



Certificate of Authorisation Application Form

Waste Management (Certification of Historic Unlicensed Waste
Disposal and Recovery Activity) Regulations, 2008

*For inspection purposes only.
Consent of copyright owner required for any other use.*

EPA Ref. N^o: <i>(Office use only)</i>	<input type="text"/>
--	----------------------

Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie Email: info@epa.ie

CONTENTS

CONTENTS2

APPLICATION GUIDANCE NOTES3

CHECKLIST5

SECTION A: NON-TECHNICAL SUMMARY9

SECTION B: GENERAL.....10

SECTION C: SITE DETAILS13

SECTION D: RISK ASSESSMENT.....16

SECTION E: APPROPRIATE ASSESSMENT17

SECTION F: DECLARATION.....19

SECTION G: JOINT DECLARATION.....20

For inspection purposes only.
Consent of copyright owner required for any other use.

APPLICATION GUIDANCE NOTES

This application must be completed in accordance the guidance notes below and the instructions accompanying each section of the application form.

This form is for the purpose of making an application for a Certificate of Authorisation in accordance with Regulation 7 (1) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008 (hereinafter referred to as 'the Regulations'). A valid application must, as a minimum, contain the information prescribed in Regulation 7(2) of the Regulations.

The applicant must conform to the format set out in this application form and accompanying instructions. Each page of the completed application form must be numbered, e.g. *page 5 of 20*, etc. The basic information should be supplied in the spaces given in the application form, with supporting documentation supplied as attachments, as specified. All sections of the form must be completed. Where a section is not relevant to the application, the words "not applicable" should be clearly written. The abbreviation "N/A" should not be used.

The Risk Assessment (required under Regulation 6(1) of the Regulations) shall be submitted in full as Attachment D.1 to this application form. Risk Assessments are to be carried out in accordance with the '*Code of Practice - Environmental Risk Assessment for Unregulated Waste Disposal Sites*' (hereinafter referred to as the Code of Practice).

All maps/drawings/plans must be no larger than A3 size and scaled appropriately such that they are clearly legible. In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

All drawings should

- be titled and dated;
- have a unique reference number and be signed by a clearly identifiable person; and
- indicate a scale and the direction of north.

Information supplied on this application, including supporting documentation, will be put on public display and open to inspection by any person. Should the applicant consider information to be confidential, this information should be submitted in a separate enclosure bearing the legend "In the event that this information is deemed not to be held as confidential, it must be returned to.....". In the event that information is considered to be of a confidential nature, then the nature of this information, and the reasons why it is considered confidential (with reference to the "Access to Information on the Environment" Regulations) should be stated in the Application Form, where relevant.

An original signed application form shall be submitted together with 1 copy, including (Risk Assessment, Screening for Appropriate Assessment (or a Natura Impact Statement if required)). The application shall also be provided on 2 CD-ROMs in searchable PDF format (individual files should be no larger than 50MB in size).

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

This document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 (S.I. No. 524 of 2008).

*For inspection purposes only.
Consent of copyright owner required for any other use.*

CHECKLIST

Regulation 7(2) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008 sets out the information which must, in all cases, accompany an application for a Certificate of Authorisation. In order to ensure that the application fully complies with the legal requirements of Regulation 7(2) of the 2008 Regulations and the Code of Practice, all applicants should use the following checklist.

In each case, refer to the section or attachment number of your application which contains the information requested.

The following checklist will be applied to the application as detailed below:

Requirement of Regulations	Location in application form or attachment no.	Applicant	EPA
Article 7(2) (a)	Section C.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (b)	Section B.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (c)	Section C.4 and attachment C.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (d)	Section C.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (e)	Attachment C.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (f)	Section D and attachment D.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (g)	Section C.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Article 7(2) (h)	Section D and attachment D.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulation 7(2) (h) outlines the requirement for a risk assessment and the following checklists will be applied to the risk assessment, appropriate assessment screening or Natural Impact Statement and remediation strategy:

Tier 1 Risk Assessment:

Requirement	Section or attachment no.	Applicant	EPA
Conceptual site model.	Attachment D1 (Section 4 of report ref: MDR1552Rp0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Identification of conservation areas, foreshore areas or other relevant designations.	Attachment D1 (Figure 3.5 in report ref: MDR1552Rp0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPRs ¹ and SPR linkages: justified and scored.	Attachment D1 (Section 5 of report ref: MDR1552Rp0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tier 1 risk classification. Risk: Moderate Class B	Attachment D1 (Section 5 of report ref: MDR1552Rp0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Tier 2 Risk Assessment:

Requirement	Section or attachment no.	Applicant	EPA
Walk over survey checklist.	Attachment D1 (Appendix A of report ref: MDR1552Rp0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Justification for chosen site		<input checked="" type="checkbox"/>	<input type="checkbox"/>

¹ SPR = Source/Hazard – Pathway – Receptor.

Requirement	Section or attachment no.	Applicant	EPA
investigations (SI), SI methods and sampling strategies.	Attachment D2 (Section 4 of report ref: MGE0755RP0001)		
Justification for any SPR linkage not investigated as part of the SI.	Attachment D2 (Section 4 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Description of how the matrix was used.	Attachment D2 (Section 4 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SI result comparison against the requirements of the EC Environmental Objectives (Surface Waters) Regulations 2009.	Attachment D2 (Section 4 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SI result comparison against the requirements of the EC Environmental Objectives (Groundwater) Regulations 2010.	Attachment D2 (Sections 5.4.4 and 6.1.4 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SI result comparison against the guidance document ' <i>Guidance on the Authorisation of Discharges to Groundwater</i> ', EPA 2011.	Attachment D2 (Sections 5.4.3 and 6.1.3 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SI result comparison against the Department of the Environment publication on the ' <i>Protection of New Buildings and Occupants from Landfill Gas</i> ' (1994).	Attachment D2 (Sections 5.4.5 and 6.1.5 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Justification for any conclusions drawn from the comparison of SI results to current standards.	Attachment D2 (Sections 7 and 8 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comparison of SI results against each SPR linkage and justification for any conclusions drawn.	Attachment D2 (Section 7 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Justification for the risk ranking of each SPR linkage.	Attachment D2 (Section 7 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appropriate Assessment (AA):

Requirement	Section or attachment no.	Applicant	EPA
AA Stage 1 – Screening for Appropriate Assessment.	Attachment E1 (report ref: MGE0755RP0002)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Statement confirming the result of Stage 1 Screening, e.g. <i>"The screening assessment (Stage 1) undertaken demonstrated that the project is/is not likely to have significant effects on the European site(s) having regard to its conservation objectives"</i> .	Attachment E1 (report ref: MGE0755RP0002)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Requirement	Section or attachment no.	Applicant	EPA
AA Stage 2 – Natura Impact Statement.	Not applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Statement confirming the result of Stage 2 of the Appropriate Assessment, e.g. <i>"The assessment (Stage 2) demonstrates that the project will/will not adversely affect the integrity of the European site(s) having regard to its conservation objectives".</i>	Not applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Tier 3 Risk Assessment:

Requirement	Section or attachment no.	Applicant	EPA
Refined conceptual site model.	Attachment D2 (Section 7 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SPRs and SPR linkages: justified and scored.	Attachment D2 (Section 7 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tier 3 risk classification and justification. Risk: Moderate Class B	Attachment D2 (Section 7 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Generic Quantitative Risk Assessment (QRA)	Attachment D2 (Section 6 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Detailed QRA.	Attachment D3 (Winsac Report, Feb '19)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Justification for generic QRA/detailed QRA.	Attachments D2 and D3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Overall site risk evaluation.	Attachment D2 (Section 7 report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remediation Strategy:

Requirement	Section or attachment no.	Applicant	EPA
Description of remediation works.	Attachment D3 (Appendix 23 of the Winsac DQRA, Feb '19)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comparison of the proposed remediation works against the 'Landfill Restoration and Aftercare Manual', EPA 1999 and justification for any departure from the manual.	Attachment D2 (Section 8 of report ref: MGE0755RP0001) and Attachment D3 (Appendix 23 of the Winsac DQRA, Feb '19)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comparison of the proposed remediation works against the 'Landfill Site Design Manual', EPA 2000 and justification for any departure from the manual.	Attachment D2 (Section 8 of report ref: MGE0755RP0001) and Attachment D3 (Appendix 23 of the Winsac DQRA, Feb '19)		
Comparison of the proposed remediation works against the report on the 'Management of Low Levels of	Attachment D2 (Section 8 of report ref: MGE0755RP0001) and Attachment D3 (Appendix 23 of the Winsac DQRA, Feb '19)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Requirement	Section or attachment no.	Applicant	EPA
<i>Landfill Gas</i> , EPA 2011 and justification for any departure from the report.			
Demonstration of how the remediation works will allow for the completion of a validation report and the breakage of each SPR linkage.	Attachment D2 (Section 8 of report ref: MGE0755RP0001) and Attachment D3 (Appendix 12 and 23 of the Winsac DQRA, Feb '19)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Date on which the proposed remediation works are due to be completed: October 2020	Attachment D2 (Section 8 of report ref: MGE0755RP0001)		
Demonstration of how SPR linkages which have no remediation measures proposed will meet the requirements of a validation report.	Attachment D2 (Section 8 of report ref: MGE0755RP0001)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Date on which a completed validation report is proposed to be submitted to the Agency: December 2020.	Attachment D2 (Section 8 of report ref: MGE0755RP0001)		

Monitoring Programme:

Requirement	Section or attachment no.	Applicant	EPA
Identification of the parameters which require analysis and the related sampling plan for any on-going or long-term monitoring or assessment programme required to ensure the effectiveness of completed remediation measures.	Attachment D2 (Section 8 of report ref: MGE0755RP)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comparison of the proposed monitoring or assessment programme against the ' <i>Landfill Monitoring Manual</i> ', EPA 2003 and justification for any departure from the manual.	Attachment D2 (Section 8 of report ref: MGE0755RP)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Demonstration of how the proposed monitoring or assessment programme will confirm that the objectives of the remediation measures have been met.	Attachment D2 (Section 8 of report ref: MGE0755RP)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SECTION A: NON-TECHNICAL SUMMARY

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the site.

The following information must be included in the non-technical summary:

A description of:

- The site location.
- A brief history of the site, types and volumes of waste deposited, duration of disposal activities and date of cessation.
- The hydrogeology and ecology of the site and surrounding area, to include protected areas.
- Risk category of the site
- Actual and potential environmental impacts.
- Proposed remediation including timescale.

Supporting information should form **Attachment A.1**.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

SECTION B: GENERAL

B.1. Applicant's Details

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Name*:	Fingal County Council
Address:	County Hall, Main Street, Swords, County Dublin, K67 X8Y2
Tel:	01 890 5000
Fax:	
e-mail:	info@fingal.ie

*Full name and address of the local authority making the application.

Name and Address for Correspondence

Name*:	James Walls
Address:	Waste Infrastructure & Enforcement - Environment Department, County Hall, Main Street, Swords, County Dublin, K67 X8Y2
Tel:	01 890 5904
Fax:	
e-mail:	james.walls@fingal.ie

*This should be the name of the person nominated by the local authority for the purposes of this application.

Co-Applicant's Details

Name*:	Not applicable
Address:	
Tel:	
Fax:	
e-mail:	

*This should be the name of a local authority, other than the lead authority, where a site lies in more than one local authority functional area.

Name of Qualified Person

Site investigations must be supervised by a suitably qualified, trained and experienced person. Section 2.3 of the Code of Practice sets out the requirements in this regard, which should be observed by local authorities. The Code of Practice states that, notwithstanding the fact that a local authority will be in position to carry out much of the risk assessment using in-house resources, "a suitably qualified, trained and experienced person, who is a registered professional with chartered status (or equivalent) awarded by a relevant professional body, and who has successfully conducted risk assessments at other sites, should supervise the Site Investigations ... and be used to carry out the risk assessment." Please provide the name of the qualified person, in-house or external, used for this risk assessment.

Name:	Gareth McElhinney
Qualification:	B.E. (Civil)
Professional Body:	Engineers Ireland
Address:	RPS Consulting Engineers Ltd., Lyrr 2, IDA Business & Technology Park, Mervue, Galway, H91 H9CK
Tel:	091 400 200
Fax:	
e-mail:	gareth.mcelhinney@rpsgroup.com

Interest in Site

State whether the applicant(s) is the registered owner of the land (please check):

Landowner	<input type="checkbox"/>
Landowner (part)	<input type="checkbox"/>
Not Landowner	<input checked="" type="checkbox"/>

Provide the name and address of the current owner(s) and lessees of the land. An appropriately scaled drawing ($\leq A3$) outlining the land ownership should be included in **Attachment B.1**.

Name:	Malachy Clarke, Company Director
Address:	25 Merrion Square Dublin 2
Tel:	01 661 55 66
Fax:	
e-mail:	malachyclarke@gmail.com

Name:	Bernie Carroll, Company Director
Address:	25 Merrion Square
	Dublin 2
Tel:	01 661 55 66
Fax:	
e-mail:	

Name:	Winsac Ltd.
Address:	25 Merrion Square
	Dublin 2
Tel:	01 661 55 66
Fax:	
e-mail:	

Name:	
Address:	
Tel:	
Fax:	
e-mail:	

For inspection purposes only.
Consent of copyright owner required for any other use.

B.2. Fees

Appropriate Fee (€5,000) Included	Yes	No
	X	

SECTION C: SITE DETAILS

C.1. Site Location

Name:	Barnageeragh Landfill
Address*:	Barnageeragh Cove, Skerries, County Dublin
Tel:	Not applicable
Fax:	Not applicable
e-mail:	Not applicable

* Include any townland

Attachment C.1. should contain appropriately scaled drawings or maps ($\leq A3$) showing the site location in the context of its surroundings and clearly highlighting the site boundary.

C.2. Unauthorised Waste Sites Register (Section 22) – Site Boundary and Site Code

State that the site has been recorded on the online Section 22 Register at www.epa.ie/uwsr and that the boundary drawn of the site represents the full extent of the site.

Following the Tier 2 and Tier 3 site investigations, if the extent of the site is determined to be greater or less than that initially recorded in the Section 22 Register, then the boundary must be amended accordingly.

Finalised boundary entered in Section 22 Register?

Provide the unique code assigned to the site in the Section 22 Register

Site Code S22-0265

Provide a six-digit National Grid Reference for the site location

Grid Reference	723 131	E	760 830	N
----------------	---------	---	---------	---

Confirm the following waste details entered on the Section 22 Register:

- State which type of waste activity was carried out at the site (please check):

Disposal	<input checked="" type="checkbox"/>
Recovery	<input type="checkbox"/>

- State the principal waste type at the site (please check):

C&D	<input checked="" type="checkbox"/>
Industrial	<input type="checkbox"/>
Municipal	<input checked="" type="checkbox"/>
Pre 1977	<input type="checkbox"/>
Unknown	<input type="checkbox"/>

- State any additional waste types at the site (please check):

Agriculture	<input type="checkbox"/>
C&D	<input type="checkbox"/>
Dredged Soil	<input type="checkbox"/>
ELV/Scrap Metal	<input type="checkbox"/>
Hazardous	<input type="checkbox"/>
Industrial	<input type="checkbox"/>
Mining	<input type="checkbox"/>
Municipal	<input type="checkbox"/>
Municipal Sludge	<input type="checkbox"/>
Other	<input type="checkbox"/>

- State whether or not hazardous waste is present at the site (please check):

Present on site	<input checked="" type="checkbox"/>
Not present on site	<input type="checkbox"/>

- Estimate the total quantity of waste at the site (tonnes):

Total waste quantity at the site:	<u>44,516</u> tonnes
--	----------------------

- Provide the start date and end date of waste activities at the site:

Start date	1950s
End date	1983

C.3. Risk Category

State which Risk Category* the site belongs to (please check):

Class A (High)	<input type="checkbox"/>
Class B (Moderate)	<input checked="" type="checkbox"/>
Class C (Low)	<input type="checkbox"/>

*See Chapter 4, Code of Practice (as required under Section 6(2) of the Regulations)

C.4. Land Use

Provide details of the current use of the land on which the closed landfill is situate.

Attachment C.4. should detail this information or refer to the specific section of the risk assessment documentation where this information is contained.

C.5. Types and quantities of waste deposited

Provide details of the types and estimated quantities of waste deposited at the site.

Attachment C.5. should detail this information or refer to the specific section of the risk assessment documentation where this information is contained.

In addition, state whether the types and quantities of waste which have been recorded on the online Section 22 Register at www.epa.ie/uwsr represent the final estimated quantities at the site.

Following the Tier 2 and Tier 3 site investigations, if the type and quantities of waste are determined to be greater or less than that initially recorded in the Section 22 Register, then these quantities must be amended accordingly.

Finalised estimate of waste types and quantities entered in Section 22 Register	<input checked="" type="checkbox"/>
---	-------------------------------------



SECTION D: RISK ASSESSMENT

For sites which have been assigned risk category Class A (High Risk) or Class B (Moderate Risk) during the Tier 1 assessment, a full risk assessment (Tier 1, 2 and 3) must be carried out. Class C (Low Risk) sites must have, as a minimum, Tier 1 and exploratory Tier 2 assessments. All sections of the risk assessment must be included as part of this application, including any part of the Tier 1 assessment carried out using the EPA Section 22 Register risk assessment tool at www.epa.ie/uwsr.

For all sites, a proposal detailing necessary measures for remediation, risk attenuation and site restoration must be provided, and must as a minimum contain the following information:

- Details of all necessary measures proposed, including a statement of the impact of the remediation measures. Proposed measures must clearly address all risks identified in the revised Conceptual Site Model for the site. This should also include details of alternative measures considered and reasons for rejection of same, where applicable.
- Schedule for completion of the proposed necessary measures, including a timeframe for the submission of a validation report.
- Details of any ongoing or long-term monitoring or assessment programme which may be required to evaluate and ensure the effectiveness of the necessary measures as carried out.

Two copies of the risk assessment shall be submitted. The risk assessment shall also be provided on two CD-ROMs in searchable PDF format.

The Risk Assessment should be submitted as **Attachment D.1**.

SECTION E: APPROPRIATE ASSESSMENT

In addition to the foregoing, all sites (whether low, moderate or high risk) should be subject to screening for Appropriate Assessment in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). The results of any such screening should be submitted as part of this application. The screening should demonstrate whether the project is/is not likely, whether individually or in combination with other plans or projects, to have significant effects on any European Site or sites as defined in Regulation 2(1) of the Habitats Regulations (S.I. No. 477 of 2011) having regard to best scientific knowledge and its conservation objectives. Where, based on the Stage 1 screening, it is considered that an appropriate assessment *is not* required, a reasoned response should be provided.

Where screening has determined that an appropriate assessment *is* required, an appropriate assessment in accordance with Article 6(3) of the Habitats Directive (92/43/EEC) should be completed and a copy of the Natura Impact Statement submitted as part of this application. The assessment should consider the following impacts on any European Site(s):

1. The impact of the existing landfill on European sites;
2. The cumulative effects of the project combined with other plans or projects that might impact on the European site or sites;
3. An assessment of the implications of the project for the European site in view of the European site's conservation objectives;
4. The objectives of proposed remediation measures with regard to existing impacts identified in item 1;
5. The impact on the European site of any physical works carried out at the closed landfill as part of the remediation plan;
6. Details of any mitigation measures proposed at or in relation to the European site, including timeframes for the implementation and monitoring of the measures; and
7. Natura Impact Statement conclusion statement. The statement should conclude whether the project will or will not adversely affect the integrity of the European site(s) having regard to its conservation objectives.

While the appropriate assessment is subject to a separate report (the Natura Impact Statement), it should be carried out in tandem with the overall risk assessment. This is to ensure that a holistic approach is undertaken, whereby all relevant appropriate assessment and risk assessment parameters are addressed and to ensure that the remediation measures proposed address all risks identified.

Please refer to the guidance document '*Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities*', issued in 2009 by the Department of the Environment, Heritage and Local Government, and revised in 2010 with regard to this assessment. This document is available at: http://www.npws.ie/publications/archive/NPWS_2009_AA_Guidance.pdf.

Two copies of the screening report and, where relevant, the Natura Impact Statement shall be submitted. The screening report/Natura Impact Statement shall also be provided on two CD-ROMs in searchable PDF format (no larger than 50MB for each electronic file).

The Appropriate Assessment (screening and, where relevant, Natura Impact Statement) should be submitted as **Attachment E.1**.

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION F: DECLARATION

Declaration

I hereby make application for a Certificate of Authorisation pursuant to the provisions of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008 (S.I. No. 524 of 2008).

I certify that the information given in this application is truthful, accurate and complete and the enclosed Risk Assessment is a full and complete representation of all relevant work carried out in relation to the site in question.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA offices and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by : James Walls
(on behalf of the organisation)

Date : 7-08-2020

Print signature name: JAMES WALLS

Position in organisation: SENIOR EXECUTIVE ENGINEER

For inspection purposes only.
Consent of copyright owner required for any other use.

SECTION G: JOINT DECLARATION

Joint Declaration ^{Note1}

I hereby make application for a Certificate of Authorisation pursuant to the provisions of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008 (S.I. No. 524 of 2008).

I certify that the information given in this application is truthful, accurate and complete and the enclosed Risk Assessment is a full and complete representation of all relevant work carried out in relation to the site in question.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA offices and via the EPA's website.

This consent relates to this application itself and to any further information or submission whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Lead Authority

Signed by : _____ **Date :** _____
(on behalf of the organisation)

Print signature name: _____

Position in organisation: _____

Co-Applicants

Signed by : _____ **Date :** _____
(on behalf of the organisation)

Print signature name: _____

Position in organisation: _____

Signed by : _____ **Date :** _____
(on behalf of the organisation)

Print signature name: _____

Position in organisation: _____

Note 1: In the case of an application being lodged on behalf of more than one local authority the above declaration must be signed by all applicants.

Our ref: MGE0755LT0001

Lyrr 2, IDA Business &
Technology Park, Mervue
Galway, H91 H9CK
T +353 91 400 200

Date: 5 August 2020

Mr John Daly,
Senior Engineer,
Fingal County Council,
Waste Infrastructure & Enforcement - Environment Department,
County Hall,
Swords,
County Dublin K67 X8Y2

RE: Re: Risk assessment on an historic landfill in support of an application for a certificate of authorisation in accordance with regulation 7 of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008

Dear Mr Daly,

As a person who is qualified, trained and experienced to the standard set out in section 2.3 of *Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites* (EPA, 2007), it is my opinion that the risk assessment carried out by Fingal County Council in relation to a closed landfill at Barnageeragh, Skerries, County Dublin is adequate and complete. The risk assessment complies with all of the requirements of the Code of Practice. The local authority or its agent/contractor, in carrying out the risk assessment, has followed and completed the steps set out in the Code of Practice and associated guidance (Matrix 1 and Matrix 2 - as published).

The following items:

- The risk assessment,
- The findings and conclusions of the risk assessment,
- The remedial measures proposed, and
- The monitoring proposed to be carried out to demonstrate the effectiveness of the remedial measures,

are in my opinion, appropriate and adequate to:

- identify the instances and risks of environmental pollution arising from the closed landfill to which this application refers,
- proportionately address any and all such instances and risks of environmental pollution, and
- ensure that any future instances of environmental pollution will be detected in a timely manner.

Dublin | Cork | Galway | Sligo
rpsgroup.com

RPS Group Limited, registered in Ireland No. 91911
RPS Consulting Engineers Limited, registered in Ireland No. 161581
RPS Planning & Environment Limited, registered in Ireland No. 160191
RPS Engineering Services Limited, registered in Ireland No. 99795
The Registered office of each of the above companies is West Pier
Business Campus, Dun Laoghaire, Co. Dublin, A96 N6T7



Our ref: MGE0755LT0001

I have advised the local authority on the following aspects of this project or have carried out or managed the following aspects of the project on behalf of the local authority (tick the applicable bullet points):

- Tier 2 risk assessment
- Tier 3 risk assessment including GQRA (and DQRA as appropriate)
- Remedial measures
- Post-remediation monitoring programme
- None of these – my role has been to review the final outputs of the work.

Yours sincerely,
for RPS Consulting Engineers Limited



Gareth McElhinney
Technical Director - Environment & Marine
gareth.mcelhinney@rpsgroup.com
+353 91 400 212

cc: James Walls, Fingal County Council
Nathan Anderson, Fingal County Council
Brian Reynolds, Fingal County Council

Consistent with inspection purposes only.
Copyright owner required for any other use.



RPS Group Ltd
Lyrr Building
IDA Business & Technology Park
Mervue
Galway

18th July 2013

Re: Credentials in accordance with section 2.3 of Code of Practice: *Environmental Risk Assessment for Unregulated Waste Disposal Sites* (EPA, 2007)

Dear Mr McElhinney, Chartered Engineer, MIEI

Engineers Ireland is satisfied to state that you are a person who is qualified, trained and experienced to the standard set out in section 2.3 of *Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites* (EPA, 2007) and has achieved chartered status or equivalent.

This notice is valid for a period of two years from today's date.

Signed:

A handwritten signature in black ink that reads 'Aidan Harney'.

Aidan Harney

Continuing Professional Development (CPD) Director

Engineers Ireland

T:+353 (0)1 665 1314

aidanh@engineersireland.ie

BARNAGEERAGH LANDFILL CERTIFICATE OF AUTHORISATION APPLICATION

Attachments

EPA Site Registration Number: S22-0265



MGE0755RP0003
Barnageeragh Landfill CoA
Attachments
F01
05 August 2020

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	Final	Gareth McElhinney	Kieran Garvey	Gareth McElhinney	05 August 2020

Approval for issue

Gareth McElhinney  5 August 2020

© Copyright RPS Group Limited. All rights reserved.

The report has been prepared for the exclusive use of our client and unless otherwise agreed in writing by RPS Group Limited no other party may use, make use of or rely on the contents of this report.

The report has been compiled using the resources agreed with the client and in accordance with the scope of work agreed with the client. No liability is accepted by RPS Group Limited for any use of this report, other than the purpose for which it was prepared.

RPS Group Limited accepts no responsibility for any documents or information supplied to RPS Group Limited by others and no legal liability arising from the use by others of opinions or data contained in this report. It is expressly stated that no independent verification of any documents or information supplied by others has been made.

RPS Group Limited has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy.

No part of this report may be copied or reproduced, by any means, without the written permission of RPS Group Limited.

For inspection purposes only. Consent of copyright owner required for any other use.

Prepared by:

RPS

Gareth McElhinney
Technical Director - Environment & Marine

Lyrr 2, IDA Business & Technology Park, Mervue
Galway, H91 H9CK

T +353 91 400 200
E gareth.mcelhinney@rpsgroup.com

Prepared for:

Fingal County Council

James Walls
Senior Executive Engineer

County Hall, Main Street,
Swords, Co. Dublin, K67 X8Y2

T +353 18905904
E James.Walls@fingal.ie

Dublin | Cork | Galway | Sligo
rpsgroup.com

RPS Group Limited, registered in Ireland No. 91911
RPS Consulting Engineers Limited, registered in Ireland No. 161581
RPS Planning & Environment Limited, registered in Ireland No. 160191
RPS Engineering Services Limited, registered in Ireland No. 99795
The Registered office of each of the above companies is West Pier Business Campus, Dun Laoghaire, Co. Dublin, A96 N6T7



Contents

Attachment A1	Non-Technical Summary
Attachment B1	Land Ownership Maps
Attachment C1	Site Location Drawings
Attachment C4	Land Use
Attachment C5	Types and Quantities of Waste Deposited
Attachment D1	Tier 1 Environmental Risk Assessment
Attachment D2	Tier 2 and Tier 3 Environmental Risk Assessment
Attachment D3	Detailed Quantitative Risk Assessment (provided separately in soft-copy only)
Attachment E1	Screening for Appropriate Assessment

*For inspection purposes only.
Consent of copyright owner required for any other use.*

ATTACHMENT A1

Non-technical Summary

*For inspection purposes only.
Consent of copyright owner required for any other use.*

ATTACHMENT A1: NON-TECHNICAL SUMMARY

1.1 Introduction

RPS was commissioned by Fingal County Council (FCC) to undertake an Environmental Risk Assessment (ERA) for an unregulated waste disposal site in Barnageeragh to the north of the town of Skerries, Co. Dublin. The Barnageeragh Landfill is registered with the EPA under Section 22 of the Waste Management Act 1996, as amended, EPA registration number S22-02655.

Under the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008, S.I. No. 524 of 2008, an application to the Environmental Protection Agency (EPA) for a Certificate of Authorisation must be submitted to regularise the site.

The application for a Certificate can only be made by the relevant local authority (in this case FCCI) and must be supported by an environmental risk assessment carried out in accordance with the “Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites”, (EPA, 2007), hereafter the CoP. The ERA consists of the following reports:

- Tier 1 Environmental Risk Assessment (report ref: MDR1552RP0001, August 2019);
- Tier 2 and Tier 3 Environmental Risk Assessment (report ref: MGE0755RP0001, July 2020);
- Screening for Appropriate Assessment (report ref: MGE0755RP0002, July 2020); and
- Winsac Ltd. Residential Development, Barnageeragh Cove, Skerries, Phase II Site Investigation/ DQRA & Landfill Gas Survey, Final Report, (February, 2019).

1.2 Site Location and Overview

Barnageeragh Landfill is situated on a privately-owned site that has been partially developed. It is bounded to the north by Barnageeragh Road, to the east by Barnageeragh waste water treatment plan (WWTP), to the south by the Dublin-Belfast rail line and to the west by the Hamilton Hill housing estate. This subject site is approximately 1.4 hectares in area with the waste deposition area at approx. 0.8 hectares. The Irish Sea is approximately 400m north of the site. Refer to Attachment C1 for location maps.

The depth of waste varies across the site with the maximum depth of made/ground/ waste estimated to be approximately 10.5m below ground level (bgl) near the centre of the waste body. The type of waste present on-site is a mix of municipal and C&D waste. For description purposes the site is split into two areas, see Figure 0.1.

- Area 1 – The main landfill waste body.
- Area 2 – Made-ground.



Figure 0.1 Location of Types of Waste

1.3 A Brief History of the Site

An historic 6-inch colour map (1837 – 1842) shows that the site was originally agricultural land. The Dublin to Drogheda railway was under construction at this time. An historic 25-inch map (1888 – 1913) shows the completed railway line. There is limited information available on the uses of the land, particularly between 1913 and 1995. However, a 1988 survey, undertaken by Dublin County Council, recorded that tipping of household and commercial waste (which included material tipped by the Council) began at this site sometime around the mid-1950s and ended in 1983.

Aerial maps show that the access road directly to the site from the west was constructed by the year 2000. The maps also show the expansion of residential housing estates associated with Skerries toward the subject site. Aerial maps dated between 2005 and 2012 show that the WWTP had been constructed to the east of the subject site. They also show signs of further residential housing development to the north and north-east. Current maps show near completion of the residential housing estates to the north of the subject site with construction commencing on the Hamilton Hill estate, directly adjacent to the subject site.

The site was used as a compound during construction of new houses with storage facilities and vehicle movements evident from tracks. Building materials and excavated material have been deposited in the south east of the site. The total volume of waste estimated to be deposited at the site is 29,677m³ (44,516 tonnes using a factor of 1.5 t/m³) which includes both the made ground near the surface and the waste body buried on the site.

1.4 Hydrogeology and Ecology of the Site

1.4.1 Hydrogeology

The aquifer beneath the site and surrounding area is classified as a poor aquifer in bedrock which is generally unproductive, except for local zones and covering an area of 15km². The subsoil which has been described by GSI as glaciofluvial sands and gravels has a high permeability overlain by well-drained soil. The vulnerability level of this aquifer is classified as high. A zone of alluvium subsoil has low permeability and a moderate level of vulnerability.

Close to the site between approximately 0.8km and 1km to the WNW and SSW respectively there is a locally important aquifer classified as a karstified aquifer, which has zones of erosion, often in limestone rock, that has produced fissures, sinkholes and underground streams allowing for flow of groundwater.

According to the EPA, the status of the groundwater within the Dublin GWB located beneath the site and the surrounding area is classified as "Good Status" (EPA Catchments 2019).

There are no groundwater wells on the site (other than those from previous site investigations). According to GSI there are multiple wells/springs within the vicinity of the site. There are no Public Supply Source Protection Areas within the site, however the nearest is located approximately 2km south west of the site, called 'Bog of the Ring' covering an area of approx. 19.5km.

1.4.2 Ecology

Although there are no identifiable areas of protection on site, there are various locations nearby to be noted that are designated under national and European law (e.g. SACs and SPAs under the Habitats Directive). Figure 3.5 in Section 3 of the Tier 1 Environmental Risk Assessment report outlines all protected sites within a 15km radius according to the NPWS website (NPWS, June 2019).

The screening for AA report completed for the application for a certificate of authorisation (refer to Attachment E1) concludes that the Barnageeragh Landfill, either alone or in-combination with other plans and/or projects, will not have significant negative effects on the integrity of European Sites in light of their conservation objectives.

1.5 Risk Category

Based on the EPA Code of Practice (CoP), eleven Source-Pathway-Receptor (SPR) linkages were identified that were considered within the conceptual model and assessed as part of the Tier 1 Risk Assessment (refer to Attachment D1). Eight of the SPR linkages were scored as having Low Risk – Class C with SPR 10 and

SPR 11 (respectively, lateral and vertical migration of landfill gas to human presence) scored as Moderate Risk – Class B.

Further assessment of the SPR linkages was undertaken as presented in the Tier 2 and Tier 3 ERA (refer to Attachment D2). From this analysis, both SPR 10 and SPR 11 could be reduced to Low - Class C due to the very low flow rate of landfill gas. However, the analysis highlighted that SPR 8 leachate migration to surface water bodies should be increased from Low – Class C to Moderate – Class B due to the potential leaching of contaminants from the waste body into the groundwater which in turn connects to surface water stream, described further below.

1.6 Actual and Potential Environmental Impacts

Contamination of groundwater has been identified with the most significant contamination occurring under the main waste mass in the southern portion of the site. The groundwater quality is characterised by elevated concentrations of key inorganic parameters (ammonia, nitrite, chloride, sulphate, potassium, sodium, calcium and magnesium), the presence of metals at elevated concentrations including mercury and selenium, and the general absence of organic compounds. The area to the north of the waste mass is generally characterised by the presence of the same suite of site-specific contaminants of concern, albeit at substantially lower concentrations.

The SPR 8 linkage has increased from Low – Class C to Moderate – Class B due to the connectivity of leachate from the waste body to groundwater and then into surface waters. For this reason it is deemed necessary to remediate the site to break the pathway.

1.7 Recommended Remediation Option

The remediation measure deemed most suitable for Barnageeragh Landfill is the construction over the waste body of an engineered landfill cap for non-hazardous landfill as recommended in Chapter 10 of the EPA Landfill Site Design manual, 2000. This will stop the infiltration of rainwater through the waste mass and the leaching of contaminants into the groundwater. The landfill capping system is described in Section 8 of the Tier 2 and Tier 3 ERA (Attachment D2) and shall comprise the following:

- Regrading of the waste body;
- Landfill gas drainage geocomposite;
- Linear Low Density Polyethylene (LLDPE) liner;
- Surface water drainage geocomposite;
- A minimum of one metre thick soil layer comprising 850mm of clean subsoil overlain by 150mm clean topsoil; and
- In the area surrounding BH4 and BH9, the DQRA proposes that a biowindow/ passive venting area be constructed to oxidise the landfill gases. No LLDPE liner is to be constructed over this area.

It is not considered necessary to construct a landfill cap over the residential and grass area, as it is deemed to be at very low risk.

1.8 Timescale for Remediation

The developer, Winsac, commenced regrading works on-site in Q3 2020. This work has provided the surface over which the landfill capping system will be constructed.

It is proposed that the engineered landfill capping works will commence in August 2020 and be completed within 16 weeks.

Post-restoration monitoring has been recommended in Table 8.1 of the Tier 2 and Tier 3 Environmental Risk Assessment (Attachment D2). The frequency of monitoring should be reviewed after two years following an evaluation of the monitoring results.

ATTACHMENT B1

Land Ownership Maps

*For inspection purposes only.
Consent of copyright owner required for any other use.*

BARNAGEERAGH LANDFILL S22-0265

722826, 760791
Scale 1 : 2500
Location: Barnageeragh, Balrothery East, Dublin

Property Details

> Back

This plan (**Plan No. 10A**) comprises of commonage. See below for details of all folios linked to this plan.

DN124851F [View Folio PDF](#) [View On Map](#)

*PRA Boundaries and Plan Area **are not conclusive**. See [Section 62\(2\) of Registration of Title Act 2006](#) and [Rule 8\(3\) of the Land Registration Rules 2012](#).

[Print Current View](#)

[Help](#)

BARNAGEERAGH LANDFILL S22-0265

723140, 760869
 1 : 2500
 Barnageeragh
 Balrothery East
 Dublin

Property Details

> Back

Folio Number	DN153913F
Title Level	Freehold
Plan Number	C5445
Property Number	1
Area of selected plans	3.30 hectares.
Number of Plans on this folio:	3
Address	Not Available

View Folio PDF Request Certified Copy

The following Applications are Pending on this Folio

D2018LR165303E	Queried
D2019LR146776V	Mapping
D2019LR146824J	Awaiting Attention

*PRA Boundaries and Plan Area **are not conclusive**. See [Section 62\(2\) of Registration of Title Act 2006](#) and [Rule 8\(3\) of the Land Registration Rules 2012](#).

Print Current View

Help

ATTACHMENT C1

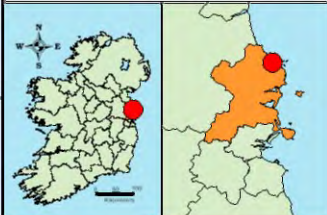
Site Location Drawings

*For inspection purposes only.
Consent of copyright owner required for any other use.*



Legend

 Site Location



Client
Fingal County Council

Project
Barnageeragh Historical Landfill

Title
Site Location

Figure 1.1



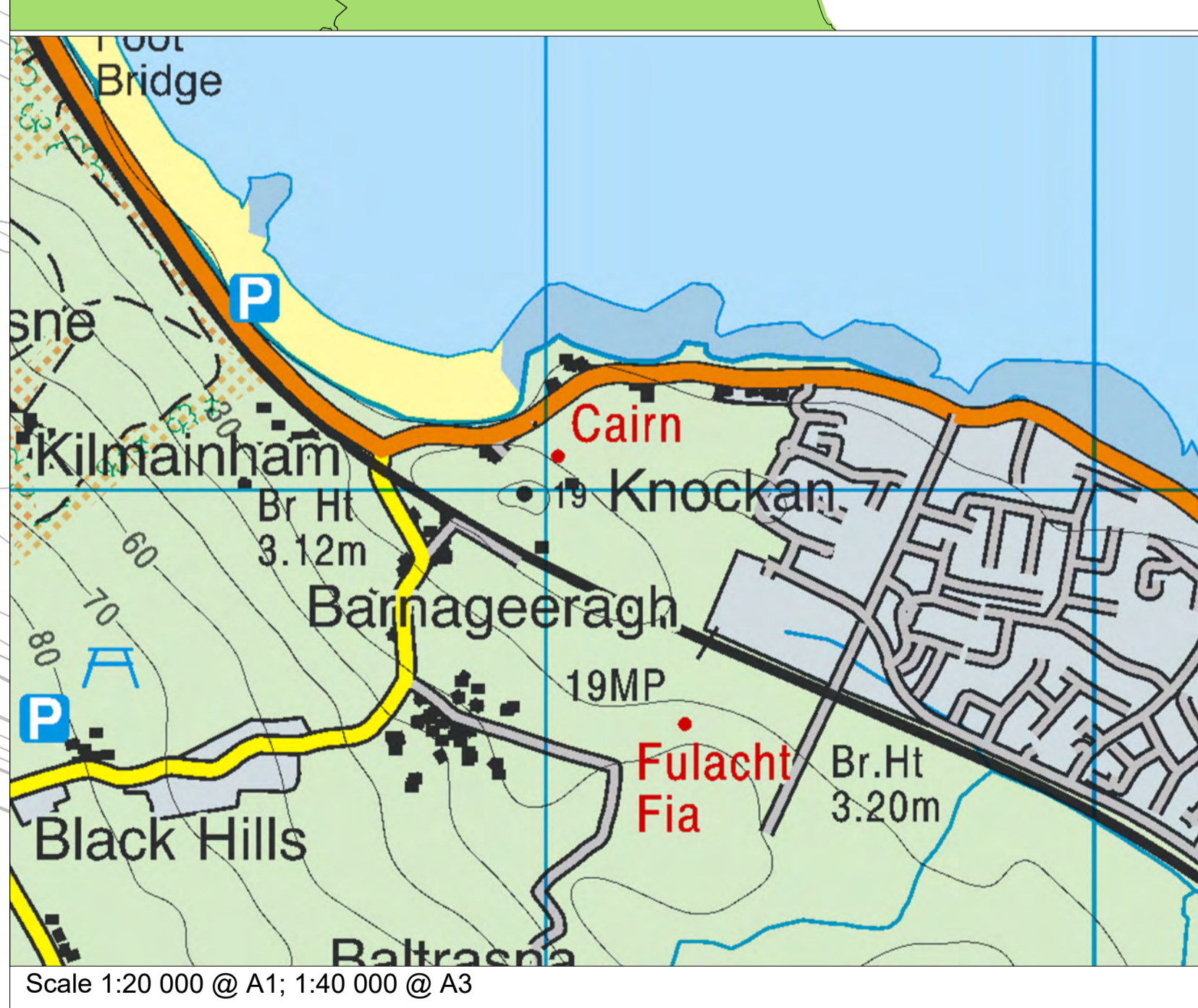
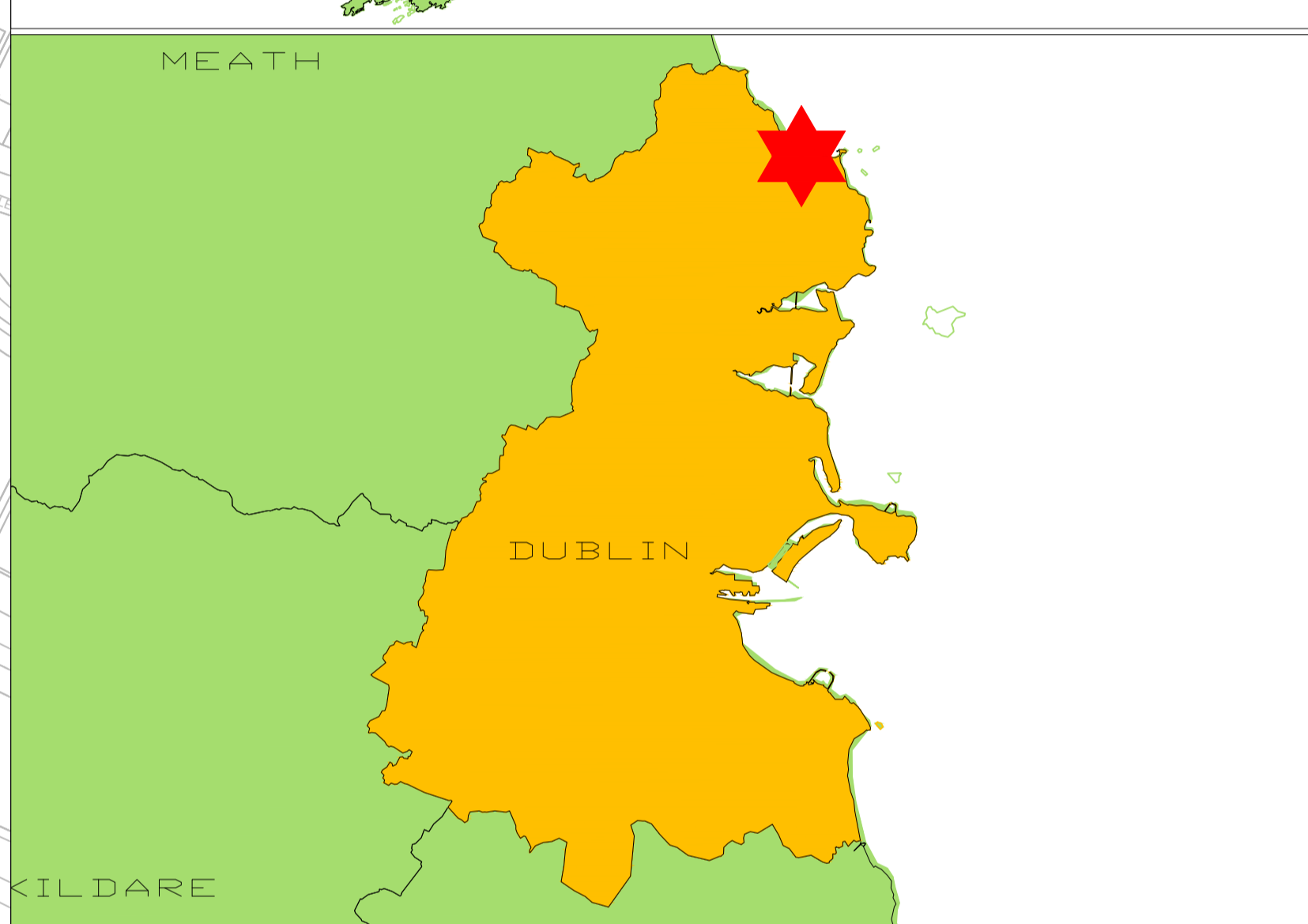
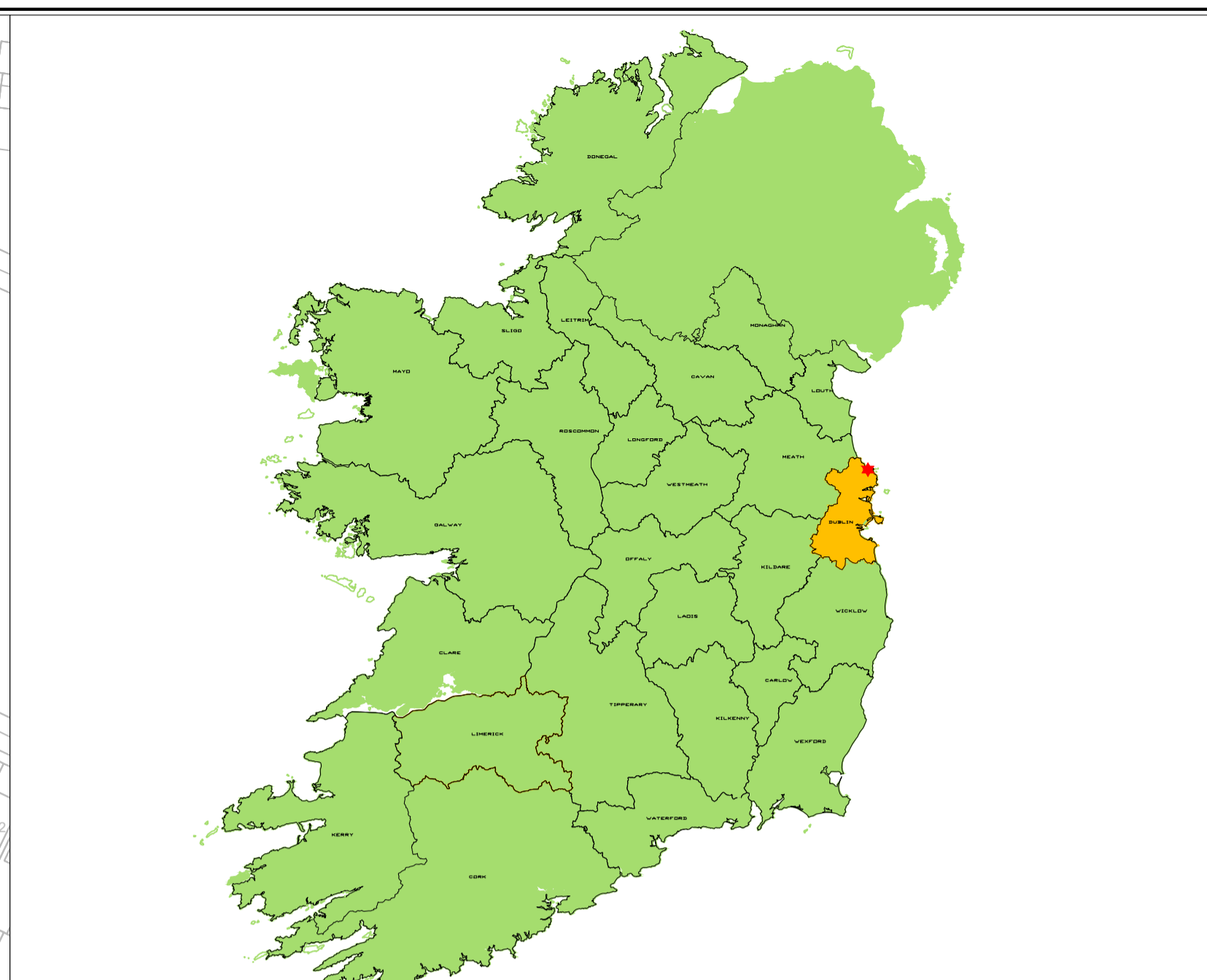
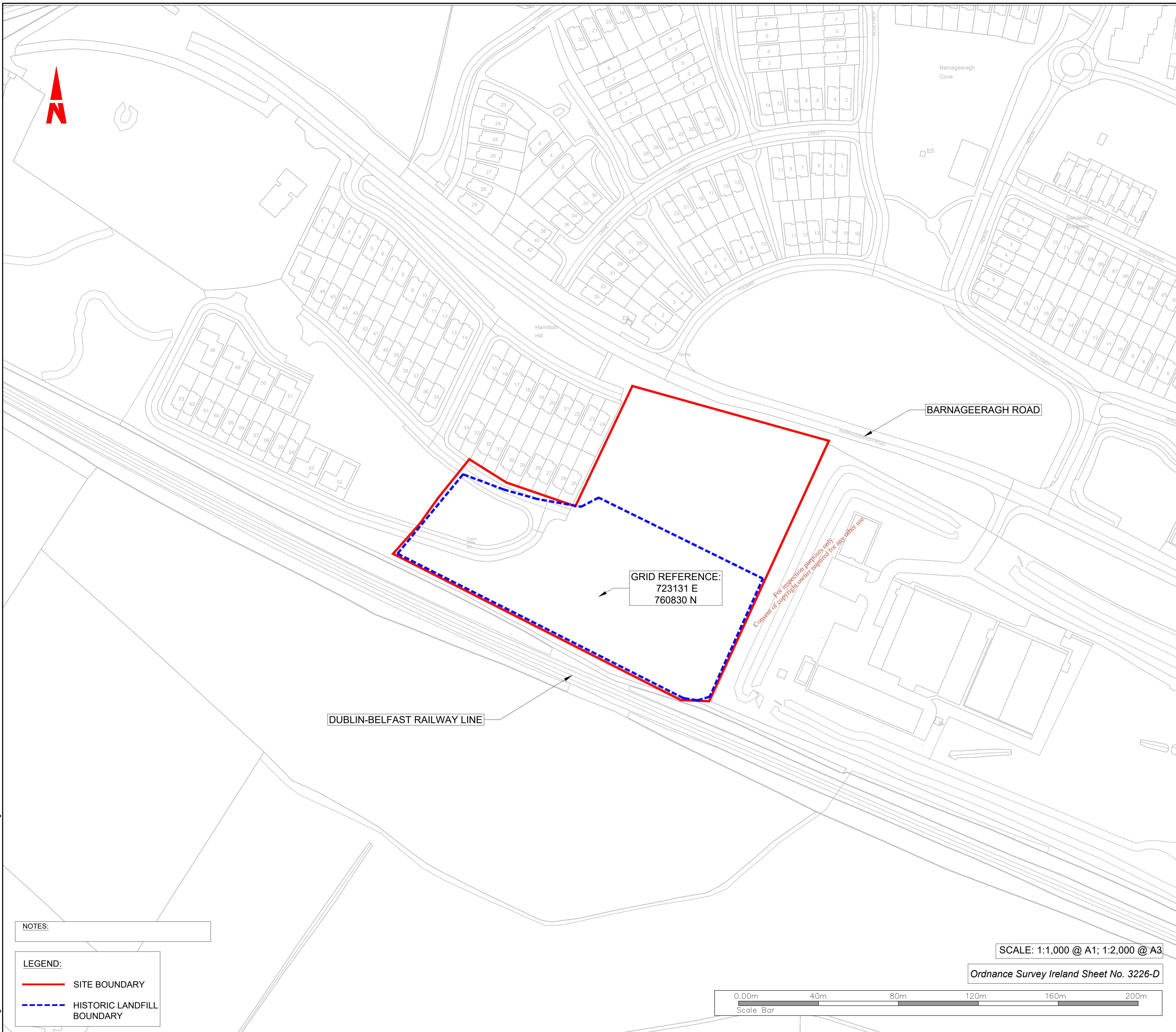
Lyrr 2,
IDA Business Park,
Meruep,
Galway,
Ireland.
T +353 (0)91 400 200
W www.rpsgroup.com

Issue Details

Drawn by: KOD	Project No.: MGE0755
Checked by: CH	File Ref.:
Approved by: GMCE	MGE0755M0001FD1
Scale: 1:50,000 @ A4	Drawing No.:
Date: 15/07/2020	M0001
	Rev.:
	FD1

Notes

1. This drawing is the property of RPS Group Ltd. It is a confidential document and must not be copied, used, or its contents divulged without prior written consent.
2. Ordnance Survey Ireland Licence EN 0055020 ©Copyright Government of Ireland.



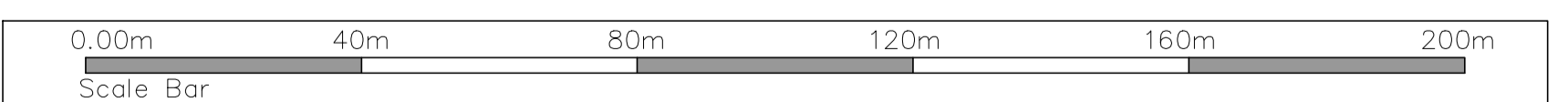
NOTES:

LEGEND:

- SITE BOUNDARY
- - - HISTORIC LANDFILL BOUNDARY

SCALE: 1:1,000 @ A1; 1:2,000 @ A3

Ordnance Survey Ireland Sheet No. 3226-D



Client

Comhairle Contae Fhine Gall
Fingal County Council

General Notes

(i) Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors from the use of these files, either by human error by the recipient, listing of the un-dimensioned measurements, compatibility with the recipients software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.

(ii) DO NOT SCALE, use figured dimensions only.

(iii) This drawing is the property of RPS, it is a project confidential classified document. It must not be copied used or its contents divulged without prior written consent. The needs and expectations of client and RPS must be considered when working with this drawing.

(iv) Information including topographical survey, geotechnical investigation and utility detail used in the design have been provided by others.

(v) All Levels refer to Ordnance Survey Datum, Malin Head.

Rev	Date	Drawn By	Checked By	Amendment / Issue	App
D01	20.11.19	DM	DM	Issue for Approval	GME

Model File Identifier
MGE0755-RPS-00-XX-DR-C-DG0001

Scale
AS SHOWN @ A1
AS SHOWN @ A3

Created on
21/10/2019

Sheets
01 of 02

Project	BARNAGEERAGH HISTORIC LANDFILL TIER 2 AND TIER 3
Title	BARNAGEERAGH HISTORICAL LANDFILL SITE LOCATION MAP
Status	S0
Rev	D01

R:\MGE0755 Barnageeragh\0 Drawings\0 MGE0755-RPS-00-XX-DR-C-DG0001 - Site Location.dwg

ATTACHMENT C4

Land Use

*For inspection purposes only.
Consent of copyright owner required for any other use.*

ATTACHMENT C4 LAND USE

For a description of the current land use at Barnageeragh Landfill refer to Section 2 in the Tier 1 Environmental Risk Assessment included in Attachment D1, RPS report reference MDR1552RP0001.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

ATTACHMENT C5

Types and Quantities of Waste Deposited

*For inspection purposes only.
Consent of copyright owner required for any other use.*

ATTACHMENT C5: TYPES AND QUANTITIES OF WASTE DEPOSITED

For a description of the types and quantities of waste deposited in Barnageeragh Landfill, refer to Section 2 in the Tier 2 and Tier 3 Environmental Risk Assessment included in Attachment D2, RPS report reference MGE0755RP0001.

*For inspection purposes only.
Consent of copyright owner required for any other use.*