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KILKENNY HISTORIC LANDFILLS

NON- TECHNICAL SUMMARY HISTORIC LANDFILL AT OldCOURT, CO. KILKENNY

Prepared for: **Kilkenny County Council**



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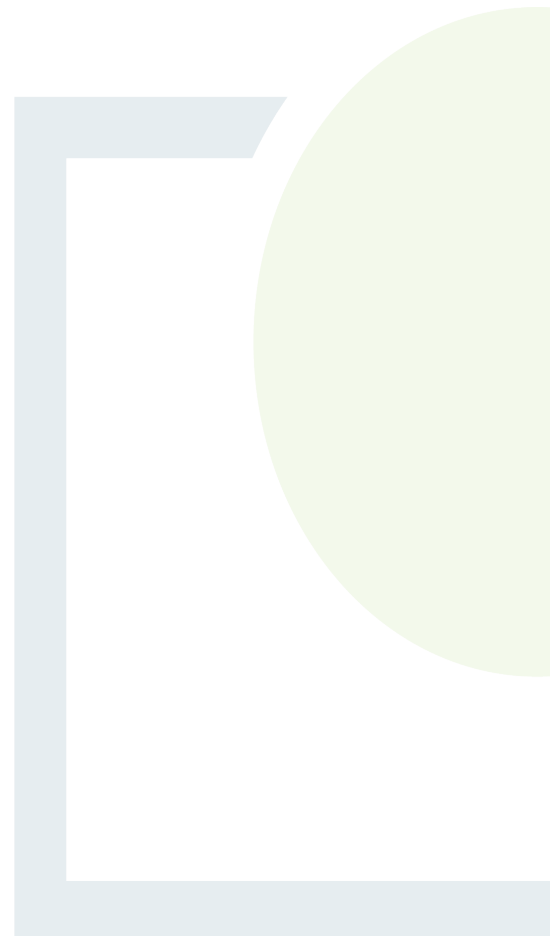
J5 Plaza, North Park Business Park,
North Road, Dublin 11, D11 PXT0, Ireland

T: +353 1 658 3500 | E: info@ftco.ie

CORK | DUBLIN | CARLOW

www.fehilytimoney.ie

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NON-TECHNICAL SUMMARY HISTORIC LANDFILL AT OldCOURT, CO. KILKENNY

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Abstract: This report presents a non-technical summary of the Tier 3 risk assessment for the Oldcourt Historic Landfill, Co. Kilkenny. The non-technical summary has been prepared to accompany the certificate of authorisation application for the site.

TABLE OF CONTENTS

| | |
|---|---|
| 1. NON-TECHNICAL SUMMARY | 1 |
| 1.1 Overview..... | 1 |
| 1.2 Site Location and History..... | 1 |
| 1.3 Hydrogeology and Ecology..... | 1 |
| 1.4 Risk Assessment and Environmental Impacts | 2 |
| 1.5 Proposed Remediation | 2 |

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1. NON-TECHNICAL SUMMARY

1.1 Overview

Fehily Timoney and Company (FT) was appointed by Kilkeny County Council (KCC) to complete a Tier 3 environmental risk assessment (ERA) and Certificate of Authorisation Application Form (COA) for Oldcourt Historic Landfill. The ERA was conducted in accordance with the Environmental Protection Agency (EPA) Code of Practice (CoP) (2007): Environmental Risk Assessment for Unregulated Waste Disposal Sites. FT previously completed the Tier 2 assessment of the site.

1.2 Site Location and History

The site is located approximately 1 km east of the town of Inistioge, Co. Kilkeny. The site is bounded to the north, east and west by a local road (L8283), to the south-east by a privately-owned field used for grazing livestock and to the south by the council depot/stock yard. The surrounding lands to the north, east and west are predominantly agricultural with one-off housings. The regional road R700 is located to the south of the site, beyond which is an area forestry between the R700 and the River Nore.

Oldcourt historical landfill was used historically for the disposal of municipal waste. The period for waste disposal activities at the site is unknown. The site is currently unregistered. The roadside boundary of the site was fenced by KCC after waste disposal ceased to prevent fly tipping at the site.

The Tier 2 site investigations confirmed historic landfilling took place at the site. The waste identified was typically municipal in nature containing fragments of plastic bottles, glass bottles, plastic bags, pieces of steel, clothing and plastic fibre straps deposited to the eastern side of the site where the ground is flat. This area is 0.14 hectares. Made ground comprising waste was found to depths of 1.6m and 3.0m in machine dug trial pits and depths of 2.0m and 3.0m at window sample borehole locations.

1.3 Site Geology, Hydrogeology and Ecology

The GSI's Quaternary Sediments mapping identifies sediments at the site as 'Bedrock, outcrop or subcrop'. The 1:100,000 scale bedrock geology map, indicates that the entirety of the site is underlain by the Oldcourt Member Formation, described as 'Schists, garnet-quartzites (costicules)'.

The Water Framework Directive Groundwater Bodies dataset from GSI shows that the groundwater body is named Inistioge and has a poorly productive bedrock flow regime. The River Basin District Code is 'South Eastern'. The aquifer underlying the site is classified as a 'Locally Important Aquifer – Bedrock which is Moderately Productive only in Local Zones'. The GSI Online mapping data set identifies that the groundwater vulnerability for the site is classified as having an Extreme Vulnerability, with areas of the site described as Rock at or near surface or karst.

There are no karst landforms or Groundwater Drinking Water Protection Areas within the site boundary according to the GSI Data. The nearest karst landform is the Ballylinch Well spring in the Townland of Jerpoint West, 9.8 km northwest of the project site; and the closest groundwater protection area to the site is 4.4 km northwest of the site in the Townland of Thomastown.

The site is located within the: Nore catchment (Hydrometric Area 15), Nore_SC_120 sub-catchment and Clodiagh_010 river sub-basin. The nearest surface water feature to the site is a stream (EPA Name: Woodstock Park) which according to the EPA mapping enters the north-eastern corner of the site, flowing west and turning to flow south-west into the River Nore approximately 150m southwest of the site boundary. However during a site walkover, it was observed that the Woodstock Park has been diverted, flowing from the north-east and follows the route of the local road beyond the northern site boundary to exit the site at the south-west into the neighbouring land.

The site is not within or contiguous to any SAC, Natural Heritage Area (NHA), proposed NHA (pNHA), or Special Protection Area (SPA). The following protected areas are located within 5km radius of the site: Inistioge pNHA (approximately 1 km west of the site), Murphy's of the River pNHA (approximately 2.3 km south of the site), Rathsnagadan Wood pNHA (approximately 4.2 km south of the site), River Nore SPA (approximately 0.15 km to the southwest of the site) and River Barrow and River Nore SAC (approximately 50m beyond the southern site boundary).

1.4 Risk Assessment and Environmental Impacts

A Tier 1 study, received as part of the project brief, was conducted by Kilkeny County Council and determined the site to be a moderate risk classification (Class B). The primary risk identified is the risk of surface migration of leachate to the adjacent surface water body.

The results of the Tier 2 assessment and risk model, conducted by FT, identified the site is a Low Risk Classification (Class C). The primary risk identified on the site is the potential for migration of leachate to the adjacent surface water stream, the Woodstock Park stream. The results of environmental monitoring on surface waters conducted as part of the Tier 2 indicated no measurable impact from the waste body on downstream water quality when compared against the upstream measurements. The Tier 2 recommended additional surface water monitoring be conducted in advance of a Tier 3 assessment.

The completed Tier 3 Assessment included a Generic Quantitative Risk Assessment (GQRA) and review of additional surface water monitoring results which were compared to relevant surface water quality standards in order to determine if the deposited waste on site was exhibiting any impact on the quality of the Woodstock Park Stream. This assessment concluded that the waste onsite is not causing any deleterious effect on the surface water quality of the stream

1.5 Proposed Remediation

The results of the additional monitoring confirmed that the environmental risk associated with the site is low. No physical remediation or engineering works are deemed necessary or proposed. It is proposed to continue annual surface water monitoring upstream and downstream of the site on the Woodstock Park Stream.



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ENVIRONMENTAL SCIENCE
& PLANNING

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 XA00,
Ireland
+353 59 972 3800

