

Comhairle Contae Fhine Gall Fingal County Council



EPA Headquarters,
PO Box 3000,
Johnstown Castle Estate,
Co. Wexford.

16th September, 2011

**RE: Murphy Environmental Hollywood Ltd., Hollywood Great, Nags Head,
The Naul, County Dublin, Dublin. W0129-3 Application:**

To Whom It May Concern:

At the Balbriggan Swords Area Committee Meeting held in the Council Chambers on Thursday 8th September, 2011 the motion forward by councillor Ciaran Byrne was discussed;

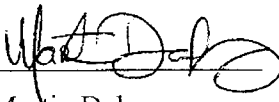
"That the Balbriggan Swords Area Committee calls on the County Manager and County Council in Fingal to formally contact the EPA to oppose the granting of a licence for a hazardous waste facility on the lands at Murphy's Quarry (as previously identified) in Hollywood, County Fingal".

A report was submitted to the committee (see attached submission) and the motion was passed following a vote of the Councillors.

As part of Fingal County Council's submission we have included *MEHL Integrated Management Facility: Hydrogeological & Engineering Review: January 2011*

Also, regarding the additional information at the oral hearing we wish to refer you to the information with An Bord Pleanála and recommend that you examine the additional evidence on hydrogeology at the oral hearing which you should be able to obtain from the board.

Yours sincerely,


Martin Daly

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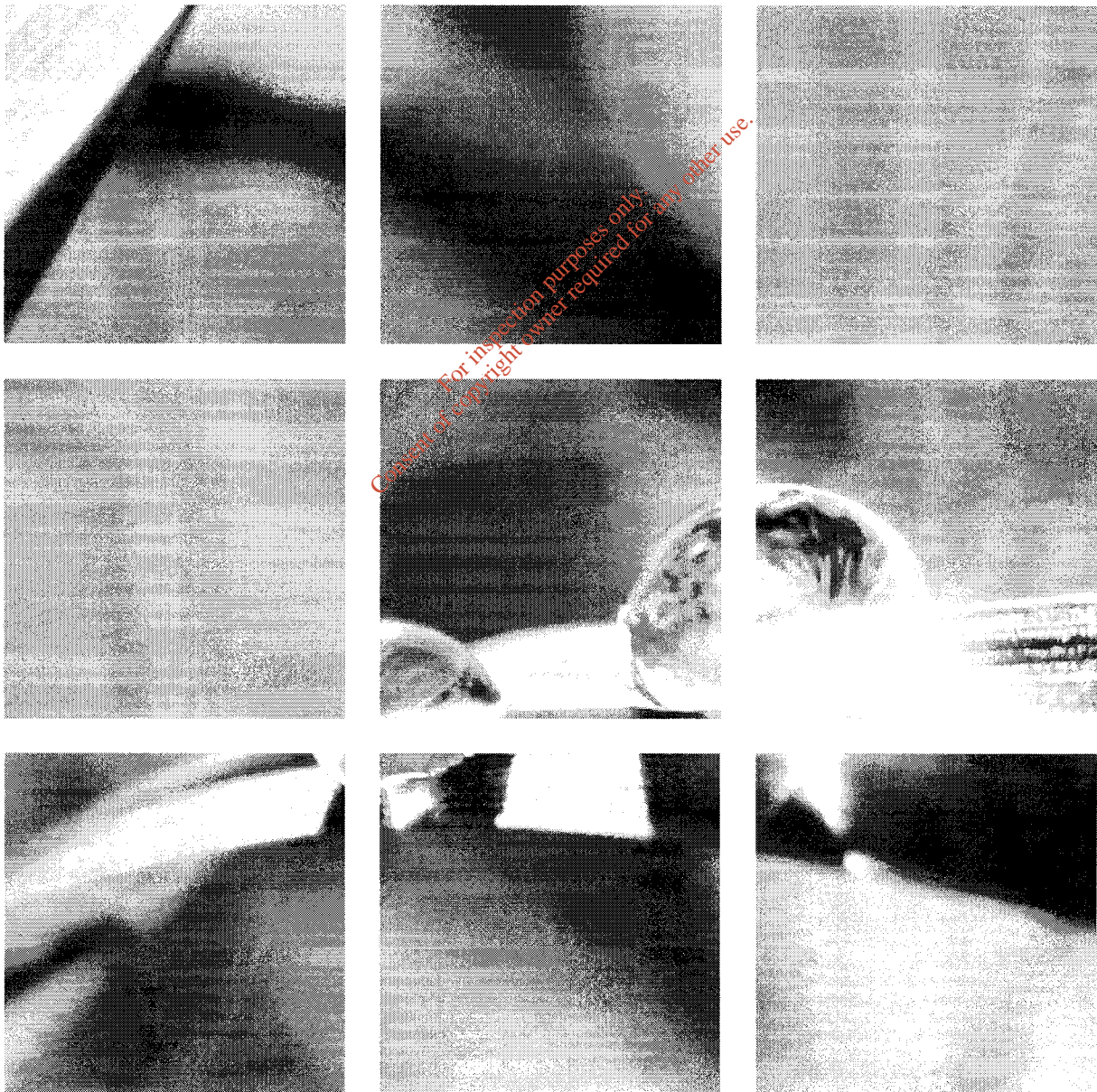
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Comhairle Contae Fhine Gall
Fingal County Council

MEHL Integrated Waste Management Facility

Hydrogeological & Engineering Review



January 2011





MEHL Integrated Waste Management Facility

Hydrogeological & Engineering Review

DOCUMENT CONTROL SHEET

Client	Fingal County Council					
Project Title	MEHL Integrated Waste Management Facility					
Document Title	Hydrogeological & Engineering Review					
Document No.	MDE1024Rp001					
This Document Comprises	DCS	TOC	Text	List of Tables	List of Figures	No. of Appendices
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F01	Final	P. Heaney S. Herlihy L. O'Toole	Shane Herlihy	Larry O'Toole	West Pier	21/01/2011

Confidentiality statement:

The information disclosed in this proposal should be treated as being strictly private and confidential and you are requested to take all reasonable precautions to maintain its status as such. You are requested to use and apply the information solely for the purpose of evaluating this proposal and are asked not at any time to disclose or otherwise make available the information to any third party except for those officers, employees and professional advisers who are required by you in the course of such evaluation to receive and consider the information and who agree to be bound by these non-disclosure terms.

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1 INTRODUCTION

RPS were requested by Fingal County Council to review the MEHL Integrated Waste Management Facility Strategic Infrastructure Development (SID) Planning Application in relation to hydrogeology and the risks posed by the facility to groundwater.

The work included a desk top review of the SID application available online from the MEHL SID application website by senior hydrogeological and engineering consultants within RPS and preparation of an overview report with recommendations to Fingal County Council. This report presents the results of this review and assessment of the MEHL application.

The key engineering and hydrogeological issues identified in this review are presented in Section 2 of this report along with a risk evaluation and recommendation for each issue identified. Overall conclusions and recommendations are contained in Section 3 of this report.

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2 HYDROGEOLOGY AND ENGINEERING REVIEW

Table 2.1 outlines the key issues identified in relation to hydrogeology, engineering design and overall risk of the proposed development.

Table 2.1: Outline of Key Issues

ISSUE	DESCRIPTION	CONCLUSION / RISK	RECOMMENDATION
Hydrogeology – Groundwater Flow	<p>The developer has limited groundwater flow information for the site and has not tied the flow direction into the regional groundwater environment (e.g Bog of the Ring groundwater divide, etc).</p> <p>Groundwater levels have not been accurately measured for artesian conditions at monitoring wells BH6 and BH4A (refer to applicant Figure 14.13). BH4A groundwater level is a critical monitoring point (located to the east boundary of the site) and BH14 (located at the south corner of the site) do not support the groundwater flow contours illustrated on Figure 14.13. There is a risk that groundwater flow in this area flows to the east-northeast towards the Bog of the Ring.</p>	<p>Medium - High Risk</p> <p>Groundwater flow directions are not adequately understood.</p>	<p>Additional groundwater flow measurements are needed specifically:</p> <ul style="list-style-type: none"> Measuring the artesian head at all boreholes where groundwater levels are above casing level Synchronously monitoring groundwater levels at the Bog of the Ring and accessible groundwater monitoring wells installed for the Fingal Landfill project and others that may be available and suitable in the surrounding area. Installing additional monitoring wells if considered necessary to adequately map groundwater flow directions Monitoring groundwater level and mapping flow directions during low, high and mid levels (e.g. winter, spring and summer)
Geology – aquifer classification and landfill response matrix	<p>The applicant has classified the Loughshinny aquifer as a Locally Important Aquifer which is moderately productive only in local zones (LI). The GSI classify the Loughshinny Aquifer as a Locally Important Aquifer which is moderately productive (Lm).</p> <p>The applicant classifies the overlying Walshestown, Balrickard and upper part of the Donore Formations (Namurian strata) as</p>	<p>High Risk</p> <p>The Loughshinny Aquifer should be classified as a Locally Important Aquifer which is moderately productive (Lm).</p>	<p>Object to the development on the basis that</p> <p>The vulnerability across the entire site is extreme and there is no natural protection at the site.</p>

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	<p>an "aquitard", but the GSI do not classify any bedrock in Ireland as an aquitard. The borehole logs, core photography and hydraulic testing data indicate that the Namurian strata at the site are highly fractured in parts and moderate permeability zones occur within these formations. This would support the GSI classification of a Poor Aquifer generally unproductive except in local zones (P1).</p> <p>The extent of the north-south trending fault identified on site has not been adequately defined by the applicant. The geological survey of the site suggests that the north-south trending fault is probably a continuation of the fault that the GSI shows on their sheet 13 (McConnell <i>et al</i> 2004) immediately north of the Hollywood site." (Conodate, Nov 2009). This may provide a direct link between the site and the Bog of the Ring supply.</p> <p>The hydraulic characteristics of the faults at the site have not been adequately defined by the applicant. The applicant considers that the north-south trending fault impedes groundwater flow. The investigations at the site do not support this. A drawdown in water levels was observed on both sides of the north-south trending fault during the pumping test conducted at the site. The pumping test data also suggest that there may be enhanced permeability in the Namurian strata adjacent to the fault (drawdown observed in BH5 and BH16 during the pumping test). This increase in permeability adjacent to a fault has also been observed at a north-south trending fault to the east of the site. We consider that the faults are likely to link the Namurian strata and the underlying Loughshinny aquifer.</p> <p>The applicant considers that the Namurian strata acts as a low permeability layer and confine/isolate the underlying Loughshinny aquifer. As detailed above, the site data (fracturing, faulting and permeable zones) do not support this low permeability designation. The drawdown in water levels observed in boreholes completed in the Namurian strata due to pumping of the BH17 indicates hydraulic connection (leakage) between the overlying Namurian strata and the underlying Loughshinny aquifer. Groundwater heads in the Namurian strata</p>	<p>The Namurian strata should be classified as a Poor Aquifer. Observed faulting, fracturing and moderate permeability zones will support productivity in local zones.</p> <p>There is a risk that the faults underlying the site may act as preferential pathways for contaminant flow away from the site and potentially act as a direct pathway to the Bog of the Ring SPZ.</p> <p>Hydraulic connection between the Namurian strata and the underlying Loughshinny aquifer has been observed at the site. Groundwater heads support downward vertical groundwater flow.</p> <p>The vulnerability across the site is extreme.</p> <p>The landfill response classification for the southern part of the site where non-hazardous and inert waste will be placed will be R3².</p> <p>The landfill response classification for the northern part of the site where hazardous waste will be placed will be R2².</p>	<p>Faulting may provide a direct link between the site and the Bog of the Ring supply.</p> <p>There is evidence that the Namurian deposits will not confine/isolate the underlying Loughshinny aquifer. In fact the evidence suggests that there is downward groundwater flow from the Namurian strata into the Loughshinny aquifer. Faulting and fracturing may act as preferential flow paths between the strata.</p>

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	<p>are elevated to those measured in the Loughshinny aquifer indicating downward flow from the Namurian strata to the aquifer.</p> <p>The applicant initially defines the vulnerability of the bedrock as Extreme rock near surface or karst, for the entire site. The classification for the majority of the site, where underlain by the Namurian strata is later redefined as moderate by the applicant. The site data does not support this reclassification.</p> <p>The applicant designates the southern part of the site as R2² Acceptable subject to guidance outlined in the EPA Landfill Design Manual or conditions of a waste licence, based on their aquifer classification, vulnerability classification and the GSI landfill response matrix. As discussed in the comments above the Loughshinny Aquifer is incorrectly classified and the southern part of the site should be designated R3². Not generally acceptable unless it can be shown that there is a minimum consistent thickness of 3m of low permeability subsoil present; there will be no significant impact on the groundwater, and it is not practicable to find a site in a lower risk area.</p> <p>The applicant designates the northern part of the site as R2¹ Acceptable subject to guidance outlined in the EPA Landfill Design Manual or conditions of a waste licence, based on their aquifer classification, vulnerability classification and the GSI landfill response matrix. As discussed in the comments above the vulnerability in the northern part of the site is incorrectly classified and the northern part of the site should be designated R2² Acceptable subject to guidance outlined in the EPA Landfill Design Manual or conditions of a waste licence.</p> <ul style="list-style-type: none"> • Special attention should be given to checking for the presence of high permeability zones. If such zones are present then the landfill should only be allowed if it can be proven that the risk of leachate movement to these zones is insignificant. Special attention must be given to existing wells down-gradient of the site and to the projected future development of the aquifer. • Groundwater control measures such as cut-off walls or interceptor drains may be necessary to control high water table 		

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	or the head of leachate may be required to be maintained at a level lower than the water table depending on site conditions		
Hydrogeology – groundwater receptors	<p>There is potential for regional groundwater flow and/or direct linkage via faults zones between the site and the Bog of the Ring pNHA and Water supply.</p> <p>Surface water features have been identified in the vicinity of the site, a stream along the northern boundary of the site and a tributary of this stream to the east of the site. These features are likely to form receptors for shallow groundwater downstream of the site.</p>	<p>Moderate – High Risk</p> <p>Shallow groundwater flow from the site has the potential to act as a pathway for contamination to surface water features downstream of the site</p> <p>The potential for hydraulic connection and pathways for contaminant migration via groundwater flow between the site and the Bog of the Ring pNHA and water supply has not been adequately defined</p>	<p>Additional investigation is required to define the potential pathways for contaminant migration from the site, in particular</p> <ul style="list-style-type: none"> regional groundwater flow as outlined above, and the hydraulic characteristics and extent of fault zones which may act as preferential flowpaths towards the Bog of the Ring.
Risk Assessment	<p>The applicant has conducted a Quantitative Risk Assessment (QRA) using LandSim to assess risk to groundwater from the proposed development. There are several problems with the QRA that undermine its conclusions that the project does not pose a risk to groundwater. Problems with the QRA include:</p> <p>Conceptual Site Model (CSM)</p> <ul style="list-style-type: none"> Hazardous cells will have two low permeability liners (DAC and engineered mineral layer) but the project description does not confirm whether the mineral layer will be low permeability (refer to Section 4.5.1.2 of EIS). The Namurian bedrock strata are considered "aquitards" but the GSI does not classify any bedrock in Ireland as being an "aquitard". The Namurian bedrock is classified as being a Poor Aquifer generally 	<p>High Risk</p> <p>QRA has several problems that significantly undermine its conclusions. Site factual data indicate that groundwater is vulnerable and at risk from this type of development.</p> <ul style="list-style-type: none"> Extreme groundwater vulnerability (GSI) Significant faulting and associated fracturing of bedrock leading to higher 	<p>Object to development on the basis that</p> <ul style="list-style-type: none"> there is no natural geological protection at the site there is evidence indicating downward flow into the Locally Important Aquifer there are significant faults running through the site that could act as preferential flow paths towards the Bog of the Ring

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	<p>unproductive except for local zones (PI). The significant faulting and permeability calculations in the rock below the site support this "local zone" designation. Measured permeability on the site is moderate 10-5 to 10-6 m/s which confirms that the Namurian can not be considered an "aquitard".</p> <ul style="list-style-type: none"> Quoted vertical permeability ranges within the Namurian bedrock of 10-8 m/s are not supported by the tests conducted. Pump test results indicate leakage within the Namurian that suggests higher permeability. The North-South trending fault that runs through the site and below the proposed hazardous cells is considered to retard flow and not act as a pathway. This is not supported by the pump test results and the faulting generally across the site is more likely to hydraulically link the shallower Poor aquifer (PI) and the deeper Locally Important Aquifer (Loughshinny Bedrock) and form preferential pathways for groundwater flow. Groundwater is confined within the aquifer by the "aquitard" providing additional protection against downward migration of potential contaminants. This is not supported by site groundwater level data and Figure 13 of Appendix 14.10 (Schematic Conceptual Model) incorrectly illustrates a groundwater level (piezometric head of aquifer water table) higher than the "aquitard" water level. Figure 14.13 of the EIS illustrates that the opposite is more accurate that groundwater levels in the Namurian (BH19 "aquitard") at 101.69 mAOD are higher than levels in the Loughshinny (BH20 "aquifer" at 100.94 mAOD in the centre of the site. There will be limited downward flow in the Namurian bedrock and flow will be directed upwards. This is not supported by the groundwater level information, vertical down ward gradients that exist on the site, unconfined 	<p>permeability</p> <ul style="list-style-type: none"> Unconfined conditions in the Namurian bedrock (depending on final floor level of landfill). Vertical downward head gradients that indicate vertical downward flow of groundwater <p>Uncertain horizontal groundwater flow directions and possible linkage to Bog of the Ring through preferential flow paths in the fault zones.</p>	

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	<p>conditions and the hydraulic permeability of the Namurian which suggest that it has moderate rather than low permeability.</p> <ul style="list-style-type: none"> Groundwater flow beneath the site is directed to the southeast and away from the Bog of the Ring supply. Note comments above regarding the problems with the flow mapping that has been conducted. Groundwater flow direction from the site has not been adequately mapped and this assumption in the CSM is not supported. <p>LandSim</p> <ul style="list-style-type: none"> LandSim has limited applicability to this project as the unsaturated zone is thin or absent (0-1 m thick) and the vertical pathway modelled are fractured bedrock. Attenuation capacity in the DAC lining has been modelled as "clay", which may over predict the sorption of contaminants passing through the liner. The model is described as being "conservative" (i.e. worst case) when some of the input parameters can not be justified as conservative: sorption capacity of the DAC, thickness of the unsaturated zone, permeability of the Namurian bedrock and the high porosity of the Namurian included in the numerical model. 	<p>For information purposes only. Copyright © 2011. All rights reserved. Not to be used for any other use.</p>	
Engineering Design	<p>Non-hazardous and inert cells</p> <ul style="list-style-type: none"> The application proposes different basal lining and capping systems for each of the waste cell types. The systems proposed for the inert and non-hazardous waste cells are in line with the EU Landfill Directive (EC/99/31/EC) and the EPA Landfill Design Manual in engineering terms. However these assume acceptable hydrogeological conditions at the site which is not the case here. 	Proposed engineering measures do not overcome the risks associated with the hydrogeological regime at the site.	

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	<p>Interface between cells</p> <ul style="list-style-type: none"> The application proposes the development of inert, non-hazardous and hazardous waste cells directly adjoining each other. The only separation between the different categories of cell are 'operational' clay bunds which will provide very limited protection against migration of leachate and gas from the higher risk to lower risk cells, i.e. haz to inert; haz to non-haz; non-haz to inert. Movement of leachate and gas from the hazardous waste cells to the inert and non-hazardous waste cells could occur. In order to ensure appropriate separation between the different categories of waste the engineered cap lining system should be continuous from the surface down to the top of the basal lining to ensure there is an adequate barrier in place. In addition a 'valley' should remain between each type of cell type to ensure that gas or leachate breakout in the cap can be identified and repaired. Filling these valleys completely with inert fill material as currently proposed could potentially hide any such breakouts and result in environmental pollution. Therefore the current measures as proposed are not acceptable. <p>Lining system for hazardous waste cells</p> <ul style="list-style-type: none"> The applicant has proposed a 340mm thick Dense Asphaltic Concrete (DAC) Liner and an underlying 500mm thick mineral layer basal barrier system as the lining system. The EPA have interpreted the EU Landfill Directive requirements with respect to basal lining systems for landfills and require a minimum 5m of protection together with a flexible membrane liner. The EU Landfill Directive also requires the mineral layer to 	<p>Design as proposed is unacceptable and presents an excessive risk of leachate and gas migration into adjoining cells with a lower level of protection.</p> <p>Medium to High risk</p> <p>Given the nature of the wastes to be accepted and long term risk of degradation of the DAC due to the mix of wastes to be accepted the reduction of the proposed lining system to a 340mm DAC liner and 500mm mineral layer is unacceptable.</p>	<p>Significantly amended design required</p> <p>Object to development on basis of inadequate engineering design measures proposed for the groundwater regime at the site.</p>

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	<p>extend along the base and the sides. The applicant proposes to terminate the 500mm thick mineral layer 3m from the base.</p> <ul style="list-style-type: none"> Defects can still remain in lining systems after construction and in this situation seepage through the defects will dominate in terms of leachate migration. The DAC Liner includes a permeable granular lower layer through which this leachate can spread and in this situation reliance on the underlying mineral layer is necessary. Whilst extremely low permeabilities can be achieved by bituminous lining systems, these are typically used on non-hazardous waste applications or for heterogeneous hazardous waste streams and their long term chemical resistance in an environment where a cocktail of various hazardous waste streams are landfilled together such as proposed here is of concern. The chemical resistance of bituminous binders can be affected for example by extreme pH levels and by particular solvents and chemical compounds depending on concentration and temperature. This increases the risks of higher long term leachate seepage through the liner. Surface water and leachate design assumes no infiltration through the capping. This is too optimistic. Leachate will continue to be generated and will pose a risk for many decades and possibly centuries after closure. <p>Solidification Plant</p> <ul style="list-style-type: none"> No details are given in relation to the proposed Solidification process. This is unacceptable considering the significance in terms of pollution potential of the fly ash. 	<p>and poses too high a risk to the local groundwater given the hydrogeology and groundwater receptors outlined above</p> <p>High Risk.</p> <p>Insufficient information</p>	<p>Request further information on the process, inputs and outputs.</p>

3 CONCLUSIONS & RECOMMENDATIONS

3.1 HYDROGEOLOGICAL CONCLUSIONS & RECOMMENDATIONS

Based on our review of the MEHL Integrated Waste Management Facility SID application, **RPS recommends that Fingal County Council should object to this proposed development on hydrogeological grounds.** This recommendation is based on the following conclusions that have been reached following our assessment:

- The proposed site is located in a sensitive hydrogeological setting with complex underlying geology and hydrogeology. It is our opinion that this complexity has not been adequately assessed in order to demonstrate that the site does not pose a risk to groundwater from the development of a landfill with hazardous waste.
- The proposed site offers no natural geological or hydrogeological protection for the development of a hazardous waste landfill.
- Groundwater vulnerability beneath the site is categorized as Extreme using the DoELG, EPA, GSI (1999) Groundwater Protection Scheme guidance. The bedrock on the site includes Locally Important (Lm) and Poor Aquifers (PI) designated by the GSI. Although the hazardous cells are proposed in areas where the rock is classified as PI, these rocks overlie the Lm aquifer and the hydrogeological site information indicates that the PI aquifer is moderately permeable and is connected to the underlying Lm aquifer.
- Groundwater flow mapping conducted by the applicant is deficient and does not provide sufficient information to demonstrate that the Bog of the Ring is not at risk from the proposed development.
- Several geological faults cross the site, including a significant North-South trending fault that is expected to continue to the north and intersect the Bog of the Ring Fault Zone. Hydrogeological analysis of the pump test data provided by the applicant indicate that this fault zone provides higher permeability within the Namurian bedrock (described by the applicant as an "aquitard" and low permeability formation). This fault zone runs beneath the proposed hazardous waste cells.
- Based on review of the data, overall permeability in the Namurian bedrock is higher than has been stated in the EIS and it is inaccurate to consider it an "aquitard" for groundwater flow and risk assessment purposes.
- Downward vertical head gradients are present on the site indicating that there is downwards groundwater flow from the shallower Namurian (PI aquifer) to the deeper Loughshinny (Locally Important aquifer). This is contrary to the assumption of upwards gradients used by the applicant in the Quantitative Risk Assessment (Appendix 14.10).
- Overall there is expected to be a greater degree of hydrogeological connection between the rock types on the site due to the extensive faulting. Therefore less reliance can be placed on the lithological distinction between bedrock types as groundwater flow will be exclusively through secondary permeability features (e.g. fractures in the rock) which cut across the different bedrock types.
- The LandSim model used in the Quantitative Risk Assessment (Appendix 14.10) has limited applicability for the project because of the nature of the hydrogeological conditions (e.g. thin or absent unsaturated zone and fractured rock). In addition, several of the model input parameters are over optimistic leading to inaccurate conclusions about the risk posed by the facility.

- Leachate within the hazardous cells will pose a hazard for a long period (expected to be 100's of years) beyond the estimated 35 year management period used in the risk assessment. Whereas it is accepted that the landfill will have to operate under an EPA Waste Licence and provide a Closure Restoration and Aftercare Management Plan, it is unrealistic to expect that the landfill will be economically viable to maintain leachate pumping and treatment for such a long period. A greater risk will be posed to groundwater when leachate pumping is discontinued and leachate head increases and discharges to the aquifer will occur without natural geological protection (e.g. presence of natural and thick low permeability subsoil).

3.2 ENGINEERING CONCLUSIONS & RECOMMENDATIONS

Based on our review and taking account of the findings of the hydrogeological assessment outlined above, the engineering measures proposed in the application are inadequate to overcome the risks to groundwater posed by the facility.

Interface between cells

- The application proposes the development of inert, non-hazardous and hazardous waste cells directly adjoining each other (e.g. see Drg PP_SID_17_01). The requirements with respect to critical aspects of environmental protection such as lining systems, gas management etc are very different for each. As presently proposed the only separation between the different categories of cell are 'operational' clay bunds which are typically placed and formed at the edge of each successive lift of waste to provide an edge to fill against. Such clay bunds are typically not engineered but rather loosely placed and shaped and as currently proposed will provide very limited protection against migration of leachate and gas from the higher risk cells to lower risk cells, i.e. haz to inert; haz to non-haz; non-haz to inert. Movement of leachate and gas from the hazardous waste cells to the inert waste cells in particular is of most concern as there are no leachate and gas collection measures proposed in the inert cells.
- In order to ensure appropriate separation between the different categories of waste an engineered cap or lining system should be continuous from the surface down to the top of the basal lining to ensure there is an adequate barrier in place. In addition a 'valley' should remain between each type of cell type to ensure that and gas or leachate breakout in the cap can be identified and repaired. Filling these valleys completely with inert fill material as currently proposed could potentially hide any such breakouts and result in environmental pollution. Therefore the current measures as proposed are not acceptable.

Lining System

- The application proposes different basal lining and capping systems for each of the waste cell types. The systems proposed for the inert and non-hazardous waste cells are in line with the EU Landfill Directive (EC/99/31/EC) and the EPA Landfill Design Manual. However these assume that appropriate and acceptable hydrogeological conditions exist at the site in the first place which is not the case here.
- A Dense Asphaltic Concrete (DAC) Liner is proposed as the basal lining system for the hazardous cells. This consists of a 340mm barrier comprising 3 primary layers, these being an 80mm dense asphaltic layer, a 60mm asphaltic binder layer and a 200mm granular stabilising sub-base which doubles as a leak detection system. It is proposed to supplement this with an underlying 500mm thick basal barrier system (presumably Compacted Clay or Bentonite Enhanced Soil). The EPA have interpreted the EU Landfill Directive requirements with respect to basal lining systems for landfills and provide two options in their Landfill Design Manual. Each option provides for a minimum 5m of protection which is not provided for here.
- The EU Landfill Directive requires the mineral layer to extend along the base and the sides. The applicant proposes to terminate the 500mm thick mineral layer 3m from the base.

- Whilst diffusion processes will dominate in migration of leachate through such liners, defects can still remain in lining systems after construction and in this situation seepage through the defects will dominate in terms of leachate migration. The DAC Liner includes a permeable granular lower layer through which this leachate can spread and in this situation reliance on the underlying mineral layer is necessary. The proposed 5m mineral layer recommended in the EU Landfill Directive and in the EPA Landfill Design Manual has been reduced in this proposal to the DAC and a 500mm thick mineral layer. Given the risks identified in relation to the hydrogeology and groundwater receptors this is considered to be unacceptable.
- Whilst extremely low permeabilities can be achieved by bituminous lining systems, these are typically used in non-hazardous waste applications or for heterogeneous hazardous waste streams and their long-term chemical resistance in an environment where a cocktail of various hazardous waste streams are landfilled together such as proposed here is of concern. The chemical resistance of bituminous binders can be affected for example by extreme pH levels and by particular solvents and chemical compounds depending on concentration and temperature. This increases the risks of higher long term leachate seepage through the liner and given the reduced overall liner thickness this is considered to be unacceptable.

Solidification Plant:

No details are given in relation to the proposed Solidification process. This is unacceptable considering the significance in terms of pollution potential of the fly ash.

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COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

Balbriggan/Swords Area Committee
(Services B - Strategic & General Matters)

Thursday 8th September 2011

ITEM NO. 19

Hazardous Waste Facility

Motion:

Councillor C. Byrne

"That the Balbriggan Swords Area Committee calls on the County Manager and County Council in Fingal to formally contact the EPA to oppose the granting of a licence for a hazardous waste facility on the lands at Murphy's Quarry (as previously identified) in Hollywood, County Fingal".

Report:

The Council previously made a submission to An Bord Pleanála on the above site when it was seeking planning permission under the Strategic Infrastructure Act. The Council opposed the development on a number of grounds. Most of the grounds are not particularly relevant to the matters under consideration by the Agency, however the report prepared by RPS consulting engineers on the hydrogeological aspects of the proposal is relevant and can be submitted to the agency if the members approve. It is also open to the members themselves to make an individual submission on the EPA website.

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