

Licensing Unit,  
Office of Licensing & Guidance,  
Environmental Protection Agency.  
Johnstown Castle Estate,  
County Wexford

Sliding Rock,  
Blackglen Road,  
Sandyford,  
Dublin 18.

23-2-2007

**Re: Waste Licence Application W 0231-01 Fingal Landfill**

**ARTICLE 12 COMPLIANCE REQUIREMENTS**

**Submission by Kevin Cullen.**

Dear Sirs,

In your request for further information dated November 16, 2006 you requested that the Applicant 'Provide a revised plan view of the bedrock geology underlying the site.'

I am not aware that the Applicant has complied with this specific request. I expect that the Agency will remind the Applicant of this deficiency in its response to the Agency's Article 12 Compliance Requirements.

I also note that the Applicant was requested to; 'undertake a numerical modelling study (using MODFLOW or similar industry-accepted code) to determine (a) the impact on the groundwater flows at the proposed landfill area of the additional abstraction wells along indicated area of land, and (b) the combined zone of contribution for the existing Bog of the Ring abstraction system and the theoretical new abstraction wells. Indicate the additional sustainable yield that maybe attainable from boreholes along the area of land already mentioned. Document all model assumptions and input data.'

I note that the Applicant has refused to comply with the Agency's request and I expect that the Agency will remind the Applicant of this deficiency in its response to the Agency's Article 12 Compliance Requirements.

The Applicant's partial response to the Agency's request highlights the issue at hand, namely sustainability;

'In light of these factors, a numerical modelling study to determine the impact of hypothetical increased abstractions on groundwater flows beneath the landfill and on the extent of the resultant zone of contribution is not considered necessary as it is not Fingal County Council's plan to further develop groundwater resources in the area.'

You can readily interpret the Applicant's response in the manner that because Fingal County Council does not intend to abstract further groundwater from the bedrock aquifer then it is correct to place a landfill here without knowing whether the landfill will

compromise the use of the aquifer by future generations. Such a policy is contrary to the concept of sustainability and must be rejected.

The requested information should be supplied to allow the Agency fulfill its responsibility with respect to determining the sustainability of the proposed landfill development.

Furthermore, I note that the Applicant in its response to Item 1 selectively quoted from the GSI's letter as;

*"makes no practical difference to the overall picture of the geology or its influence on groundwater. Any minor lithological differences between the different formations, as far as groundwater behavior is concerned, are likely to be negligible".*

The GSI actually completed the sentence with the observation that;

*'the groundwater would be far more likely to be affected by faulting and fracturing of the rocks by joints.'*

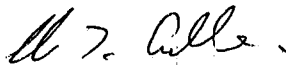
You will of course be aware that my interpretation of the Applicant's data clearly showed a major fault beneath the footprint and which interpretation was not contested by the Applicant at the An Bord Pleanala hearing.

This fault is defined by the edge of the bedrock trough and the coincident steep gradient in the bedrock groundwater contours shown on the Applicants drawings that accompanied the EIS and subsequently amended during the ABP hearing.

The GSI's comments highlight the fact that the groundwater flow regime beneath the footprint will therefore be fundamentally different to that indicated to the Agency by the Applicant.

Thank you for you time and I look forward to reviewing the Applicant's revised geological map so specifically requested by the Agency.

Yours Sincerely,



EurGeol Kevin T. Cullen PGeo.