

Sub on obj. ③

Catherine O'Keeffe

office

From: John Daly [John.Daly@fingalcoco.ie]
Sent: 21 November 2007 11:10
To: Catherine O'Keeffe
Subject: W0231-01 Observations on third party submissions
Attachments: MDR0303Rp_FCC Receipt Letter .pdf; MDR0303Rp002F01_WLPD submission on objections.pdf

Dear Ms O'Keefe

Please find attached our observations on the third party submissions and cover letter.

Regards

John Daly
Senior Engineer
Waste Infrastructure and Enforcement
Environment Department
Fingal County Council

Ext + 353 1 890 6261

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Fingal County Council Comhairle Contae Fhine Gall



20th November 2007

Dr Ian Marnane,
Inspector,
Office of Licensing & Guidance,
Environmental Protection Agency,
Headquarters, PO Box 3000,
Johnstown Castle Estate,
County Wexford.

Environment Department
P.O. Box 174,
County Hall,
Swords,
Fingal,
Co. Dublin

An Roinn Seirbhísí Comshaoil
Bosca 174,
Áras an Chontae,
Sord,
Fing Gall,
Contae Átha Cliath

Re: W0231-01, Proposed Fingal Landfill

Dear Dr Marnane,

Please find attached submission on objections to the Proposed Decision on the Fingal Landfill Waste License W0231-01.

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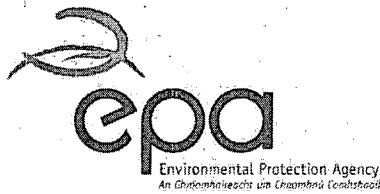
Telephone
01 890 6274
Facsimile
01 890 6270
Email
envserv@fingalcoco.ie
www.fingalcoco.ie

Yours Sincerely,

Martin Kiely,
Senior Executive Engineer

Tel: (01) 890 6262





Waste Licensing

Waste Disposal Activities (Landfill Sites)

**Application by
Fingal County Council
for Waste Licence Application W0231-01
for Fingal Landfill, Co. Dublin**

EPA Reg. No.: (Office use only)	W0231-01
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Fingal County Council

**Comhairle Chontae Fhine Gall
Fingal County Council**

***Submission on Objections to
Waste Licence Proposed Decision***

November 2007



Fingal Landfill

Submission on Objections to Proposed Decision for Waste Licence Reg. No. W0231-01

DOCUMENT CONTROL SHEET

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Project Title	Fingal Landfill					
Document Title	Submission on Objections to Proposed Decision for Waste Licence Reg. No. W0231-01					
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Consulting Engineers

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APPENDIX

Appendix A

Brief of Evidence submitted at the Fingal Landfill Oral Hearing
by Mr Lar Spain of Fingal County Council

**Submission on objections to Waste Licence Proposed Decision
W0231-01 under Section 42 of the Waste Management Act, 1996 to
2005.**

Grounds for submission

Fingal County Council of PO Box 174, Fingal County Hall, Main Street, Swords, County Dublin, as the license applicant for the proposed Fingal Landfill, wish to make a submission in writing to the Agency on the other objections.

The responses to the specific objections are set out in the following sections.

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1.0 OBJECTION REPONSES

1.1 OBJECTION 001

Received from Declan De Faoite, Baile Na Ridire, Lusk on 24th September, 2007.

1.1.1 Response

The Applicant respectfully submits that all relevant objections in 01 have been previously dealt with in the EIS and/or the Article 14s already submitted to the Agency.

1.2 OBJECTION 003

Received from John and Mary White, Agricultural Contractors, Nevitt, Lusk on 10th October

1.2.1 Response

The Applicant respectfully submits that all relevant objections in 03 have been previously dealt with in the EIS and/or the Article 14s already submitted to the Agency.

1.3 OBJECTION 004

Received from Margaret Heavy, Head of Landfill Operations, Greenstar on 16th of October

1.3.1 Response

The Applicant respectfully submit that the approach adopted by the Agency in this PD in relation to the excavation of the historical waste site is correct and follows guidelines as set out in the "Code of Practice , Environmental Risk Assessment for Unregulated Waste Disposal Sites, EPA, 2007. Section 7.1 of the Code states the following;

..... prior to embarking on the risk assessment process, it is to be assumed that the waste shall be removed from the site except only where it can be shown that an alternative solution provides greater protection to the environment and the health of the local population. The remediation plan for these sites should therefore centre on the removal of waste from the site and the manner in which this is to be done. In almost all such cases, the majority of waste is likely to be required to be removed and the only circumstance where waste can remain on the site is where it can be clearly demonstrated that this will lead to greater protection of the environment or enhancement of the environment and greater protection of the health of the local population.

In addition, the Applicant respectfully submits that the requirements outlined in condition 6.35.1 of the PD will ensure the historical waste site is dealt with in accordance with current polices, guidelines and codes of best practice.

1.4 OBJECTION 006

Received from Nevitt Lusk Action Group, Little Acre Cottage, Walshestown, Lusk on 17th October, 2007.

1.4.1 Response

The Applicant respectfully submits that all relevant objections in 06 have been previously dealt with in the EIS and/or the Article 14s already submitted to the Agency.

1.5 OBJECTION 007

Received from CEWEP, PO Box 10285, Dublin 1 on 15th October

1.5.1 Response

The Applicant respectfully submits that all relevant objections in 07 have already been dealt with in the EIS and that this proposed development is in adherence to National and Regional waste policies.

1.6 OBJECTION 008

Received from Kevin Cullen, Sliding Rock, Blackglan Road, Sandyford, Dublin 8 on 15th October, 2007.

1.6.1 Response

The Applicant respectfully submits that all relevant objections in 08 have been previously dealt with in the EIS and/or the Article 14s already submitted to the Agency.

Objection 08 also discusses the exploitation of possible groundwater sources in this region. This topic was also discussed at length in the An Bord Pleanála oral hearing in October, 2006 and, for information purposes, the Brief of Evidence from Mr. Lar Spain, Senior Engineer for Fingal County Council water services section is attached in **Appendix A**. This Brief of Evidence outlines Fingal County Council's future water strategy.

1.7 OBJECTION 009

Received from Tiros Resources Limited, Armitage House, 10 Hatch Street Lower, Dublin 2 on 17th October, 2007. This objection was made on behalf of Hakaton Limited, The Warehouse, Barrow Street, Grand Canal Dock, Dublin 4.

1.7.1 Nature and Scale of the Development

This has already been dealt with in the EIS, in particular, Volume 4, Technical Appendices, Appendix G, Traffic Impact Assessment.

1.7.2 Impacts arising from Air Quality

In relation to acceptable odour annoyance criteria the odour dispersion model indicates that odours from the site will not have an impact greater than the 1.5Ou/m³ (98th %ile). This is the appropriate odour nuisance criteria for high risk odour sites such as landfills as devised by the UK Environment Agency.

In terms of the odour emission factors, the factors employed in the model are based on the average of a database of emission factors compiled by the odour expert from Irish landfills. However, these average emission factors have been applied across the landfill for all sources simultaneously. In reality, the odour sources would be isolated "hot-spots" rather than from the entire footprint landfill. As such, the model has been set up to assume that all areas of the landfill will give rise to odours simultaneously resulting in a significant over estimation of odours from the site. As such, the potential inaccuracy of the model (as stated by the US EPA) has been corrected for in this overestimation and generation of a worst case odour profile for the landfill. Consequently, the concerns raised by Tiros in relation to the nearest sensitive receptors to the odour isopleths are unfounded.

1.7.2.1 Climate

Greenhouse gas emissions from both landfill gas generation and also from traffic associated with the proposed landfill have been quantified in the EIS and the impacts are not considered significant in terms of Ireland's commitments under the Kyoto Protocol.

Tiros enter into a lengthy analysis of a series of various waste treatment/disposal options and compare these options in terms of greenhouse gas emissions. The analysis is based on the IPCC Guidelines for determining national greenhouse gas emissions and are devised to allow governments to determine waste policy at national level. The scope of the EIS for this landfill was to determine the likely significant impacts of the proposal on climate change. It was not to carry out analysis of alternatives and their impact on greenhouse gas emissions. As such, the points raised in the Tiros document relating to climate change are not relevant to this EIS.

1.8 OBJECTION 010

Received from Office of Minister Trevor Sargent TD, Department of Agriculture, Agriculture House, Kildare St, Dublin 2 on 11th of October.

1.8.1 Response

The Applicant respectfully submits that all relevant objections in 010 relating, directly or indirectly to groundwater have previously been dealt with in the EIS and/or the Article 14s submitted already to the Agency.

In addition, Objection 010 also makes reference to "*toxic bottom ash from incinerators in the region also been stored there*". The Applicant respectfully submit that the requirements in condition 6.9.2 of the PD addresses the issue of hazardous class ashes; i.e. Condition 6.9.2 "Fly ash (air pollution control residues) or other hazardous class ashes shall not be accepted at the facility" and there is no intention to store or treat hazardous fly ash at the landfill facility.

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APPENDIX A

Brief of Evidence submitted at the Fingal Landfill Oral Hearing by Mr L Spain of Fingal County Council

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Overview of the Bog of the Ring Groundwater Abstraction Scheme

My name is Lar Spain. I am Senior Engineer, Operations, in the Water Services Department of Fingal County Council. I am responsible for all operational matters relating to Water Production, Water Supply, Wastewater Collection and Wastewater Treatment in Fingal County Council. I am responsible for the operation and maintenance of the Leixlip and Bog of the Ring Water Treatment Plants.

INTRODUCTION

The Bog of the Ring groundwater abstraction scheme came into operation in July 2003. It consists of five boreholes, or Production Wells, constructed on a roughly east-west line running from PW1 beside the M1 motorway at Decoy Bridge at its eastern extremity, to PW5 in Killougher, some 3km to the west. Shortly after its commissioning, PW1 was abandoned due to sand ingress, and only the remaining four production wells are used to extract raw water from the aquifer.

The raw water from the production wells is collected in a raw water main and transported to a treatment plant located just east of the M1 at Decoy Bridge. The water abstracted from the aquifer is of good quality, is hard water, but contains high levels of Iron and Manganese. The iron and manganese are removed at the Bog of the Ring Treatment Plant, the water is fluoridated in compliance with the legislation and the water is also disinfected before being put into distribution.

Water from the Bog of the Ring is pumped to our reservoirs at Jordanstown and Kilsough and, together with approximately the same quantity of treated water from our Leixlip Water Treatment Plant, supplies Balbriggan and the surrounding area with potable water.

The quantity of treated water produced at the Bog of the Ring Water Treatment Plant varies between 3.5 and 4.0 Million Litres per day (MLD).

WATER PRODUCTION IN FINGAL

Fingal County Council operates two water treatment plants, Bog of the Ring Water Treatment Plant and Leixlip Water Treatment Plant. The Bog of the Ring plant produces a maximum of 4.0 MLD while Leixlip produces a maximum of 168 MLD. The Leixlip plant abstracts its raw water from the river Liffey at Leixlip. Roughly half of what is produced at Leixlip is consumed in Fingal, the other half is exported to Dublin City Council, Kildare County Council, Meath County Council and South Dublin County Council. The Leixlip plant supplies treated water to all parts of Fingal including the Balbriggan

area. To supply Balbriggan the water must travel in excess of 40 km through our pipe network from Leixlip to Balbriggan.

LOCAL IMPORTANCE

From the preceding paragraphs it can be seen that Bog of the Ring accounts for slightly less than 5% of the water requirements of Fingal, but it accounts for about 50% of the water requirements of the Balbriggan area. Bog of the Ring Water Treatment Plant is therefore locally important for Fingal at the present time. There are three reasons for this:

1. Leixlip Water Treatment Plant is currently operating at or near its maximum capacity, so it cannot at present produce extra water to replace Bog of the Ring.
2. The pipe infrastructure from Swords to Balbriggan is not capable of delivering more water to the Balbriggan area, even if it were available at Leixlip.
3. The Bog of the Ring plant gives Water Services a source of water in the North County and thereby eases the pressure on burst repair times.

SUSTAINABILITY OF THE BOG OF THE RING SCHEME

Hydrogeological studies undertaken periodically from 1984 to 2000 within and in the environs of Bog of the Ring indicated that potential existed for the development of a groundwater abstraction scheme. The studies indicated that the development of an abstraction scheme for approximately 4,500cu.m/day was feasible in the short term. The longer term viability of the scheme was dependent on pump tests and interpretation of hydrogeological data to determine that no significant impacts on the ecological status of the designated area occurred.

TES Consulting Engineers were engaged by Fingal County Council in August 2004 to act as Hydrogeological Consultants for the Bog of the Ring Groundwater Abstraction Scheme. Their brief was to assess the sustainable abstraction from the Bog of the Ring aquifer and included the recording of groundwater levels from the monitoring network within and adjacent to the Bog of the Ring, on a fortnightly basis, for a 2 year period. This project concluded in August 2006 and they issued their final report in October 2006, as planned. The relevant findings are:

- the abstraction scheme is not significantly impacting on the ecological status of the designated area.
- the 2000 pump test programme over-estimated the potential of the aquifer.
- The recharge of the aquifer is impeded by the thick deposit of low-permeability clays.
- The estimated sustainable yield from the aquifer is 4 MLD (+/- 15%).

- Increasing abstraction from the Bog of the Ring aquifer is not recommended as increased abstraction "has the potential to over-exploit the aquifer, whereby there is insufficient recharge to the aquifer to meet the abstraction".
- The catchment area delineated from the water level monitoring programme is generally consistent with the catchment area delineated by the GSI, with one notable exception. The GSI include a significant area to the west of the M1 motorway (approximately 5 sq.km). The monitoring programme indicates that the cone of depression induced by abstraction does not extend into this area.

The full report prepared by TES Consulting Engineers has been submitted to the hearing, and a summary of the report, by the author Mr. Mark Conroy, is attached as an appendix to my brief of evidence.

FUTURE PLANS

Fingal are currently at an advanced stage in the planning for increasing the production capacity at Leixlip Water treatment Plant. Planning permission has been obtained from South Dublin County Council, a water abstraction license will be applied for soon, and it is planned to have additional water, in the order of 60 MLD, from Leixlip in late 2009, bringing the sustainable output of Leixlip up to 225 MLD.

The pipe infrastructure from Leixlip to Balbriggan is also undergoing improvement. New rising mains from Leixlip to our main reservoir at Ballycoolen are about to be constructed, with construction planned to start in January 2007, and ending in early 2009.

The main reservoir at Ballycoolen is currently being doubled in capacity with the new reservoir scheduled to be brought into service in the middle of 2007.

A new duplicate pipe is planned between Ballycoolen and Swords with construction scheduled by 2008.

A new section of pipe has already been constructed by-passing Swords, which has increased capacity and has allowed water to continue to flow to the North County during repairs of the major trunk main in Swords.

Improvements to the main from Swords to Balbriggan are also underway with construction due to commence in the middle of 2007, and completion of the final phase in 2009.

This additional distribution infrastructure, along with the additional water from Leixlip, will allow the Balbriggan area to be supplied with water independently of the Bog of the Ring groundwater scheme.

On a regional basis, Dublin City Council are currently at the early stages of planning, to provide a major new source of water (circa 350 MLD) to the Dublin Region in 2015.

All of these works will reduce the importance of the Bog of the Ring Water Treatment Plant, but no plans are currently in place to decommission the plant.

SUMMARY

- The Bog of the Ring Scheme supplies 3.5 to 4.0 MLD to Balbriggan and its environs.
- This represents approx. 5% of Fingal's current water requirements.
- It has been established that it is not sustainable to increase abstraction from the aquifer.
- The sustainable abstraction from the aquifer is estimated at 4 MLD (+/- 15%).
- The abstraction scheme is locally important to the Balbriggan area pending the delivery of water production and infrastructure improvements, the first phase of which are expected to be commissioned in late 2009.
- In the medium to long term the importance of the Scheme will diminish in the context of the water service improvements being implemented and predicted population growth for the Fingal area.

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