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Date: August 23, 2006

our ref. W0231-01

your ref.

**Re: Waste Licence Application Ref. No. W0231-01, Fingal Landfill**

Dear Mr. Daly:

The Environmental Protection Agency has received a Waste Licence application from Fingal County Council with regard to the development of a landfill facility at Nevitt, Lusk, County Dublin.

The Agency is requesting assistance from the GSI on a number of points related to the site of the proposed development and the information contained in the application, as follows:

- The EIS document completed by RPS reports a groundwater divide to the north of the Nevitt site (at the approximate location of Rowans Little), as referenced in Appendix H, Section 3.5.2.1 of the EIS (copy of EIS on enclosed CD, Appendix H included in document 'Volume 5 Technical Appendix')). This is also supported by Appendix A5 (groundwater contour maps) of the same document. Section 3.5.2.1 states that GSI includes this divide in the model completed as part of the 'Bog of the Ring Groundwater Protection Zones' study. Can GSI please comment on the reported divide and the basis for its inclusion in the model, and also supply a copy of the referenced report (and any other relevant reports in relation to the subject area).
- A report prepared by Mott McDonald consultants (copy on enclosed CD) on behalf of the Nevitt Lusk Action Group includes a review of the 'Bog of the Ring Groundwater Protection Zones' study completed by GSI in 2005 and suggests that the study should not be relied upon as an indicator on the issue of whether the Nevitt site falls within the zone of contribution of the bog of the ring wellfield, as the model developed by GSI makes the assumption that the Nevitt site area is outside the zone of contribution. Can the GSI provide a comment of the utility of their study in assessing the potential as to whether the Nevitt site falls within the zone of contribution of the Bog of the Ring wellfield.



- The Mott McDonald report also indicates that there is potential for development of a new groundwater resource from the Loughshinny Formation to the east and northeast of the Nevitt site (see Section 4 of the Mott McDonald report). Can the GSI comment on the potential yields from a wellfield in this area? Is development of this area for public water supply considered a viable option based on available information?
- An additional report from James Bourke hydrogeological consultant (included on enclosed CD) suggests that 90 % of the water supply to the Bog of the Ring is derived from the proposed landfill area (at Tooman). Based on GSI knowledge of the area can you comment on the above statement.
- The EIS completed by RPS consultants indicates a potential variation in the extent of the zone of contribution to the Bog of the Ring Wellfield in the event of an increase in the abstraction rate to 5,000 m<sup>3</sup>/day (see Section 3.4.4 of Appendix H of the EIS document). This is quoted from the GSI report on the 'Bog of the Ring Groundwater Protection Zones'. Can the GSI comment on the capacity of the aquifer to provide/sustain this abstraction rate and if possible provide a plot of the likely changes to the zone of contribution from that previously detailed in Map 5 of the GSI 'Bog of the Ring Groundwater Protection Zones' study.
- Can GSI confirm the classification of the landfill site area under the groundwater protection response matrix for landfills as R1, based on a 'low' vulnerability rating and an aquifer category of 'Locally Important and generally moderately productive (Lm)'. The classification scheme is as per the 'Groundwater Protection Schemes' (DEHLG, GSI, EPA, 1999). See extent of site area in attached Figure B.2.1 and B.2.2 in Licence Application document on enclosed CD, the proposed licence area is outlined in red.
- We would be pleased to receive any other hydrogeological information/opinion in relation to the application, as may be considered relevant by the GSI.

I also attached, for your reference, a copy of the full EIS in electronic format on CD. Appendix H and I (Volume 5 Technical Appendix) contain the most detailed assessment of hydrogeology and soils. Data on investigations carried out at the site are also included in 'Volume 5' of the EIS (6 separate documents containing factual information on the investigations) including details of borehole logs and in-situ and laboratory tests completed as part of the EIS.

Yours sincerely,



*Dr. Ian Marnane*

Inspector

Licensing Unit, Office of Licensing and Guidance

