

This report was approved to go to the Board by Brian Meaney, Senior Inspector.

Gráinne O'Leary

Signed _____ Date: 09/06/2016



**OFFICE OF ENVIRONMENTAL
SUSTAINABILITY**

INSPECTOR'S REPORT ON A LICENCE APPLICATION

TO:	Director
FROM:	Ewa Babiarczyk Environmental Licensing Programme
DATE:	9 th June 2016
RE:	Application for a waste Licence from Mallow Contracts Limited in relation to a facility at Lissard & Ballyhilloge, Mourneabbey, County Cork, Licence Register W0266-01.

1 Application Details

Licence application received:	13 th February 2009
EIA Required:	Yes
Classes of activity under the Waste Management Act 1996 as amended.	R 10
Third party submissions:	Three submissions received.

2 Applicant and facility

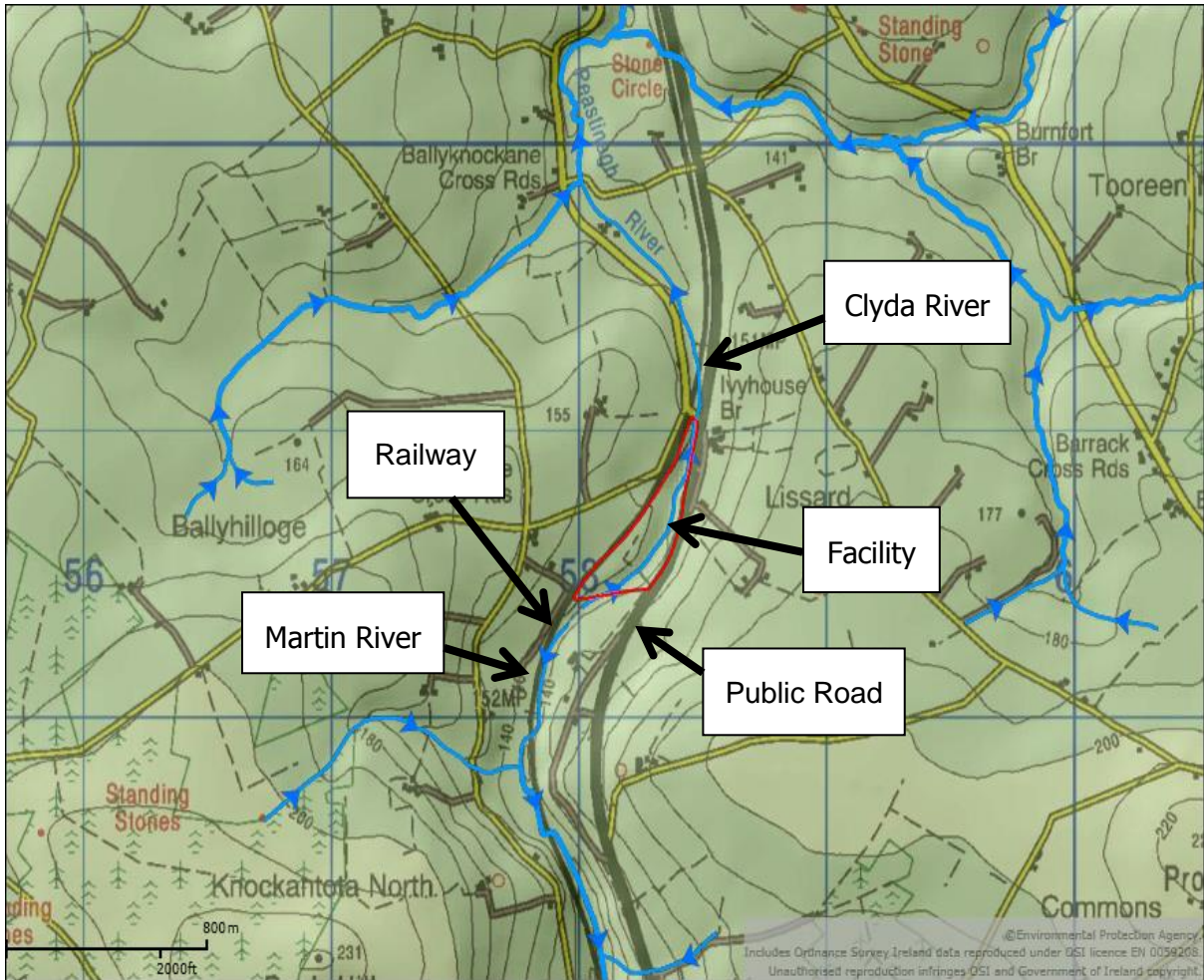
Applicant:	Mallow Contracts Limited.
Type of facility:	Recovery of waste soil and stone.
Existing or new development:	Existing site.
Main class of waste:	Waste natural soil and stone for filling of land.
Quantity of waste proposed to be managed:	<ul style="list-style-type: none">• 45,000 tonnes per annum soil and stone (200,000 tonnes over lifetime of the facility).• 5,000 tonnes per annum C&D waste for recovery (20,000 tonnes of C&D waste over lifetime of the

	facility, as authorised under a waste facility permit).
Waste activities applied for:	<ul style="list-style-type: none"> – Importation and stockpiling of soil and stone. – Use of soil and stone to fill the land. – Importation of C&D waste. – Use of larger stone and inert C&D waste (e.g. concrete) for construction of haul roads at the facility.
Waste activities recommended for authorisation in a waste licence:	<ul style="list-style-type: none"> – Restoration of site using waste already at the facility. – Importation of topsoil if needed for restoration. – Aftercare monitoring of the environmental impact of the facility.

3 Site and Operation Description

The facility is located in the narrow strip of land between the N20 main Cork/Mallow Road and a railway line at Lissard & Ballyhilloge, Mourneabbey, County Cork. There are two rivers that rise in the vicinity of the site, the Clyda 030 River (European Code IE_SW_18C020300) which flows north and is otherwise known as the Peastinagh River and the Martin 010 River (European Code IE_SW_19M010200) which flows south as shown on Figure 1.

Figure 1 Location of facility



Prior to the commencement of the operation, the site consisted of marshy ground towards the roadway and firmer ground towards the railway line. The purpose of the activity is to raise ground for agricultural use. The works have been progressing in 3 phases working from the north.

The site covers an area of approximately 2.8 hectares and includes the land for filling and site infrastructure (including the controller's cabin in a converted container, portable toilet area, lorry wash areas and a container for storage of equipment). There is no designated waste quarantine area and no sewerage system on site. There is a C&D waste area in the southern end of the site for segregating C&D waste into inert (e.g. stone) and non-inert fractions. This area is surfaced with stones and gravel. Water for the truck wheel wash and for domestic use at reception is supplied by pump from the Clyda River.

The applicant currently operates under a waste facility permit from Cork County Council (Waste Permit Reg. No. CK(N)277/05). This waste facility permit allows for recovery of soil and stone and construction & demolition waste (C&D) waste at the site. However records show that other waste types were also used for fill. Planning permission 06/10406 was granted in 2007 for the infilling of the low lying lands with topsoil, subsoil, rock fill and the acceptance of minor quantities of C&D material for the production of secondary aggregate to construct haul roads at the soil and stone fill area and for sale for agricultural purposes.

As part of the operation and to accommodate the activity, the applicant carried out engineering works on watercourses within the site, as shown on Figure 2 below. The works

comprised the covering with stone and terram of drains located in the northern and southern parts of the site and works at the Clyda River channel along the adjacent public road. Additionally, in order to increase drainage from the site, the applicant constructed a drain along the north-western site boundary which discharges to the Clyda River.

A site visit was undertaken on 16th May 2016 and a number of waste stockpiles were noted. Minor contamination in stockpiled waste including plastic, C&D and other waste is shown in the photos in Figure 3.

Figure 2 On-site water courses

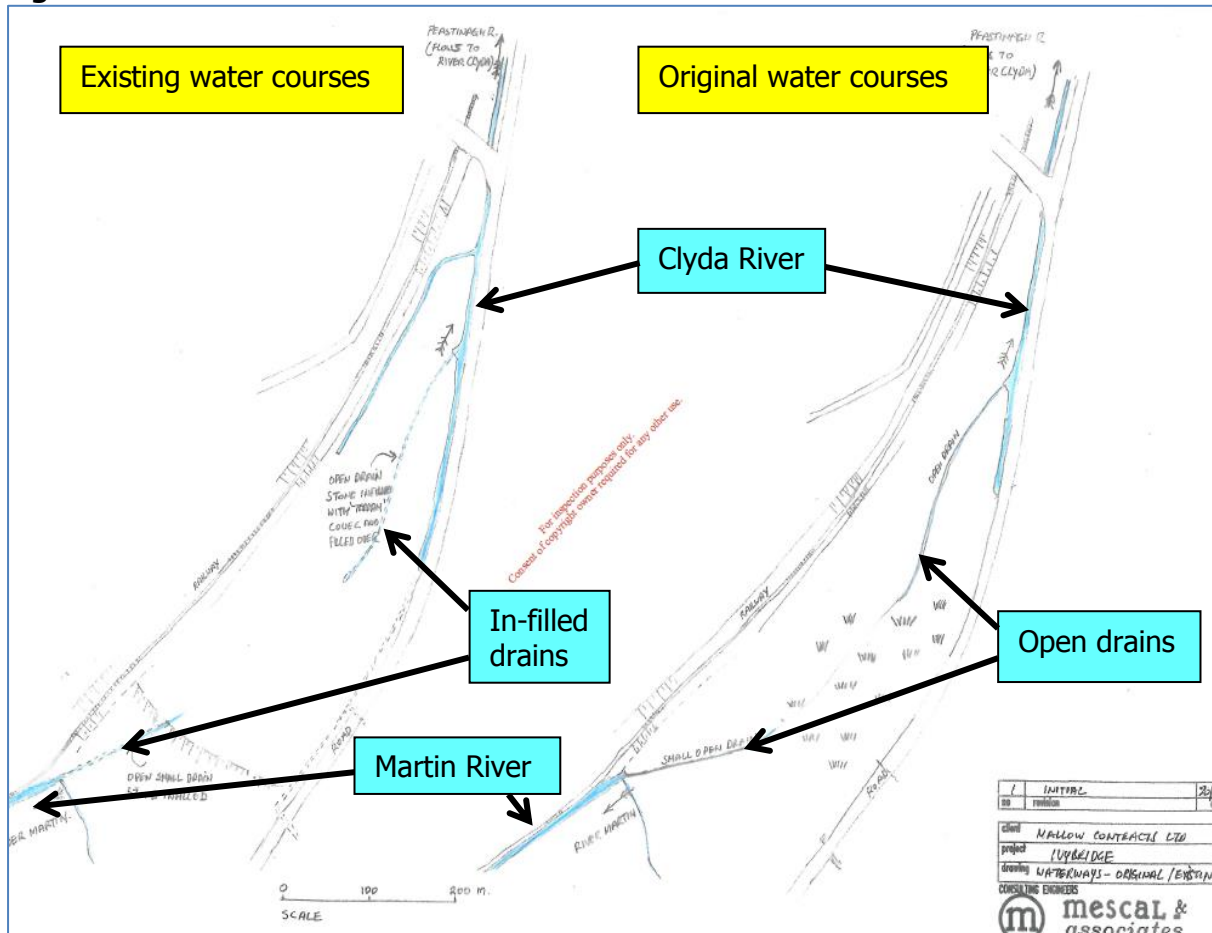


Figure 3 Photos taken on 16th May 2016 showing stockpiles of waste at the facility and examples of contamination of the waste





This licence application is for the acceptance of 200,000 tonnes of soil and stone and 20,000 tonnes of construction and demolition waste over the lifetime of the facility. Drawings provided with the licence application show a total volume of waste required for the three phases of restoration of the facility of 111,000m³, equating to a maximum 222,000 tonnes of waste (if a maximum conversion factor of 2 tonnes per m³ is used). Mallow Contracts Limited, according to annual environmental reports made to Cork County Council, accepted some 312,000 tonnes of waste in the period 2007 to 2015. See table below for details. This is more waste than originally envisaged to achieve the applied-for recovery objectives.

Table 1 Waste acceptance 2007-2015

Year	List of waste code	Description	Total waste accepted (tonnes)
2007	17 05 04	Soil and stone	26,984
	17 01 07	C&D waste	6,900
2008	17 05 04	Soil and stone	44,752
	17 01 07	C&D waste	5,557
2009	17 05 04	Soil and stone	27,543
	17 01 07	C&D waste	3,432
2010	17 05 04	Soil and stone	18,700
	17 01 07	C&D waste	1,571
2011	17 05 04	Soil and stone	18,592
	17 01 07	C&D waste	854
2012	17 05 04	Soil and stone	34,065

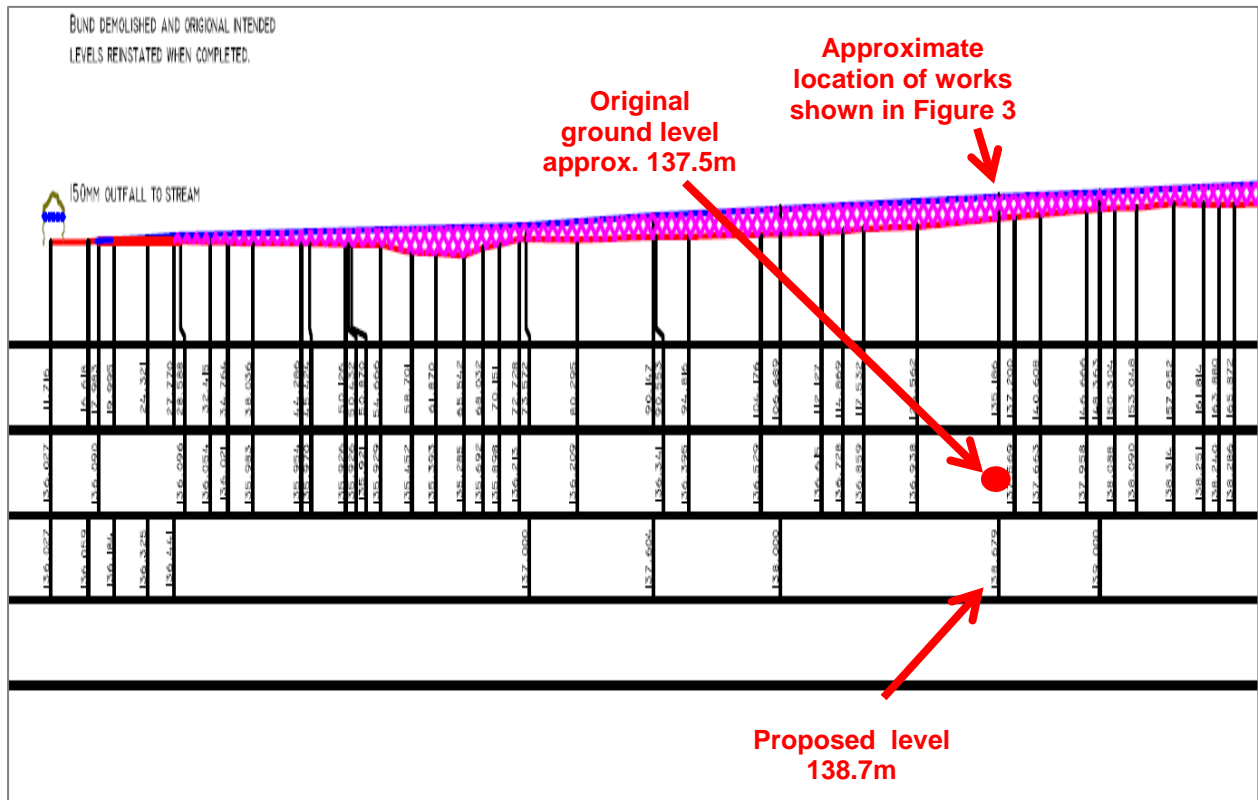
	17 01 07	C&D waste	1,935
2013	17 05 04	Soil and stone	16,829
	17 01 07	C&D waste	5,770
2014	17 05 04	Soil and stone	46,923
	17 01 07	C&D waste	17,748
2015	17 05 04	Soil and stone	17,577
	17 01 07	C&D waste	16,447
TOTAL			312,179

Figure 4 below shows a photo taken in May 2016 of a steep bank of waste an estimated 5 to 6 metres high. By way of contrast, Figure 5 shows a screenshot of part of a drawing provided by the applicant in 2009 that is approximately the same area of land as shown in the photo in Figure 4. The drawing illustrates the applicant's intention as of 2009 for the restoration of the land within the facility and shows that a maximum depth of fill of 1.2 metres was envisaged in this area. The steep bank shown in Figure 4 is incongruous with the drawing. In fact, the maximum depth of fill envisaged at any part of the facility as a whole, based on the provided drawings, was up to 4 metres.

Figure 4 Photo taken on 16th May 2016 showing a bank some 5 to 6 metres high



Figure 5 Screenshot of profile/topographical drawing provided with the application showing a proposed fill depth in this area of up to 1.2 metre



Given that it is evident that the applicant has taken in more waste than originally envisaged to complete the planned reclamation of the land, and that there is evidently enough material at the facility to complete the works as proposed, the Recommended Decision (RD) prohibits the further acceptance of waste at the facility, other than topsoil as required to complete the capping of the land reclamation works. The RD requires completion of reclamation works in accordance with the original plans for the facility and the closure, restoration and aftercare management plan to be prepared under this licence.

4 Planning Permission, EIS and EIA Requirements

4.1 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 has requested an EIS and is carrying out an assessment for the purposes of EIA.

The EIS was requested by the Agency on the 28 February 2014 and it was subsequently submitted by the applicant in support of this waste licence application on 9 June 2014.

4.2 Planning Status

One planning application has been made by the applicant for the site of the activity. Details of this planning application and permission have been provided in the application form.

Cork County Council did not require an Environmental Impact Statement (EIS) in support of the planning application for this site.

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

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

4.3 Content of the EIS and the licence application

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

It was considered that the EIS and the licence application did not adequately address the following areas and this information was requested under Regulation 14(2)(b)(ii) and Regulation 16(i) of the Waste Management (Licensing) Regulations 2004 as amended:

1. Site plan and profile.
2. Drainage system.
3. Classes of activity.
4. Compliance with requirements for Fit and Proper Person.
5. Emissions/discharges from the activity and associated monitoring.
6. Impact on aquifer and on surface water courses
7. Engineering works on water courses.
8. Mitigation measures to prevent noise.
9. Closure, restoration, remediation or aftercare of the facility.
10. Appropriate Assessment.
11. Impact on cultural heritage and inter-relationship of impacts of the activity.
12. Alternatives to the proposals contained in the application.
13. Compliance with waste hierarchy.
14. Applicability of the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000).
15. Applicability of Council Directive 80/68/EEC on groundwater.
16. Applicability of Industrial Emissions Directive (2010/75/EU).

On receipt of further information under Regulation 14(2)(b) and Regulation 16(i) of the Waste Management (Licensing) Regulations 2004, as amended, all of the documentation received was examined and 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 as amended.

I consider the issues that interact with the matters that were considered by the above authorities and which relate to the activity in Section 13 of this report.

Having considered the application and EIS, the submissions of state and public authorities, and the matters resulting from the planning authority decision, I consider that the likely significant effects of the activity on the environment are as set out in Section 13 below.

4.4 Consultation with Competent Authorities

Consultation was carried out between Cork County Council and the Agency as follows:

Table 1 Correspondence with the planning authority

Notice	Description
<p>Notice under Article 18(1) of the Waste Management (Licensing) Regulations 2004 as amended.</p> <p>Issued: 19 February 2009.</p>	<p>Notice to Cork County Council that a waste licence application has been received and inviting submissions on same.</p> <p>No response received to the notice under Article 18(1).</p>
<p>Notice under Section 42(1I)(e)(i) of the Waste Management Act 1996 as amended.</p> <p>Issued: 14 June 2014</p>	<p>Notice to Planning Department of Cork County Council that an EIS has been received and inviting observations on same.</p> <p>Response received: 10th July 2014 (from Planning Department).</p>
<p>Notice under Section 42(1I)(e)(iii) of the Waste Management Act 1996 as amended.</p> <p>Issued: 23 September 2014</p>	<p>Further Consultation Notice to Planning Department of Cork County Council in relation to Planning Permission Ref 06/10406, convictions against the applicant, compliance with Fit and Proper Person requirements, complaints on the activity, Annual Environmental Reports (AERs), waste types deposited at the facility, groundwater monitoring, activities conducted on site, clarification of the Council's expectation regarding conditions relating to transport and the environmental impacts to be addressed by such a condition, observations in relation to reasons for the use of a 3 m depth of fill in order to achieve the stated development objective and the opinion of the Council whether the development objective can be</p>

	<p>achieved using a shallower fill.</p> <p>Response received: 10th October 2014 (from Planning Department), 14th October 2014 (from Environment Directorate) and 15th October 2014 (from Environment Directorate).</p>
--	---

Cork County Council raised the following issues in relation to the licence application and EIS:

The Council referred to the planning application file Ref No. 06/10406 and to waste facility permit CK(N) 277/05. The Council stated also that the Council is not in favour of the acceptance of hazardous waste at the facility, as requested by the applicant in the application, and waste generated from the mechanical treatment of wastes as it is not clear that such waste would be useful material for site engineering.

The Council requested also that conditions in relation to traffic movements to and from the site, which are in planning permission and waste facility permit, be included in the licence. Also the Council recommended that, prior to a decision being made on the application, the applicant should submit a topographical survey "in light of the transition from the site being authorized by way of a waste facility permit to it being now the subject of a waste licence application".

The Planning Department stated that planning permission 06/10406 is valid due to the fact that the works at the facility had commenced within the five year expiry date. The Planning Department stated also that they are not aware of any quarrying on site.

The Council is not aware of any convictions against the applicant and has no objections to the applicant being considered a "fit and proper person". The Council stated also that there was no record of any complaint being received by the Council in respect of the facility in the period of the existing waste facility permit. The Council attached copies of Annual Environmental Reports from years 2007 to 2013¹ and results of monitoring in the Peastinagh River. The Council also referred to the Agency's report on a joint inspection undertaken at the facility in March 2010 with Cork County Council.

Regarding the depth of fill required at the site, the Council referred to a report titled "Site assessment – Agricultural Benefit" was prepared by the applicant and submitted to the Council as part the waste facility permit application number CK (N) 277/05. The said report states that "the coverage proposed to the overall varies up to the order of 2.5 m" and that this should be adequate to ensure that the finished ground is not subject to extreme heaviness giving rise to poaching and difficulty in farming due to the subterranean wetness.

5 Submissions

Three submissions were received in respect of the licence application. Two from the Health Service Executive (HSE) and one from the Department of Agriculture, Food and the Marine.

¹ The Council later provided AERs for the years 2014 and 2015.

Submission No. 1 received from HSE on 16 April 2009

The HSE recommends the following:

- (i) suitable pest control measures should be adopted during the operational phase, and,
- (ii) adequate facilities to be in place on-site to ensure the health and hygiene of all employees, such as proper sanitary and cleaning facilities and first aid equipment.

Response

Due to the fact that no putrescible waste will be accepted at the facility, it is not expected that pests will be attracted to the site. Nevertheless, Condition 5.5 requires that the licensee shall ensure that pests do not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary and that any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

The matter of employee hygiene lies outside the remit of the Agency. Condition 9.1 requires a documented Accident Prevention Procedure in place that addresses any hazards on-site.

Submission No. 2 received from HSE on 24 July 2014

The HSE noted that sampling has been carried out on two wells in the vicinity of the site. The HSE recommends, due to the high vulnerability of the local aquifer, further microbiological and chemical testing of the wells.

Response

Schedule C.5 requires groundwater monitoring for wide range of chemical substances and Total and Faecal Coliforms.

Submission No. 3 received from Department of Agriculture Food and the Marine on 13 March 2015

The submission states that the Department of Agriculture Food and the Marine has no submissions or observations on this licence application.

Response

The submission was noted.

6 Best Available Techniques (BAT)

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 fill activities at this facility.

I have examined and assessed the application documentation and I am satisfied that the technologies and techniques, as specified in the application, and as confirmed, modified or specified in the RD will ensure that the relevant requirements of BAT as stipulated in the above documents will be applied at the facility. These include the development of an Environmental Management System, emissions control and monitoring, management of storm water, monitoring of water quality and CRAMP. In addition, I consider that the proposed activities, as described 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 location of the facility and to the way in which it is designed, built, managed, maintained, operated and decommissioned.

7 Waste Acceptance

It is recommended that no waste other than topsoil for capping purposes is authorised to be accepted at the facility.

8 Emissions

8.1 Emissions to Air

There will be no point source emissions to air. Restoration activities at the facility, as specified in the RD, may lead to fugitive dust emissions. Condition 6.9 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 quarterly monitoring of ambient dust deposition.

8.2 Emissions to Sewer

There are no emissions to sewer.

There are no sanitary facilities on the site with the exception of a portable toilet.

8.3 Emissions to ground/groundwater

The underlying aquifer is 'poor aquifer, generally unproductive' (Pu). The vulnerability of this aquifer is high to extreme which is due to limited cover/overburden.

The applicant sampled groundwater at two off-site locations, to the north and south of the facility, in 2014. The sampling detected the presence of, among other substances, arsenic, chromium, copper cyanide, fluoride, lead, nickel and zinc. However, the two sampling locations are not located downgradient or upgradient of the facility therefore, the associated sampling results are not considered to be representative of actual groundwater quality beneath the site or the facility's impact on groundwater. Schedule C.5 *Groundwater monitoring* requires groundwater monitoring for a wide range of parameters, including the parameters detected during the applicant's monitoring, at one upgradient location and two downgradient locations. Given that the centre of the facility represents a low-lying marshy area and the source of the Clyda and Martin rivers, it may be that representative "downgradient" samples of groundwater will have to be obtained from an area directly beneath the existing fill.

It is evident from EPA and Cork County Council records that fines from the mechanical treatment of waste were deposited at the facility albeit in relatively small quantities. It is also apparent from other documents (see Section 8.4) that other non-inert wastes were accepted at the facility. This is inappropriate in an unlined facility and may have resulted in groundwater contamination. It is also evident from annual environmental reports that large quantities of mixed construction and demolition waste (17 01 07) were deposited in accordance with the waste facility permit (including for example, 5,500 tonnes in 2008, 1,935 tonnes in 2012 and 5,770 tonnes in 2013). The groundwater monitoring required in Schedule C.5 of the RD will identify any contamination of groundwater. Condition 6.17.4 sets out the necessary actions in the event of failure to demonstrate compliance with the Environmental Objectives Groundwater Regulations.

8.4 Emissions to Surface Waters

There will be no process emissions to surface waters from the facility.

It is apparent that there were emissions of environmental significance to surface water from the facility in the past. A report provided to the Agency by Cork County Council, originating from the applicant's agent, discusses a hydrogen sulphide smell in the Peastinagh (Clyda) River as it emerges from the fill. The source is attributed to fragments of gypsum in the solid waste. Analysis showed low BOD and sulphate levels in the water. Leachate testing of deposited waste showed high levels of BOD and sulphate indicating the presence of organic matter. In order to determine surface water quality in both the Clyda and Martin Rivers, Schedule C.3 of the RD proposes that the licensee will carry out bi-annual ambient monitoring. Condition 6.18.3 sets out the necessary actions in the event of failure to demonstrate compliance with the Environmental Objectives Surface Waters Regulations.

8.5 Storm Water Runoff

The stormwater arising from the southern, active, part of the site discharges at SW1 to a drain that discharges into the Martin River. The northern part of the site is complete and grassed. There is free surface water run-off from this area into the Clyda River.

Schedule C.6 specifies the monitoring requirements for storm water discharges to the Martin River (SW1). Condition 3.13 requires silt traps and oil separators at the facility for all paved areas and Condition 5.7 prohibits the discharge of contaminated storm water from the facility.

8.6 Noise

Activities at the facility have the potential to generate noise. Condition 6.9 requires that measures are taken at the facility to control noise emissions. In addition, the RD sets noise limits and Condition 6.10 requires a noise survey to be carried out as required by the Agency and in accordance with Agency guidance.

8.7 Nuisance

Given the nature of the activities at the facility, there is potential for nuisance other than noise. Condition 5.5 of the RD includes requirements to ensure that nuisance associated with vermin, pests, mud, dust and litter is not generated. The facility is required to operate a wheel cleaner for all vehicles leaving the facility (Condition 3.7 of the RD).

9 Use of Resources

Raw materials used on site are diesel for plant (25 tonnes per annum) and lubrication oil for plant (0.5 tonnes per annum). None of these materials are stored within the site.

10 Closure, Restoration and Aftercare

Condition 10.2.1 of the RD requires the licensee to submit a Closure, Restoration and Aftercare Management Plan (CRAMP) within three months of grant of the licence. The Plan will set out the manner in which the site will be restored in accordance with the original design for the facility as well as its subsequent aftercare.

11 Waste Management Plan and National Policy

The Southern Region Waste Management Plan states that soil and stone comprised the majority (more than two-thirds) of all construction and demolition waste arising in the Region in 2012. The Plan recognises there are signs of recovery in construction and this will lead to a greater demand for outlets for soil and stone. The Plan quantifies the amount of capacity as “pending” (i.e. awaiting authorisation) at 1,648,700 tonnes.

12 Compliance with Directives/Regulations

The RD as drafted takes account of the requirements of the following relevant Directives/Regulations:

Directive/Regulation	Comment
Water Framework Directive	See Sections 8.3, 8.4 and 8.5 above for detail.
Environmental Liabilities Directive	See Section 15 below for detail.
Waste Framework Directive	The RD implements the requirements of Articles 13 and 23 of the Waste Framework Directive with regard to waste activities.

13 Environmental Impact Assessment Directive (85/337/EEC)

The following section identifies, describes and assesses 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 factors: human beings, flora, fauna, soil, water, air, climate, the landscape, material assets and cultural heritage.

The main mitigation measures proposed to address the range of predicted significant impacts arising from the activity have also been outlined. The cumulative impacts with other developments in the vicinity of the activity have also been considered, as regards the impacts of emissions from the activities. This section must be read in conjunction with the analysis carried out in all sections of this report.

Assessment of effects

13.1 Human Beings

Likely significant effect	Description of effect	Assessment addressed in section:
Traffic	Traffic and its associated emissions, risks and disamenity effects.	13.1.1
Impact on air quality	Emissions of dust.	13.5.1
Noise	Disamenity from noise emissions	13.1.2

	due to licensed activities.	
Accidents	Emissions to the local atmosphere, ground and water bodies.	13.1.3

Assessment of Effects on Human Beings

13.1.1 Traffic

The facility is located at a busy road. Accordingly, it is not expected that noise from vehicles associated with the activity will have a significant impact on the surrounding environment. However, transport of topsoil is likely to create dust nuisance and potentially escape of waste onto roadways on the approaches to the facility. The impact of traffic as it moves outside of the facility boundary is a matter for the planning authority and permission was granted for this activity in 2007.

There is a risk of dirty vehicles tracking dirt from the facility onto the public road.

Mitigation Measures

The RD requires use of a wheel cleaner (Condition 3.7). Planning permission 06/10406 does not specify of hours of operation for the facility but it does limit the number of permissible vehicle movements. Waste facility permit specifies hours of waste acceptance and these hours are set in Condition 1.7 as the hours of operation and waste dispatch. The potential traffic impact will be limited to those hours. The licence also requires that the licensee keep clean the environs of the facility.

Conclusion

Based on the above assessment and the mitigation measures in place and as regards matters that come within the functions of the Agency, I am satisfied that the likelihood of a negative impact as a result of traffic connected with the facility is not significant.

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

13.1.2 Noise

Vehicles and machines operating at the facility give potential for noise emissions, however it is not expected that the noise associated with the activity will have a significant impact on the surrounding environment due to the fact that the facility is located at a busy road. The nearest sensitive receptor is 60 m from the facility boundary. The noise impact assessment completed by the applicant predicted that noise levels from the proposed activity will not exceed 55dB(A).

Mitigation Measures

The RD requires the licensee to carry out a noise survey if so directed by the Agency. Schedule B.3 *Noise Emissions* of the RD includes limit values for emissions during day, evening and night time hours. The noise emission limit value during daytime hours is 55dB $L_{Ar,T, 30 \text{ min}}$.

Conclusion

Based on the assessment carried out and the mitigation measures in place, I am satisfied that the likelihood of a negative impact as a result of noise emissions connected with the facility is not significant.

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

13.1.3 Accidents

Due to the non-hazardous nature of the waste that has been accepted at the facility, the risk of adverse effects on human beings and the environment as a result of an accident is low.

The accidental release of silt or other solid material to watercourses could impact on water quality downstream.

The risk of groundwater pollution being caused under the conditions of the licence is low due to the fact that no hazardous substances, such as fuel or lubrication oil, are stored at the facility.

The risk of fire is low due to the absence of flammable waste at the facility.

Mitigation measures

The RD requires the licensee to:

- 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 2.2.2.8); and
- implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled (Condition 2.2.2.5).

Conclusion

Based on the mitigation measures in place, I am satisfied that the likelihood of an accident connected with the facility is low.

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

13.2 Flora and Fauna

Likely significant effect	Description of effect	Assessment addressed
---------------------------	-----------------------	----------------------

		in section:
Impact on local habitat and flora and fauna in the area.	Removal and filling over any existing plants and habitats at the facility.	13.2.1
Accidents	Emissions to the local atmosphere, ground and water bodies.	13.1.3

Assessment of Effects on Flora and Fauna

13.2.1 Flora and fauna.

Waste activities at the facility have been ongoing for many years and are now nearing completion. There is no significant habitat remaining to be removed and filled over. The site development had some negative impact on fauna, such as mammals and birds, but this impact was lessened by the maintenance of the most part of the boundary treelines and scrub at the site.

The development resulted in the loss of some areas of habitat, such as wet grassland, improved grassland and very small areas of hedgerow and scrub, from the site. A watercourse/drainage ditch was also diverted to a newly created man-made drainage ditch on the site. The majority of the habitats at the site can be considered to be of moderate or low local ecological value and no habitat which is considered to be of high ecological value has existed at the site. Whilst the construction of any facility can displace existing flora and fauna, an ecological assessment of the potential impacts on flora and fauna on and near the site concluded that the activity will not negatively impact on flora and fauna because the site and the local area is not designated as of ecological interest.

The potential impact on European sites is addressed in Section 14 of this report.

Mitigation Measures

The RD requires the licensee to:

- Monitor groundwater quality beneath and dust emissions from the facility (Schedule C);
- Establish and maintain a fully detailed and costed plan for the closure, restoration and aftercare of the facility (Condition 10.2); and
- Establish and maintain an invasive species prevention and eradication plan, to cover at least, Japanese Knotweed, Giant Knotweed and any other relevant invasive species. (Condition 2.2.2.10).

Conclusion

Based on the ecological assessment carried out and the mitigation measures in place, I am satisfied that the likelihood of a negative impact on flora and fauna is not significant.

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

13.3 Soil

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on soil.	Accidental spillage or discharge to ground due to the deposition of contaminated soil.	13.3.1
Accidents.	Emissions to the local atmosphere, ground and water bodies.	13.1.3

Assessment of Effects on Soil

13.3.1 Soil

Operations at the facility could have an impact on soil due to the potential for spillage of fuel and oil.

In the event that contaminated soil and stone entered the facility, contamination of soil deposited at the facility and the soil and geology beneath the facility could occur.

Mitigation Measures

Condition 3.11 includes requirements for safe storage of materials used on site.

Condition 8.6 requires that all vehicle and machinery refuelling and maintenance operations shall be carried out in designated areas protected against spillage and run-off.

Condition 9 requires an accident prevention policy and emergency response procedure.

Based on the assessment carried out and the mitigation measures in place, I am satisfied that the likelihood of a negative impact on soil is not significant.

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

13.4 Water

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on surface water.	Contamination of surface water due to accidental discharge of contaminated storm water.	13.4.1
Impact on groundwater.	Contamination of groundwater due to accidental spillage or discharge to	13.4.1

	ground.	
Accidents	Emissions to the local atmosphere, ground and water bodies.	13.1.3

Assessment of Effects on Water

13.4.1 Surface water and groundwater

There are no process emissions to surface water or groundwater.

Rainwater run-off discharges to adjacent streams. Contaminated storm water run-off, caused for example by poor containment of sediment, could flow as an emission to surface water from the facility. Spillages or deposit of contaminated soil could result in contaminated water percolating to ground causing groundwater pollution.

The RD provides for the discharge of uncontaminated storm water from the facility.

Mitigation Measures

Condition 8.6 requires that refuelling of vehicle and machinery shall be carried out in designated areas protected against spillage and run-off.

Condition 3.9 requires the prevention of any discharge of contaminated water into surface water drains and courses and the collection/diversion of any contaminated run-off.

Condition 5.6 prohibits any direct or indirect emission to groundwater.

A programme of ambient groundwater and surface water monitoring set out in the RD will determine on an ongoing basis whether the facility is having an impact on local waterbodies.

See also Section 13.3, Soil.

Conclusion

Based on the mitigation measures in place, I am satisfied that the likelihood of a negative impact on surface water and groundwater is not significant and that the conditions of the licence will ensure that any existing contamination of surface water and groundwater will be identified and addressed.

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

13.5 Air

Likely significant effect	Description of effect	Assessment addressed in section:
Impact on air	Emissions of dust.	13.5.1
Accidents	Emissions to the local atmosphere, ground and water bodies.	13.1.3

13.5.1 Impact on Air Quality

Dust is the main potential emission to air that could affect air quality. There will be no odorous wastes accepted so there is no potential for odour emissions.

Mitigation Measures

The RD requires:

- that dust control measures are employed to minimise the emission of dust during dry periods (Conditions 6.9.2, 4.3, 5.5 and 6.11); and
- Schedule C.3 of the RD requires quarterly monitoring of dust deposition rates.

Conclusion

Based on the nature of the activity and the mitigation measures required by the RD, I am satisfied that the likelihood of a negative impact as a result of emissions to air connected with the facility is not significant.

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

13.6 Climate

Likely significant effect	Description of effect	Assessment addressed in section:
Release of climate altering substances.	Emission of greenhouse gases.	13.6.1

Assessment of Effects on Climate

13.6.1 Release of climate altering substances

Operation of vehicles and machines at the facility will generate exhaust gases with global warming potential.

Mitigation Measures

As the reclamation works are near completion, it is expected that vehicles and machines used in the deposition activity will soon cease operation.

Conclusion

Based on the nature of the activity and the mitigation measures in place, I am satisfied that the likelihood of a negative impact on climate as a result of emissions from the facility is not significant.

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

13.7 Landscape, Material Assets and Cultural Heritage

Likely significant effect	Description of effect	Assessment addressed in section:
Visual impact on nature of landscape.	No significant effect is predicted. No new structures are proposed. Activities will lead to eventual conversion of the site into agricultural land.	13.7.1
Impact on material assets and cultural heritage.	Potential for impact on local material assets (e.g. roads, road signage, power supply, housing) and archaeological artefacts. Potential for nuisance impact.	13.7.2

Assessment of Effects on Landscape, Material Assets and Cultural Heritage.

13.7.1 Visual impact on nature of landscape.

There are no locations or sites of heritage or scenic amenity in the area. A landscape and visual impact assessment was carried out and it was concluded that the development will not create a significant landscape and visual impact on the existing environment in terms of visual impact or compatibility of use.

Mitigation Measures

Condition 10.5 requires that the finished contours of the facility, post installation of the final capping, shall be as indicated in the drawings submitted in the application.

The grant of planning permission by Cork County Council requires that there shall be no change in the proposed (in the planning application) finished ground levels without the agreement of the planning authority.

Conclusion

Based on the proposed mitigation measures, I am satisfied that the likelihood of a negative visual impact as a result of activities at the facility is not significant.

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

13.7.2 Material assets and cultural heritage.

An assessment of material assets which includes land, local settlement, electricity supply, road network and water supply concluded that the proposed development will not result in any significant environmental impacts.

Due to the nature of the facility, there is minimal potential for previously unrecorded archaeological features or deposits arising.

The area is devoid of any archaeological heritage, architecture or monuments. Also there are no renewable resources in the marshy soil in the area.

Mitigation Measures

The RD requires nuisance monitoring. This requirement should ensure residential quality in the area is maintained. Good on-site practices will ensure that the quality of the rivers is not affected by the activity.

Conclusion

Based on the proposed mitigation measures in place, I am satisfied that the likelihood of a negative impact on material assets and cultural heritage is not significant.

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

13.8 Interaction of effects

I have considered the interaction between the factors referred to in Tables 13.1 to 13.7 above and the interaction of the likely effects identified.

The interaction between factors as a results of the operation of the facility are summarised in Figure 6.

Figure 1 Interaction of effects.

	Human beings	Flora and fauna	Soil	Water	Air	Climate	Material assets, landscape, visual impact and cultural heritage
Human beings		✓	✓	✓	✓	✓	✓
Flora and fauna	✓		✓	✓			✓
Soil	✓	✓		✓			✓
Water		✓	✓				✓
Air		✓				✓	✓
Climate	✓	✓					

Based on the assessment in parts 13.1 to 13.7 above, 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.

13.9 Reasoned Conclusion on Environmental Impact Assessment

Having regard to the impacts (and interactions) identified, described and assessed above, 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 as a whole, and the risk of them occurring is not unacceptable.

14 Appropriate Assessment

The stormwater from the northern, complete and fully grassed, part of the facility drains freely down the site slope into the Clyda River which is a tributary of the Blackwater River. From a point 1 km downstream of the site, the Clyda River is designated as part of the Blackwater River (Cork/Waterford) Special Area of Conservation (SAC) (Site Code: 002170).

The Blackwater River (Cork/Waterford) SAC (Site Code: 002170) consists of the freshwater stretches of the River Blackwater as far upstream as Ballydesmond, the tidal stretches as far as Youghal Harbour and many tributaries.

The stormwater arising from the southern, active, part of the facility discharges into a spring which forms the beginning of the River Martin. There are two European Sites located 35 km and 40 km downstream of the discharge from the facility into the Martin River, respectively, Cork Harbour SPA (Site code: 004030) and Great Island Channel SAC (Site code: 001058). However, it is regarded that these European Sites are not within the zone of influence of the discharge from the facility.

The Clyda and Martin Rivers are currently assigned 'Good' water quality status under the Water Framework Directive. Stormwater has been discharging from the facility since 2007 and the good water quality of these rivers has not been adversely impacted.

Appendix 2 lists Blackwater River (Cork/Waterford) SAC (Site Code: 002170) as the European Site assessed, its associated qualifying interests and conservation objectives along with the assessment of the effects of the activity on this European Site and the proposed mitigation measures.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Site at Blackwater River (Cork/Waterford) SAC (Site Code: 002170).

The activity is not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activity was required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination is based on the following reasons:

- The potential for waste activities to affect local hydrology and water quality, including filling surface water courses, namely the Martin and Peastinagh rivers with waste, possible discharge of sediment and other pollutants from the soil and stone fill and excavation of a new drainage channel to Peastinagh River; and,
- Close proximity (1 km) of the facility to the Blackwater River (Cork/Waterford) SAC (Site Code: 002170).

An Inspector's Appropriate Assessment has been completed and has determined, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activity, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular Blackwater River (Cork/Waterford) SAC (Site Code: 002170), having regard to its conservation objectives and will not affect the preservation of the site at favourable conservation status if carried out in accordance with the recommended determination and the conditions attached thereto for the following reasons:

- The activity will not result in damage to, or loss of, habitat in a European Site;
- There will be no process discharge from this facility to the European Site;
- Schedule B.3 and Schedule B.4 set out emission limit values for noise and dust deposition;

- Schedule C.2 and Schedule C.3 set out the monitoring requirements for both noise and dust deposition at the facility. These measures will prevent any significant disturbance of the European Sites;
- Condition 2.2.2.5 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach; and,
- Schedule C.3 sets out monitoring requirements for surface water bodies in close proximity to the facility to ensure that no environmental pollution is being caused.

In light of the foregoing reasons no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of the European Site at Blackwater River (Cork/Waterford) SAC (Site Code: 002170).

15 Fit & Proper Person Assessment

The 'fit and proper person' assessment requires three areas of examination:

i. Technical Ability

The application is concerned with an existing authorised waste facility that has been operated by the applicant since 2007.

ii. Legal Standing

The applicant, Mallow Contracts Limited, has not been convicted of any relevant offence.

iii. Financial Standing

Condition 10.2 of the RD requires the preparation of a Closure, Restoration and Aftercare Management Plan (CRAMP) within three 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 wastes have been deposited at the site, the environmental risk posed is low and restoration activities will cease, aftercare excepted, during 2017. A CRAMP on the other hand is recommended given that the licence if granted will regulate the closure, restoration and aftercare management of the facility.

Overall, having regard to the provision of Section 40(4)(d) of the Waste Management Act 1996, as amended, the applicant can be deemed a Fit and Proper Person for the purpose of this licence application.

16 Cross Office Liaison

In preparing this report and Recommended Decision, I consulted with:

- Ms. Deirdre French, technical adviser for matters relating to Appropriate Assessment.

17 Recommended Decision

The RD if granted as a waste licence will prohibit the acceptance of waste at the facility (other than topsoil if required for capping) and will require the restoration of the facility in accordance with the site design. The RD includes a wide range of conditions that will ensure good handling of wastes, the control and monitoring of dust, noise and stormwater emissions and the prevention of nuisance. Overall, I am satisfied that the conditions set out

in the RD will adequately address all emissions from the facility and will ensure that the carrying on of activities in accordance with the conditions of the RD will not cause environmental pollution.

18 Charges

An annual charge of €8,343 is specified in the RD which is based on the enforcement effort predicted for the facility.

19 Recommendation

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed



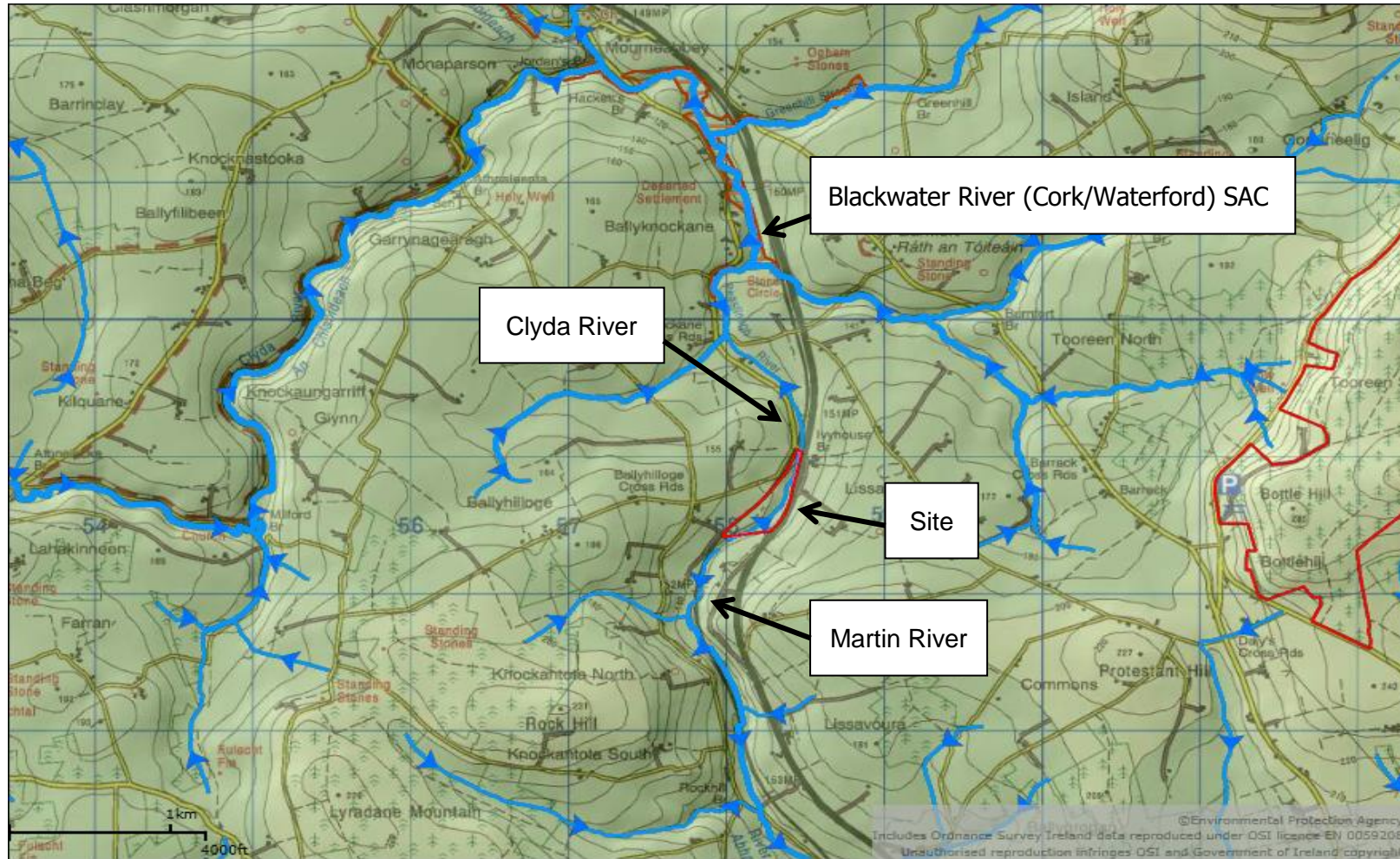
Ewa Babiarczyk
Inspector

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.

Appendix 1

Proximity of the facility to the designated site



Appendix 2

Table 1: Assessment of the effects of the activity on the Blackwater River (Cork/Waterford) SAC and proposed mitigation measures

European Site (site code)	Blackwater River (Cork/Waterford) SAC (Site code: 002170)	
Conservation objectives	As per NPWS (2012) Conservation objectives for Blackwater River (Cork/Waterford) SAC [002170]. Generic Version 1.0. Department of Arts, Heritage and the Gaeltacht (dated 31 July 2012).	
Distance and Direction from facility	1 km North downstream of the facility	
Qualifying interests (* indicates a priority habitat under the Habitats Directive)	Assessment	
Species (water dependent ^{Note 1}):	Emission to Water	
<ul style="list-style-type: none"> • Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> [1029] ^{Note 2} • White-clawed Crayfish <i>Austropotamobius pallipes</i> [1092] • Sea Lamprey <i>Petromyzon marinus</i> [1095] • Brook Lamprey <i>Lampetra planeri</i> [1096] • River Lamprey <i>Lampetra fluviatilis</i> [1099] • Twait Shad <i>Alosa fallax</i> [1103] 	<p>The facility is located within <i>Margaritifera</i> Catchment and there are <i>Margaritifera</i> locations within the SAC downstream of the facility. <i>Margaritifera</i> requires very good water quality.</p> <p>Any change in water quality has the potential to impact on water dependant habitats and species.</p> <p>The Water Framework Directive Status (2010-2012) shows that water quality in the Clyda River is good at the site and downstream of the facility.</p> <p>Conclusion:</p> <p>The discharge to the Clyda River is in a form of an overland flow which arises from a</p>	

<ul style="list-style-type: none"> • Atlantic Salmon <i>Salmo salar</i> (only in fresh water) [1106] • Otter <i>Lutra lutra</i> [1355] <p>Habitats (water dependent ^{Note 1}):</p> <ul style="list-style-type: none"> • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Perennial vegetation of stony banks [1220] • <i>Salicornia</i> and other annuals colonizing mud and sand [1310] • Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] • *Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] <p>Flora Species (water dependent ^{Note 1}):</p> <ul style="list-style-type: none"> • Killarney Fern <i>Trichomanes speciosum</i> 	<p>capped and grassed area of the site.</p> <p>Condition 2.2.2.5 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p><u>Emission to Air</u></p> <p>There is no point source emission to air associated with this facility.</p> <p>Dust is an emission associated with the activity.</p> <p>Conclusion:</p> <p>Dust deposition monitoring is required to demonstrate that dust deposition levels specified in the licence are not exceeded. Preventative and corrective measures are required to be put in place for an exceedance of dust deposition levels. Accordingly, there will be no risk of dust having an adverse effect on the integrity of the European Site.</p> <p>Condition 5.5 requires the licensee to ensure dust associated with the activity does not result in an impairment of, or interference with, amenities or the environment at the facility or beyond the facility boundary.</p> <p>Schedule C.3 requires dust deposition to be monitored quarterly. Schedule B.4 sets a dust deposition limit which the results of this monitoring should be under. Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.</p> <p>Condition 2.2.2.5 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>The above measures will protect the qualifying interests of the SAC from dust deposition associated with the activity; therefore, protecting the qualifying interests of the European sites.</p> <p><u>Noise Emissions</u></p>
--	---

[1421]

Habitats (not categorised as water dependant ^{Note 1}):

- Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]
- **Taxus baccata* woods of the British Isles [91J0]

Noise is an emission associated with the activity.

Conclusion:

Schedule C.2 requires noise monitoring at locations to be agreed with the Agency in order to demonstrate that noise levels are under the levels specified in the licence. Preventative and corrective measures are required to be put in place for an exceedance of noise levels at these locations. The risk of noise levels impacting the qualifying interests of the SAC is low.

Condition 6.9 requires the licensee to implement adequate measures for the control of noise from the facility.

Condition 4.2 requires noise from the facility not to give rise to sound pressure levels measured at the boundary of the facility which exceed limit values. Condition 5.3 requires no clearly audible tonal component or impulsive component in the noise emissions from the facility at noise sensitive locations.

Condition 6.10 and Schedule C.2 requires noise levels to be monitored. Schedule B.3 sets daytime, evening time and night time noise emission limits which the results of this monitoring should be under. Condition 9.3 requires an exceedance of an emission limit value to be reported as an incident.

Condition 2.2.2.5 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.

The above measures will protect the qualifying interests of the SAC from noise emissions associated with the activity; therefore, protecting the qualifying interests of the European sites.

Potential for Accidents to Arise

There is the potential for accidents and emergency situations arising at the facility resulting in partially treated or untreated storm water discharging to the receiving waters.

	<p>Conclusion:</p> <p>Condition 2.2.2.5 requires the licensee to implement procedures to ensure corrective and preventative action is taken should the specified requirements of the licence not be fulfilled to prevent a recurrence of the breach.</p> <p>Condition 9 requires the licensee to put in place a documented Accident Prevention Procedure and an Emergency Response Procedure.</p> <p>The above measures will protect the SAC from accidents associated with the activity; therefore, protecting the qualifying interests of this European site.</p>
--	--

Note 1: Environmental RTDI Programme 2000 - 2006. Water Framework Directive – Water Status: Identification and Ranking of Nature Conservation Designated Areas (2002-W-DS-10) Final Report.