



APPROPRIATE ASSESSMENT SCREENING REPORT FOR TIER II RISK ASSESSMENT OF JENKINSTOWN HISTORIC LANDFILL, CO. MEATH

CLIENT: MEATH COUNTY COUNCIL

JULY 2013



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Abstract: This document comprises an Appropriate Assessment Screening Report for the unauthorised Jenkinstown historic landfill, County Meath. Appropriate Assessment is required under Article 6 of the Habitats Directive for any project or plan that may give rise to significant impact(s) upon a Natura 2000 site. This assessment follows the methodological guidelines set out in the document 'Assessment of plans and projects significantly affecting Natura 2000 sites' (2001) and 'Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities' issued by the DoEHLG in December 2009.

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1 INTRODUCTION

1.1 Brief Introduction

Meath County Council is required to identify and risk assess all closed landfills within its functional area, as required under the Waste Management (Certificate of Historic Unlicensed Waste Disposal and Recovery Activity) Regulations 2008. Fehily Timoney & Company (FTC) has been appointed by the Council to carry out a Tier II Risk Assessment of Jenkinstown historic landfill in County Meath in accordance with the EPA Code of Practice: *Environmental Risk Assessment for Unregulated Waste Disposal Sites*.

In tandem with the Tier II risk assessment, an Appropriate Assessment of Jenkinstown dump must also be made by Meath County Council. Appropriate Assessment (AA) is required under Article 6(3) and 6(4) of the Habitats Directive (92/43/EEC). It is an assessment of the potential effects of a proposed plan or project, on its own or in combination with other plans or projects, on one or more Natura 2000 sites (Special Protection Areas (SPA) for birds, Special Areas of Conservation (SAC) for habitats and species).

Screening is the first stage of the AA process, in which the likely impacts of a project or plan on a Natura 2000 site are assessed, and whether or not they are significant. If likely significant impacts are identified then the second stage of the process, and production of a Natura Impact Statement (NIS) is carried out. The NIS considers the impact of a project or plan on the integrity of a Natura 2000 site and on its conservation objectives, and where necessary, draws up mitigation measures to avoid impacts.

Jenkinstown historic landfill is located in a rural area and is currently being used as a storage compound for road chippings by Meath County Council. It has been classified as Class B or 'Low Risk' in a Tier I Risk Assessment, carried out by Meath County Council in 2007/08.

The Rye Water Valley/Carton SAC (001398) is located 6.7 km to the southeast of the Jenkinstown site. It is designated for petrifying springs with tufa formation, an Annex I habitat on the E.U. Habitats Directive, and semi-aquatic snails *Vertigo angustior* and *V. Moulinsiana*, which are Annex II species. There are no other Natura 2000 sites within 10 km of the site.

This AA Screening Report assesses the likely impacts of Jenkinstown site on the Rye Water Valley/Carton SAC, and draws a conclusion as to whether Stage 2 of the Appropriate Assessment process should be carried out. The information contained in this report will be used by the competent authority, Meath County Council, in carrying out Appropriate Assessment of the site.

1.2 Legislative Requirements

Appropriate Assessment is a requirement of Article 6(3) and 6(4) of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, also known as the Habitats Directive which states:

6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the sites conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The statutory agency responsible for Natura 2000 sites is the National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht (DAHG). The European Court of Justice, on December 13 2007, issued a judgement in a legal case against Ireland that found Ireland had failed in its statutory duty to confer adequate protection on designated areas. In December 2009 "Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government" was published. This guidance document was prepared jointly by the NPWS and Planning Divisions of the Department of Environment, Heritage and Local Government (DoEHLG), now DAHG, with input from local authorities.

The Habitats Directive formed a basis for the designation of Special Areas of Conservation (SACs). Similarly, Special Protection Areas are legislated for under the Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds). Collectively, SACs and SPAs are referred to as Natura 2000 sites. In general terms, they are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community.

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2 OBJECTIVES OF APPROPRIATE ASSESSMENT

1. The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures to be addressed in the AA process.
2. Firstly, a project should aim to avoid any negative impacts on Natura 2000 sites by identifying possible impacts early in the project, and should design the project in order to avoid such impacts.
3. Secondly, mitigation measures should be applied during the AA process to the point where no adverse impacts on the site(s) remain.
4. Under a worst-case scenario, a project may have to undergo an assessment of alternative solutions. Under this stage of the assessment, compensatory measures are required for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the project is required for imperative reasons of overriding public interest (the 'IROPI test'). European case law highlights that consideration must be given to alternatives outside the project area in carrying out the IROPI test. It is a rigorous test which projects are generally considered unlikely to pass.

2.1 Appropriate Assessment Methodology

There are 4 stages in an Appropriate Assessment as outlined in the European Commission Guidance document (2001). The following is a brief summary of these steps.

Stage 1 - Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 - Appropriate Assessment: In this stage, a Natura Impact Statement is prepared, in which the impact of the project on the integrity of the Natura 2000 site is considered with respect to the conservation objectives of the site and to its structure and function.

Stage 3 - Assessment of Alternative Solutions: Should the Appropriate Assessment determine that adverse impacts are likely upon a Natura 2000 site, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse impacts.

Stage 4 - Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the Natura site will be necessary.

In the preparation of this assessment, therefore regard has been given to the Habitats Directive and the European Communities (birds and natural habitats) Regulations 2011 (S.I. no. 477 of 2011) and with reference to the relevant guidance, in particular:

- *Assessment of Plans and Projects significantly affecting Natura 2000 Sites:* Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission 2001.
- *Managing Natura 2000 Sites:* The Provisions of Article 6 of the 'Habitats Directive' 92/43/EEC, European Commission, 2000.
- *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.* National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin 2009.

2.2 Impact Assessment

The first step in the screening process is to develop a 'long list' of Natura 2000 sites potentially affected by the project. Each Natura 2000 site is reviewed to establish whether or not the project is likely to have a significant effect on the integrity of the site, as defined by its structure and function, and its conservation objectives.

The qualifying interests of each Natura 2000 are identified and the potential threats are summarised into the following categories for the screening process, and described within the screening matrix:

Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

Indirect and secondary impacts do not have a straight-line route between cause and effect, and it is potentially more challenging to ensure that all the possible indirect impacts of the plan – in combination with other plans and projects - have been established. These can arise when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site, and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact, which results in increased movement of vectors (humans, fauna, surface water), and consequently the transfer of alien species from one area to another.

Disturbance to fauna can arise directly through the loss of habitat (e.g. bat roosts) or indirectly through noise, vibration and increased activity associated with construction and operation.

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3 STAGE ONE SCREENING

3.1 Brief Description of the Site

Jenkinstown historic landfill is located approximately 6 km northwest of Maynooth, Co. Kildare in the townland of Jenkinstown, Co. Meath. Interviews suggested that the site had been operated as a municipal waste dump by Meath County Council in a worked out shale quarry. The site is reported to have closed in September 1981.

The site is of a square shape approximately 0.31 ha in size. Lands to the north comprise of poorly productive waterlogged/marsh land with a residence beyond. Lands to the south and west are of agricultural land with evidence (unused wheel wash) of previous quarrying activity nearby. The south is bound to the east by the local access road with residences adjoining beyond. The site lies unnaturally lower than the surrounding lands showing clear evidence of excavations/quarrying activities

There was no open water courses or drainage ditches evident on or around the site. The site seems to drain via infiltration to bedrock. Jenkinstown Stream is to the west of the site and flows in a southerly direction where it meets the Rye Water River. The Rye Water River flows into the Rye Water Valley/Carton SAC approximately 10 km downstream of the Jenkinstown site. Jenkinstown Stream has been classed as 1b – ‘probably at risk’ of not achieving good Status by 2015. The Rye Water River is classed as 1a – ‘at risk’ of not achieving good status by 2015 (EPA Envision maps www.epa.ie).

An examination of the national bedrock aquifer map on the GSI website identified that the aquifer underlying the site is classified as Locally Important Aquifer (LI) - Bedrock which is Moderately productive only in local zones. The groundwater vulnerability, as defined by the GSI, is classed as Extreme.

The site was classified as ‘low risk’ (i.e. Class C site) following the Tier I risk assessment process. A Tier II assessment was subsequently conducted, which included the excavation of trial pits on the site. The trial pits investigation across the site confirm that general ground conditions encountered along the east of the site consist of made ground. The made ground comprises of municipal solid waste of varying composition and degrees of degradation overlain by compacted road chippings. The results of the Tier II assessment indicate that the site is a Class C - low risk.

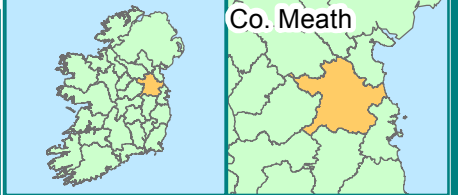
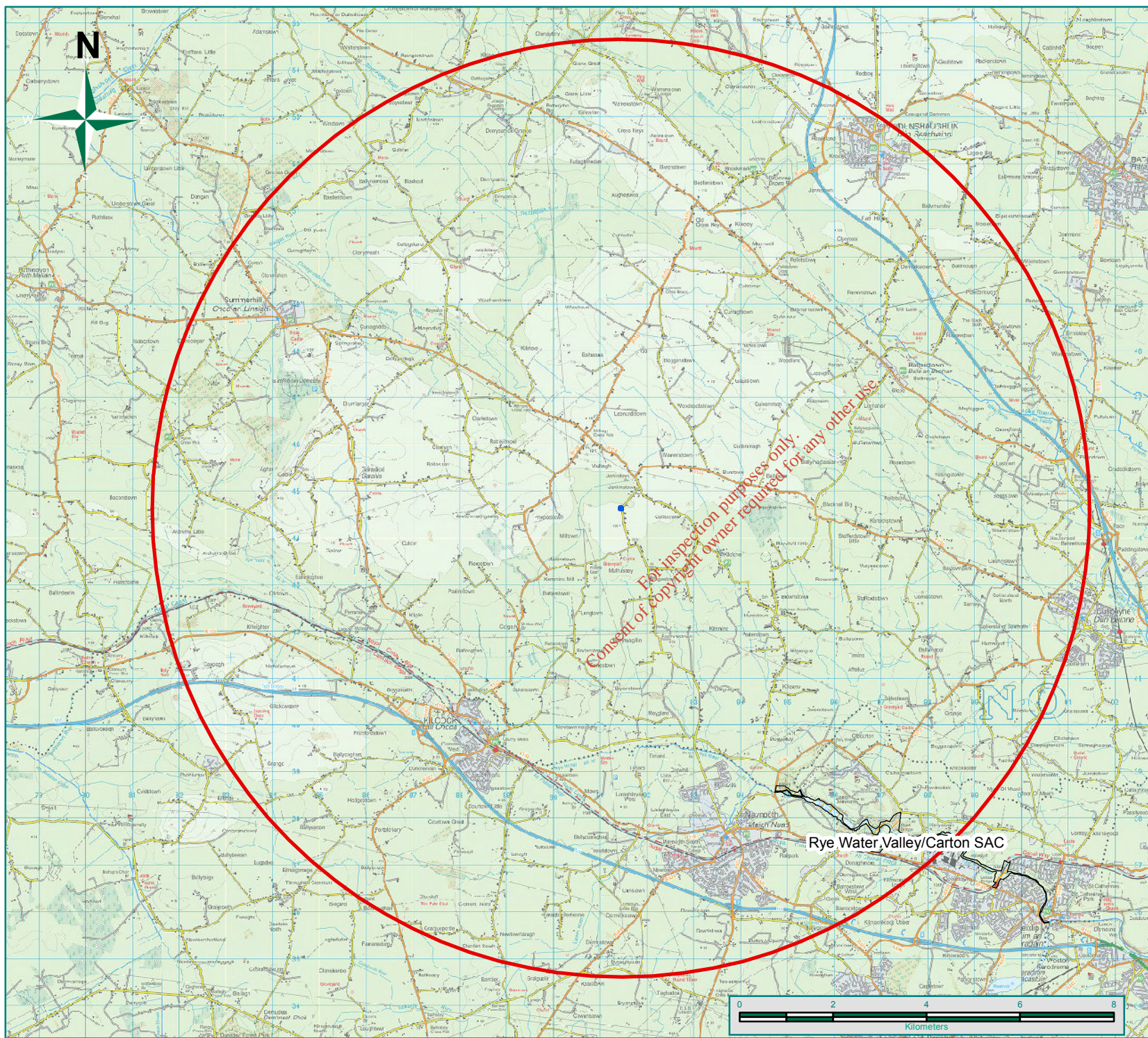
There are no other Natura 2000 sites within 10 km of the site.

3.2 Brief Description of the Natura 2000 Site

Jenkinstown historic landfill is located 6.7 km northwest (directly) of the Rye Water Valley/Carton SAC. There is no direct drainage to any surface water body from the site. Drainage on the site appears to be via infiltration to bedrock. Jenkinstown Stream is to the west of the site and flows in a southerly direction where it meets the Rye Water River. The Rye Water River flows into the Rye Water Valley/Carton SAC approximately 10 km downstream of the Jenkinstown historic landfill. In terms of upstream distance the site is at least 10 km upstream of this Natura 2000 site.

The Rye Water Valley/Carton SAC extends along the Rye Water, a tributary of the River Liffey, and contains a series of lakes, old demesne woods with both deciduous and coniferous woodland, and a mineral spring of a type considered to be rare in Europe and listed on Annex I of the EU Habitats Directive. The site also contains semi-aquatic snails *Vertigo angustior* and *V. Moulinsiana* occurring on marsh vegetation. These species are listed on Annex II of the E U Habitats Directive.

Table 3.1 summarises the characteristics of the Natura 2000 site, and the qualifying features for which the site is designated. Figure 3.1 shows the location of the Natura 2000 site in relation to the Jenkinstown landfill site. The full site synopsis for the Natura 2000 site is available on www.npws.ie.



Legend

- Jenkinstown Landfill
- 10km Buffer Of Site
- Special Areas of Conservation
- Special Protection Areas

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Date: 08/04/2013

Name Of Client:
 Meath County Council

Name Of Job:
 Tier II Risk Assessment
 for Jenkinstown Landfill, Co. Meath

Title Of Figure:
 Location of Jenkinstown
 Landfill in relation to the
 Rye Water Valley / Carton SAC

Scale Used: 1 : 110,000 @ A4

Figure No. 2.1	Rev B
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Table 3.1: Summary of the Natura 2000 sites within 10 km of Jeninstown Historic Landfill

Designated Site	Site Code	Qualifying features	Conservation objectives	Threats	Distance from site (km)
Rye Water Valley/Carton SAC	001398	<ul style="list-style-type: none"> <i>Vertigo angustior</i> [1014] <i>Vertigo moulinsiana</i> [1016] Petrifying springs with tufa formation (Cratoneurion) [7220] 	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.	The woodland section of the site is vulnerable to woodland clearance - resulting in habitat loss for some of the rare flowering plants present. The Rye Water is vulnerable to pollution - much of the surrounding land is agricultural. The petrifying spring and <i>Vertigo</i> species are particularly vulnerable to urban development and to dumping.	6.7 km to the south east

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3.3 Assessment Criteria

3.3.1 Description of the likely impact of the project on the Natura 2000 sites

The Jenkinstown site does not impact on the size and scale of the SAC, and it does not result in any land-take from it. There are no excavation or resource requirements from the SAC as a result of the dump. There are no direct emissions from the dump to the SAC.

The main element of the Jenkinstown site that could potentially indirectly impact on the Rye Water Valley/Carton SAC would be potential contamination of groundwater or surface water. A decline in the water quality in the SAC could compromise the Annex I habitat Petrifying springs with tufa formation (Cratoneurion) and the Annex II semi-aquatic snail species of the SAC, *Vertigo angustior* and *V. Moulinsiana*.

As discussed in Section 3.1, there is no direct drainage to any surface water body from the Jenkinstown site and therefore any potential impacts on the SAC are unlikely, and can be screened out at Stage One of the Appropriate Assessment process.

3.3.2 Cumulative impacts

There are no licensed waste or IPPC facilities in the vicinity of the Jenkinstown site (EPA Envision maps, www.epa.ie). There are no planning applications in close proximity to the Jenkinstown site (Meath County Council Planning website: <http://www.meath.ie/CountyCouncil/Planning>). Water quality of Jenkinstown Stream is classed at 'probably at risk' and the downstream 'Rye River' is classed as 'at risk' of not achieving good status by 2015 (EPA Envision maps, www.epa.ie). The NEWS have stated that the Rye River is vulnerable to pollution and that much of the surrounding land is agricultural. Thus, agricultural sources may be a contributing factor to the poor water quality in the general area. Considering lack of surface water drainage at the Jenkinstown site, and the Tier II 'low risk' classification, it is unlikely it is unlikely that it is contributing to the generally poor surface water quality in the area.

3.3.3 The likely impacts on the Natura 2000 site as a whole

Describe any likely impacts on the Natura 2000 site as a whole in terms of:

- interference with the key relationships that define the structure of the site;
- interference with key relationships that define the function of the site.

There are no impacts on the key relationships that define the structure and function of the Rye Water Valley/Carton SAC as a result Jenkinstown historic landfill.

A 'Finding of No Significant Effects Report' has been completed and is included in Appendix 1 of this Screening Report.

4 REFERENCES

DoEHLG, 2009. Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities. Department of Environment Heritage and Local Government, 2009 (now Department of Environment, Community and Local Government).

EPA, 2007. Code of Practice – Environmental Risk Assessment for Unregulated Waste Disposal Sites. Published by the Environmental Protection Agency, Ireland.

European Commission Directorate-General. 2001. Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Directorate-General. Oxford.

European Commission. 2000. Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

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APPENDIX 1

Finding of No Significant Effects Report

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Finding of no Significant Effects Report	
<i>Name and location of the Natura 2000 sites</i>	Rye Water Valley/Cartron SAC (site code 001398) – 6.7 km to the southeast of Jenkinstown dump
<i>Description of the project or plan</i>	<p>Jenkinstown historic is located approximately 6 km northwest of Maynooth, Co. Kildare in the townland of Jenkinstown, Co. Meath. The site is located in a rural area and is currently being used as a storage compound for road chippings by Meath County Council.</p> <p>The Council identified the site as potentially having a sub-surface waste body. The site has been classified as of 'Lowest Risk' (i.e. Class C sites) following the Tier I risk assessment process. The results of the Tier II assessment indicate that the site is a Class C - low risk.</p> <p>The site is of a square shape approximately 0.31 ha in size. There was no open water course or drainage ditches evident on or around the site. The site seems to drain via infiltration to bedrock. Jenkinstown Stream is to the west of the site and flows in a southerly direction where it meets the Rye Water River. The Rye Water River flows into the Rye Water Valley/Cartron SAC approximately 10 km downstream of the Jenkinstown dump area.</p>
<i>Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?</i>	No
<i>Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?</i>	No
The Assessment of Significant Effects	
<i>Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site</i>	<p>The main element of Jenkinstown landfill that could potentially indirectly impact on the Rye Water Valley/Cartron SAC would be potential contamination of groundwater or surface water from the site, which could eventually contaminate aquatic systems within the SAC. A decline in the water quality in the SAC could compromise the Annex I habitat Petrifying springs with tufa formation (Cratoneurion) and the Annex II semi-aquatic snail species of the SAC, <i>Vertigo angustior</i> and <i>V. Moulinsiana</i>.</p>

The Assessment of Significant Effects

<i>Explain why these effects are not considered significant</i>	As discussed in Section 3.1, there is no direct drainage to any surface water body from the Jenkinstown site and therefore any potential impacts on the SAC are unlikely.
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Name of Agency or Body Consulted	Summary of Response
DAU/NPWS – consulted on 04.04.2013	Response received on 27.05.2013 - no comments were made.

Data Collected to Carry out the Assessment

<i>Who carried out the assessment</i>	<i>Sources of Data</i>	<i>Level of assessment completed</i>	<i>Where can the full results of the assessment be accessed and viewed</i>
This assessment was completed by Fehily Timoney and Company	<ul style="list-style-type: none"> • Tier II risk assessment carried out by FTC. • Tier I risk assessment carried out by Meath County Council. • The National Parks and Wildlife Service (NPWS) map viewer and site synopsis www.npws.ie • EPS Envision maps (www.epa.ie) • Meath County Council Planning website: http://www.meath.ie/CountyCouncil/Planning. 	Stage One Screening for Appropriate Assessment	Meath County Council

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Overall conclusions

Any potential impacts from Jenkinstown historic landfill on the Rye River Valley/Cartron SAC (site code 001398) have been screened out at Stage 1 of the AA process. Therefore an Appropriate Assessment (Stage 2) is not required.