

This Report has been cleared for submission to the Director by Senior Inspector, Brian Meaney

Signed: 

Date: 03/07/2017



**OFFICE OF ENVIRONMENTAL
SUSTAINABILITY**

**INSPECTOR'S REPORT ON A WASTE LICENCE APPLICATION, LICENCE
REGISTER NUMBER W0292-01**

TO: DARA LYNOTT

FROM: Ewa Babiarczyk

DATE: 3rd July 2017

Applicant: N&C Enterprises Limited
CRO number: 242643 (status: normal)
Location/address: The Pit, Kilmeage, Naas, County Kildare.
Located directly adjacent to the village of Kilmeage.
Application date: 10th June 2016

Classes of activity (under Waste Management Act 1996 as amended):
R 5 Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials (main)
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 the appendix 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 waste intake is 345,000 tonnes of soil & stone.

One of two planner's reports in relation to Planning Permission ref. 03/1773 states that the total estimated volume of material required to fill 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.

Types of waste sought for acceptance: inert soil and stones, C&D waste.

Types of waste proposed in the RD to be authorised: inert soil and stones (LoW code 17 05 04).

Additional information received: Article 14 Reply received 20th April 2017.

No of submissions received: Two

EIS submitted: Yes (10 June 2016)

NIS submitted: No

1. Activity description/background

N&C Enterprises Limited is the owner of the site. The facility is a former sand and gravel quarry adjoining the village of Kilmeage as shown on Figure 1. The application boundary covers an area of 6.5 hectares. The main infrastructure on site comprises a weighbridge, wheel wash and site office. Commercial activities are conducted at and from the site at present, including bagging and distribution of construction aggregates and supplies. Commercial activities will be displaced as the fill progresses. The applicant was previously granted a Waste Facility Permit reference 126/2003 for recovery of waste, including construction and demolition (C&D) waste, at the facility. This permit is no longer in force. Annual Environmental Reports (AERs) for years 2006, 2007 and 2009 show that soil and stone and C&D waste was deposited at the facility. The applicant was not able to submit AERs for other years of the facility's operation.

The licence application relates to the importation and use of 345,000 tonnes per annum of waste soil and stone to backfill the quarry. The quarry and the site infrastructure is shown in Figure 2. The backfilling of the quarry void will facilitate the restoration of the site and its return to agricultural use.

The applicant also sought authorisation to accept C&D waste to produce secondary aggregate that will be used for construction of haul roads at the facility or sale off-site. There is no planning permission for this activity and it is consequently proposed for refusal in the RD.

Figure 1: Location of the facility

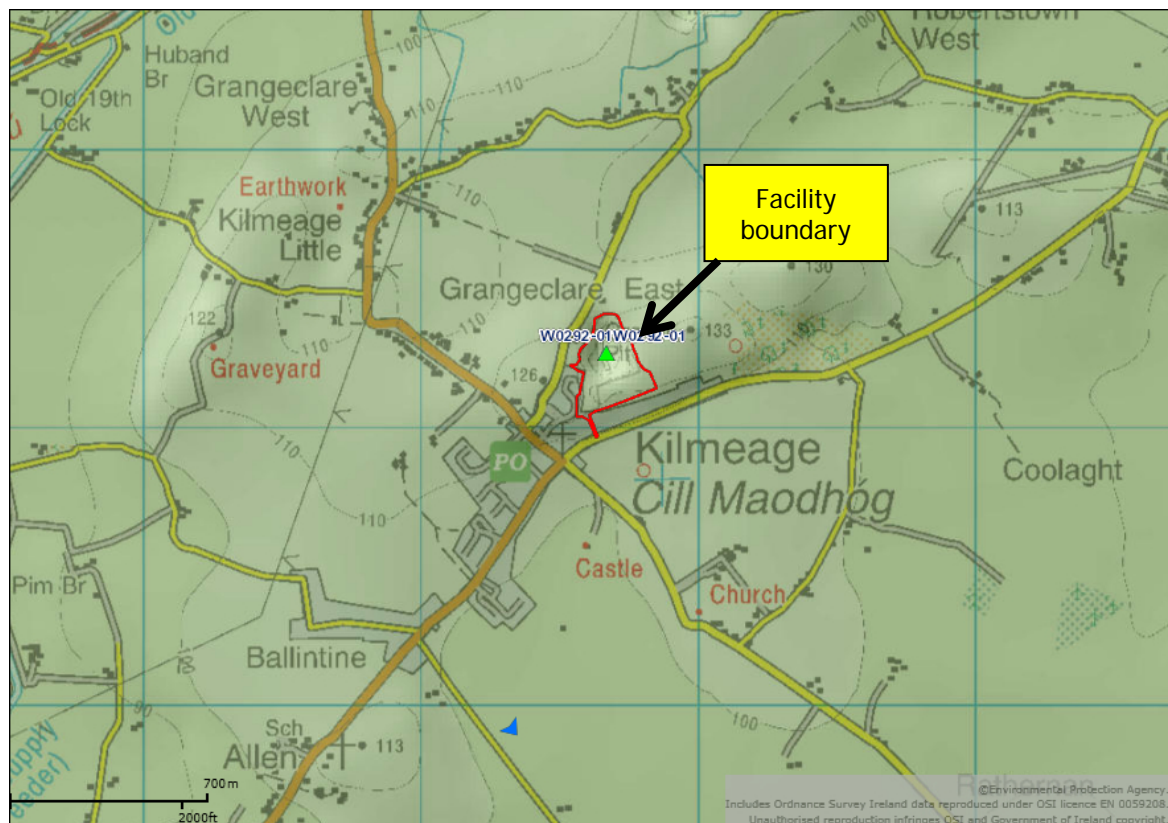


Figure 2: Site plan



2. Best Available Techniques

BAT for Waste facilities

Even though the facility is not a landfill (i.e. it is 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

Two planning applications have been made by the applicant for the area within the facility boundary since 2003. Details of these planning applications and permissions have been provided in the application form and are summarised below.

Planning reference	Purpose of planning application	Date of grant
03/1773	To import and place materials in the sand and gravel pit to enable restoration of the site.	23 rd July 2004
12/373	To extend the appropriate period of planning permission reference 03/1773	20 th August 2012

Kildare County Council required an Environmental Impact Statement (EIS) in support of planning application reference 03/1773. The applicant has submitted this EIS with the licence application. Having reviewed the planner's reports for both planning permissions, it is considered that the EIS submitted with the licence application, along with the licence application, adequately identifies, describes and assesses the direct and indirect effects of the entire activity.

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.

I consider that the information as submitted contains a satisfactory description of the project, the alternatives studied by the applicant, the aspects of the environment likely to be significantly affected by the activity, the likely effects of the activity on the environment, the forecasting methods used, the prevention and mitigation measures envisaged, the lack of difficulties and deficiencies encountered and a non-technical summary.

I consider that the EIS, when considered in conjunction with the additional material submitted with the application, also complies with the requirements of the *Waste Management (Licensing) Regulations, 2004, S.I. 395 of 2004, as amended*.

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 impacts, with other developments in the vicinity of the activity have also been considered, as regards the combined impacts of emissions. The main mitigation measures proposed to address the range of predicted significant impacts 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 application, register number W0292-01;
- the EIS;
- the submissions received;
- the planning documents, in particular:
 - i. two planner's reports and the decision dated 23rd July 2004 pertaining to planning file ref. 03/1773; and
 - ii. two planner's reports and the decision dated 20th August 2012 pertaining to planning file ref. 12/373.

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 specifically discussed.

Table of likely significant effects

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

3.5 Consultation with Competent Authorities

Kildare County Council was consulted by the Agency under the relevant section of the Waste Management Act.

Kildare County Council did not provide any observations to the Agency on the licence application and EIS.

4. Submissions

Two submissions were received on this application.

While the main points raised in the submissions are briefly summarised in the table 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.

Table of submissions

1	Name & Position: <i>Ms Roisin O'Callaghan,</i> <i>Fisheries Environmental Officer</i>	Organisation: <i>Inland Fisheries Ireland - Dublin</i>	Date received: <i>7th July 2016</i>
	Issues raised:	Agency Response:	
	Release of sediments and pollutants into watercourses could have a negative impact on freshwater fauna and flora.	There will be no emissions to surface water courses from the facility.	
	Any stockpiling of topsoil must be considered and planned such that risk of pollution from these activities is minimised. Drainage from the topsoil storage area may need to be directed to a settlement area for treatment.	There will be no emissions to surface water from the facility.	
	The wheel wash, particularly its soakaway area, should be regularly inspected and maintained	The RD requires maintenance of site infrastructure. Condition 3.1 of the RD refers in this instance.	
	A quarantine area should be put in place in the event of contaminated material. Mitigation procedures should be put in place to deal with such a scenario.	Condition 3.8 requires a waste quarantine area. Condition 8.14.8 specifies measures for management of waste that are not acceptable.	
	All discharges must be in compliance with the EU (Surface Water) Regulations and EC (Groundwater) Regulations.	There will be no emissions to surface water or ground water. Stormwater and overland flow arising at the facility will percolate to ground. Refer to Section 6 for more detail.	
2	Name & Position: <i>Mr. Kieran Carberry,</i> <i>Principal Environmental Health</i>	Organisation: <i>Health Service Executive</i>	Date received: <i>27th July 2016</i>

<i>Officer</i>	
Issues raised:	Agency Response:
The submitted EIS is from 2003, therefore the information therein may be out of date.	The submitted EIS, along with the licence application, adequately identifies, describes and assesses the direct and indirect effects of the entire activity. The information contained therein, including planner's notes and report was considered for the purpose of Environmental Impact Assessment.
The EIS Non-Technical Summary has no record of public consultation process.	The observation is noted. Members of the public can submit submissions on the licence application and objections on the Agency's Proposed Decision (PD). All submissions and objections will be considered as part of this licence application process.
The submission states that the HSE Office is concerned primarily with highlighting issues of public health and environmental health concern and adds that "to the best of (the Office's) knowledge" there is no record of any environmental complaints received in respect of the facility.	The submission is noted.
Environmental health was not included at the Screening/Scoping stage of the EIS.	Impact on human beings was assessed as part of the Environmental Impact Assessment contained in this report. Refer to Sections 5 to 13 of this report for more detail.
All commitment to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate. No additional investigations/measures were undertaken.	The submission is noted.

5. Air Emissions

This section addresses the following:

- greenhouse gases and climate impact
- 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 vehicles and machines at the facility will generate exhaust gases with greenhouse gas potential.

The operation of the facility as a soil recovery facility is a finite undertaking. At the waste deposition rates proposed to be authorised in the RD (345,000 tonnes per annum, see Schedule A of the RD), the facility will be full in approximately 4-5 years. Vehicles and machines used in the soil deposition activity will cease operation at that time.

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 adjacent to 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.

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 filling activity and vehicle movements within the facility.

Condition 6.10 requires that measures are implemented to control emissions of dust. Schedule B.4 *Dust Deposition Limits* of the RD sets a limit on ambient dust deposition while Schedule C.3 *Ambient Monitoring* of the RD requires bi-annual monitoring of ambient dust deposition.

Planning permission 03/1773 requires that the total dust emission arising from the activity shall not exceed a limit of 130 mg/m²/day, averaged over a continuous period of 30 days, when measured as deposition of insoluble particulate matter at any position along the site boundary. The applicant claims that the normal recommended standard for dust emissions for this type of activity is a requirement that the dust deposition shall not exceed 350 mg/m²/day measured at the site boundary and averaged over 30 days and considers the limit of 350 mg/m²/day to be more appropriate limit than the limitation for dust deposition in planning permission 03/1773. The licensee is correct to state that 350 mg/m²/day is the default limit value for waste licences. Having considered the planning permissions and planners' reports, there is no evident reason in this instance to recommend a lower value.

In accordance with article 54(1) of the Waste Management Act, the conditions of the planning permission, insofar as they are for the purposes of the prevention, limitation, elimination, abatement or reduction of environmental pollution, cease to have effect. The RD proposes the limit of 350 mg/m²/day.

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 affect habitats located close to the site boundary.

Dust from the facility is the main potential emission to air that could affect air quality. Dust control measures will be employed to minimise the emission of dust during dry periods (Conditions 5.4 and 6.10). Schedule C.3 of the RD requires periodic monitoring of dust deposition rates at the facility 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 wastes accepted so there is no potential for odour emissions.

For the purposes of EIA, the environmental factors potentially affected by odour emissions from the activity include: human beings, fauna 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) wastes at the facility (Condition 8.14);

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

6.1 Direct Discharges to Waters

There are no direct process emissions to waters at the facility. There will be no process emissions arising from the waste activity.

6.2 Emissions to Sewer (Indirect Discharges to Water)

There are no process emissions to sewer and no indirect process emissions to waters at the facility.

6.3 Discharges to ground/groundwater

The geology at the site comprises fluvio-glacial sand and gravel deposits over Old Red Sandstone bedrock. In some areas of the site the sand and gravel deposits are up to 28m in depth and comprise inter-bedded sand layers, gravel layers and mixed sand and gravels. Based on groundwater data levels from the 16th December 2015 groundwater flow at the site is in a south-easterly direction towards the River Liffey which is approximately 6.5km away (although some tributaries are closer). The aquifer beneath the site is a locally important aquifer. Groundwater vulnerability in this area is high.

There are three groundwater monitoring boreholes within the site MW15-01, MW15-02 and PW-01. There is also a spring in the base of the quarry. Groundwater emerging from this spring flows across the floor of the quarry and discharges into a soakaway at the northern edge of the site. There is also a perched pond to the east of the site.

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 discharges to ground/ground water 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.

There are 7 water wells in the vicinity of the site that are used for residential purposes.

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. However, it is noted that groundwater beneath the site is already contaminated by substances arising from waste which was previously deposited at the facility (for more details see Section 6.3.1 below).

The RD requires the licensee to:

- implement waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) wastes at the facility (Condition 8.14);
- 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 and specifies that there can be no unauthorised discharge of polluting matter to the storm water drainage system.

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

Furthermore, the RD reflects the recommendations of the Geological and Hydrogeological Assessment, which include:

- Maintenance of the flow path for the spring on the floor of the pit by placing a stone drain from the spring emergence to the recharge point in the north of the pit (Schedule D: *Specified Engineering Works*). A French drain will be constructed with a land drain core between the spring emergence and the northern recharge area. The drain shall be covered with terram and with at least 2m of natural site-won sand and gravel. The fill material will be placed over this drain and site-won subsoil cover; and
- The provenance of imported waste (inert soil) will be recorded and waste will be visually inspected at the site in accordance with waste acceptance procedures. Imported soils will be tested to confirm they are compliant with the conditions of the licence (Conditions 8 and 11).

Section 9 below outlines that 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 water emissions to ground in the vicinity of the facility. There are no licensed facilities in the vicinity of the site.

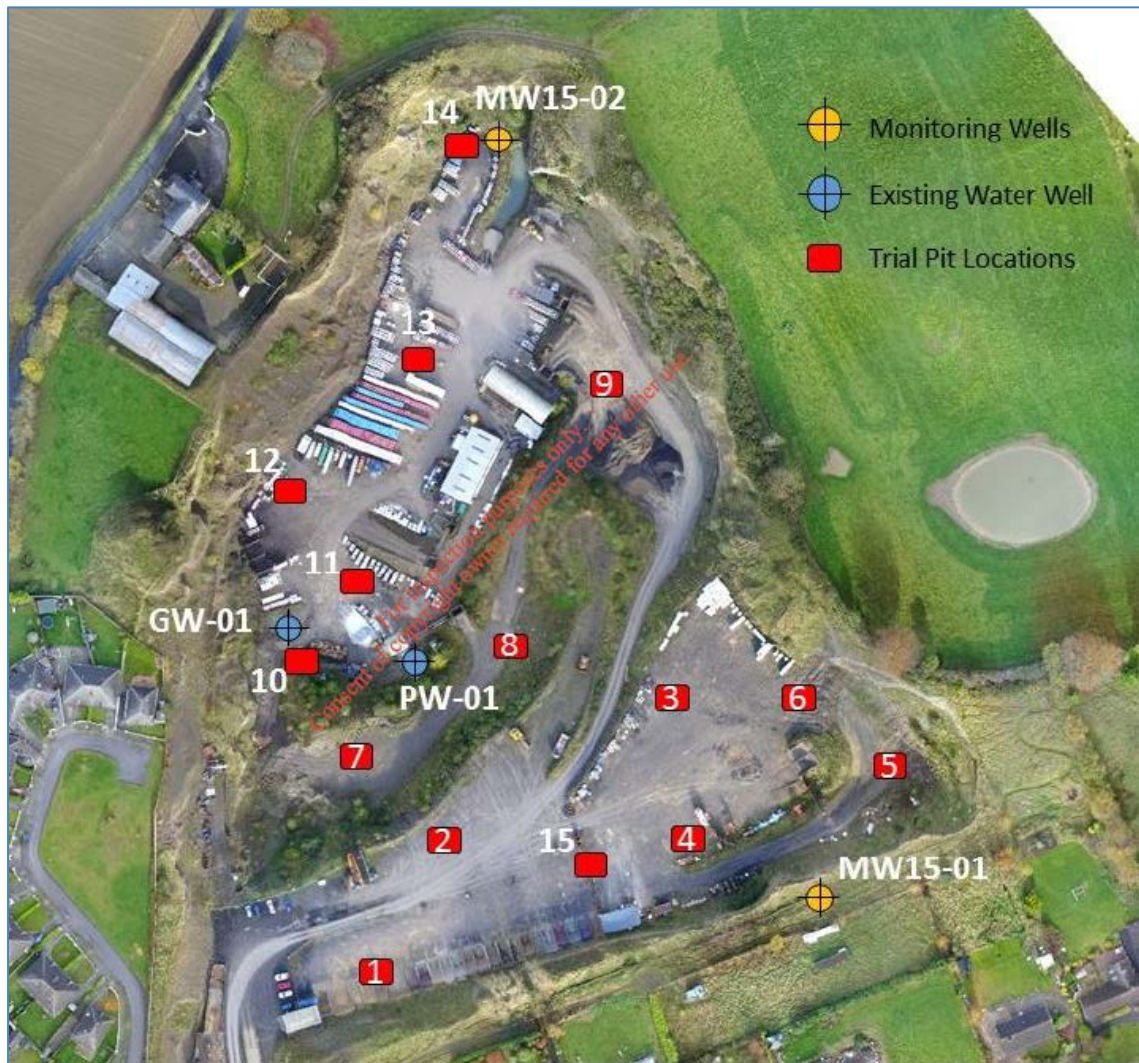
- Therefore it is considered that there will be no significant cumulative impact from storm water discharges at the facility with ground or groundwater emissions from other activities or developments in the area.

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.

6.3.1 Existing groundwater contamination

Site investigations were carried out in November 2015 and included 15 trial pits as shown on Figure 3 below. Made ground was detected at each trial pit and varied in depth from 3.2m (trial pit no. 5) to 0.1 m (trial pits No. 14 and 15). C&D waste was detected in 9 trial pits (trial pits number 1 to 6, 8, 9 and 15) and includes materials such as concrete, plastic, metal, timber, blocks, bricks, ceramics, plaster board and pieces of pipe.

Figure 3: Trial pit and monitoring locations



Groundwater monitoring carried out in December 2015 at locations MW15-01, MW15-02, PW1 and the spring (GW-01) and in March 2016 at location MW15-01 showed elevated levels of several parameters as follows:

Monitoring location	Elevated parameter
MW15-01	Ammonia, boron, chloride, electrical conductivity, potassium, sodium, sulphate, coliforms (Total)
MW15-02	Boron, chloride, coliforms (faecal), sodium
PW1	Boron, coliforms (total), sodium
GW1	Boron, chloride, coliforms (faecal), coliforms (total), nitrate and sodium

The monitoring results show that waste deposited in the past has affected the quality of groundwater beneath the site. The Geological and Hydrogeological Assessment submitted in the application states that there may be a combination of sources causing the elevation in the above parameters, such as the quality of the material that has been filled and local septic tanks or local landspreading of organic waste.

The Agency's Hydrometric & Groundwater Programme was consulted regarding the Geological and Hydrogeological Assessment submitted with the application. It was acknowledged, similar to the applicant's conclusions, that the contamination is not significant and the actions proposed by the applicant are appropriate, including:

- the replacement of boreholes MW15-02 and PW-01 as the fill progresses;
- the prevention of future contamination, and
- monitoring of parameters.

Condition 6.17 of the RD requires the annual assessment of groundwater monitoring results against the requirements of the European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended.

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

I am satisfied that there will not be significant effects on human beings, flora and fauna, water quality, soil quality, 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 flora 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.

Standard noise conditions and emission limit values, which apply at the noise sensitive locations, have been included in the RD.

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, installation/facilities or activities in the vicinity that are likely to generate noise to an extent that could lead to likely or significant cumulative effects beyond the site boundary.

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 is 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: material assets; flora and fauna.

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 by the activity.

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. 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, diesel, hydraulic and engine oils and electricity. Electricity is used for lighting, heating, telephone and security cameras. Currently water is supplied from an on-site borehole and is used for dust suppression. The applicant proposes that in future the water for dust suppression is also supplied from collection of surface water run-off. Diesel and hydraulic and engine oils are used to operate the plant and machinery. 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 applicant proposes that energy efficiencies will be achieved by using modern plant and equipment and servicing the equipment on a scheduled basis and shutting off the plant and equipment that is not being used.

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.

Water abstraction

Water for the site office, wheel wash and dust suppression is abstracted from an on-site borehole. Water used for dust suppression, where possible, will be sourced from collection of surface water run-off and from the said borehole. On days requiring dust suppression water usage will vary from 5 to 10 m³ per day. It is considered that given the limited quantities abstracted, potential impacts on the environment are considered neither likely nor significant.

Hazardous Materials

The applicant uses 30,000 litres of fuel, including diesel, per annum. This fuel contains harmful substances that, among others, include: R20 (which is harmful by inhalation) and R51/53 (which is toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment). 750 litres of fuel are stored on-site. None of the above substances are emitted directly to the environment.

There is a risk of fuel spillages that could cause groundwater pollution.

Condition 8.9 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 as amended.

Most of the developments in the vicinity of the facility are dwelling houses and agricultural lands, all of which would use minimal amounts of resources. There are no licensed sites in the area. Therefore significant cumulative effects on the environment from the use of resources by this facility and other developments are not likely.

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

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

10. Prevention of Accidents

Measures to be taken to prevent accidents and limit consequences

Table 1 Summary of potential accidents and prevention/mitigation measures

<p>Potential for an accident or hazardous/ emergency situation to arise from activities at the facility</p>	<p>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.</p> <p>The risk of fire is low due to the absence of flammable waste at the facility.</p> <p>The RD requires the licensee to:</p> <ul style="list-style-type: none"> • implement waste acceptance procedures to prevent the acceptance of unauthorised (including contaminated) wastes at the facility (Condition 8.14); • 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).
<p>Preventative/Mitigation measures to reduce the likelihood of accidents and mitigate the effects of the consequences of an accident at the facility</p>	<p>Provision and maintenance of adequate bunding.</p>
<p>Additional measures provided for in the RD</p>	<p>Specifies accident prevention and emergency response requirements (Condition 9).</p> <p>Integrity of tanks to be assessed every 3 years and maintenance carried out as required (Condition 6.7).</p>

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;
- Removal of fuels, oils and other contaminants;
- Breaking up the hard standing areas and recovery of the material that arises from this breakage; and,
- ‘Closure Plan & Environmental Liability Risk Assessment’ as submitted with the application (see Section 15 of this report for further details).

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

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

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 and are not controlled by the Agency. The planning authority has considered the impacts to be acceptable.

There are six archaeological sites within a radius of approximately 1 km of the facility. These are two ringforts, two churches, a castle site and an enclosure site. It is highly unlikely that emissions from the operation of the activity could impact any of these sites.

Accordingly no mitigation measures have been proposed.

(b) Landscape, visual and cultural impact

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.

The southern and western site boundary are located directly adjacent to the village of Kilmeage. The topography of the site's surroundings is relatively hilly with elevations reaching 133mOD to the east of the pit and 126mOD to the west. Land use in the area to the west and sought west is largely residential, with some commercial use. There is a row of single houses along the southern boundary of the site. The land to the northeast and northwest is largely agricultural. The views into the site from the adjacent roads are for the most part restricted due to the location

and topographical setting of the site. The applicant proposes to restore the pit to form a rounded hill that would tie into the ground levels of the surrounding lands.

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.

Planning permission ref. no. 03/1773 requires that all existing trees and hedgerows along the boundary of the site shall be retained and any gaps replanted.

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 being and groundwater and soil

The acceptance of contaminated waste and filling of 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 licence), 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 impacts (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 impacts 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 five 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)
- Mouds Bog SAC (Site Code: 002331)

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), Mouds Bog SAC (Site Code: 002331).

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 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 applicant 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/Strength

ELRA, CRAMP & FP

The applicant submitted a 'Closure Plan & Environmental Liability Risk Assessment' as part of the licence application. The following costs were estimated:

- Closure Plan Costs at €87,219; and
- Cost of a plausible worst case scenario associated with a risk arising from the importation of a rogue load of contaminated material at €12,496.

Condition 10.2 of the RD requires the preparation of 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, the environmental risk posed is low and restoration activities will cease, aftercare excepted, within 4 to 5 years.

Fit & Proper

It is my view, and having regard to the provisions of Section 40(4)(d) 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.

16. Cross Office Consultation

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

Inspector	Assistance provided
Pamela McDonnell (OES)	Matters related to Environmental Impact Assessment
Matthew Craig (OEA) and Anthony Mannix (OEA)	Matters related to the existing groundwater contamination

17. Charges

The annual enforcement charge recommended in the RD is €6,516, which reflects the anticipated enforcement effort required and the cost of monitoring.

18. 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)	5 km north/east of the facility	<p>Habitats:</p> <ul style="list-style-type: none"> • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration • 7150 Depressions on peat substrates of the Rhynchosporion <p>Species:</p> <p>None</p>	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 km south of the facility	<p>Habitats:</p> <ul style="list-style-type: none"> • 7210 Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae* • 7220 Petrifying springs with tufa formation (Cratoneurion)* • 7230 Alkaline fens <p>Species:</p> <ul style="list-style-type: none"> • 1013 Geyer's Whorl Snail (<i>Vertigo geyeri</i>) 	As per NPWS (2016) Conservation objectives for Pollardstown Fen SAC [000396]. Generic Version 5.0. <i>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs</i> . (dated 15/08/2016).

European Site (site code)	Distance and direction from the facility	Qualifying interests (* denotes a priority habitat)	Conservation objectives
		<ul style="list-style-type: none"> • 1014 Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>) • 1016 Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>) 	
The Long Derries, Edenderry SAC (Site Code: 000925)	12.4 km north/west of the facility	<p>Habitats:</p> <ul style="list-style-type: none"> • 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco Brometalia</i>) (* important orchid sites)* <p>Species:</p> <p>None</p>	As per NPWS (2016) Conservation objectives for The Long Derries, Edenderry SAC [000925]. Generic Version 5.0. <i>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs</i> (dated 15/08/2016).
Ballynafagh Lake SAC (Site Code: 001387)	3.3 km north/east of the facility	<p>Habitats:</p> <ul style="list-style-type: none"> • 7230 Alkaline fens <p>Species:</p> <ul style="list-style-type: none"> • 1016 Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>) • 1065 Marsh Fritillary (<i>Euphydryas aurinia</i>) 	As per NPWS (2016) Conservation objectives for Ballynafagh Lake SAC [001387]. Generic Version 5.0. <i>Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs</i> (dated 15/08/2016).
Mouds Bog SAC (Site	3 km south of the	Habitats:	As per NPWS (2015) Conservation objectives for

European Site (site code)	Distance and direction from the facility	Qualifying interests (* denotes a priority habitat)	Conservation objectives
Code: 002331)	facility	<ul style="list-style-type: none"> • 7110 Active raised bogs* • 7120 Degraded raised bogs still capable of natural regeneration • 7150 Depressions on peat substrates of the Rhynchosporion <p>Species: None</p>	Mouds Bog SAC [002331]. Version 1. National Parks and Wildlife Service, <i>Department of Arts, Heritage and the Gaeltacht</i> (dated 20/11/2015).

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/EC) & Birds Directive (79/409/EEC)
Environmental Liability Directive (2004/35/CE)
Waste Framework Directive (2008/98/EC)
Groundwater Directive (80/68/EEC) and 2006/118/EC
Energy Efficiency Directive