017 Cormorant Phalacrocorax carbo A018 Shag Phalacrocorax aristo A043 Greylag Goose Anser anser A183 Lesser Black-backed Gull Larus fuscus A184 Herring Gull Larus argentatus A188 Kittiwake Rissa tridactyla A199 Guillemot Uria aalge A200 Razorbill Alca torda A2014 Puffin Fratercula arctica	

Appendix 2

Relevant European (and international) legal instruments

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 Decision.

Environmental Impact Assessment (EIA) Directive (85/337/EEC, as amended)
Habitats Directive (92/43/EEC) & Birds Directive (79/409/EC)
Environmental Liability Directive (2004/35/CE)
Waste Framework Directive (2008/98/EC)
Energy Efficiency Directive.