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

Signed: Padraig Kearey ***Date: 29/11/2018***

OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTOR'S REPORT ON A WASTE LICENCE APPLICATION, LICENCE REGISTER NUMBER W0295-01

TO: DIRECTORS

FROM: Ewa Babiarczyk	**DATE: 29th November 2018**

Applicant:	Kildare Sand & Gravel Limited
CRO number:	303089 (status: normal)
Location/address:	Kildare Sand & Gravel Limited, Boherkill, Rathangan, Co. Kildare. The facility is located in a rural area.
Application date:	16th December 2016
Classes of activity (under Waste Management Act 1996 as amended) proposed in 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; R 10 Land treatment resulting in benefit to agriculture or ecological improvement; 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).
Classes of activity (under Waste Management Act 1996 as amended) applied for <u>but proposed for refusal</u>:	D 15 Storage pending any of the operations numbered D 1 to D 14 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced); R 3 Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes), which includes gasification and pyrolysis using the components as chemicals; R 4 Recycling/reclamation of metals and metal compounds; R 12 Exchange of waste for submission to any of the operations numbered R 1 to R 11 (if there is no other R code appropriate, this can include preliminary operations prior to recovery including pre-processing such as, amongst others, dismantling, sorting, crushing, compacting, pelletising, drying, shredding, conditioning, repackaging, separating, blending or mixing prior to submission to any of the operations numbered R1 to R11). <u>Reason for proposed refusal</u>: Regarding Class D 15, the facility is proposed to be authorised as an inert soil and stone recovery facility and not as a waste disposal

	facility. Deposition of waste other than inert soil and stone in this unlined facility could cause groundwater contamination. Regarding Classes R 3, R 4 and R 12, organic waste and metal waste are not suitable for deposition in unlined facilities due to the risk of groundwater contamination. The activities listed in R12 are not relevant for the operation of an unlined inert soil and stone recovery facility.
European Directives/Regulations relevant to this assessment are listed in the Appendix 2 of this report.	
Activity description/background: Proposal to restore a sand and gravel quarry through the recovery of waste soil & stone. The proposed maximum annual intake is 225,000 tonnes of waste soil & stone. The planner's reports (reports No. 1 and No. 2) in relation to planning file ref. 16/526 state that the total estimated volume of material required to restore the pit is 1.5 million tonnes. Accordingly, 1.5 million tonnes is proposed in the RD as the total quantity of soil and stone permitted for backfill at the facility over the lifetime of the pit.	
Type of waste proposed in the RD to be authorised: • soil and stones (LoW code 17 05 04). Additional wastes sought for acceptance: • concrete (LoW code 17 01 01); • bricks (LoW code 17 01 02); • tiles and ceramics (Low code 17 01 03); • mixture of concrete bricks, tiles and ceramics other than those mentioned in 17 01 06 (LoW code 17 01 07); • minerals (LoW code 19 12 09). These waste categories are recommended for refusal and are not proposed for acceptance at the facility because they are not generally suitable for use as fill in an unlined facility and there is no planning permission for the treatment of construction and demolition waste.	
Additional information received:	• 2 February 2017 (Unsolicited information) • 24 March 2017 (Article 8 and Article 14 Replies) • 19 June 2017 (Article 16 Reply) • 5 February 2018 (Unsolicited information) • 30 July 2018 (Article 16 Reply) • 18 September 2018 (Unsolicited information)
No of submissions received:	Two submissions were received, however, one submission was withdrawn as of 24th May 2018.
EIS submitted: 16th December 2016	NIS submitted: No
Site visit: 21st April 2017	Site notice checks: 11th February 2017, 21st April 2017

1. Activity description/background

The facility is a former sand and gravel quarry located 2 km south east of Rathangan, Co. Kildare as shown on Figure 1. The application boundary covers an area of 20.42 hectares. The site is owned by Mr. Michael Ennis, Boherkill, Rathangan, County Kildare. The applicant leases this site from Mr. Ennis. The quarry has been operated by the applicant, Kildare Sand & Gravel Ltd, for the past 17 years. The site layout is shown on Figure 2. The main infrastructure comprises a weighbridge, wheel-wash, quarry plant and office. The backfilling of the quarry void will facilitate the restoration of the site and its return to agricultural use. The backfilling has not commenced to date.

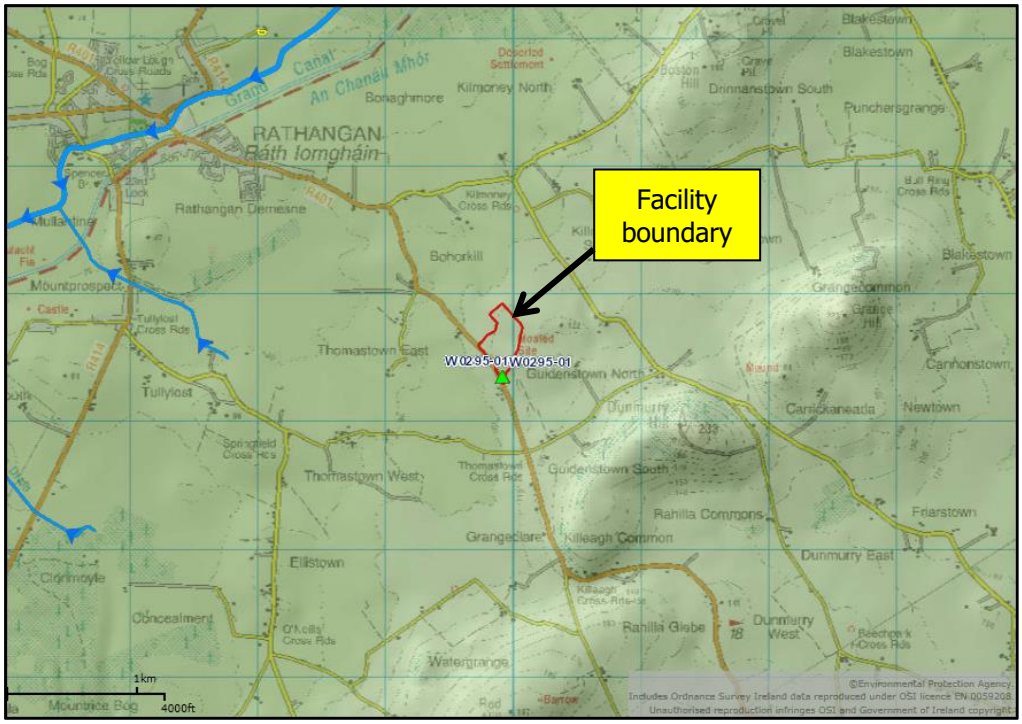

Figure 1: Location of the facility

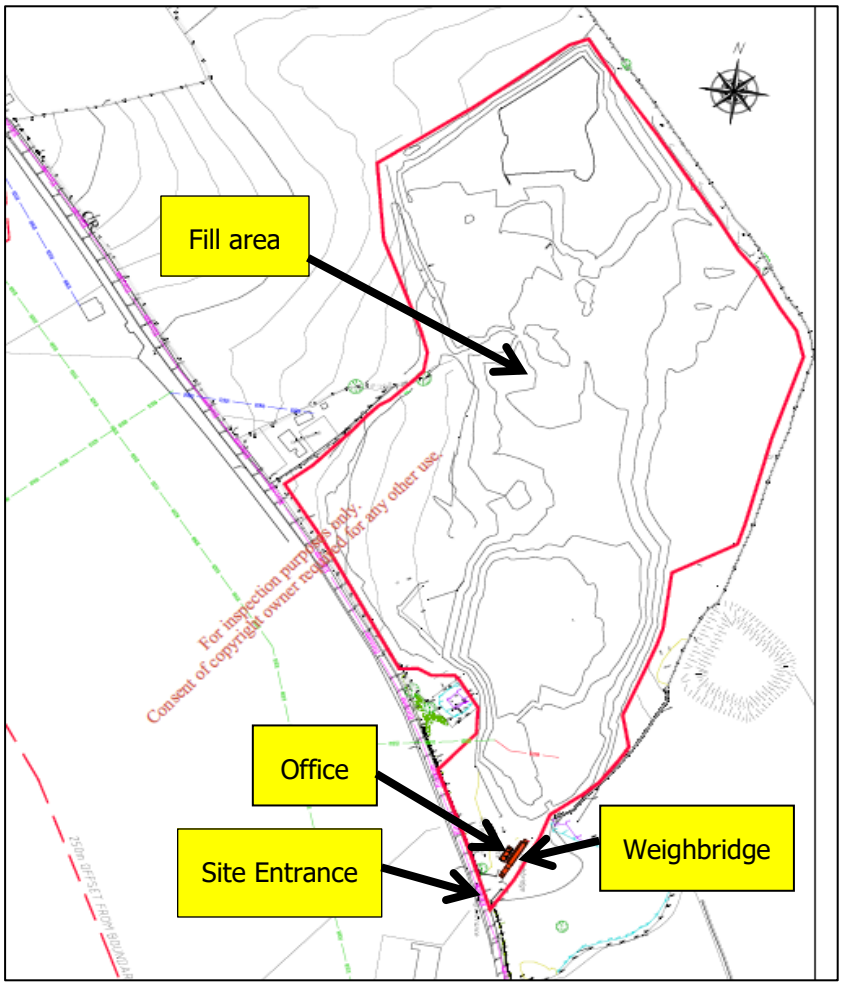

Figure 2: Site layout

2. Best Available Techniques

Even though 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 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.

3. Planning Permission, EIS and EIA Requirements

3.1 EIA Screening

In accordance with Section 40(2A) of the Waste Management Act 1996 as amended, the Agency must ensure that before a licence or revised licence is granted, that the

application is made subject to an environmental impact assessment (EIA), where the activity meets the criteria outlined in Section 40(2A)(b) and 40(2A)(c). In accordance with the EIA Screening Determination, the Agency has determined that the activity is likely to have a significant effect on the environment, and accordingly is carrying out an assessment for the purposes of EIA.

3.2 Planning Status

A number of planning applications have been made by Mr. Ennis for the area within the facility boundary. Details of these planning permissions have been provided in the application form and are summarised below.

Planning reference	Purpose of planning application	Date of grant
01/1270	Retention of gravel pit and extension of same	17th April 2003
07/188	Retention permission and development at the site	27th August 2008
15/515	Extension of duration of permission Ref. No. 07/188	12th August 2015
16/526	Restoration of the excavated gravel pit to the original ground levels.	20th January 2018

Kildare County Council required an Environmental Impact Statement (EIS) in support of the planning applications reference 07/188 and 16/526. The EIS associated with the planning application ref. 16/526 was submitted with the licence application. Having reviewed the planners' reports for previous planning permissions, it is considered that the EIS submitted with the licence application, along with the licence application and the further information received, contains adequate information to inform the Agency's assessment and that the EIS relating to the planning permission ref. 07/188 is not required for the Agency's assessment.

The boundary for planning permission 16/526 (for the backfilling activity) is smaller than the boundary proposed for the waste licence. In particular, the area used for the weighbridge, office and staff facilities is outside the planning boundary. *Schedule A: Limitations* of the RD proposes that waste and quarrying activities at the facility are limited to those areas that are authorised by planning permission.

3.3 Content of EIS and licence application

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

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

1. Contact details of the facility's manager.
2. Drainage arrangements for the facility.
3. Management of the standing water in parts of the site.
4. On-site quarrying activity.

5. Classes of activity.

On receipt of further information from the applicant, all of the documentation received was examined and I consider that the EIS complies with the requirements of the *Waste Management Licensing Regulations, 2004, as amended, S.I. 395 of 2004*, when considered in conjunction with the additional material submitted with the application.

3.4 Environmental Impact Assessment Directive (2011/92/EU)

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: human beings, flora, fauna, soil, water, air, climate, the landscape, material assets and cultural heritage.

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

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

- the licence application, Register Number: W0295-01, and the supporting documentation received from the applicant;
- the EIS;
- the submission received; and,
- the planning documents.

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

Table of Environmental Factors

Environmental Factor	Addressed in the following Sections:
Human Beings	Greenhouse gases and Climate Impact, Emissions to Air, Discharges to Water and Ground, Noise, Waste Generation, Other matters relating to EIA
Flora and Fauna	Greenhouse gases and Climate Impact, Emissions to Air, Discharges to Water and Ground, Noise, Waste Generation
Soil	Discharges to Water and Ground
Water	Discharges to Water and Ground
Air	Greenhouse gases and Climate Impact, Emissions to Air

Environmental Factor	Addressed in the following Sections:
Climate	Greenhouse gases and Climate Impact, Emissions to Air
Landscape	Other matters relating to EIA
Material Assets	Other matters relating to EIA
Cultural Heritage	Other matters relating to EIA

3.5 Consultation with Competent Authorities

Consultation was carried out between the Agency and Kildare County Council and An Board Pleanála under the relevant section of the Waste Management Act.

The County Council's response was received on 2nd February 2017 and states that the Environmental Section has no comments to make on this application and that there is no history of waste disposal on the site.

An Bord Pleanála responded on 28th August 2017. The response refers to the planning appeal which related to a financial contribution and was associated with planning permission ref. 16/526 and states the EIS submitted to the Agency contains the same information as the EIS submitted to An Bord Pleanála.

4. Submissions

Two submissions were made on this application however, one of the submissions was withdrawn as requested by the submitter on 24th May 2018.

While the main points raised in Submission No. 1 are briefly summarised in the table below, the original submission should be referred to at all times for greater detail and expansion of particular points.

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

Submission No. 1

Name & Position	**Organisation**	**Date received**
Mr. Kieran Carberry, Principal Environmental Health Officer	Health Service Executive (HSE)	24th January 2017

Issues raised:	**Agency response:**
The submission states that the Office has no objections to the application provided that - no organic waste is deposited at the site; and, - the applicant complies with the recommendations regarding dust,	No organic waste will be accepted at the facility. The only waste allowed to be deposited will be inert soil and stone. The RD requires numerous measures for control of dust, noise and litter.

	noise, litter and pest control mitigation and suppression measures as proposed in the Environmental Impact Statement submitted with the application.	The facility will not attract pests due to the fact that no organic waste will be accepted.

5. Emissions to Air

This section addresses the following:

- greenhouse gases and climate impact
- fugitive dust
- odour

5.1 Greenhouse gases and Climate Impact

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

Operation of heavy goods vehicles (HGVs) bringing and collecting waste to and from the facility will generate exhaust gases with greenhouse gas potential. Also, the operation of vehicles and machines in the soil 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 rural area with dwelling houses and farm lands. These 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.

5.2 Fugitive Dust

Dust generation during dry weather is associated mainly with the operation of vehicles arriving at and departing from the facility and the filling activity.

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

The RD requires that dust control measures are employed to minimise the emission of dust at the facility during dry periods (Conditions 6.10). 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. Condition 3.8.2 requires that all vehicles leaving the facility shall use the wheel cleaner.

For the purposes of EIA, the environmental factors potentially affected by dust emissions from the activity include: human beings, flora and fauna 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 no sources of significant dust emissions in the general vicinity of the site.
- There are no licensed activities in the vicinity which are likely to release significant quantities of dust that could lead to likely or significant cumulative effects from dust deposition on any area beyond the facility boundary.

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

5.3 Odour

There will be no odorous waste accepted at the 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 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 for the nearby residents. 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 licensed activities which could be sources of significant odour emissions in the vicinity of the site. Accordingly, no cumulative or indirect issues have been identified.

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

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

I am satisfied that there will not be significant effects on climate, air quality, human beings, flora and fauna or any other aspect of the environment from air emissions arising from the operation of the activity.

6. Discharges to Water and Ground

This section addresses the following:

- Direct process emissions to waters
- Emissions to sewer and indirect process emissions to waters
- Emissions to ground/groundwater
- Storm water discharges

6.1 Direct Emissions to Waters

There are no direct process emissions to surface waters at the facility.

6.2 Emissions to Sewer

There are no emissions to sewer.

6.3 Discharges to ground/groundwater

The site is underlain by Carboniferous limestones and thin shales. Natural subsoil material at the site is Carboniferous sands and gravels. The aquifer beneath the site is a locally important aquifer. Groundwater vulnerability in this area is high. It is anticipated that the groundwater gradient is likely to reflect the surrounding topography with groundwater discharging to the local streams and rivers.

The site quarry floor is above water table. There are no groundwater monitoring boreholes within the site. Condition 6.17 requires installation of three groundwater monitoring wells to provide representative samples of groundwater upgradient and downgradient of groundwater flow at the site and requires the annual assessment of quarterly groundwater monitoring results against the requirements of the European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended.

Rain water falling on the site percolates to ground through the soil strata, comprising sand and gravel, to the underlying bedrock.

For the purposes of EIA, the environmental factors potentially affected by a storm water discharge to ground/groundwater include: water quality, soil, flora and fauna, human beings and material assets.

Any accidental discharges to ground could potentially affect the quality of soil and groundwater, which could affect those using the groundwater body as a source of drinking water. Also, polluted groundwater, if it flows into a surface waterbody, could cause pollution in this surface waterbody.

The Rathangan drinking water abstraction from ground (Code 1400PUB1041_1) is located 3km north-west of the site and the Bracknagh drinking water abstraction from ground (Code 2500PRI2008_1) is located 4.7km north-west of the site.

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 RD requires the licensee to:

- implement waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) wastes at the facility (Condition 8.13);
- 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 on-site are minimised (Condition 9.2);
- implement a 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).

The RD requires that there is no discharge from the wheel wash.

The RD contains standard conditions in relation to the storage and management of materials and wastes. The controls pertaining to accidents and emergencies are addressed in Section 10 below. These measures will help to control any impacts which could occur should any mitigation measures fail.

The possibility of soil and groundwater contamination from hazardous substances at the site of the facility is considered to be low.

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

- There are no sources of significant emissions to ground in the vicinity of the facility. There are no licensed facilities in the vicinity of the site.
- Therefore it is considered that there will be no significant cumulative impact from storm water discharges at the facility with ground or groundwater emissions from other activities or developments in the area.

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 discharge to ground is negligible.

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

I am satisfied that there will not be significant effects on human beings, flora and fauna, water quality, soil quality, material assets or any other aspect of the environment from the operation of the activity.

7. Noise

The main sources of noise at the facility include vehicles and machinery.

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

Noise arising from site could have the potential to cause nuisance for those living in the vicinity of the activity or on noise sensitive species near the site.

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 from the activity are unlikely.

- There are no licensed sites in the vicinity of the facility which would be sources of significant noise emissions.
- 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.

8. Waste Generation

The activity does not produce significant quantities of waste and is limited to municipal type waste from office and welfare facilities onsite. All waste generated on site will be transported off-site in accordance with national and European legislation.

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

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

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

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

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. There are no licensed sites in the area. 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 wastes from the operation of the activity.

9. Use of Resources

The operation of the facility involves consumption of water, fuel, oils, lubricants and electricity. Electricity is used for lighting and heating. Water is supplied from the mains. Fuel is used for plant and equipment. No re-fuelling of HGV trucks will be carried out on site. 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.

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

Condition 7 of the licence provides for the efficient use of resources and energy in all site operations. It requires a Resource Use and Energy Programme to be established and an energy audit to be carried out and repeated at intervals as required by the Agency.

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.

10. 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 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. The RD requires the licensee to: • implement waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) wastes at the facility (Condition 8.13); • 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 on-site are minimised (Condition 9.2); • implement a 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).

Potential accidents & measures for prevention/limitation of consequences	
Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the facility	Provision and maintenance of adequate bunding of fuel, wastewater and sanitary effluent storage tanks.
Additional measures provided for in the RD	Specific accident prevention and emergency response requirements (Condition 9). Integrity of tanks to be assessed every 3 years and maintenance carried out as required (Condition 6.7).

Condition 9 of the RD requires procedures to be put in place to prevent accidents with a possible impact on the environment and to respond to emergencies so as to minimise the impact on the environment.

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.

11. Cessation of activity

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

- Removal of all plant and machinery; and,
- Removal of tanks such as a waste oil storage tank and a sanitary effluent holding tank.

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.

12. Other matters relating to EIA

12.1 Effects on landscape, material assets and cultural heritage

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

Any loss of archaeological or architectural heritage could impact negatively on human beings. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on site.

(b) Landscape, visual and cultural effects

Any disturbance of the landscape or the cultural heritage of an area has the potential to impact on human beings and their enjoyment of the surrounding area. These matters are dealt with in the decision of the planning authority to grant planning permission for the developments on site.

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.

12.2 Interaction of effects

I have considered the interaction between human beings, flora and fauna, soil, water, air, climate, landscape, material assets, cultural heritage and the interaction of the likely effects identified throughout this report.

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

Interaction of effects

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

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

Human beings and groundwater and soil

The acceptance of unauthorised contaminated waste could impact directly on the quality of groundwater and soil and indirectly on surface water quality, if polluted groundwater discharges into a surface waterbody. The risk is considered to be low.

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.

13. Reasoned Conclusion on Environmental Impact Assessment

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

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

14. Appropriate Assessment

There are seven European Sites in the vicinity of the facility:

- Ballynafagh Bog SAC (Site Code: 000391)
- Pollardstown Fen SAC (Site Code: 000396)
- The Long Derries, Edenderry SAC (Site Code: 000925)
- Ballynafagh Lake SAC (Site Code: 001387)
- River Barrow and River Nore SAC (Site Code: 002162)
- Mouds Bog SAC (Site Code: 002331)
- Mountmellick SAC (Site Code: 002141)

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 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 Sites at Ballynafagh Bog SAC (Site Code: 000391), Pollardstown Fen SAC (Site Code: 000396), The Long Derries, Edenderry SAC (Site Code: 000925), Ballynafagh Lake SAC (Site Code: 001387), River Barrow and River Nore SAC (Site Code: 002162), Mouds Bog SAC (Site Code: 002331), and Mountmellick SAC (Site Code: 002141).

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can

be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was not required.

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

- The facility is not located within the above listed European Sites.
- There will be no emissions to surface water courses from the activities.
- The activities will not result in damage to, or loss of, species and habitats of these European Sites.

15. Fit & Proper Person Assessment

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

Technical Ability

The applicant has been operating a quarry at the facility for over 17 years. It is considered that the applicant has demonstrated the technical knowledge required in the management and handling of natural materials.

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/Strength

The applicant is not the owner of the site. In such circumstance, the Agency requires assurance that the respective liabilities of the owner and the operator would be met during and post licensing activities. The applicant furnished a "licensing agreement" between the owner and the operator in this regard. However, I am of the opinion, and am advised, that this is insufficient to allow me to recommend to the Agency to make a decision on the application, with reference to Article 40(4)(d) and 40(7)(c) of the Waste Management Acts. Further information was sought from the applicant to clarify the doubt surrounding whether the applicant was in a position to have adequate control over the facility and to meet the financial commitments or liabilities that may arise during the operation of the facility or upon cessation. Previous assurances were reiterated by the applicant; however, the doubts previously raised remain.

Licences for soil recovery activity do not normally require financial provision to be put in place, given the relatively low environmental risk attached, when compared to other waste activities. However, given the concerns raised above in relation to environmental liabilities and the doubt that remains following communications with the applicant, it is recommended that financial provision be put in place prior to commencement of the activity and to the satisfaction of the Agency.

Condition 10.2 of the RD requires the preparation of a fully costed Closure, Restoration and Aftercare Management Plan (CRAMP) and Condition 12.2 of the RD requires the preparation of an Environmental Liabilities Risk Assessment (ELRA) prior to commencement of the activity.

Fit & Proper Conclusion

Having regard to the detail outlined above and the conditions of the RD, the applicant can be deemed a Fit & Proper Person for the purpose of this application.

16. Charges

The annual enforcement charge recommended in the RD is €**6,244**, which reflects the anticipated enforcement effort required and the cost of monitoring.

17. 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 and has regard to submissions made.

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

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

European Site (site code)	**Distance and direction from the facility**	**Qualifying interests** (* denotes a priority habitat)	**Conservation objectives**
Ballynafagh Bog SAC (Site Code: 000391)	14 km north/east of the facility	**Habitats:** • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration • 7150 Depressions on peat substrates of the Rhynchosporion **Species:** None	As per NPWS (2015) Conservation objectives for Ballynafagh Bog SAC [000391]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (dated 10/11/2015).
Pollardstown Fen SAC (Site Code: 000396)	6.1 km south-east-east of the facility	**Habitats:** • 7210 Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae* • 7220 Petrifying springs with tufa formation (Cratoneurion)* • 7230 Alkaline fens **Species:** • 1013 Geyer's Whorl Snail (*Vertigo geyeri*) • 1014 Narrow-mouthed Whorl Snail (*Vertigo angustior*)	As per NPWS (2016) Conservation objectives for Pollardstown Fen SAC [000396]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (dated 15/08/2016).

European Site (site code)	**Distance and direction from the facility**	**Qualifying interests** (* denotes a priority habitat)	**Conservation objectives**
		• 1016 Desmoulin's Whorl Snail (*Vertigo moulinsiana*)	
The Long Derries, Edenderry SAC (Site Code: 000925)	12 km north-north-west of the facility	**Habitats:** • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) (* important orchid sites)* **Species:** None	As per NPWS (2016) Conservation objectives for The Long Derries, Edenderry SAC [000925]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (dated 15/08/2016).
Ballynafagh Lake SAC (Site Code: 001387)	12.7 km north/east of the facility	**Habitats:** • 7230 Alkaline fens **Species:** • 1016 Desmoulin's Whorl Snail (*Vertigo moulinsiana)* • 1065 Marsh Fritillary (*Euphydryas aurinia)*	As per NPWS (2016) Conservation objectives for Ballynafagh Lake SAC [001387]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (dated 15/08/2016).
River Barrow and River Nore SAC (Site Code: 002162)	9.7 km south/west of the facility	**Habitats:** • 1130 Estuaries	As per NPWS (2011) Conservation Objectives for River Barrow and River Nore

European Site (site code)	**Distance and direction from the facility**	**Qualifying interests** (* denotes a priority habitat)	**Conservation objectives**
		• 1140 Mudflats and sandflats not covered by seawater at low tide • 1310 *Salicornia* and other annuals colonizing mud and sand • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • 1410 Mediterranean salt meadows (*Juncetalia maritimi*) • 1421 Killarney fern *Trichomanes speciosum* • 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation • 4030 European dry heaths • 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels • 7220 *Petrifying springs with tufa formation (*Cratoneurion*) • 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles • 91E0 *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) **Species:** • 1016 Desmoulin's whorl snail *Vertigo moulinsiana* • 1029 Freshwater pearl mussel *Margaritifera margaritifera*	SAC [002162]. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (dated 19 July 2011).

European Site (site code)	**Distance and direction from the facility**	**Qualifying interests** (* denotes a priority habitat)	**Conservation objectives**
		• 1092 White-clawed crayfish *Austropotamobius pallipes* • 1095 Sea lamprey *Petromyzon marinus* • 1096 Brook lamprey *Lampetra planeri* • 1099 River lamprey *Lampetra fluviatilis* • 1103 Twaite shad *Alosa fallax* • 1106 Atlantic salmon (*Salmo salar*) (only in fresh water) • 1355 Otter *Lutra lutra* • 1990 Nore freshwater pearl mussel *Margaritifera durrovensis*	
Mouds Bog SAC (Site Code: 002331)	7.6 km east of the facility	**Habitats:** • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration • 7150 Depressions on peat substrates of the Rhynchosporion **Species:** None	As per NPWS (2015) Conservation objectives for Mouds Bog SAC [002331]. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht (dated 20/11/2015).
Mountmellick SAC (Site Code: 002141)	22 km	**Habitats:** None	As per NPWS (2016) Conservation objectives for Mountmellick SAC [002141].

European Site (site code)	**Distance and direction from the facility**	**Qualifying interests** (* denotes a priority habitat)	**Conservation objectives**
	south-west-west of the facility	**Species:** • 1016 Desmoulin's Whorl Snail (*Vertigo moulinsiana*)	Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and the Gaeltacht Affairs (dated 16/08/2016).

Appendix 2

Relevant European (and international) legal instruments

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