

Ms. Natalya Hunter Williams  
Geological Survey of Ireland  
Beggars Bush  
Haddington Road  
Dublin 4

Headquarters, PO Box 3000  
Johnstown Castle Estate  
County Wexford, Ireland

Ceanncheathrú, Bosca Poist 3000  
Eastát Chaisleán Bhaile Sheáin  
Contae Loch Garman, 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: 1890 33 55 99

Date: November 30 2006

our ref. W0231-01

your ref.

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

Dear Ms. Hunter Williams:

Thank you for your response to my letter of August 23. As a result of ongoing assessment of the Waste Licence Application (No. W0231-01) I have some additional queries on which the Agency would appreciate your comments. I have set the questions out below:

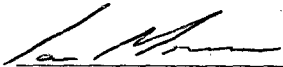
- (i) In a submission received by the Agency (submissions dated 12/09/06 from K. Cullen) a comment is included with regard to the geological cross section (Figure 3) in the Bog of the Ring Source Protection Zone Report, with Mr. Cullen stating that 'Both the GSI's and applicant's sections show a dramatic thinning of the Loughshinny Formation from north to south across the syncline axis. The cross section accompanying the GSI published map (note: I presume this refers to sheet 13, Geology of Meath) in contrast shows no such thinning of the Loughshinny Formation across the syncline axis'. Can you comment on the above and provide information as to the derivation of the data in Figure 3 of the Bog of the Ring report.
- (ii) Could you please review the pumping tests results and methodology included in the EIS report (Section 3.5.3 of Volume 5, Technical Appendix H; and Section 3.18.3.5 of the main EIS Report, Volume 2) and comment on the adequacy of the pumping tests in assessing the aquifer characteristics (e.g. transmissivity and storativity) of the underlying bedrock. Also, Mr. Cullen, in his letter of 13/09/06, makes a comparison between the transmissivities determined in the EIS and those for the deep bedrock wells at the Bog of the Ring by extrapolating the transmissivity for the shorter screen lengths used by the applicant to the average 39 metre screen length reported for the deep wells at the Bog of the Ring. Please comment on the validity of this comparison, and whether this suggests to you that the groundwater resources beneath the proposed site are of similar potential to the bedrock aquifer at the Bog of the Ring. Would the GSI consider there to be a need for further pumping tests to be carried out?



- (iii) With regard to the groundwater divide detailed in the Bog of the Ring Groundwater Protection Zone study, can you provide any comment as to whether the modelling study that you carried out as part of the study confirms the assumed location of the groundwater divide or if the modelling indicated any potential variations to the assumed location. Does additional information (e.g. groundwater contour plots or zone of contribution data) included in the EIS itself, the recent Bog of the Ring Study completed by Tobin Environmental, or the September 7<sup>th</sup> Report completed by Mott McDonald provide any additional evidence to support the proposed location of the groundwater divide? In relation to the hydrogeological investigations carried out to date as part of the EIS, do you consider there to be sufficient density of boreholes (ref. borehole plot in Figure 8 of Volume 5 Appendix H) to allow the location of the groundwater divide to be determined? .

We previously supplied a copy of the EIS in electronic format however should you require any further information or require hard copies of the document we will be happy to supply these to you. Please let me know if you require any further information.

Yours Sincerely,



*Dr. Ian Marnane*

Inspector

Licensing Unit, Office of Licensing and Guidance