



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE &  
PLANNING

# GORT HISTORIC LANDFILL - H0181-01

---

## RESPONSE TO REQUEST FOR INFORMATION

---

Prepared for: Galway County Council



Comhairle Chontae na Gaillimhe  
Galway County Council

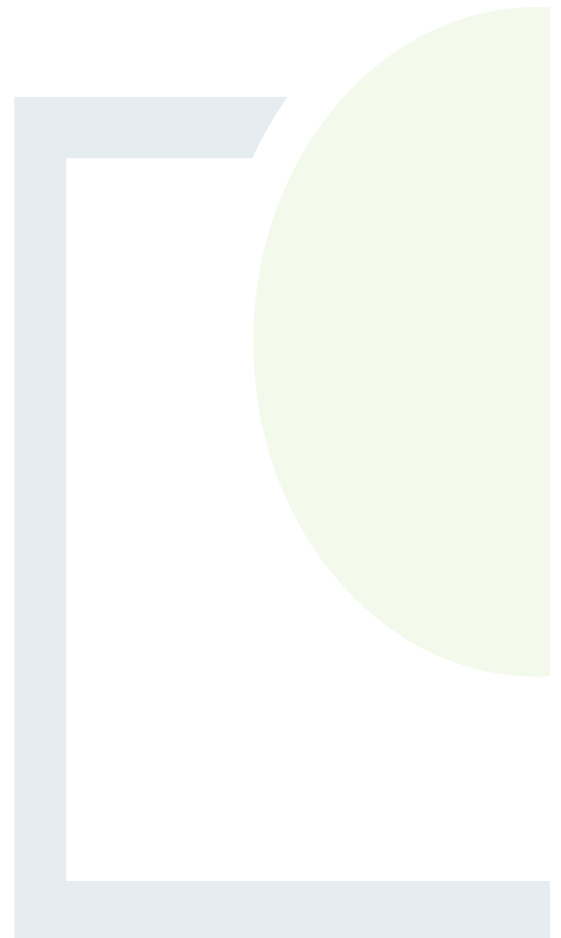
**Date:** November 2022

J5 Plaza, North Park Business Park,  
North Road, Dublin 11, D11 PXT0, Ireland

T: +353 1 658 3500 | E: [info@ftco.ie](mailto:info@ftco.ie)

CORK | DUBLIN | CARLOW

[www.fehilytimoney.ie](http://www.fehilytimoney.ie)



## RESPONSE TO REQUEST FOR INFORMATION

### REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT User is responsible for Checking the Revision Status of This Document

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
0	Draft	GL/AMW	JON	BG	21.10.2022
1	Final	BF/AMW	JON	BG	21.11.2022

**Client:** Galway County Council

**Keywords:** Regulation 7, historical landfill, environmental risk assessment.

**Abstract:** Fehily Timoney and Company (FT) on behalf of Galway County Council (GCC) submitted an application to the Environmental Protection Agency (EPA) for a certificate of authorisation (CoA) for Gort Historic Landfill. The EPA determined the application did not comply with Regulation 7(2) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008. The EPA requested that Galway County Council (GCC), in accordance with Regulation 7(4) supply the information listed in Appendix 1. This report provides responses to the queries raised.

## TABLE OF CONTENTS

<b>1. INTRODUCTION .....</b>	<b>1</b>
1.1 Introduction.....	1
<b>2. REQUEST FOR INFORMATION .....</b>	<b>2</b>
2.1 Item 1.....	2
2.1.1 Request for Information.....	2
2.1.2 Response .....	2
2.2 Item 2.....	2
2.2.1 Request for Information.....	2
2.2.2 Response .....	2
2.3 Item 3.....	3
2.3.1 Request for Information.....	3
2.3.2 Response .....	3
2.4 Item 4.....	3
2.4.1 Request for Information.....	3
2.4.2 Response .....	3
2.5 Item 5.....	4
2.5.1 Request for Information.....	4
2.5.2 Response to Item 5 (i) .....	4
2.5.3 Response to Item 5 (ii) .....	4
2.6 Item 6.....	5
2.6.1 Request for Information.....	5
2.6.2 Response to Item 6 (i) .....	5
2.6.3 Response to Item 6 (ii) .....	5
2.6.4 Response to Item 6 (iii).....	6
2.7 Item 7.....	6
2.7.1 Request for Information.....	6
2.7.2 Response to Items 7.....	7
2.8 Item 8.....	7
2.8.1 Request for Information.....	7
2.8.2 Response .....	7

## LIST OF APPENDICES

- Appendix 1 Regulation 7 Notice
- Appendix 2 A Letter from the Professional Body to the Qualified Person
- Appendix 3 Figure No. 4.1 'Groundwater Flow Direction'
- Appendix 4 Drawing No. P22-194-0101-0001



## 1. INTRODUCTION

### 1.1 Introduction

Fehily Timoney and Company (FT) on behalf of Galway County Council (GCC) submitted an application to the Environmental Protection Agency (EPA) for a Certificate of Authorisation (CoA) for Gort Historic Landfill.

The EPA reviewed the CoA application and determined the application did not comply with Regulation 7(2) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008. The EPA requested that GCC, in accordance with Regulation 7(4) supply the information listed in Appendix 1.

This report provides responses to the queries raised.



## 2. REQUEST FOR INFORMATION

This section outlines the 8 no. items (including an updated Non-Technical Summary) requested by the EPA and the responses to respective items.

### 2.1 Item 1

#### 2.1.1 Request for Information

*The location and the site boundary of the closed landfill, as shown on the GIS map at <https://gis.epa.ie/EPAMaps/>, are different to the location and the site boundary shown in Drawing No. P2282-0100-0001 'Site Location Map (Gort Historic Landfill)' of the Tier 3 Assessment. Clarify if the GIS map shows the correct location and site boundary and if not, amend the section 22 Register to reflect the correct site location and boundary.*

#### 2.1.2 Response

GCC intends to amend the Section 22 Register<sup>1</sup> to reflect the correct site location and boundary.

The correct site location and boundary are presented in Drawing No. P2282-0100-0001 'Site Location Map (Gort Historic Landfill)' of the Tier 3 Assessment.

### 2.2 Item 2

#### 2.2.1 Request for Information

*Section B.1. of the Application Form states that Galway County Council is the owner of the site. Section 3.2.1 of the Tier 3 Assessment states that the capping works shall be subject to agreement with private landowner(s). Clarify whether the site is owned by Galway County Council or private landowner(s).*

#### 2.2.2 Response

FT confirms the site is in the ownership of Galway County Council.

Sections 3.2.1 and 3.1.1.1 of the Tier 3 Assessment have been updated accordingly.

An updated Tier 3 Assessment has been prepared to accompany this RFI.

---

<sup>1</sup><http://watermaps.wfdireland.ie/LandfillRiskAssessment/Authentication/Login.aspx?ReturnUrl=%2fLandfillRiskAssessment%2fDefault.aspx>.



## 2.3 Item 3

### 2.3.1 Request for Information

*Provide a letter from the Professional Body to the Qualified Person, as required under Section 2.3 of the EPA Code of Practice – Environmental Risk Assessment for Unregulated Waste Disposal Sites, using template/sample letter for Qualified Person available at <https://www.epa.ie/our-services/licensing/waste/historic-landfills/>.*

### 2.3.2 Response

A letter (see Appendix 2 of this document) has been prepared from the Professional Body (Engineers Ireland) to the Qualified Person (James O'Neill Chartered Engineer) confirming the Qualified Person has been assessed 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).

James was the competent engineer responsible for managing and/or carrying out: Site investigation works, interpretive assessments, works on the Tier 3 risk assessments, proposed remedial measures and the post-remediation monitoring program.

## 2.4 Item 4

### 2.4.1 Request for Information

*Figure 4.1 'Groundwater flow' of the Tier 2 Assessment indicates that groundwater flows towards the north-west. Section 4.3.1 of the same document states that the groundwater flow direction is estimated to be to the north and Figure 2.1 'Gort Historic Landfill Conceptual Site Model' in the Tier 3 Assessment indicates that the groundwater flows towards the west. Clarify the direction of groundwater flow. Include a figure showing the correct direction of groundwater flow.*

### 2.4.2 Response

FT confirms the direction of the groundwater flow is south-east to north-west towards the River Gort.

Figure 4.1 'Groundwater Flow Direction' shows the correct direction of groundwater flow is included in Appendix 3.

Section 4.3.1 and Figure 5.1 of the Tier 2 Assessment and Figure 2.1 of the Tier 3 Assessment have been updated accordingly.

Updated Tier 2 and Tier 3 Assessments have been prepared to accompany this RFI.



## 2.5 Item 5

### 2.5.1 Request for Information

*Section 1.3 of the Tier 3 Assessment states that remediation works carried out to date included a no longer operational leachate collection system, which comprises a network of sub-surface drainage, pump control unit, leachate pump sump and rising main and that leachate was pumped from the sump to the local sewer network for treatment at the Gort wastewater treatment plant (WWTP). Provide the following information:*

- (i) State how leachate will be managed in the future and whether the existing leachate infrastructure will be utilised again. If so, please include a layout of this infrastructure on the Drawing required under Point 7.*
- (ii) If it is proposed to collect leachate, state whether leachate will be taken off site to an authorised recovery/disposal facility or will be discharged from the site again to the local sewer network. If to be discharged from the site, state whether there is authorisation in place for this discharge and submit a copy of any such authorisation.*

### 2.5.2 Response to Item 5 (i)

The generation and subsequent vertical migration of leachate is driven predominantly by rainfall percolation through the waste body as opposed to the lateral movement of groundwater through the waste body.

The proposed fully engineered landfill cap outlined in Section 3.1.1.1 of the Tier 3 Assessment will significantly reduce percolation inputs into the waste body, substantially reduce leachate generation and therefore near eliminate the potential for migration of leachate to surface waters.

The proposed subsurface and surface water drainage network as shown in Drawings No. P2282-0500-0001, will collect run-off from the engineered landfill cap. The network will outfall at two outfall locations.

The installation of the landfill cap fully isolates the landfilled waste from the environment. The physical LLDPE barrier and subsurface drainage severely limits the potential for rainwater to percolate through the waste body thus effectively eliminating the capacity of the landfill to generate leachate, negating the requirement to manage leachate in the future.

To monitor the efficacy of the proposed remediation measures a comprehensive schedule of leachate monitoring is proposed at existing monitoring locations.

FT confirms the existing leachate infrastructure will not be utilised post the completion of the remediation works. .

### 2.5.3 Response to Item 5 (ii)

It is not proposed to collect leachate at the site. See Section 2.5.2.





## 2.6 Item 6

### 2.6.1 Request for Information

*Referring to Appendix 2 'Site Walkover Checklist and Photographic Log' of the Tier 2 Assessment, provide the following information:*

- (i) State the nature of waste observed on the surface of the landfill, as indicated in the walkover survey checklist, i.e. litter or exposed waste. Additionally, provide the date of the related walkover.*
- (ii) Photo No. 1 and 2 refer to the Holy Well. Show the location of this well on the Drawing required under Point 7. Additionally, clarify whether the groundwater monitoring results for Samples No. 22408528 and 517824 in Appendix 2 refer to the holy well identified in the photos.*
- (iii) Photo No. 3 shows 'stone/construction and demolition waste' in an area adjacent to the landfill. Show this area on the Drawing required under Point 7 and provide a reason why this area has not been included into the site boundary.*

### 2.6.2 Response to Item 6 (i)

FT confirms the waste observed on the surface of the landfill as indicated in the Walkover Survey Checklist was exposed buried waste.

FT confirms the site walkover was undertaken on the 20<sup>th</sup> May 2020.

An updated Site Walkover Checklist and Photographic Log has been prepared to accompany this RFI and is included as Appendix 2 of the updated Tier 2 Assessment Report.

### 2.6.3 Response to Item 6 (ii)

The location of the Holy Well is included on the Drawing contained in Appendix 4. A photo of the well is shown in Figure 2.1.

FT confirms groundwater monitoring results for Samples No. 22408528 and 517824 refers to the Holy Well identified in Photo No. 1 and 2 of Appendix 2 'Site Walkover Checklist and Photographic Log' of the updated Tier 2 Assessment.



Figure 2-1: St Machan's Holy Well

#### 2.6.4 Response to Item 6 (iii)

The area adjacent to the landfill containing 'stone/construction and demolition waste' as shown in Photo No. 3 of Appendix 2 'Site Walkover Checklist and Photographic Log' of the updated Tier 2 Assessment, is not within the historic landfill site boundary. This area is associated with the deposition of waste by a private entity and is thus unrelated to the historic landfill activities.

The visible area of deposition is shown on the drawing contained in Appendix 4.

## 2.7 Item 7

### 2.7.1 Request for Information

*Provide one Drawing showing all of the following elements interpolated:*

- (i) The entire site boundary in red;*
- (ii) The outline of the waste body boundary, in a different colour than red;*



- (iii) *The area to be capped, in a different colour than required in Points (i) and (ii);*
- (iv) *Monitoring locations for leachate, landfill gas, surface water and groundwater;*
- (v) *The leachate collection infrastructure referred to in Point 5(i), if being utilised in the future;*
- (vi) *The Holy Well referred to in Point 6(ii); and*
- (vii) *The 'stone/construction and demolition waste' area referred to in Point 6(iii).*

#### 2.7.2 Response to Items 7

Please see Appendix 4 for Drawing No. P22-194-0101-0001.

## 2.8 Item 8

### 2.8.1 Request for Information

*A revised Non-technical Summary, which reflects the information you supply in compliance with the notice, insofar as that information impinges on the non-technical summary.*

### 2.8.2 Response

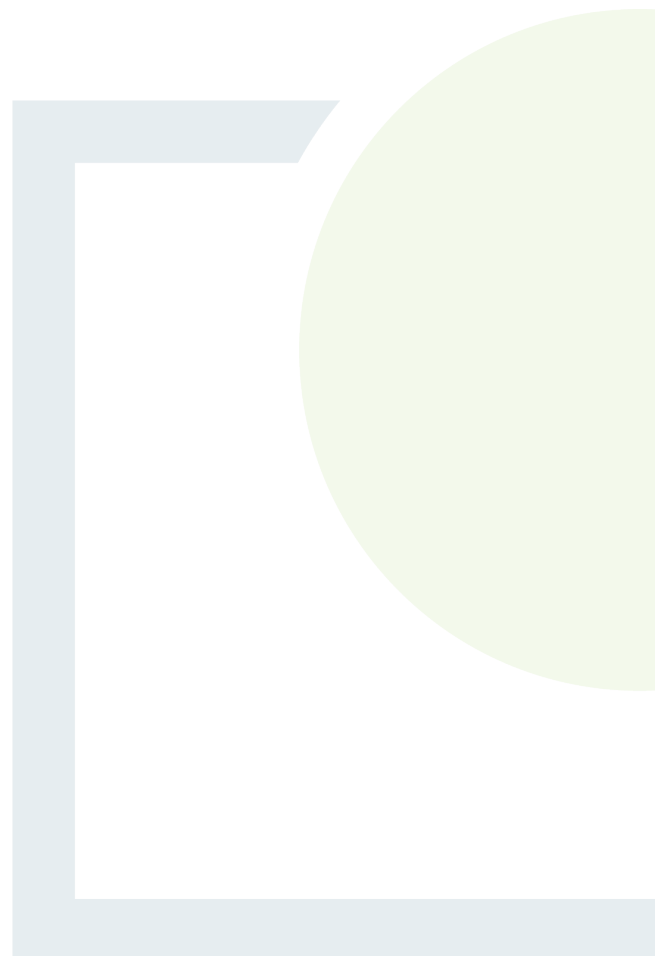
A revised Non-technical Summary has been prepared to accompany this RFI.



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING

# APPENDIX 1

Regulation 7 Notice





Mr. Colin Ryder,  
Environment Department,  
Galway County Council,  
Áras an Chontae,  
Prospect Hill,  
Galway.

Post Office Box No. 27

Headquarters, PO Box 3000  
Johnstown Castle Estate  
Co Wexford,  
Y35 W821, Ireland

Ceannchethrú, Bosca Poist 3000  
Eastát Chaisleán Bhaile Sheáin  
Contae Loch Garman,  
Y35 W821, Éire

T: +353 53 916 0600  
F: +353 53 916 0699  
E: [info@epa.ie](mailto:info@epa.ie)  
W [www.epa.ie](http://www.epa.ie)  
LoCall: 0818 33 55 99

5<sup>th</sup> July 2022

Reg. No. H0181-01

**Re: Gort Historic Landfill – Notice in accordance with Regulation 7(4) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008**

Dear Mr. Ryder,

I am to refer to the above referenced application for a certificate of authorisation in relation to the above referenced historic landfill.

Having examined the foregoing, I am to advise that the Agency is of the view that the application does not comply with Regulation 7(2) of the Waste Management (Certification of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations, 2008.

You are therefore requested in accordance with Regulation 7(4) of the Regulations, to take steps to supply the information detailed below:

### **REGULATION 7(2) COMPLIANCE REQUIREMENTS**

1. The location and the site boundary of the closed landfill, as shown on the GIS map at <https://gis.epa.ie/EPAMaps/>, are different to the location and the site boundary shown in Drawing No. P2282-0100-0001 'Site Location Map (Gort Historic Landfill)' of the Tier 3 Assessment. Clarify if the GIS map shows the correct location and site boundary and if not, amend the Section 22 Register to reflect the correct site location and boundary.
2. Section B.1. of the Application Form states that Galway County Council is the owner of the site. Section 3.2.1 of the Tier 3 Assessment states that the capping works shall be subject to agreement with private landowner(s). Clarify whether the site is owned by Galway County Council or private landowner(s).
3. Provide a letter from the Professional Body to the Qualified Person, as required under Section 2.3 of the EPA Code of Practice – Environmental Risk Assessment for Unregulated Waste Disposal Sites, using template/sample letter for Qualified Person available at <https://www.epa.ie/our-services/licensing/waste/historic-landfills/>.

4. Figure 4.1 'Groundwater flow' of the Tier 2 Assessment indicates that groundwater flows towards the north-west. Section 4.3.1 of the same document states that the groundwater flow direction is estimated to be to the north and the Figure 2.1 '*Gort Historic landfill Conceptual Site Model*' in the Tier 3 Assessment indicates that groundwater flows towards the west. Clarify the direction of groundwater flow. Include a figure showing the correct direction of groundwater flow.
5. Section 1.3 of the Tier 3 Assessment states that remediation works carried out to date included a no longer operational leachate collection system, which comprises a network of sub-surface drainage, pump control unit, leachate pump sump and rising main and that leachate was pumped from the sump to the local sewer network for treatment at the Gort wastewater treatment plant (WWTP). Provide the following information:
  - (i) State how leachate will be managed in the future and whether the existing leachate infrastructure will be utilised again. If so, please include a layout of this infrastructure on the Drawing required under Point 7.
  - (ii) If it is proposed to collect leachate, state whether leachate will be taken off site to an authorised recovery/disposal facility or will be discharged from the site again to the local sewer network. If to be discharged from the site, state whether there is authorisation in place for this discharge and submit a copy of any such authorisation.
6. Referring to the Appendix 2 '*Site Walkover Checklist and Photographic Log*' of the Tier 2 Assessment, provide the following information:
  - (i) State the nature of waste observed on the surface of the landfill, as indicated in the walkover survey checklist, i.e. litter or exposed waste. Additionally, provide the date of the related walkover.
  - (ii) Photo No. 1 and 2 refer to the Holy Well. Show the location of this well on the Drawing required under Point 7. Additionally, clarify whether the groundwater monitoring results for Samples No. 22408528 and 517824 in Appendix 2 refer to the holy well identified in the photos.
  - (iii) Photo No. 3 shows 'stone/construction and demolition waste' in an area adjacent to the landfill. Show this area on the Drawing required under Point 7 and provide a reason why this area has not been included into the site boundary.
7. Provide one Drawing showing all of the following elements interpolated:
  - (i) the entire site boundary in red;
  - (ii) the outline of the waste body boundary, in a different colour than red;
  - (iii) the area to be capped, in a different colour than required in Points (i) and (ii);
  - (iv) monitoring locations for leachate, landfill gas, surface water and groundwater;
  - (v) the leachate collection infrastructure referred to in Point 5(i), if being utilised in the future;
  - (vi) the Holy Well referred to in Point 6(ii); and
  - (vii) the 'stone/construction and demolition waste' area referred to in Point 6(iii).

Your reply to this notice should include a **revised Non-technical Summary**, which reflects the information you supply in compliance with the notice, insofar as that information impinges on the non-technical summary.

In the case where any drawings already submitted are subject to revision consequent on this request, a revised drawing should be prepared in each case. It is not sufficient to annotate the original drawing with a textual correction. The revision status, such as revised drawing number and/or revision date should be clearly stated. Also, where such revised drawings are submitted, provide a list of drawing titles, drawing numbers and revision status, which correlates the revised drawings with the superseded versions.

Please supply the requested information within *four weeks* of the date of this notice. Please note that during COVID-19 there are new arrangements in place for the receipt of all correspondence in relation to applications for Certificates of Authorisation. Accordingly, any correspondence in respect of the above referenced application should be sent to the Agency via file transfer by emailing [historiclandfillapplications@epa.ie](mailto:historiclandfillapplications@epa.ie), quoting the Register Number H0181-01. The EPA doesn't accept files to be transferred using any file share application other than MS One Drive. Each file should be in a searchable .pdf format and a size not exceeding 10MB.

Please also note, post COVID-19, you may be contacted to submit the hard copies and CD-ROMs for the submitted electronic correspondence.

Yours sincerely,



---

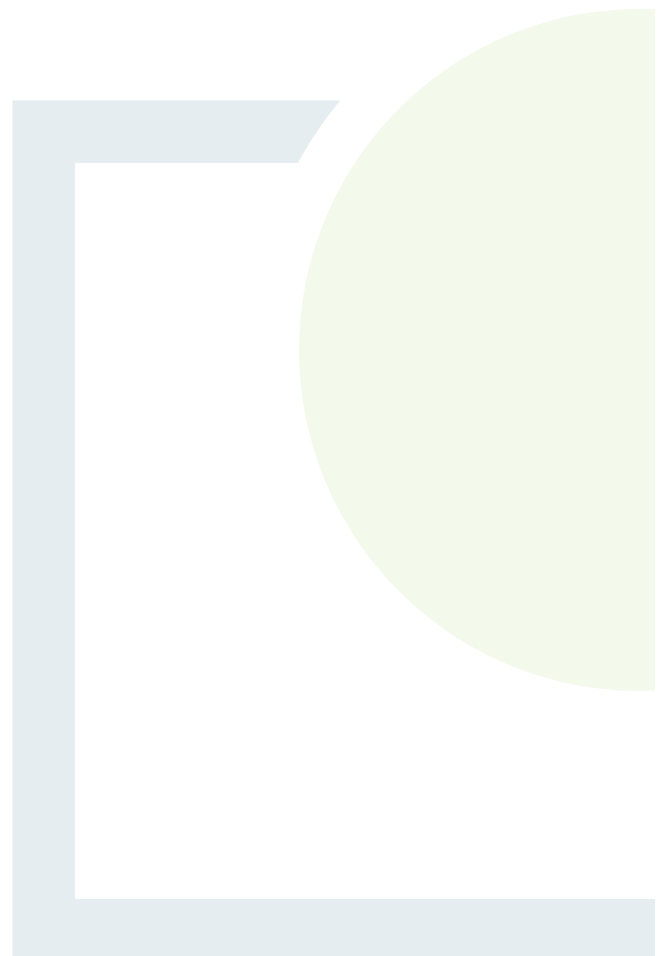
Ewa Babiarczyk  
Inspector  
Circular Economy Regulation Team  
Circular Economy Programme



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING

## APPENDIX 2

A Letter from the Professional  
Body to the Qualified Person





Sent via email only to: [james.oneill@ftco.ie](mailto:james.oneill@ftco.ie)

9 November 2022

**Re: Register of Chartered Engineers for Historic Landfill Register accordance with Section 2.3 of Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (EPA, 2007)**

To Whom it May Concern,

This letter confirms that Mr James O'Neill is a member of Engineers Ireland in good standing.

Engineers Ireland confirms that Mr O'Neill has been assessed 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).



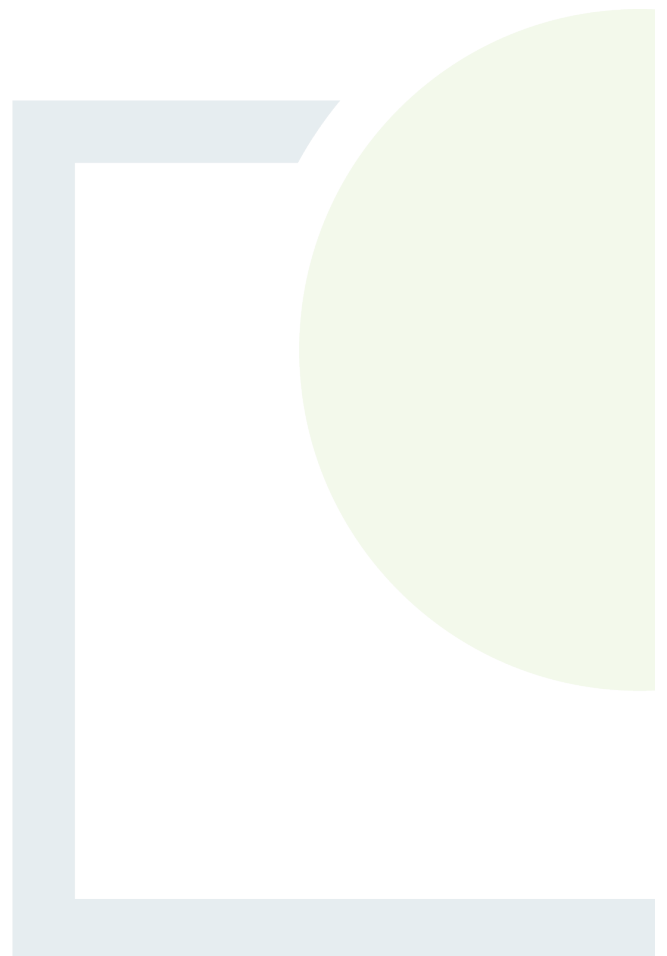
**Damien Owens**  
Director General



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING

## APPENDIX 3

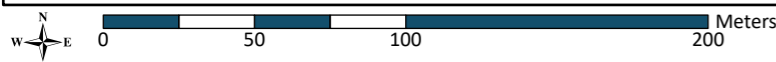
Figure No. 4.1 'Groundwater  
Flow Direction'





- Site Boundary
- Borehole Locations
- 1m Ground Elevation Contours
- ➔ Indicative Groundwater Flow Direction

<b>TITLE:</b>	Groundwater Flow Direction		
<b>PROJECT:</b>	Gort Historic Landfill ERA		
<b>FIGURE NO:</b>	4.1		
<b>CLIENT:</b>	Galway County Council		
<b>SCALE:</b>	1:2,500	<b>REVISION:</b>	0
<b>DATE:</b>	15/10/2020	<b>PAGE SIZE:</b>	A3

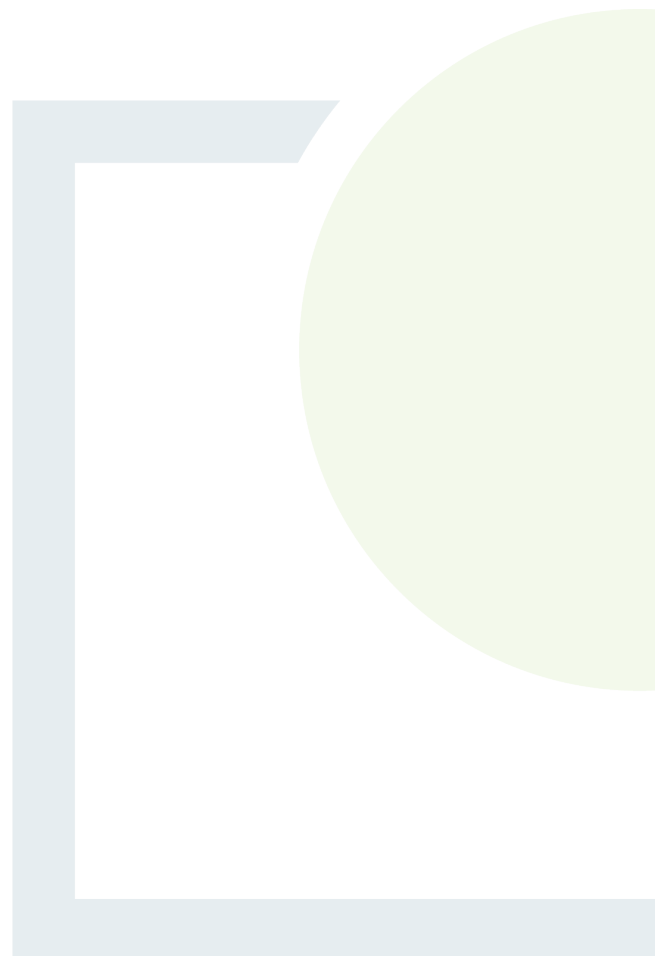


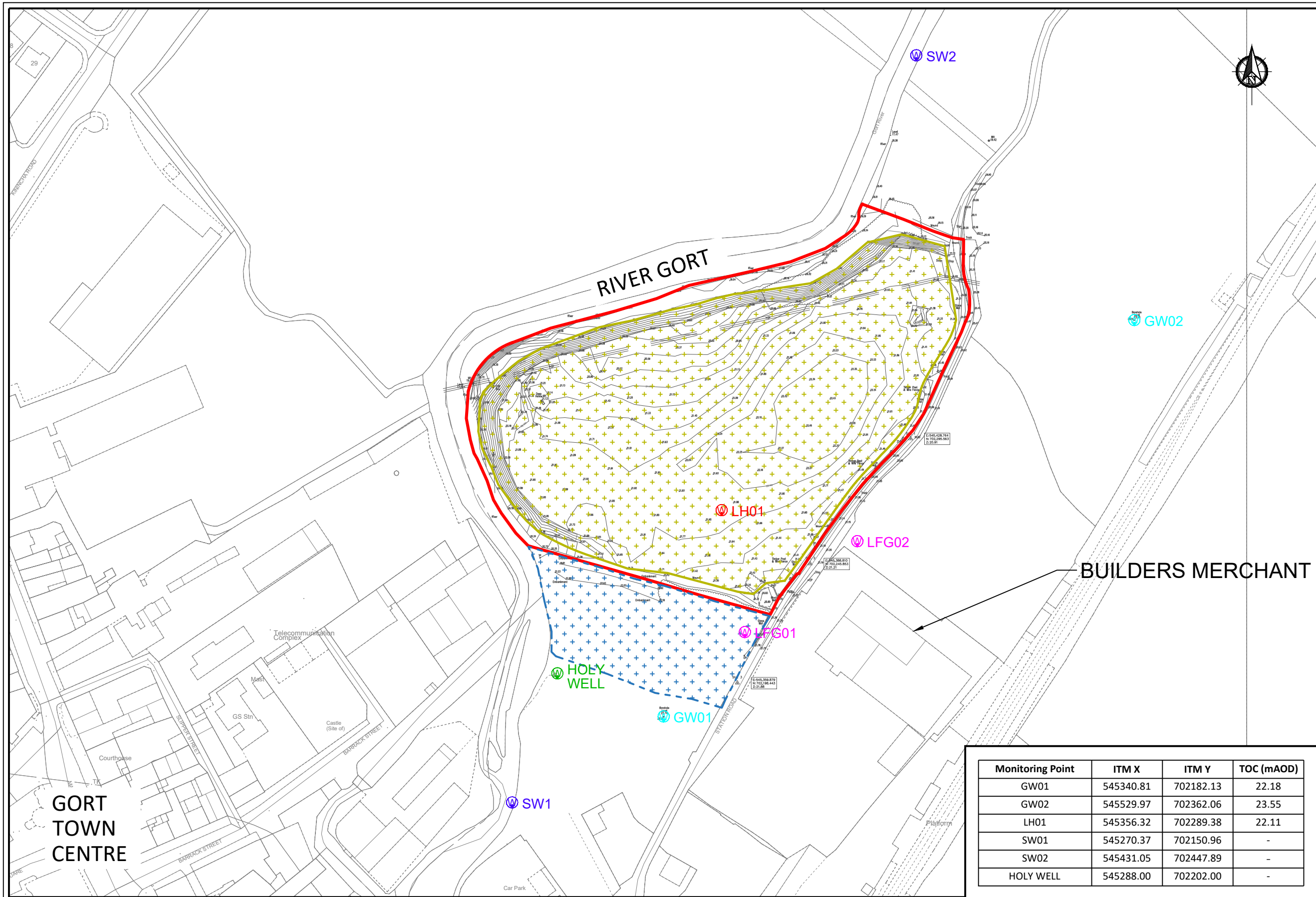


CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING

## APPENDIX 4

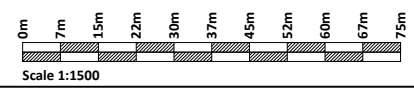
Drawing No.  
P22-194-0101-0001





- Legend:
- Site Boundary
  - Capping Boundary
  - Extent of Waste
  - C&D Deposition (visible area, exact extent unknown)
  - ⊙ LH... Existing Leachate Monitoring Well
  - ⊙ GW... Existing Groundwater Monitoring Well
  - ⊙ LFG... Proposed Monitoring Well
  - ⊙ SW... Surface Water Monitoring Location
  - ⊙ POI Holy Well Location

Monitoring Point	ITM X	ITM Y	TOC (mAOD)
GW01	545340.81	702182.13	22.18
GW02	545529.97	702362.06	23.55
LH01	545356.32	702289.38	22.11
SW01	545270.37	702150.96	-
SW02	545431.05	702447.89	-
HOLY WELL	545288.00	702202.00	-



**PLAN**  
Scale 1:750

If Applicable : Ordnance Survey Ireland Licence No. EN 0001220 © Ordnance Survey Ireland and Government of Ireland



No part of this document may be reproduced or transmitted in any form or stored in any retrieval system of any nature without the written permission of Fehily Timoney & Company as copyright holder except as agreed for use on the project for which the document was originally issued. Do not scale. Use figured dimensions only. If in doubt - Ask!

Rev.	Description	App By	Date
A	FURTHER INFORMATION	JON	10.10.22

PROJECT	GORT HISTORIC LANDFILL			CLIENT	GALWAY COUNTY COUNCIL		
SHEET	RFI INFORMATION MAP			Date	07.10.22	Project number	P22-194
				Drawn by	GL	Drawing Number	P22-194-0101-0001
				Checked by	JON	Scale (@ A3)	1:750
						Rev	A



**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

**[www.fehilytimoney.ie](http://www.fehilytimoney.ie)**

**CORK OFFICE**

Core House  
Pouladuff Road,  
Cork, T12 D773,  
Ireland  
**+353 21 496 4133**

**Dublin Office**

J5 Plaza,  
North Park Business Park,  
North Road, Dublin 11, D11 PXT0,  
Ireland  
**+353 1 658 3500**

**Carlow Office**

Unit 6, Bagenalstown Industrial  
Park, Royal Oak Road,  
Muine Bheag,  
Co. Carlow, R21 XW81,  
Ireland  
**+353 59 972 3800**

