An Bord Pleanála

Inspector's Report

An Bord Pleanala Reference 09.PA 0004

DEVELOPMENT:

The development will consist of the extension and intensification of the Drehid Waste Management Facility (developed pursuant to a grant of permission under Kildare County Council Reg. Ref. 04/371 and An Bord Pleanala Ref PL 09.212059) to accommodate an additional 240,000 tonnes per annum of non-hazardous residual municipal waste for disposal for 7 years (over and above the permitted disposal of 120,000 tonnes per annum of non-hazardous municipal waste permitted for a 20 year period) entailing the extension of the landfill footprint by 17.8 hectares (ha); restoration of the site following cessation of waste acceptance; with ancillary facilities including landscaping; additional internal site haul roads (1.3 kilometres (km); 2 No. additional surface water settlement lagoons (total area 10,528 square metres (sq m); additional security fencing (1.4 km) and all other site development works above and below ground on a total site area of 179 Ha located at Killinagh Upper Carbury, Co Kildare in the townlands of Parsonstown, Loughnacush, Kilkeaskin, Timahoe West, Drummond Coolcarrigan, Killinagh Lower and Killinagh Upper.

Local Authority:	Kildare County Council
Applicant:	Bord Na Mona
Application Type:	Strategic Infrastructure Case (S.37 E)
Objectors:	Bernard J Durkan TD Des Mulvey & Yvonne Kavanagh Gerry Woods Breda Logan C.E.W.E.P
Inspector:	Breda Gannon
Date of Inspection:	June 19th, 2008 & August 29th, 2008
Date of Oral Hearing	September 9th-10th, 2008

Enclosures

Appendix 1: Annotated Photographs
Site Plan/Extracts from Development Plan etc

Appendix 2 Hearing Proceedings & Documents Presented

INTRODUCTION

This is an application for permission under S. 37E (1) of the Planning and Development Act, 2000 as amended under S.3 of the Planning and Development (Strategic Infrastructure) Act, 2006. The application is for development classified within Schedule 7 of the Principal Act (ref Para. 3) namely:

Development comprising or for the purposes of any of the following*: an installation for the disposal, treatment or recovery of waste with a capacity for an annual intake greater than 100,000 tonnes.*

SITE LOCATION AND DESCRIPTION

The site, which has a stated area of 179 Ha, is part of a larger land bank of 2,544 hectares which lies within the confines of Timahoe Bog, in the north of County Kildare. The site is located approximately 18 km north-west of Naas and there are a number of settlements adjacent to the site including Allenwood to the south, Carbury and Derrinturn to the west and Timahoe to the east. Outside of the settlements the pattern of development is largely dispersed with considerable one-off housing in ribbon form along the local road network.

The site is connected to the road network by means of a purpose built access road off the R 403, which lies to the south, southwest and west of the site. The R 403 joins the R 402 at Carbury to the northwest of the site. The R 402 connects with the N4/M4 and the R 403 connects to central and south Co Kildare. The N4/M4 (Dublin to Sligo/Galway) lies c 8 km to the north of the site, while the M7/M7 (Dublin to Limerick/Cork) National Road/Motorway is located c 14 km to the south. Adjacent to the site boundary there is a network of local roads including the L 5025 to the north, the L 5024 to the west, the L 1020 to the south and the L 1019 to the east.

The site access road extends northwards for a distance of c 4.8 km from the regional road (R 403) towards the landfill facility. The entrance to the facilities area is marked by 2 no weighbridges and a wheel wash. Immediately to the north west there is a hardstand area accommodating the administration building, associated car parking, a bunded oil storage area, waste inspection/quarantine area and a maintenance building. The settlement lagoons are located west/southwest of the administration building. To the east and on the opposite side of the access road the ground is levelled and prepared for the provision of the compost facility, permitted under the previous permission. The landfill itself extends northwards from the facilities area with the 2 no.leachate tanks located towards the south eastern corner of the existing landfill footprint. Construction of the berm to the west and north of the landfill has commenced. The landfill areas are accessed by a unpaved road network. The sand and gravel borrow area lies to the south west of the facility and the clay borrow area lies to the north west.

The extension of the landfill will take place to the east of the existing landfill footprint. It will be located on lowlying cutaway boglands with levels ranging from 84m to 86m OD. The lands, which have been used in the past by Bord Na Mona for commercial peat extraction, are now revegetating. The site is remotely situated relative to the adjacent road network, lying a stated 800m south of County road L 5025 and over 2 km from both county road L 1019 and regional road R 403.

DEVELOPMENT DESCRIPTION

The proposal is to intensify and extend the already permitted waste management facility. It would enable an additional 240,000 TPA of waste, over and above that already permitted, to be disposed of for seven years. After seven years the development will revert back to receiving the permitted 120,000 TPA for the remaining permitted operational life of the facility. The development will be located within the landholding of Bord Na Mona. The landfill will continue to accept non-hazardous residual waste, that has been subject to treatment.

The landfill footprint encompasses an area of 39 ha which includes the proposed extension of 17.8 ha and the previously permitted area of 21.2 ha. The landfill extension will be constructed to the east side of the permitted development. The extent of the new landfill footprint area is shown on Drawing No. 3369-2401 and Drawing No. 3369-2402. The landfill will be on average 15-20 m deep and the maximum final height post settlement will be approximately 103.25 metres above OD. The existing clay borrow area and a sand and gravel borrow area which are located within the confines of the site will be used for the construction of the extension to the landfill. Permission exists for these borrow areas under the original planning permission. Two additional lagoons, site roads etc will be constructed in conjunction with the landfill extension.

Phase one of the permitted landfill site is currently under construction and waste was first accepted in February 2008. The site will be progressively restored on completion of each phase. It is also intended to develop a biowaste composting facility (which has already been granted permission) as an integral part of the facility. This facility will deal primarily with separately collected biowaste from household, commercial and industrial sources. The initial short-term objective of the facility will be to produce compost suitable for usage for landscaping and for restoration of the landfill.

The permitted engineered landfill consists of eight fully lined phases, each further sub-divided into four to six separate cells (per phase) for the acceptance of residual landfill waste. The proposed extension will consist of a further seven fully lined phases, each subdivided into four to six separate cells (per phase) for the acceptance of residual waste. The landfill is fully contained and has been designed in order to provide for both leachate and landfill gas collection. The finished phases will be capped with a low permeability capping system, which will serve to prevent the uncontrolled migration of landfill gas and the infiltration of rainfall into the waste body thereby minimising the quantity of leachate generated. The final capping will allow for the collection of clean run-off, which will be diverted via a surface water swale to the settlement lagoon, eventually discharging into the Cushaling River. Surface water run-off will be equivalent in quantity terms to pre-development levels. On completion of the deposition of waste, the site will be fully restored and an aftercare/monitoring programme will be put in place.

Leachate will be pumped to the 2 no. leachate holding tanks on the site. The combined volume of the tanks is approximately 400 m3 providing approximately 8 days storage at maximum prediction rates. From the holding tanks the leachate will be transported via 5,000 gallon road tankers to Leixlip Wastewater Treatment Plant. The estimated average rates of leachate generation is detailed in Table 3.7.1 of the EIS.

The clay borrow area located to the north west of the landfill footprint (Drawing No. 3369-2402) will be used to provide clay for the landfill capping layers and as a backup source of materials for the embankments. Planning permission has already been secured

for its use. The sand and gravel borrow area to the south west of the landfill footprint (Drawing No. 3369-2402), which is already permitted and partially excavated will be continue to provide sand for the Bentonite Enhanced Soil (BES) layer of the basal barrier, granular material for the mineral drainage layer in the landfill and for the facility road subgrades. Following the full realisation of the borrow areas and the landfill has been fully constructed/restored the borrow areas will be restored. Both borrow areas will be allowed to flood to form a lake. The restoration plan is detailed on Drawing No 3369-2437.

A more detailed description of the facility is contained in Sections 3 of the EIS.

ENVIRONMENTAL IMPACT STATEMENT

An EIS was submitted with the application, the content of which is summarised below for the information of the Board.

Need and Alternatives: The EIS provides an overview of waste management plans for both the Dublin region and County Kildare. It details a feasibility report (Appendix 1.2.1) commissioned by the applicants identifying the need for the proposed development. It is concluded that the proposal supports the national policies of developing a rational network of municipal landfill sites while protecting the long and short term needs of the relevant regional waste authorities. It states that the Waste Management Plans for the Kildare and Dublin Waste Authorities recognise the need for inter-regional transfer of waste, and in respect of the Dublin Plan notes that such arrangements will be essential, particularly in the short term, to meet deficits in landfill capacity in Dublin.

It is noted that even with the diversion of waste from landfill to the incinerator at Poolbeg there would remain a significant requirement for residual landfill disposal. The assessment of capacity commissioned by Bord Na Mona indicates that the capacity of the waste management infrastructure of the Greater Dublin Area will be significantly undermined, should the Nevitt/Tooman landfill and/or the Poolbeg Waste to Energy facility (for example) not be constructed or their construction delayed. Short and long-term needs for appropriately managed facilities are identified, which are key to the economic and physical development of the Region and which cannot be met with the existing available infrastructure.

Alternatives were considered in terms of locations and processes. Waste disposal by landfill is seen as an integral part of the EU Waste Management Hierarchy and will always be required for the significant residual portion of the waste stream, which cannot be handled by the more favourable options. It is stated that the subject site was identified as the preferred site in Co. Kildare satisfying the criteria as set down in Annex 1 of the EU Directive on Landfilling of Waste. Three sites were short listed at Usk, Newtowndonore and Drehid and preliminary investigations were carried out which includes trial hole excavation, drilling, geophysical survey, ecological and archaeological survey. The information gathered was used to rank the sites. Drehid emerged as the most suitable site for a residual landfill due to the large available land bank, the remoteness from dwellings, availability of clay and gravel locally and the natural protection afforded by the surficial deposits to the underlying bedrock aquifer.

In the wider context, the existing facility has the potential to immediately address the accepted imminent shortfall of municipal landfill capacity in the Greater Dublin Region,

while the overall site has the capacity for the proposed extension which would ensure that the long term and strategic nature of the previous permission is not compromised.

The 'Do Nothing Alternative' would mean that the existing capacity constraints would remain in the Dublin Waste Management Region. The proposal would provide short term waste management capacity to address existing constraints.

Air: Wind blown dust emissions may arise during the operation and construction of the proposed extension, which may impact negatively on the surrounding environment Potential sources identified in the EIS include vehicles carrying dust on their wheels, unvegetated stockpiles of construction materials, exposed soil surfaces, excavation of materials from the borrow areas, grading and processing of construction materials and the laying and re-engineering of the various capping and basal lining layers.

To address the potential impacts a range of mitigation measures are and will continue to be implemented during both the construction and operational phases of the development. The wheelwash has been installed to ensure vehicles using the facility do not cause dust emissions. The waste is immediately compacted after it is deposited and a daily cover material is placed on the working face at the end of each working day to control dust emissions. The daily cover is also augmented with a weekly covering of mineral clay layer. The landfilling activities take place within an embankment, which will be extended in accordance with the development of the landfill. This will help to capture and mitigate any dust emissions from the working face. The screening berms which have been developed to the west and north will be extended to the east of the extended footprint. The berms provide for significant attenuation of any dust arising. Roads will be sprayed down during periods of dry weather and all stockpiles and embankments vegetated immediately following placement to anchor the soil and reduce the surface area open to the environment.

The Waste Licence limit for dust deposition is given as 350mg/m2/day based on 30 day composite samples. Dust monitoring gauges have been installed around the landfill footprint at the locations shown on Drawing No. 3369-2407. Monitoring will take place on a monthly basis.

Noise: Noise related impacts will arise from both the operation of the waste management facility and the construction of the proposed landfill extension and working of the borrow areas.

The greatest potential for noise activity will arise during the construction of the landfill extension and associated excavation at the borrow areas. There are no Irish standards for construction development noise. The NRA's Guidelines for the Treatment of Noise and Vibration for National Road Schemes recommends maximum permissible noise levels at the façade of dwellings during construction activities i.e. 70 LAeq (1hr) d B between the hours of 07.00 to 19.00 hrs Monday to Friday, with lower permissible levels outside these working hours. It is predicted that the noise levels generated by construction activity taking account of the worst case scenario whereby the landfill is in operation in conjunction with construction activities will comply with this criteria at each of the noise sensitive locations. The predicted noise levels comply with the target daytime criteria set out by the NRA. All construction works will be carried out during day-time.

In terms of construction traffic noise impacts, it is noted in the EIS that taking the worst case scenario whereby 100% of the construction traffic arrives to the site from the north

or the south, the impacts represent an increase of less than 1% on the existing traffic flow in either direction. There is a logarithmic relationship between traffic movements and noise levels. Typically doubling the traffic flow will increase the noise levels by about 3 d B (A). It is therefore predicted that the increase in road traffic along the approach roads due to the construction of the remaining phases of the facility will result in an increase in noise levels at residences of less than 1 d B(A) in a worst case scenario. This is considered a negligible and imperceptible increase.

Noise impacts from facility operations will arise from the operation of the landfill and the composting facility. These noise sources are similar for all 15 phases of the landfill . The noise levels for various plant/machinery is derived from landfill sites/composting facilities throughout the country. The predicted noise levels are the accumulated levels from on-site operations of the landfill and composting facility and assume that all plant (fixed and mobile) are operating together. All predicted noise levels comply with the criteria for maximum operational levels set out in EPA guidance.

Road traffic associated with the operational phase of the development will include materials deliveries to and from the site and site staff movements. The results of the stress testing shows that the full loading of the potential operational traffic due to the proposed extension/intensification of the facility, on any one of the potential haul routes will not exceed a 2.7%increase on any of the individual routes, even in the unlikely event that all the traffic comes from either the north or the south. The increase in traffic along the approach roads will increase the noise levels at residences by less than 1 d B(A) in a worst case scenario. This is considered to be a negligible and imperceptible increase. There will be no tonal or impulsive noise emissions from the site and the night time emissions from the ventilation system will be audible at all residences at less than 25 d B(A).

To mitigate impacts all site activities will continue to be planned with a view to minimising the impact of noise. This is achieved by practical means such as locating stockpiles of excess excavated materials in areas where they provide acoustical screening. Facility access roads are located internally within the site, such that, they are a significant distance from any dwellings. Only properly silenced plant will be operated on the site and mechanisms will be put in place to avoid unnecessary noise caused by revving of machines etc. The screening berms to the west and north will be extended to the east of the site, which will further attenuate noise arising from operations. The Waste licence sets limits for noise during the operation of the facility. There are six monitoring locations are shown on Drawing No 3369-2407 and the results of monitoring are reported in the AER and submitted to the EPA.

Odour: Potential air quality impacts associated with airborne pollutants from the development were assessed by a dispersion modelling technique. Contours of odour concentrations for the 98th and 99.5th percentile were predicted for the proposed landfill and composting operations in order to examine the extent of odour impact and the effectiveness of odour minimisation protocols. It is noted that the Environment Agency have classified landfills under the odour impact criterion of less than or equal to 1.50 Ou $_E$/m $^{-3}$ at the 98th percentile of hourly averages over a meteorological year. This is considered a long-term exposure impact criterion. In order to ascertain any likely short-term odour impact exposure, the 3 Ou $_E$/ m $^{-3}$ at the 99.5th percentile is also assessed.

Four years of hourly sequential metrological data were utilised within the dispersion model. For each of the four scenarios presented, corresponding to year 2011, 2014,

2020 and 2027 of operations, it is predicted that all sensitive receptors will perceive an odour concentration of less than 1.50 and 3.0 Ou $_E$/ m $^{-3}$ for the 98th and 99.5th percentile of hourly averages over four years of metrological data. From this assessment, it is predicted that there will be no short or long-term odour impact in the vicinity of the waste management facility during operations.

The EIS suggests a number of mitigation proposals, which are dependent on good landfill management practice such as minimising the size of the working face, immediate and effective compaction of the waste, effective daily cover, and effective leachate and landfill gas management etc.

The most likely pathway for landfill gas migration is up through the waste to discharge to atmosphere. A network of gas monitoring wells will be installed around the landfill, which is designed to detect gas migration. The nearest dwelling is approximately 1 km from the landfill footprint. Given the considerable distance to the nearest houses and the relatively restricted pathways for flow of gas through the peat and mineral subsoil it is unlikely that there will be any difficulty with gas migration to these houses. To control potential gas migration a number of mitigation measures are proposed which include provision of a landfill gas flare, installation of a horizontal/ vertical gas collection systems in each of the 15 phases of the landfill, passive and forced gas extraction from the landfill and the installation of a horizontal gas equalising layer on top of the waste body. Gas flare emissions will be maintained at limits to minimise the risk to the surrounding environment. Emission limit values are provided in the Waste Licence.

Aerosols can be generated from leachate treatment plants where aeration of leachate is taking place. The leachate produced on the site will be transported off site and as no aeration or treatment of leachate will take place on the site no aerosols will be generated and no mitigation measures are proposed.

Climate: There are no predicted impacts on local climate. The potential impacts on global climate are considered in terms of the generation of greenhouse gases i.e. methane and carbon dioxide from the degradation of waste on the site. To reduce landfill gas emissions mitigation measures have been proposed which include the collection and flaring of the landfill gas. The conversion of methane gas to carbon dioxide is possible by flaring and as carbon dioxide has a lower global warming potential than methane the flaring of the gas will be undertaken in the short term. If sufficient and constant volumes of gas were generated, the installation of a combined heat and power plant would be recommended.

Geology & Hydrogeology: The site is underlain by the Waulsortian Limestone Formation. The Soils Map of Ireland, prepared by the National Soil Survey (1980) indicates that the principal dominant soil within the site comprises basin peat deposits. Till derived from limestone underlies the peat material within the site. Reference to the most recently published geological map for the area indicates that the area is underlain by Carboniferous aged limestone deposits. Based on trial pits and peat probing investigations carried out on the bog, it has been established that the thickness of peat within the landfill footprint varies from 0.5 m to a maximum of 2.3 m. The sub soils which underlie the peat comprise firm to stiff, grey to blue silts, clays and silt/clay's. Drilling and deep penetrating geophysical surveys have identified a deeply incised valley within the site. A borehole was drilled to a depth of 128.3 m bgl before bedrock was encountered.The depth to bedrock either side of the valley feature is relatively constant i.e in the range of 11m bgl to 17m bgl. The depth to bedrock under the

proposed landfill extension is between 11m to 17 m below ground level. From the evidence of the geophysical survey and the drilling of the site, the clay filled weathered out feature is not believed to be karstic in nature. The GSI have classified the bedrock aquifers underlying the site as Locally Important and no beneficial users of groundwater (groundwater abstractions) have been identified within 1 km (closest dwelling is in excess of 1km to the landfill footprint).

All excavations within the site will be terminated in the unconsolidated material, therefore there is no potential impact on the bedrock environment. Peat will be progressively cleared from the landfill footprint and the borrow areas to win construction materials or achieve formation levels for landfill construction. The potential impact associated with exposed soil surface principally relate to sediment laden run-off to watercourses. Measures will be implemented to divert the water through settlement lagoons prior to discharge to receiving waters. Two settlement lagoons currently exist to cater for Phase 1-8 and two additional lagoons will be put in place to cater for the landfill extension.

During the course of progressive ground clearance, the excess soil material will be used to create visual berms. To mitigate soil erosion, all exposed soil surface will be anchored by vegetation and/or use of ground stabilisation geogrids. During construction works and until vegetation has anchored the embankments, any water accumulated on exposed soil will be diverted to the settlement ponds. All potentially polluting materials including hydraulic fluid, engine oil etc will be stored in bunded areas. Due to the minimal disturbance of the geological environment, the mitigation measures are restricted to the stabilisation of exposed soil surfaces.

The regional hydrogeologiocal setting of the site, in terms of aquifer potential and groundwater vulnerability does not preclude the development of a residual, non-hazardous landfill at the proposed site. The Response Matrix for Landfill Selection indicates that the site falls within the R1 zone. The R1 zone is the lowest risk category in the matrix for landfill selection. The landfill is designed to have as low impact as possible on the groundwater environment. The lining system for the landfill is designed to contain the leachate, which will be collected and exported from the site for treatment at an approved treatment plant. The removal of the peat material and mineral soil is required to create a hydraulic trap. Even allowing for this excavation the groundwater vulnerability will not be affected and the rating will remain as Low Vulnerability, owing to the thickness and low permeability of the sub soil.

The effluent from the proprietary wastewater treatment system serving the administration building is also diverted to the leachate tanks. The contaminant loading on the area will be low as there is no direct discharge of potentially polluting material to the groundwater environment. The run-off from internal roads and the low risk hardstanding areas is collected centrally and diverted through a sediment trap, and oil interceptor prior to discharge to the settlement lagoons. A fixed rate outfall is maintained from the surface water retention lagoons to the adjoining site drainage network. The fixed rate outfall from the facility surface water retention lagoons ensures that during extreme rainfall events peak flows will be retained within the site. Similar measures will be put in place to cater for the proposed extension.

Given the above mitigation measures and the landfill design employed to contain the leachate within the landfill, it is considered that the impact on the geological and hydrogeological environment will not be significant. All potentially contaminated

effluent, including leachate, captured rainwater from high risk areas and the liquid fraction of the domestic effluent will be exported from the site to an approved wastewater treatment facility.

All surface water draining from the operations area of the landfill and borrow areas drains to the west to the Cushaling River, which is a tributary of the River Figile.The access road from the R 403 to the facility passes through the sub catchment of the Abbeylough Stream which is also a tributary of the River Figile. The River Figile is a sub catchment of the River Barrow. A network of artificial drains were opened up across the bog during the industrialised harvesting of peat. These artificial surface drains discharge to a central underground culvert which flows towards the south. The central culvert is diverted to settlement ponds, prior to discharge to the Cushaling River at the western margins of the bog. It is estimated that the channel could accommodate an approximate three to four fold increase in flow without exceeding the capacity of the stream channel.

Water control measures will also be implemented during the construction of the new phases to limit the volume of water that requires treatment. Two additional settlement lagoons will be constructed and are designed to provide adequate surface water retention time to allow suspended solids to fall out of suspension prior to discharge. As the discharge from the borrow pit areas contains clay and silt particles, settlements lagoons have been installed to allow for the settlement of fines prior to discharge to the surface water system.The division of the landfill footprint into phases reduces the area of construction into compartments, which minimises the area of exposed soil surfaces. This construction detail significantly reduces the potential impact of sediment laden run-off affecting the surface water environment by limiting the areas where water may accumulate sediment. It is proposed to use the existing Timahoe Bog drainage infrastructure and to re-route drainage channels at the periphery of the construction zone to minimise the volume of water that could be impacted (Dwg No 3369-2433).

In terms of impacts on water supplies, the baseline assessment indicates that there are no groundwater abstraction wells for potable water within 1 km of the landfill footprint. Due to the low permeability of the natural subsoil and the thickness of the unconsolidated material, the potential impacts on any domestic wells or boreholes in the broad vicinity of the landfill are considered low. Based on hydrogeological conditions in this region the zone of contribution to domestic wells is small and would not extend to the site. The landfill will not impact on the quality or abstraction rate of any supplies in the area. The landfill is outside of the source protection zones of both the Roberstown well field and the Johnstown Bridge well field, identified as major abstraction areas.

Groundwater monitoring is carried out at both up gradient and down gradient locations in both the bedrock and the sub soil. Surface water monitoring is carried out downstream of the facility (Section 3.15).

Landscape: The character of the landscape is described as relatively flat averaging 80-90m OD. The maximum height of land within a 5 km radius is 142m OD (Carbury Hill to the west). The boglands are predominantly flat will little dividing vegetation and are surrounded on all sides by agricultural pastureland with a well developed pattern of medium sized and larger fields and an established hedgerow infrastructure. Field hedgerows are predominantly tall and sparse, consisting largely of mature trees, including ash. The bogland also continues to the north. The eastern site edge is bordered

along much of its length by mixed coniferous and deciduous tree belts and there are isolated tree plantations to the west.

The site falls within the Western Boglands Landscape Character Area as indicated in the Kildare County Development Plan 2005-2011. It is recognised in the Plan that the cutaway bogs represent degraded landscapes and/or brownfield sites and thus are potentially robust to absorb a wide variety of sympathetic developments. Views from outside of the site boundary are limited due to intervening vegetation and therefore impacts on the wider landscape are generally low. There are few occupied properties lying within a 2 km radius of the site centre. Within a 3 km offset there are numerous properties, in particular to the north, northwest and west of the site.

Fig 2.6.1 of the EIS shows the areas from within which the proposed extension of the development could potentially be seen. The main groups which may experience visual impact arising from the extension of the landfill facility will be residential and farm properties located within the vicinity of the site. The properties that currently have views of the wider site lands include those located on the County road (L 5025) between Timahoe and Drehid Cross Roads to the north of the site, properties on the County road (L 5024) between Drehid Cross Roads and Windmill Cross Roads, including those located on minor lanes with access from latter roads to the west of the site, properties along the R 403, to the south/south west including those located on minor roads with access from the regional road and properties on the County road (L 1019) south of Timahoe to the east of the site.

Drivers and pedestrians on these routes will also experience views towards the site. The County roads south and west of Timahoe are relatively flat, with some open views towards the waste management site and views restricted by roadside vegetation. Viewers in the west are between 2.5 to 4 km from the facility, with intervening tree belts, whilst those in the north pass between approximately 0.5 km and 1 km from the site. The R 403 passes within 2 km of the facility to the south of Derrinturn. Travelling further south, views are limited by roadside and intervening vegetation and by distance. There are limited views towards the facility from minor roads to the west. There are no scenic roads and views within the 5 km radius of the site and there will be no impact on the two listed roads and views within 5-10 km of the site. There are no views of the facility from the Grand Canal Way. There are no known views of the site from the long distance walking route to the east and south of the site.

A restoration plan has been prepared to mitigate potential visual and landscape impacts/ impacts. The main features of the Plan are the planting of locally occurring native woodland on the northern perimeter of the site to develop initial screening vegetation. Similar planting will be provided in the vicinity of the proposal on capping of the landfill so as to integrate the landfill into the existing landscape and facilitate the potential development of the site into an amenity area. Two lakes will be formed following the decommissioning of the borrow pits. Hedgerow planting will be provided along the northern perimeter to limit current open views and a berm will be constructed to the north, east and west of the landfill footprint as extended, which will be grassed with native species.

The site will be maintained and monitored on a regular basis after commencement of the landscaping planting scheme, as part of the final restoration plan, to confirm that the planted trees, shrubs, grasses etc have sufficiently established at the site.

Ecology: The development site forms a small part of the southern portion of the Timahoe bog, which is a large area of Bord Na Mona cutaway located in north-west County Kildare. There are no designated areas within the site but a number do exist within 10 km of the site (Fig 2.7.1). The closest is the Grand Canal p NHA at 3.6 km distance from the landfill footprint. As the proposed development does not lie within or adjacent to any site designated for nature conservation, no direct impacts will arise. There are numerous drainage channels on Timahoe Bog that drain into the Cushaling, Abbeylough and Slate rivers, which in turn drain into the River Barrow, a designated c SAC. There is potential for silt or sediment run-off created by the proposed development to indirectly impact on the River Barrow c SAC. The potential for impacts is considered to be insignificant having regard to the 20 km separating distance between the landfill footprint and the river. Mitigation measures will be put in place to prevent silt and sediment from entering the surface water drains, which will ensure no indirect impacts on the River Barrow c SAC or any other designated site. There will be constant monitoring of receiving waters.

The habitats present on the site are typical of revegetating cutover bog, with scrub/woodland habitats plus the ongoing construction site itself. Six habitat types were identified within the site (Fig 2.7.2) all considered to be of low to moderate ecological value. The extension area chiefly comprises cutover bog, which is a lower lying area than much of the site and is consequently wetter and holds more water. No species of rare or protected fauna were found within the development site and accordingly no mitigation measures are required. Alder buckworth (listed as 'rare' in the Red Data Book) is known to exist close to the south and western boundary of the site near the sand and gravel borrow pit. Excavation in the area will be undertaken to ensure that no disturbance will arise. Where deep excavation is planned a buffer zone will be maintained to ensure soil slippage does not occur.

No direct sightings of mammals were made during the field visit but evidence of mammalian activity was recorded by the presence of fox and Irish Hare tracks on the edge of the site. As both species would be expected to range widely over the surrounding area, it is not anticipated that there will be any impacts on local populations.

It is recognised that the removal of vegetation to facilitate the development will have a direct impact on bird populations. The bird surveys revealed the presence of some birds of conservation interest on the site including water rail, teal and redpoll all of which are amber listed in 'Birds of Conservation Concern in Ireland'. Best practice is to be followed in the removal of scrub and trees to minimise the impacts on breeding bird populations. The occurrence of large areas of similar habitat across the bogland will reduce the potential for significant impacts. It is proposed as part of the restoration plan to provide native trees and shrubs with the species mix chosen appropriate for site conditions and to reflect the existing species composition in the Scrub and Bog Wetland areas, which will further mitigate impacts on bird populations. Overall impacts are considered to be minor.

There were numerous sightings of common frog. Conditions on the site are also stated to be suitable for both smooth newt and viviparous lizard. The removal of cutover bog, scrub and drainage ditch habitats will reduce the areas available for these fauna. Larger area of these habitats exits across the remainder of the bog which coupled with the mitigation measures proposed which include water bodies for the borrow areas will ensure that the impacts will be minimal.

Human Beings: This section of the EIS assesses the impacts of the development on human beings and material assets in the area. All of the existing settlements in the vicinity are a considerable distance from the subject site, the nearest being Timahoe, at approximately 2.1 km from the previously permitted landfill and proposed extension. Derrinturn village is approximately 3.2 km from the landfill footprint and proposed extension, while both Allenwood and Coill Dubh are in excess of 5 km.

The site is located within an area contained within the Western Boglands landscape classification, which has remained unattractive to agricultural settlement. As a result, the area is thinly populated. It is recognised in the Plan that although cutaway boglands represent degraded landscapes and/or brownfield sites they are potentially robust to absorb a wide variety of sympathetic developments.

There are a limited number of residences likely to be affected by the development. The nearest occupied residential dwelling is 980 m to the north east from the previously approved landfill and proposed extension. A new dwelling has recently been permitted and constructed 185m from the previously permitted sand and gravel borrow area. The level nature of the land within which the facility is located, the mature vegetation that is generally in place along the boundaries of surrounding fields and the proposed perimeter embankments and associated landscaping, collectively act to interfere significantly with views of the site that would be available from the dwellings along the public roads close to the site. Additionally the forestry plantations immediately adjacent to the west and south of the site, are already providing screening that is both substantial and in visual harmony with the surroundings. This is especially the case in relation to the stand of trees between Timahoe West and Coill Dubh.

There are no listed or other buildings of significant architectural or cultural heritage within the vicinity of the site, with the exception of Coolcarrigan House. This house is located c 2.5 km from the previously approved landfill footprint and proposed extension and is screened from the facility by an extensive coniferous plantation to the west of the house.

When fully operational, the previously approved facility will provide direct employment for approximately 13 people, as well as for additional service and construction workers. The proposed intensification and extension will mean that there will be further additional employment for 2 No. permanent employees as well as for construction and service workers.

The proposed development will not cause any disruption to the social travel patterns of those residing adjacent to the facility. No public roads or pedestrian routes are severed by the facility and there are no designated walking routes in the vicinity, which will reduce opportunistic trespass. All issues relating to health and safety of workers and the public are undertaken in compliance with health and safety legislation. The site and facility are secured against unauthorised access and trespass.

With respect to human health, previous studies have focussed on birth defects in babies born to hazardous waste landfills. These were not constructed or operated in the same way as the Drehid facility. It is acknowledged in the literary review by the Health Research Board in Ireland that *'there is a paucity of literature relating to modern landfill sites, and it can be assumed that as emission controls improve, risks of adverse effects diminish'*.

There is no evidence to show that the siting, construction and operation of a modern engineered landfill would seriously injure the amenities and depreciate the value of property in the vicinity of the landfill. This view was supported by the Inspector in his report on the previous appeal on the site (PL 09.212059). All of the tourist attractions in the area are located a significant distance from the facility. There will be no visual impact on any of the surrounding items or facilities of tourist potential.

The facility has been designed and is constructed and operated to BAT. It has been developed so that the impact on land use, the local population, employment, tourism and amenities is minimised. No further mitigation measures are therefore considered necessary.

Archaeology and Cultural Heritage: The activity boundary of the waste management facility incorporates sections of archaeological features called 'toghers', which are described as '*a brushwood trackway or more usually a roadway constructed from timber beams held in place by wooden pegs, traversing bogland or wetland'*. The previously permitted landfill footprint and its proposed extension is located to the south of the toghers and the clay borrow area is located between two toghers. Subsequent to the granting of permission for the waste management facility archaeological monitoring took place and no features or artefacts of archaeological significance were encountered in the course of monitoring. No excavation works will take place within at least 30 m of the recorded monuments.

Due to the location of the site within a wetland environment, the potential for the discovery of archaeological features is quite high. Avoidance of impacts was included in the design of the waste management facility and excavations will be limited to areas where there are no known archaeological features. To mitigate impacts pre-development testing will be carried out prior to the commencement of future phases of construction.

Infrastructure and Traffic: The proposed extension and intensification of the landfill facility will result in additional construction and operational traffic on the adjoining road network. The potential haul routes to be followed are indicated on Fig 4.9.1 and it is proposed that traffic will be spread over these routes. Each of the routes are via regional roads or a combination of regional roads and national primary roads. At maximum operation it is estimated that the proposed intensification of the facility will generated approximately 87 HGV movements per day (43.5 laden and 43.5 unladen). This figure includes for haulage of all generated leachate to an approved waste water treatment facility. Traffic generation is based on a 6 day working week and a 10 hour day, as previously permitted. During the construction stage of the remaining phases of the landfill it is estimated that 43 vehicle movements per day will be generated which includes 13 HGV movements.

In order to analyse the effect that the proposed intensification and extension will have on the surrounding road network, a number of different scenarios were tested. The trip distribution scenario whereby two-thirds (67%) of the traffic arrives and departs from the south, and the remaining one third (33%) arrives from and departs from the north, is considered to be the most likely scenario. This assumption is based on the fact that the waste sourced from those waste transfer stations/ materials recovery facilities located close to the Red Cow roundabout in Dublin will travel out along the N7 which is to the south of the site. Traffic growth along the potential access routes based on generic growth rates have been taken into account.

The various tables presented in the EIS suggest that the maximum potential for traffic impact of the proposed intensification and extension of the Drehid Waste Management Facility is along the R 403 approaching the site entrance. Even in the worst case scenarios (with all traffic to and from the north or all traffic to and from the south of the site) the full loading of the potential traffic due to the proposed intensification and extension of the waste facility will not exceed a 2.7% increase in overall traffic on any of the individual routes. Based on NRA guidelines an increase of more than 5% in congested areas and 10% in uncongested areas is required to result in a traffic impact. The maximum potential increase on overall traffic on any of the potential haul routes and at the site entrance in any of the assessment years will be 1.3% for operational traffic and 1.9% for operational and construction traffic and accordingly there will no short or long term impacts arising from the extension and intensification of activities on the site. It has also been shown that the R 403 has a forecast capacity of 36% in 2014 and accordingly has adequate capacity to facilitate the proposed development.

It is noted that some of the access routes to the site have been upgraded since the previous planning application was lodged, that a road safety audit was carried out on the existing site entrance junction and was subsequently approved by Kildare County Council. The new site entrance as constructed provides adequate access for a dedicated entrance onto a regional road with a 80 km/h speed limit and adequate visibility plays of 4.5 x 160 m have been provided at the site entrance.

No mitigation measures are considered necessary for the proposed intensification and extension of the facility.

Interactions: In any development with the potential for environmental impact there is also the potential for interaction between impacts of the different environmental aspects. Avoidance of impacts was used throughout the design of the facility. The impact and mitigation measures proposed are designed to further ameliorate the impact of the proposed intensification and extension of the previously permitted waste management facility on the wider environment. While there is potential for the impacts to interact and result in a cumulative impact, it is unlikely that any of these cumulative impacts will result in significant environmental degradation.

PLANNING HISTORY

1. **PL 09.212059 (04/371)** Permission granted for an engineered landfill to accept up to 120,000 tonnes per annum of non-hazardous residual municipal waste for disposal, a composting facility with a capacity of 25,000 tonnes and all ancillary works on a total site area of 139 Ha at Drehid Waste Management Facility, Drehid Co . Kildare. The development was granted subject to 22 conditions, which included the following conditions of note:

   Condition 2: Sets out the maximum quantities of waste, which may be accepted on an annual basis at the site over an active deposition period of 20 years. Capping and restoration works to be completed within two years of the expiry of the period for waste deposition.

   Condition 4: Requires that adequate measures are in place (and agreed with the planning authority) to prevent water with high suspended solids content, caused

by the construction of the proposed development, from discharging directly into streams and feeder drains.

Condition 6: Confines movement of HGV's to and from the site during the construction phase to between 0800 and 2000 hours Monday to Friday inclusive, and 0800 hours and 1300 hours on Saturdays (excluding public holidays and Sundays).

Condition 7: Noise levels controls during construction at the site (measured at noise sensitive locations in the vicinity) i.e. not to exceed 55 d B(A) between 08.00 and 2000 hours, and 45 d B(A) at any other time.

Condition 8: Specifies that monitoring arrangements be put in place for the measurement of noise emissions, dust deposition and suspended solids of surface water during the initial phases of construction. Dust deposition during the initial construction phase not to exceed 350 mg/m2/per day (DIN standard) when measured at the site boundaries and averaged over 30 days.

Condition 9: Hours of operation as set out in the EIS.

Condition 10: Details of lighting arrangements for the entrance, access road and landfill compound to be submitted for agreement with the planning authority

Condition 12: All excavations associated with initial site development works and subsequent excavations and peat and soil stripping of later phases of the landfill to be monitored by a qualified and licensed wetland archaeologist.

Condition 13: Sets out requirements with respect to haul routes for materials being imported to the site. A review of the impact of HGV movements generated on the local road network to be carried out after two years of operation of the facility. Any revisions to the routes shall be agreed and implemented within 6 months of the review and any additional payments necessary under condition 21 shall be agreed between the developer and the planning authority or in default, referred to the Board for determination.

Condition 14: Proposals for the re-use, if any of the composting building, maintenance building and administrative building to be agreed with the planning authority prior to the development of Phase 8 of the landfill.

Condition 15: Community Liaison Committee to be established to identify environmental works and community facilities to be funded under the following condition.

Condition 16: The developer to pay a sum of money to the planning authority towards the cost of the provision of environmental improvement and recreational or community facilities in the locality.

Condition 17: Landscaping to be generally in accordance with submitted EIS, as amended. Prior to commencement detailed submission including a timescale for implementation (which shall also include replanting in the event of failures) to be agreed

Condition 19: Prior to acceptance of any waste at the facility an eight to ten metre wide belt of deciduous and evergreen trees and shrubs along the entire boundary of the site with the grounds of Allenwood Celtic AFC.

Condition 20: Bond to secure the provision and satisfactory final landscaping restoration measures.

Condition 21: Special Financial Contribution in respect of road improvements, traffic calming and public lighting which shall benefit the proposed development.

Condition 22: Financial Contribution in accordance with the terms of the Developemnt Contribution Scheme made under Section 48 of the 200 Act.

2. **03/1379 –** Permission granted for a development consisting of a pilot scale environmental technologies research station with an associated pumping station at the Bord Na Mona works site at Timahoe , Coill Dubh to the south east of the site.

WASTE LICENCE

A waste licence with respect to the existing facility (Licence Reg . No W 201-01) was granted by the EPA to Bord Na Mona on 3rd August 2005, subject to 12 conditions as set out in the schedules attached thereto.

The introduction to the licence states that

The proposal comprises a composting operation accepting 25,000tpa bio-wastes for processing, and a 120, 000tpa residual waste landfill, incorporating all the associated infrastructure. Both operations will source material from non-hazardous municipal, commercial and industrial waste streams. The landfill will accept residual waste only, i.e. it has been subject to pre-treatment in accordance with the requirements of the Landfill Directive. It is expected that the landfill will have an operational life of c.20 years. The landfill footprint will be approximately 21 ha and will have a capacity of c.2.3 Mt waste (2.86Mm3 available void)

The conditions of the licence which are of most relevance to the proposed land use development in terms of impact on visual amenities, traffic flows, traffic noise, ecology and environmental pollution from construction activities are:

Condition 3.16.1: Security and stockproof fencing and gates shall be installed and maintained.

Condition 3.17.1: Effective site roads shall be provided and maintained to ensure the safe movement of vehicles within the facility

Condition 3.17.2: The facility entrance and hardstanding areas shall be appropriately paved and maintained.

Condition 6.22.1: Only one working face shall exist at the landfill at any one time for the deposit of waste other than cover or restoration materials.

Condition 6.22.2: The working face of the landfill shall be no more than 2.5 metres in height after compaction, no more than 25 metres wide and have a slope no greater than 1in 3.

Condition 11.8: Prior to the development of any undisturbed area, the advice of the Heritage Section, and the Parks and Wildlife Section, of the Department of the Environment, Heritage and Local Government shall be sought.

Condition 11.13.1 The licensee shall as part of their EMP prepare a report examining waste recovery options and shall be submitted to the Agency for its agreement in the AER. This report shall address methods to contribute to the achievement of the recovery targets stated in National and European Union waste policies.

I note from correspondence received dated 17th June 2008 that Bord Na Mona have applied to the EPA for a review of the existing waste licence for the intensification and extension of the facility.

CONSULTATION RESPONSES RECEIVED

The **EPA** confirmed that the proposed activity is one that requires a review of the Waste Licence from the Environmental Protection Agency.

An Taisce recommends that as a preliminary matter, condition compliance with previous An Bord Pleanala permission and EPA License be assessed and addressed in addition to the mitigation measures attached to the previous Environmental Impact Statement.

The **Department of the Environment, Heritage and Local Government** notes that the development is large in scale and that subsurface archaeological remains could be encountered during ground disturbance. It is recommended that at pre construction stage, centre line testing be carried out and that archaeological probing be carried out in areas to be agreed between the archaeologist and the National Monuments Section. A 20 m buffer zone should be established around RMP monument nos. KD008:029 AND KD008:030. During the construction stage archaeological monitoring to be carried out of an areas where pre-construction testing has not taken place.

It is noted that the area of land involved is an area of high biodiversity containing a number of species and habitats. The presence of breeding water rail and reed bunting which will be impacted on by the development is noted. It is not clear from the mitigation measures in section 4.6.5 of the EIS what 'best practice' will be used to allow them still breed in the area and whether the restoration plans will be implemented first so that their habitat will not be lost. It is recommended that a biodiversity plan be drawn up for the site as a whole so that this large area of biodiversity can be managed for its natural heritage.

Kildare County Council notes that the principle of a waste management facility at this location has been established in the parent permission and is supported as an appropriate land use at this location. The Regional Planning Guidelines recognises the opportunity to transfer waste between regions and the need for flexibility in dealing with waste management at regional level. The County Development plan supports the provision of essential waste infrastructure and the proposed development is in compliance with the

Waste Management Plan. Notwithstanding the forgoing it is considered that further clarification is required on a number of issues.

A detailed rationale to demonstrate the need to provide an additional 240,000 tpa of residual MSW landfill capacity at this facility for the timeframe indicated is required. In determining the additional quantity of residual waste to be accepted at the landfill for the intensification purpose sought by the applicant, it is necessary for the applicant to clearly demonstrate how the recycling targets in each of the relevant waste management plans and the biodegradable diversion targets have been considered. The applicant will also need to demonstrate if the proposed intensification complies with the landfill diversion targets, which sets limits on the quantity of biodegradable waste to be landfilled.

The carrying capacity of the road network in the area to accommodate additional traffic together with the volume of traffic generated by the proposed development has not been properly assessed. Clarification is required on a number of other roads issues including justification that the existing access routes to the site are capable of accommodating the additional traffic movements generated by the development, further clarification on vehicle movements generated by the proposed development including those generated by site staff, the use of more robust methods of calculating AADTs on the R 403, justification for conclusions with regard to most likely haul route scenario, survey of all proposed haul routes and the preparation of a programme of necessary improvements required over the duration of the proposed development etc.

The remnant raised bog habitat within the surrounding areas has not been adequately assessed. This habitat in included as an Annex 1 habitat under the EU Habitats Directive. The proposed development should also assess the impact on the Ballynafagh Bog and Ballynafagh Lake (ground water fed) p SAC.

It is noted that there are two archaeological monuments –long toghers (old bog roads) which traverse the Bord Na Mona holding to the north of the proposed landfill footprint. These items are included in the Sites & Monuments Record of the Office of Public Works- 008: 029 and 008:030. There are also ring forts located approximately 2 km from the subject site. These ring forts are also included in the Sites & Monuments Record 008:016 and 008:023. Proposals should demonstrate that the proposed development will not have any negative impact on these monuments.

In the event that permission is granted appropriate conditions should be attached to regulate the proposed development in the interests of the proper planning and sustainable development of the area.

It was recommended by resolution by the members of Kildare County Council that the proposed extension to the facility be rejected by Bord Pleanala. Various other resolutions were passed in the event of permission being granted relating to payment of levy's, road pavement improvements, preparation of a hydrology study etc.

OBJECTIONS /OBSERVATIONS RECEIVED

The submission made by **Bernard J Durkan TD** is stated to support the objection made by Mr Des Mulvey. The grounds for support listed by Bernard Durkan are as follows:

- The proposal is unnecessarily extensive and is a reversal of indications given at the oral hearing dealing with the existing operation.
- There appears to be a major problem with flooding, which was pointed out during the oral hearing and rejected by the applicants.
- The new proposal vastly increases the threat of pollution in the area and does not adequately provide for the protection of the environment.
- Permission could and should have been made to Kildare County Council and provision made to meet local concerns.
- Lack of consultation with neighbours.
- Traffic will double in volume with consequent damage to road structure.

The observation made by **Des Mulvey & Yvonne Kavanagh** may be summarised as follows:

- Expresses concern about the prospect of a 200% increase in capacity at the facility.
- Concerns over the lowering of the water table in the vicinity of the gravel borrow pit. During previous gravel extraction the water table was lowered by 12-15 m in the vicinity of observers' property despite statements in the previous application that the gravel pit would not be dewatered. Following the extraction of gravel the water level has been allowed to rise which is causing flooding on adjoining low-lying land adjacent to observers' property. This area was not flooded prior to the construction of the Drehid facility.
- Odour nuisance and the inability of Bord Na Mona to manage odour abatement even at the current scale.
- During the construction phase works continued after 20.00 hours contrary to Condition No 6 of PL 09.212059.
- Since the site has become operational there have been numerous breaches of Condition 11.18 of PL09.212059
- Fire risk due to the combustible nature of the surrounding peat lands.

The objection submitted by **Gerry Woods** may be summarised as follows:

1. ***Lack of strategic consideration of the context of waste management policy.***

   There is no evidence in the EIS to suggest that the increased landfill capacity is an immediate requirement in the region and the proposed extension is therefore unjustified and premature. The development of the site as a waste management facility is not consistent with the objectives of waste management policy (locally or regionally) for the following reasons.

   - The proposal lacks clarity regarding the sources of waste for this development. The capacity of this facility coupled with other facilities in the area suggest a considerable risk that this facility would result in a contravention of national waste policy in relation to the *regionalisation* of waste.
   - The application is inconsistent with the broader objectives of Irish and European waste management policy and legislation, with a continuing emphasis on landfill development, and the proposal to allow the provision of landfill capacity in excess of the capacity detailed in the Kildare Waste Management Plan.
   - The proposal involves the further development of borrow pits connected with the operation that in themselves are development with considerable impact potential. This element of the proposal has not been adequately addressed in the EIS.

2. ***The significant impact of the development in the context of the local community.***

No effort has been made by Bord Na Mona to consult with the local community in relation to the planning application. Although a committee has been set up in relation to the monitoring of the existing facility there is no evidence of any real benefits or compensatory measures towards the local community. The EIS dismisses the real traffic hazard presented by the development of a large scale facility in an area with poor road connections. The risk to community water supplies presented by the proposal has not been adequately addressed. Additionally, risks for water quality further down the Barrow and River Boyne catchments presents risks to other communities in the region.

3. ***Infrastructural capacity.***

The capacity of the road network is already challenged by the significant levels of residential development that have been approved by Kildare County Council in urban and rural locations in the county. Traffic volumes in towns including Sallins, Clane and Prosperous (as well as smaller centres such as Carbury and Allenwood) are at a critical level. The addition of the proposed volumes of heavy vehicles will make this matter significantly worse. Notwithstanding suggestions that designated routes would be used, no traffic management system is being suggested to restrict movement of heavy vehicles through small communities in the locality. The specific inadequacies of the road quality to deal with the increase in HGV's due to the expansion of the landfill are of major concern. Local traffic problems will be exacerbated by the development which is distant from the high quality infrastructure along the M4 and M7 corridors.

4. ***Lack of consideration for surface water issues.***

It is clear from the existing landfill development that the issue of surface water was underestimated and ignored in the EIS. The evidence of this is apparent from the frantic attempts of site workers to control surface water with pumps operating 24 hours a day, seven days a week and the creation of a lake a short distance from the landfill site. The extension of the landfill is effectively three times the size of the original development and the surface water implications are very significant and will exacerbate existing conditions.

5. ***Concerns about the daily operating hours and noise generation.***

The objection by **Breda Logan** is summarised as follows.

- The intensification of the landfill facility which only began accepting waste in February 2008 is premature. The facility should be in operation for a number of years to establish if and when the facility is ready for intensification and to fully evaluate its impacts on wildlife, environment, roads, traffic, air, water, land and the community.
- Lack of consultation with the local community on proposed intensification.
- The amount of contributions paid by Bord Na Mona should be tripled reflecting increases in capacity.

- Since its completion there is a large area of ground covered in water immediately around the site. This raises concerns of pollution and flooding of the landfill as the site grows over the years.

The objection by **CEWEP** is made as part of a nationwide campaign to highlight the impact of excess landfill capacity on the development of alternative waste management technologies, such as waste to energy. It is critical that any new landfill developments do not exacerbate the current oversupply in landfill capacity and continue Ireland's over reliance on landfill for waste disposal.

It acknowledges that there may be a short-term capacity deficit in the Greater Dublin Area region in the near future. However with numerous landfills currently in the planning or development stages for the GDA, there is significant potential for an oversupply of landfill capacity in the future. If both Nevitt and USK were approved and developed in addition to the Poolbeg WTE Facility, there would be an oversupply of landfill capacity of at least 800, 000 tpa in the GDA. The outcome of planning decisions for landfills at both USK and Nevitt should be used to inform the decision to provide further temporary capacity at Drehid.

Alternatively, the capacity provided by the three landfills at USK, Nevitt and Drehid should be reviewed simultaneously by the Board to ensure that the region is adequately serviced without compromising long term goals. Based on analysis, it appears that the most effective solution would be to approve only the Drehid extension to cover any potential deficit in the GDA until the Poolbeg facility is developed. At this point the total available capacity in the GDA and Ireland should be reviewed and rationalised to avoid any oversupply of landfill capacity.

Controlling the amount of landfill capacity available in the GDA, and in Ireland, will ensure that alternatives to landfill become viable in the long term. It will enable Ireland to make progress towards its landfill diversion targets and recycling goals. If the Drehid extension were to be approved to provide controlled and temporary capacity, in the place of the Nevitt and Usk facilities, it could be said that the development would be compatible with Government policy and the concept of sustainable development.

POLICY CONTEXT

National Waste Policy

There are a number of publications that set out National Waste Management Policies since the late 1990's, which include the following;

Waste Management: Changing Our Ways was published by the Department of the Environment and Local Government in September 1998. It was primarily concerned with the management of municipal waste and was intended to influence the orientation of local authority waste management plans. It emphasises the need to reduce reliance on landfill in favour of a range of waste treatment options that better reflected the waste hierarchy and the need for environmental sustainability. It identified eleven Regional Waste Management Areas and strongly endorsed a regional approach to waste management planning. It set ambitious recycling and recovery targets to be achieved over a 15-year timeframe.

Preventing and Recycling Waste: Delivering Change published by the Department of the Environment and Local Government on March 2002 sets out an agenda of initiatives designed to achieve progress at the top of the waste hierarchy, in terms of preventing waste and achieving improved levels of recycling.

Waste Management: Taking Stock and Moving Forward was published by the Department of the Environment, Heritage and Local Government in April 2004. It acknowledges that landfill has a continuing role but will be progressively moving towards a residual role. It accepts that facilities provided in a region must deal primarily with waste from that region. It does however acknowledge the need to examine the interrelationship between regional boundaries and waste facilities. It noted that the wholesale attachment of conditions prohibiting trans-regional movement of waste was not always appropriate

Chapter 3.5.3 deals with the issue of landfill. The document notes that, in the absence of timely delivery on recycling and thermal treatment objectives, there will be increased pressure for an extension of landfill capacity, which will require local authorities to provide further short-term solutions without prejudicing the achievement of the longer term goal of achieving maximum diversion from landfill.

Chapter 4.3 of the policy document states that:

…it is not an automatic implication of waste management plans that waste facilities provided in the region have to be used exclusively for the region/county concerned… clearly facilities provided in the region must serve primarily the waste management needs of that region. That is entirely consistent with the concept of regional waste management planning where each region has to take lead responsibility for its own waste, …however careful consideration needs to be given to whether the imposition of blanket prohibitions on all cross-regional movements of waste is an appropriate and measured interpretation of the philosophy underlying regional waste management planning… it is noteworthy that the EPA in its most recent National Waste Database Report for 2001 has recommended that "the inter-regional movement and treatment of wastes should be provided for… in appropriate circumstances".

Chapter 4.5.7 of "Taking Stock" states that, any update of waste management plans will need to provide for an appropriate balance between having sufficient landfill capacity available in the short to medium term, pending the delivery of alternative 'higher-in-hierarchy' infrastructure, and guarding against the overprovision of landfill.

The Policy Guidance Notes under Section 60 of the Waste Management Act, 1996 (as amended) **WIR:04/05** published by the DOEHLG in May 2005, states-

One of the fundamental components of policy in regard to the regulation of the movement of waste is the application of the proximity principle… the application of the proximity principle does not entail interpreting administrative waste management planning boundaries in such a manner as to inhibit the development of waste infrastructure which will support the attainment of national waste management policy objectives through the rational development and use of such infrastructure.

The ***National Biodegradable Waste Strategy*** published by the Department of the Environment, Heritage and Local Government in April 2006 acknowledges there is an urgent need to procure the necessary alternative waste treatment capacity to facilitate

diversion of biodegradable municipal waste away from landfill. It identifies (Table 5.1) target dates by which reductions in biodegradable municipal waste to landfilling are to be achieved.

Regional Guidance/Plans

Regional Planning Guidelines for the Greater Dublin Area 2004-2016

The Greater Dublin Area includes the geographical area of Dublin City, Fingal, Dun Laoghaire-Rathdown, South Dublin, Kildare, Meath and Wicklow. Key points in relation to waste management and infrastructure in the Guidelines are-

- To promote sustainability with regard to waste management by means of co-ordination of waste strategies across the region to allow flexibility in the management of waste services (Goal 4: Objective 4.2).
- There is serious lack of waste management infrastructure in the GDA, both for household and commercial waste, which will become critical beyond 2008 (Section 8.6.3).
- Should private sector proposals for the development of landfill sites in Wicklow, Kildare and Meath proceed, the transfer of waste between regions could be reconsidered so as to give flexibility in dealing with waste management at a regional level. New facilities should be allowed to perform their required function in one region and also perform part of the wider strategy that includes waste management in another region. (Section 8.6.3).
- The waste management industry should aim to develop integrated waste management facilities in the GDA including new landfills (Section 8.6.3).
- In developing waste management infrastructure, provision should be made to:

  Provide for growth in the regional capacity for integrated waste management so as to mitigate escalating costs of waste disposal.

  Permit inter-regional transfer of waste to give appropriate economies of scale to integrated waste management facilities.

  Consider the requirement for new infrastructure in the context of the GDA, rather than the existing waste management regions. (Section 8.6.3).

Waste Management Plan for the Dublin Region 2005-2010.

- A critical shortage of municipal landfill capacity is imminent with the closure of existing landfill sites.
- Urgent delivery of the proposed Fingal landfill is essential to replace those facilities and provide adequate safe disposal for residual waste.
- While the Dublin WTE facility will divert significant volumes of waste from landfill, there will remain a significant requirement for residual disposal.
- It is the policy of the Plan to develop a municipal waste landfill with up to 10 million tonnes capacity in Fingal for this purpose.
- A short term capacity deficit may arise prior to the opening up of the Fingal landfill and the WTE facility.
- The preferred approach to manage this short term disposal requirement is by developing an additional short term extension to Arthurstown landfill, the use of available capacity in the Greater Dublin Area i.e. counties Kildare, Meath and

Wicklow if feasible and seek option for disposal capacity in other Regions if necessary.

Kildare Waste Management Plan 2005-2010

The Plan which provides for the period 2005-2010 identifies waste management solutions that shift the emphasis from disposal to prevention, minimisation, recycling, recovery and other forms of waste treatment. It identifies the waste infrastructure that will be required to meet the diversion targets set out in the Landfill Directive and in the national policy document 'Changing Our Ways.' To reach the targets specified mechanical biological treatment with landfill as part of its infrastructure is the preferred option. It is stated (Section 3.1.7) that it is not the intention of the Council to provide its own landfill facility during the life of the Plan. In the short term, the Council has access to sufficient landfill capacity for the waste that is subject to its control. In the medium to long term the Council will consider alternative arrangements for the disposal of residual waste in co-operation with neighbouring regions and/or the private sector.

In terms of landfill, the long term objective is to reduce landfill disposal to just 18% of the waste stream in the Region. It is recognised that in the short to medium term until recycling rates increase and biological and thermal facilities are introduced, there will be a need for significant landfill capacity. The region has developed significant capacity In the last five years and there is currently a landfill operating in each County in the Region.

Local Planning Policy

Kildare County Development Plan 2005-2011.

The operative development plan for the area is the Kildare County Development Plan 2005-2011. The relevant sections of the Plan are as follows.

Section 3.4 of the Plan deals with **Waste Management**.

Policy WM7 states as follows

To ensure the provision of a residual landfill facility in County Kildare either directly by the Council or in co-operation or partnership with the private sector, subject to the specific requirements of the objectives of the County Kildare Waste Management Plan.

The site is within a landscape area classified as ' **The Western Boglands'** (see map ref. 18.1) Section 18.4.5 of Volume 2 of the Plan, describes this area of the county. The following policies for this landscape area are of note:-

LA 3 – To continue to permit development that can utilise existing infrastructure, whilst taking account of local absorption opportunities provided by the landscape, landform and prevailing vegetation.

LA 4 – To continue to facilitate appropriate development in an appropriate manner, that respsects the scale, character and sensitivities of the local landscape, recognising the need for sustainable settlement patterns and economic activity within the County.

LA 7 – To recognise that cutaway and cut-over boglands represent degraded landscapes and/or brownfield sites and thus are potentially robust to absorb a wide variety of developments. This development should be carried out in such a way as not to prejudice the amenity potential.

The Plan refers to 'Robertstown Countryside' at Section 18.4.5.1, and a report carried out by An Foras Forbartha in 1978. Policy RC1 in relation to Robertstown Countryside states-

It is the policy of the Council to protect the amenities of this area and to encourage the development of the water recreation facilities and other amenities. The Council will assist the Robertstown Countryside Committee and other bodies interested in developing the waterways, walking routes and other amenities of the area and will strictly control development.

Map 18.1 of the Plan indicates in broad outline the location of Robertstown Countryside.

Section 11.2 of the Plan deals with **Boglands.** Under Section 11.2.3, it is a policy of the Council, *inter alia*-

BL2 *To take a balanced approach to the re-development of cutaway bogs. Large portions of cutaway bog should be developed as areas for wildlife, biodiversity conservation and their amenity value. Whilst other portions can be utilised for economic uses such as grassland, forestry and wind energy.*

BL3 *To liase with Bord na Mona, Irish Peatland Conservation Council, Coillte, National Parks and Wildlife Service of the Department of the Environment, Heritage and Local Government to ensure sustainable use of cut away bogland, with due consideration given to their ecological and amenity value.*

BL4 *To recognise that cutaway boglands represent degraded landscapes and/or brownfield sites and thus are potentially robust to absorb a wide variety of sympathetic developments. It should be noted that they have potential for grass and forestry, however difficulties can arise with crop production.*

The Plan recognises that county Kildare has an abundant and diverse **archaeological heritage**. The policies of the Plan in relation to the protection and preservation of features and items of archaeological interest are set out in Section 17.3.There are two archaeological monuments - long toghers (old bog roads) which traverse the Bord na Mona holding to the north of the landfill footprint. These items are included in the Sites & Monuments Record of the Office of Public Works - 008:029 and 008:030.

ASSESSMENT

In my opinion the main issues to be considered in this case are:

- The need for the development
- Roads and traffic
- Hydrology
- Ecology
- Archaeology Heritage

- Impacts on Human Beings
- Visual Impacts
- Fire Risk

Need for the Development

The proposal to extend and intensify the Drehid facility is designed to meet landfill capacity deficits in the Dublin region. It is accepted in two core policy documents, the Waste Management Plan for the Dublin Region 2005-2010 and the Regional Planning Guidelines for the Grater Dublin Area 2004-2016 that a shortfall in landfill capacity in the Dublin Region is imminent. The deficits arise due to the closure of existing landfill facilities and the lack of progress on the provision of alternative landfill facilities in Fingal and/or the Waste to Energy Plant at Poolbeg. As stated in the Waste Management Plan for the Dublin Region 2005-2010, a delay in the delivery of both elements of waste infrastructure will give rise to short term capacity issues. I note from the Plan that it is accepted that the deficit could be addressed by an extension of the Arthurstown landfill and the use of available capacity outside the Dublin region.

Since the publication of the Dublin waste plan permission has been granted in November 2007 for an extension of the life of the Arthurstown landfill until 2010 (at the latest). The permission does not provide for an increase in the permitted intake and the closure date is a direct consequence of the amount of waste deposited. I note from the Inspector's report (PL 09.224032) that the quantity of waste accepted at the facility has varied from year to year. Based on recent rates of disposal (592, 000 tonnes in 2006), the facility which had an estimated capacity of 1 million tonnes at the end of 2006, could be closed as early as 2008, or alternatively with increased competition within the regions surrounding Dublin, the intake could be as low as 270,000 tonnes per annum extending the closure date to 2010. On this basis, it would appear that the Dublin authorities may not realistically rely on Arthurstown to address landfill capacity deficits in the Dublin region after 2008.

It is acknowledged by both Bord Na Mona, and CEWEP that a deficit exists. CEWEP state that the deficit in capacity is short term and should Nevitt and Poolbeg be delivered on time that a surplus will arise in the medium to long term. Bord Na Mona accept this scenario as outlined in Fig 3.24 to 3.27 of Appendix 1.2.1 of the EIS. However, there is a difference of opinion between CEWEP and Bord Na Mona on the timeframe for delivery of the planned infrastructure for the Dublin region with impacts on future capacity deficits arising. Kildare County Council also accepts that the deficit exists but that the window of opportunity for that deficit is quite small centring on the 2009-2012 period. It also raised concerns about the time lines indicated for the delivery of Nevitt and Poolbeg by Bord Na Mona at the oral hearing.

To address the arguments presented, in terms of deficits/surplus capacity in the GDA, I have considered a number of scenarios, which are included in Tables 1 and 2 appended to the back of the report. The figures reflect those used by Bord Na Mona in Appendix 1.2.1 of the EIS, whereby the future capacity requirements in the GDA is made in line with regional waste management plans and assumes that each region achieves its target recycling rate. It is assumed in the Tables that Carranstown will be operational by 2012.

Table 1 illustrates the best-case scenario where Nevitt is operational by Jan 1st, 2010, and Poolbeg is operational in January 2012 (as anticipated by CEWEP) and Athurstown and Balleally continue to accept waste until their permitted capacities are exhausted in

2010 (at the latest). Under these conditions a deficit of 100,000 tonnes arises in 2009. Thereafter a surplus arises from approximately 200,000 tonnes in 2010 to in excess of 1 million tonnes in 2013, reducing to 800,000 tonnes following the closure of Kerdiffstown. On this basis it is accepted, as contended by CEWEP, that the timely delivery of Nevitt and Poolbeg would result in overcapacity in the GDA, with no necessity for the proposed development. However, it is considered that this outcome is highly unlikely on the basis that neither of the facilities have successfully completed their passage through the relevant statutory processes and even if those consents were to be secured in early 2009, both projects are to be constructed under a PPP initative, which is a protracted negotiated process involving lengthy delays

It was argued by Bord Na Mona during the oral hearing that Nevitt will not be operational until 2014/2015, if at all, and that Poolbeg will not be operational until 2016/2017, if at all. Table 2 of my report indicates that in the event of Nevitt being delayed until 2015 that a 1.5 million deficit would arise in the six-year period to 2015. It is assumed for this purpose that only capacity in the GDA is relevant, excluding facilities in the wider North- East region. Under the current proposal Bord Na Mona are seeking additional capacity for 1.68 million tonnes for a seven year period which would not appear entirely unreasonable in the context of anticipated delays in the delivery of Nevitt and Poolbeg. It should also be noted that the slow progress to date in the achievement of recycling targets and the provision of MBT facilities which form an essential element of the regions' ability to reach targets presented in the tables may underestimate the actual future waste arisings in the GDA.

It is clear from each of the submissions and from the evidence produced at the oral hearing that the timeframe for the delivery of the planned infrastructure in the GDA is critical to establishing capacity deficits in the GDA. A considerable amount of time was devoted at the oral hearing to the discussion of time lines associated with the delivery of Nevitt and Poolbeg. It was stated by Mr Timoney, on behalf of Kildare County Council that the time framework for the Nevitt landfill were overstated and that it could be delivered by 2013 as opposed to 2015 and that Poolbeg could be delivered by 2015. A difference of two years would have a significant bearing on the deficits planned for in the current proposal. The First Party contend that the time frames are realistic, are based on experience with other projects and that provision must be made for delays associated with PPP projects.

Contrasts were made at the oral hearing to the evidence produced by Bord Na Mona in relation to the anticipated length of the PPP process associated with the construction and operation of the Nevitt facility (56-74 months) compared to the evidence given by Mr Timoney at the USK oral hearing where he stated that the PPP process for Nevitt would be 45-57 months. I accept as contended by the First Party that legal challenges and the significant changes that have occurred in the economy which may have a bearing on finance commitment for PPP, adding appreciably to the length of time for a PPP project to start construction and become operational. On this basis the time frame for delivery as suggested by Bord Na Mona would not appear unreasonable. Whilst Mr Timoney argues that this should be subject to independent assessment, the delivery of projects which are subject to PPP involve contractual arrangements between local authorities and private partners, the progress of which to my knowledge rests with the bodies concerned.

The uncertainty surrounding the delivery of Nevitt and Poolbeg creates difficulties in terms of planning for the deficits arising in the GDA. The delivery of Nevitt by 2013 as

envisaged by Kildare County Council, would result in a deficit in landfill capacity for 4 years. It is contended by Kildare County Council that the deficit does not have to be addressed by increasing landfill sites, and could be dealt with through increasing tonnages. I accept that it would clearly not be in the interests of effective and sustainable waste management planning to allow an extension of the scale proposed to address such a shortfall, which could be addressed by a temporary increase in tonnage, without undermining the long term viability of the Drehid facility. However, if Nevitt/Poolbeg were delayed until 2015 and beyond, the deficit would extend for a six year period or longer, depending on the availability of alternatives. In such a scenario it would not appear unreasonable to permit the proposed extension, provided controls are placed on the capacity at the Nevitt facility, to ensure that excess capacity is not provided in the GDA and that the development of alternative waste management infrastructure is not compromised.

The whole question of whether additional landfill capacity should be permitted having regard to the EU Landfill Directive to reduce reliance on landfill in favour of alternatives has been raised by both Kildare County Council and CEWEP. Mr Timoney commented on the legality of permitting development, which is not in compliance with the Directive. Whilst I accept the validity of the views presented by Mr Timoney and CEWEP with respect to the undesirability of providing excess capacity in the GDA, and the requirement to comply with the Landfill Directive, a deficit is emerging which in the absence of higher in hierarchy infrastructure must be addressed. It is clear that the national policy objective of maximum diversion of waste from landfill can only be achieved if the other aspects of the waste plan i.e. recycling and thermal treatment are fully implemented. The failure to provide alternative waste management infrastructure will result in greater pressure on landfill capacity as is evidenced by the emerging problem in the GDA.

The appropriateness of trying to address such complex issues at the oral hearing was questioned by Mr Timoney, which in his opinion should be independently reviewed having regard to the consequences arising, Whilst I accept that a national overview of the waste management system is required, the Board in the performance of its functions is restricted to considering current ministerial policy directives/guidelines and cannot pre-empt the outcome of policy reviews. I consider that the oral hearing achieved its purpose as an information gathering exercise which will aid the Board in its decision making process.

Roads & Traffic

Concerns have been raised by both the planning authority and a number of the observers/objectors with respect to the increase in traffic that will arise as a result of the proposed development and the impacts on the road network and on road safety. The Kildare County Council's County Manger's Report also raised a number of issues with respect to the traffic impact assessment contained in the EIS.

Table 4.9.1 of the EIS provides details of the operational traffic associated with the existing facility, based on the acceptance of 120, 000 tonnes per annum for landfill and 25,000 tonnes per annum for composting over a 20 year period. The data presented indicates that a total of 51.9 HGV movements per day would be associated with the existing facility (excluding leachate tankers and including compost facility traffic) or 5.2 movements per day including leachate tankers. Cars and vans etc would generate approximately 4.0 movements per hour. The additional operational vehicle numbers

associated with the intensification of activities at the landfill (Table 4.9.2) would increase the number of HGV movements by approximately 87 per day and by 8.7 per hour (including leachate tankers) This would result in a total of 137.9 HGV movements per day and 13.9 per hour. The haul routes to be followed are identified in Fig 4.9.1 of the EIS and are similar to those already approved by the Board in relation to the existing landfill. It is predicted that the proposed traffic will be spread across these routes. It is also noted that some of the routes have been upgraded since the previous planning application as lodged as detailed in Section 4.9.5.3 of the EIS.

To assess the impacts of the traffic associated with the intensification of activities at the landfill, traffic counts were carried out in the area in 2007 (Fig 4.9.1). On foot of concerns raised by Kildare County Council with respect to the methods used to calculate AADT's, it was clarified at the oral hearing that additional traffic counts were carried out in July/August 2008. Counters were places at 10 separate locations (Fig 2.1 of Traffic Impact Addendum) along the haul routes. The results from these surveys were then used to calculate the AADT's at the junctions previously examined in the EIS and to carry out an assessment of link capacity along the haul routes. The use of figures for National Primary roads to calculate background traffic growth at junctions on the Regional Road network in the traffic assessment was questioned by the planning authority. Whilst it is argued by the applicants that the use of National Secondary growth indices as provided by the NRA were the best to approximate the precise conditions pertaining to the local network, the growth indices were revised using the 'All Roads' growth factors as requested by Kildare County Council. The percentage of additional traffic that is expected to be generated by the proposed intensification and extension of the landfill facility is detailed in Tables 4.1 to Table 4.8 of the Traffic Impact Addendum.

To analyse the effect that the proposed intensification and extension would have on the surrounding road network, a number of scenario's were tested. The trip distribution scenario whereby two thirds (67%) of the traffic arrives from and departs to the south and the remaining one third (33%) arrives from and departs to the north is considered the most likely scenario. This assumption would appear to be reasonable on the basis that is stated that the waste will be sourced from the waste transfer stations/materials recovery facilities located close to the Red Cow roundabout in Dublin will travel along the N7 which is to the south of the site. Stress tests for the improbable worst case scenario with all traffic arriving and leaving from on direction were also carried out. The Board will note from the Traffic Impact Addendum report that a one day traffic survey carried out at the entrance to the existing landfill facility between the hours of 07.00 and 19.00 hours revealed that 64% of the HGV'S arriving at the site did so from the south while 36% arrived from the north. It was also found that 55% of the HGV's departing from the site travelled south while 45% travelled north.

According to the NRA Traffic and Transport Assessment Guidelines which outlines the threshold for significant traffic impact on the surrounding road network, a development that is expected to generate traffic flows leading to an increase of more than 5% on the adjoining road in congested areas or 10% on adjoining road in uncongested areas is considered to have a traffic impact. According to the analysis presented in Tables 4. 2 to Table 4.8 of the Traffic Impact Addendum the maximum potential increase on overall traffic on any of the haul rotes and at the site entrance in any of the assessment years will be 1.4% for operational traffic and 2.0% for operational and construction traffic combined. Even in a worse case scenario where all the traffic is distributed to and from the north, or all the traffic is distributed to and from the south, the maximum increase in

traffic will not exceed 3.6% on overall traffic. In the case of a 50:50 split of traffic to and from the north and south of the site for the year 2014 when it is expected to be at full capacity, the maximum percentage increases on overall traffic are less than 2.5%. Based on the NRA guidelines, it is concluded that there will be no significant short or long term impact due to operational and/or construction traffic associated with the development even in the unlikely scenario that all the traffic is coming from the north or the south.

Whilst the link capacity assessment in the EIS was restricted to the R 403 in the vicinity of the site, I note that the Traffic Impact Addendum has broadened the scope to include other regional road haul routes including the R 402, R407, R409 and R 415. The assessment which was undertaken with reference to RT 180 Geometric Design Guidelines concluded that the Regional Road network in the immediate vicinity would operate without capacity problems in 2014, the proposed year of maximum operation. The existing site access junction was analysed using the PICADY programme. The performance of the junction was analysed for the critical AM and PM peak hours for a number of years, details of which are set out in Table 5.2. The results indicate that the junction will operate satisfactorily and well below the 0.85 RFC value. The maximum queue expected at the site junction is less than 1 vehicle. I note that a road safety audit was carried out on the existing site entrance junction and was subsequently approved by Kildare County Council.

During cross examination at the oral hearing the planning authority stated that they were generally happy with the trust of the information presented, but had some reservations with respect to the lack of opportunity to consider the level of detail presented at the hearing. In response it was acknowledged by the First Party that much of the data contained in the additional appendices that had been referred to was repetitive output, which was there to validate the higher level conclusions and statements that are made. The conclusions are stated to be almost identical to the previously accepted conclusions. I do note that the First Party submission systematically addressed each of the issues raised in the planning authority's report. The additional traffic counts carried out and the extension of the link capacity assessment to the majority of the regional roads in the vicinity site results in a more robust assessment of the impact of the development on the local network. It does appear to validate the original conclusions reached in the EIS that there will be no significant short or long term impacts due to traffic associated with the intensification/ extension of the development and that the designated haul roads have the capacity to cater for the development.

Questions were raised during the oral hearing with respect to the impact of the increased traffic arising from the proposed on the R 407 haul route from Naas to Clane and on the village itself. It is accepted by the First Party that this is the most heavily trafficked of all of the haul routes. Whilst I would accept that serious traffic congestion does occur in the village, I note that traffic exiting off the N 7 can avail of alternative haul routes to avoid the village during peak times. I also note that the projected percentage overall increase in annual daily traffic at Junction KCC1 (Clane village) arising from the traffic generated by the intensification of the facility would be 0.6% (Table 4.2) for both the first (2009) and last (2014) year at full capacity (Table 4.3). Whilst the link capacity analysis (Table 5.2) suggests this route has less available capacity than the other haul routes, it is indicated that at the proposed year of maximum operation (2014), 15% capacity will remain.

The impact of increased traffic on the road pavement on the haul routes was raised by the planning authority. It is acknowledged in both EIS and the Addendum Report that there will be some adverse impact on the pavement of the roads to the extent that weak sections of the existing pavement will be subject to increased loading and may require strengthening. It is also accepted that HGV's are the major cause of damage. Whilst a visual inspection of the haul roads revealed that they are in relatively good condition, there are localised sections showing signs of deterioration that are in need of remedial works. The Board addressed this issue in the previous permission through the imposition of a two conditions. Condition No 21 required the payment of a special contribution) towards road improvements, traffic calming and public lighting. The First Party has stated its agreement to the imposition of a similar condition with respect to the proposed development, which is considered reasonable. Condition No 13 facilitated a review of the impact of HGV's on the designated haul routes after two years of operation with an opportunity for a review of the routes and to reassess the contributions based on what is happening on the ground. The planning authority stated that this afforded a level of comfort with regard to the future of the haul routes and stated in the event of permission being granted for the proposed development, that a similar type arrangement should be put in place, which is also considered reasonable.

Photographs were presented at the oral hearing from one of the objector's (Gerry Woods) illustrating the unsuitability of the road network for heavy traffic and showing various accidents that have occurred in the area. It was confirmed during cross-examination the same photographs were produced at the oral hearing for the original development and have already been considered by the Board. In approving the original development, the Board has accepted the suitability of the haul roads. Having regard to the projected negligible increase in overall traffic on the existing network and the available link capacity on these routes, it is not considered that there will be significant impacts on the road network or road safety arising from the proposed development.

Hydrology

It was recommended by resolution by the members of Kildare County Council, that in the event of permission being granted for the development that a condition be included requiring the preparation of a hydrology report, prior to commencement of the development. The presence of deep gravel bed running past the proposed site and underneath it and the possibility that it could cause an enormous outflow of water with a significant risk of pollution was raised by the elected members of the Council. Issues in relation to surface water drainage and flooding have been raised by some of the observers/objectors.

I do not consider that the submission of additional hydrological modelling is necessary in the event of a permission being granted for the development. I have based this conclusion on the following. The identification of the presence of the valley feature within the site is not new to the subject application. It was originally identified as part of the preliminary investigations in the Landfill Site Selection Process, which ear marked Drehid as the most suitable site for a new landfill facility in Co Kildare. It was also identified and assessed in relation to the proposal for the original landfill facility. I note that at the time the Board retained the services of a hydrogeologist and geo technical expert who concluded that the feature was adequately investigated and was not significant in the context of the original development. It was also accepted that the feature was adequately sealed with low permeability material and did not therefore constitute a high permeability zone, which could present a potential conduit or pathway.

The proposed extension will be constructed on the east side of the existing facility. For the purposes of clarity the applicants were requested during the oral hearing to produce a map showing the position of the valley feature relative to the proposed development. The submitted document (Dwg 3369-1016) shows that the existing landfill is built within the channel valley feature. I also note from the evidence presented by Mark Conroy that *'no significant groundwater inflow was encountered'* during construction. This would appear to be consistent with the results of drilling and geophysical surveys carried out in respect of the proposed development, which have revealed significant depths to bedrock within the valley feature and the presence of low permeability clay/ silt material. It should be noted that whilst the extension of the landfill lies c 350 m to the east of the valley feature, it is underlain by c 10 m of low permeability clays in an area which is underlain by a 'Locally Important Aquifer', that is moderately productive only in localised zones. (L1). Although the depth to bedrock is significantly less beneath the site of the proposed extension, comparable geological and hydrogeological conditions exist, providing adequate protection to groundwater.

It is contended by the observers/objectors that flooding has occurred as a result of the construction of the existing facility, which will be exacerbated by its extension. The evidence presented at the hearing included copies of aerial photographs produced by Gerry Woods to indicate flooding, particularly in the area to the east of the landfill. Photographs were also produced by Mr John Logan, in support of his argument that flooding was affecting his land located on the south side of the R 403. Issues have also arisen with respect to flooding in the area of the sand and gravel borrow pit.

It would appear that flooding in the low lying areas to the east of the existing landfill is not a new phenomenon. I note from the EIS that due to prolonged heavy rainfall some areas were rendered inaccessible during the ecological survey in July 2007 (Section 2.7.1.2). It was confirmed at the hearing that the aerial photographs were taken on the Sunday preceding the hearing i.e. September 7th, 2008. This followed a period of unseasonably wet weather. It was acknowledged by Bord Na Mona that extreme rainfall events may have resulted in surface water ponding in the wider bog complex. It was also acknowledged by the applicants that flooding had occurred during construction (2007) and operation (2008) but that the drainage infrastructure within the facility had effectively managed and treated the water prior to discharge without detrimental impacts downstream of the facility. The accumulation of water in the area may in part be attributable to the unseasonably wet summer where many areas of the country experienced rainfall amounts in excess of 200% above the norm resulting in flooding. No evidence was presented at the hearing to indicate that the flooding was directly attributable to activities on the landfill site. I note that surface water is discharged to the receiving waters in a controlled manner and that the river channel has the capacity to cater for the volumes arising.

The property in Mr Logan's ownership stated to be experiencing flooding was identified during the hearing as located in Killina opposite the site entrance on the south side of the R 403. From the evidence submitted Bord Na Mona purchased the adjacent land to construct the access to the landfill. It is alleged that the works resulted in flooding of Mr Logan's property leaving 30% of the holding unfit for use. Whilst construction of the access is complete, it was stated that the problem of flooding still remains.

I note that all surface water draining from the operations area of the landfill and borrow areas drain to the west to the Cushaling River, while the southern portion of the access

road constructed under the previous permission drains to the Abbeylough River. I note from the submissions made at the oral hearing that no flooding has been recorded on the Cushaling River, but that the OPW flood mapping indicates periodic flooding on the Abbeylough River, which occurs annually and pre dates the development of the Drehid facility. Various suggestions were put forward during the course of the oral hearing on how the flooding arises, ranging from the restricted size of the culvert under the Grand Canal to the lack of maintenance of the Slate River and its tributaries.

Notwithstanding the difficulties that flooding can cause to adjoining landowners, the body of evidence would appear to suggest that the incidences that do occur are attributable to deficiencies in the overall wider surface water drainage system, the resolution of which is clearly beyond the scope of the applicants. No conclusive evidence has been produced to suggest that the section of the development discharging into the Abbeylough River sub-catchment is contributing to flooding downstream. The site entrance and access road were constructed on foot of the original parent permission (PL 09.212059) and no additional works or alterations are proposed to support the current proposal. Any issues which arise in relation to its impacts on drainage are a matter for the planning authority. The issues raised with respect to the loss of use of land arising from flooding incidences are civil issues more appropriately dealt with through the courts. It would appear reasonable to conclude that on the basis that no development associated with the proposed extension will drain towards the Abbeylough River that any problems that may exist in this sub catchment will not be exacerbated by the proposed development.

It is contended by Mr Des Mulvey who resides in the house nearest the sand and gravel borrow pit that dewatering has occurred, contrary to the Inspector's report in relation to the original permission on the site. It is clear from the original EIS that dewatering of the borrow pits was envisaged. Section 3.12.5 states that *as the borrow pits will be excavated partially into the water table, the provision of the pit area and treatment/settlement of the drainage water will be required prior to discharge to the surface water system'*. It is also stated (Section 3.12.6) that *'precipitation falling and infiltration into the active area of the borrow pits shall be drained or pumped into the settlement lagoons, from where it is discharged into the existing environment'*. It was clarified at the oral hearing that the water table in the borrow pit would be lowered at a controlled rate as described in the EIS, until a dry working platform is achieved. There are no proposals to instantaneously lower dewater the borrow pits. As is the case with the access road the borrow pits were granted permission under the parent permission and any issues arising in terms of their operation in conflict with the conditions of the permission are a matter for the planning authority.

Archaeological Heritage

The impact of the development on the archaeology of the area has been raised in the report from Kildare County Council. Reference is made to ring forts and toghers in the vicinity of the site which are included in the Sites and Monuments Record for Co. Kildare. As the ring forts are located c. 2 km from the site, the recorded monuments which are of most relevance in the context of the proposed development are two intersecting toghers to the north of the landfill footprint. I note from the Landfill Site Selection report that the presence of these toghers has to some extent determined the location of the original landfill footprint.

The previously permitted landfill footprint and the proposed extension are located to the south of the toghers SMR KD 008:030/009:018 and KD 008:29/009:019. The clay burrow area is located between the toghers SMR KD 008:029 and KD 008:030. I note from the EIS (section 2.9.8) that archaeological monitoring of ground disturbance took place during the construction of the existing landfill footprint and associated works and no features or artefacts of archaeological significance were encountered.

Whilst it is clearly acknowledged in the EIS that the area of activity incorporates sections of the two toghers, including their point of intersection, the position of the proposed landfill extension relative to the toghers was only fully clarified during the oral hearing (Drawing No 3369-1017 A). It shows the encroachment of the berm to the north of the landfill over a section of the togher. The DoEHLG sought clarification on how their recommendations with regard to a 20 m buffer zone would be maintained. Bord Na Mona clarified that a 20 m buffer zone would be maintained from all *excavations* and that the berm would be placed on top of the berm without any ground disturbance. It was reiterated by Bord Na Mona, and this was accepted by the DoEHLG that while no trace of the recorded toghers survive overground, the possibility of subsurface archaeological remains could only be determined during pre construction testing in line with the DoEHLG's requirements. The DoEHLG's requirement that the berm be relocated to avoid impact on the recorded monument was addressed by the submission of a revised drawing showing the berm relocated so that only short sections of the line of the togher were impacted upon (Drawing No 3369-1018).

It is evident from the assessment contained in the EIS that the area generally is of considerable archaeological significance. Due to the size of the site and its location within a bog environment and its high preservation properties, the potential for the discovery of archaeological features is considered to be quite high. However, it is likely that some archaeological features have already been removed due to the previous use of the land for commercial peat extraction. I note that while a walkover survey revealed no evidence of the trackways, the survey was constrained by the presence of dense vegetation and wide drains in some locations.

To mitigate impacts the position of the majority of the berm has been relocated to avoid the encroachment over the toghers. Subject to a suitable condition incorporating the requirements of the DoEHLG, I consider that natural heritage and archaeology of the area will not be adequately protected.

Ecology

It is contended by Kildare County Council that the impact of the development on raised bog habitat (Annex 1 habitat) within the surrounding area has not been adequately addressed in the EIS and that the impact of the development on the Ballynafagh Bog and Ballynafagh Lake (which is ground water fed) should be assessed. I note that the DoEHLG have raised issues with respect to the impacts of the development on breeding water rail and red bunting.

The appeal site comprises part of a larger area of cutaway bog, formerly used by Bord Na Mona for the commercial extraction of peat. I note that the identification of habitats within the current EIS was confined to the 'development site' while the ecological assessment included in the EIS for the original application covered a wider study area comprising all of the land owned by Bord Na Mona in the southern section of the Timahoe Bog. Whilst the Inspector's report on the previous application on the site (PL 09.212059) did note the presence of isolated pockets of intact raised bog within the overall Timahoe Bog, no areas of raised intact bog were identified within the

development site. Similar conclusions are reached with regard to the current site and I accept as reasonable the comments made that remnant raised bog in the surrounding area is likely to be irreparably damaged, through the alteration of the hydrology arising from drainage and peat exploitation works.

Kildare Co. Co has not elaborated on its concerns with regard to potential impacts on the designated sites. Ballynafagh Bog pNHA/ c SAC and Ballynafagh Lake pNHA/c SAC which are located c 6.8 and 6.2 km respectively from the landfill footprint. I note from the Site Synopsis (Site Code 000391) that the bog is of conservation interest due to presence of a high proportion of intact raised bog habitat. The site is also within the territory of a breeding pair of Merlin, a species listed on Annex 1 of the EU Birds Directive. Ballynafagh Lake (Site Code 001387) which formerly operated as a man made reservoir is recognised as an area of high ecological value of both local and international importance. It provides a valuable habitat for various species of wild birds and vegetation and is of particular conservational significance due to the presence of alkaline fen, a habitat listed on Annex 1 of the E.U Habitats Directive and the snail vertigo Moulinsiana, an Annex 11 species.

I accept as concluded in the EIS that there will be no direct impacts on any designated sites in the vicinity. I accept that indirect impacts could arise from surface water discharges, pollution of ground water or alterations to the hydrological regime. Ballynafagh Lake and Bog are located in the River Slate catchment. With the exception of the southern part of the site access road, all activities associated with the landfill occur on lands draining to the Cuahaling River, which is part of the River Barrow catchment. The drainage of the facility in the opposite direction and away from the designated sites significantly reduces the potential for adverse impacts. The existing surface water drainage system will continue to be used and augmented to facilitate the proposed extension. The measures proposed to prevent silt and sediment entering the surface water drains will mitigate the potential for impacts on any designated sites downstream of the facility.

The proposed extension to the landfill will be located in an area with similar geological and hydrogeological conditions as the original landfill footprint. I note that the extended area will be underlain by similar low permeability soils which coupled with the depth to bedrock reduces the risk to groundwater. In terms of potential impacts on groundwater, I note that a factor which influenced the initial site selection was the thickness of the overburden which affords significant protection of the bedrock aquifer. This coupled with the aquifer classification of Lm provides the most favourable groundwater protection scheme matrix response i.e. R1 which is deemed to pose the lowest risk to the hydrogeological environment. The proposed construction method which includes the provision of a low permeability basal liner will mitigate the potential for highly polluting leachate to enter the surface or ground water systems. The potential for impacts on either of the designated sites arising from groundwater pollution is therefore considered to be low.

Whilst no rare or protected species of birds were recorded within the site, the DoEHLG has raised issues with respect to the potential impact of the development on Amber – listed bird species within the extended area of the landfill footprint. The restoration plan envisages the planting of a locally occurring native woodland on the northern perimeter of the site and the provision of similar planting, following capping of the landfill, will help to ameliorate the impact of the removal of the habitat used by foraging and nesting

birds. I would also like to point to the Board that the total area of the site equates to just 7 % of the overall holding and it is reasonable therefore to assume that species displaced as a result of the development will migrate into surrounding area where similar habitats exist. It was clarified at the oral hearing that the restoration plan would form the basis of a biodiversity plan for the site. No issues were raised in this regard by the DoE.

The Board will note that the Site Ecology report referred to by Mr Gerry Woods at the oral hearing formed part of a submission in relation to the previous application and has therefore been duly considered by the Board.

Impacts on Human Beings

It is contended that the quality of life of residents in the vicinity of with the existing landfill including odour, noise dust and flies which will be exacerbated by the proposed extension.

Whilst noise, odour and dust have arisen in various submissions to the Board, the impact of flies arose as a new issue during the hearing. It is contended that there is a significant increase in flies in the locality arising from both the site itself and trucks carrying waste into the area. The First Party accepted that there was an increase in flies at the working face of the landfill above normal limits in the three weeks prior to the hearing. A pest control company was engaged to spray the exposed faces of the landfill with residual insecticide. With the exception of a complaint registered the day before the hearing, Bord Na Mona were not aware that the problem had become an issue off site. I would consider this to be unusual having regard to the documented scale of the problem by observers/objectors.

Given that nuisance associated with flies is most likely to be associated with the landfill management than with passing waste collection vehicles, I consider that the mitigation measures proposed, which includes application of a daily cover, together with the use of pest control as required should be sufficient to ameliorate impacts on residents in the area

Odour nuisance has been raised by the observers/objectors. The odours from a landfill typically arise from tipped waste at the working face, landfill gas emissions, emissions from leachate treatment facility and odours from the organic matter itself. Whilst the site does benefit from its isolated location and the separation distance to dwellings, the control of odour nuisance is directly dependent on good site management. Various measures are proposed to mitigate its impacts including minimising the size of the working face, immediate compaction of the waste, application of a daily cover and effective landfill gas management. Leachate will be transported off site and accordingly no aerosols will be generated. The design of the additional seven phases of the extended landfill mirrors the design of the eight phases already approved by the Board. The odour dispersion modelling carried out in support of the development would suggest that there would be no short or long term odour impact in the vicinity of the waste management facility during operations, provided the landfill is managed in accordance with the odour minimisation protocols and the emission levels specified in the waste licence. It is not therefore anticipated that odour nuisance will impact on sensitive receptors.

It is contended by the observers/objectors that noise is generated at the landfill site outside the permitted operating hours. The operating times of the facility are regulated by the permission granted and any breach of the condition is a matter for the planning authority to enforce. The facility is not permitted to operate at nighttime. The results of

a nighttime survey presented at the oral hearing, whilst somewhat limited in scope, concluded that elevated noise levels in the area were directly attributable to a mushroom facility. Issues have also been raised about noise associated with mobile plant on the site and traffic hauling waste to the site. The EPA Waste Licence for the existing activity has set day and night time noise emission limits from the facility at 55 d B(A) L_{Aeq} (30 Minutes) and 45 d B(A) L_{Aeq} (30 Minutes) respectively, with no clearly audible tonal or impulsive component. As pointed out in the EIS, the same sources of noise will be on site for the additional seven phases as will exist for the eight phases which has already been granted permission by the Board. Whilst levels will be elevated during construction, this phase of the development will be short lived and the impacts will be largely mitigated by the distance of the facility from sensitive receptors and the screening effects of the berms.

It is contended by the observers/objectors that the operation of the landfill contributes to problems with dust in the wider environment. Whilst it is claimed by one of the objector's that dust levels from the landfill have directly impacted on her daughter's health, I note that the deposition rates at the monitoring location closest to her dwelling (adjacent to the site entrance) are less than 50 mg/m2/day, with one exceedence. This exceedence is though to be attributable, not to the landfill, but to planting of seed grass in an adjacent field. Whilst I accept that there is significant potential for the dust generation from both the construction and operational phases of the landfill, the impacts on residents is likely to be minimal due to the isolated location of the site, the mitigation measures implemented/proposed and the deposition levels set by the EPA Waste licence.

Visual Impact

The principle of a landfill in this location has already been accepted by the Board. The site is not located in a visually sensitive area and there are no designated scenic views within a 5 km radius of the site. It is located in a degraded area of bogland which has the capacity to absorb the development.The construction of the extension to the east side of the existing facility will not bring the facility any closer to local properties or the road network to the north, west and south of the site where the visual impact of the existing facility is considered to be greatest. Views from the east are, and will continue to be restricted by intervening blocks of woodland and high hedgerows along the local road (L 1019)

Impacts will be mitigated by the planting of informal woodland to the north, by the provision of a hedgerow planting along the L 5025 to the north of the site to limit the open views currently available and by the extension of the screening berm, which will be grassed with native species.

Fire Risk

It is contended by the observers/objectors that due to the combustible nature of the surrounding peat lands there is a significant risk of fire, which has not been addressed in the application. Whilst references were made at the oral hearing to a number of bog fires in the past, particularly on lands to the east of the landfill. I note that the fires occurred outside the facility boundary and were in no way connected with the landfill operation.

Potential sources of fire within the landfill facility are identified in the EIS. Methane gas is one of the main components of landfill gas. It is flammable and if uncontrolled can present a fire hazard. The flammability limits in air are between 5% and 15%. The auto ignition temperatures of methane is 53.7 degrees. These flammability limits and auto ignition temperatures are not applicable to modern landfill sites operated in accordance with BAT. Both surface and underground fires can occur in the landfill. It is accepted that the prevention of fire within the facility boundary is down to effective landfill management. Various fire control systems have been installed at the facility including the provision of a separate fire main, sufficient water for fire fighting purposes in accordance with the requirements of Kildare County, staff training in fire prevention and control and emergency response procedures etc.

Whilst there is no specific reference to bog fires in the EIS, the issue was addressed during the oral hearing in response to the concerns raised. I note that peat is extracted to clays over the landfill footprint and to a distance of 20 m beyond the outer toe of the landfill. The removable of the combustible peat removes the risk of subterranean fire passage between the landfill and the surrounding lands. Clay berms are constructed around the landfill footprint and it is isolated from the surrounding peat land and scrub by way of a 6 m wide perimeter site road and surface water swale. The clay and granular material in the berms and the granular material in the road will not burn and the perimeter road/ swale serve as a potential firebreak. It is my opinion that the structural design of the facility coupled with the contingency arrangements and emergency response procedures outlined in Section 3.16 will mitigate fire risk associated with both the landfill and the surrounding peat land.

CONCLUSION

I accept that the development will address the short-medium term landfill capacity deficit arising In the Dublin area. I also accept that it is difficult to plan waste infrastructural requirements on the basis of so many uncertainties. I accept that the rationale for the seven year period is based on the estimated forecasted delivery of alternative waste infrastructure and given the lengthy delays associated with similar projects i.e. Carranstown, this would not appear unreasonable. I accept that the intensification and extension of the facility has the ability to immediately address this shortfall without significantly undermining the long term waste infrastructural needs of the region. I accept that the proposal to extend the existing facility rather than build a new landfill is in compliance with prevailing national policy and that the inter-regional movement of waste is acceptable in principle.

RECOMMENDATION

In the light of the above assessment, recommend that permission be granted for the development

REASONS AND CONSIDERATIONS

Having regard to :-

(a) the national waste management policy framework and strategy as set out in the Government policy statements" Waste Management –Changing Our Ways" (1998), "Delivering Change" (2002), National Overview of Waste Management

Plans" (2004), and " Waste Management-Taking Stock and Moving Forward" (2004), published by the Department of the Environment, Heritage and Local Government,

(b) the provisions of section 54(3) of the Waste Management Act, 1996, as amended by section 257 of the Planning and Development Act, 2000,

(c) the Regional Planning Guidelines for the Greater Dublin Area, 2004-2016,

(d) the Waste Management Plan for Co. Kildare, 2005-2010.

(e) the Waste Management Plan for the Dublin Region , 2005-2010

(f) the Kildare County Development Plan 2005-201,

(g) the Environmental Impact Statement and information submitted at the Oral Hearing

(h) the separation distance between the landfill extension and residential properties or other sensitive receptors.

it is considered that the proposed development which would address the identified waste management capacity needs of the Greater Dublin Area in the short to medium term, subject to the conditions set out below, would be acceptable in terms of the impacts on the amenities of the area and of property in the vicinity, would not be prejudicial to public health would be acceptable in terms of traffic safety and convenience and would not be contrary to the proper planning and sustainable development of the area.

CONDITIONS

1. The landfill footprint extension shall be as proposed in the documentation submitted to the Board on the 30th day of April 2008. Waste to be accepted at the facility shall be restricted to 360,000 tonnes per annum until December 2015, thereafter tonnage for the disposal at the facility shall be restricted to a maximum of 120,000 tonnes per annum.

   Reason: To meet temporary capacity needs identified in the Grater Dublin Area and to ensure that the long term residual role of the facility is maintained.

2. Any stockpiling arrangements for excavated soil and/or peat, other than for use in the screening embankment around the landfill extension shall be agreed in writing with the planning authority.

   Reason: In the interests of proper planning and to avoid unnecessary environmental hazards on the site.

3. All surface water discharges arising during the construction phase of the development shall be discharged via interceptor traps to the settlement ponds prior to discharge into receiving waters.

Reason: To reduce the risk of pollution.

4. During the construction phase of the proposed extension Heavy Goods Vehicle (HGV) movements to or from the site shall be confined to between 0800 and 2000 hours, Monday to Friday inclusive and 0800 and 1300 hours on Saturdays (excluding public holidays and Sundays)

   Reason: To protect the residential amenity of the area during the construction phase of the development.

5. During the construction phase of the proposed extension, noise levels at the site (when measured at noise sensitive locations in the vicinity) shall not exceed 55 d B(A) between 0800 and 2000 hours, Monday to Friday inclusive and 0800 and 1300 hours on Saturdays, excluding public holidays and Sundays, and 45 d B(A) at any other time

   Reason: To protect the amenities of property in the vicinity.

6. Prior to the commencement of development centre line testing and archaeological probing shall be carried out on the site under the supervision of a licensed archaeologist. All excavations associated with initial site development works and subsequent excavations and peat and soil stripping for the development of later phases of the landfill extension shall be monitored by a qualified and licensed wetland archaeologist, In the event that any archaeological material is found during the course of monitoring, the archaeologist shall be empowered to stop work on the site, pending a decision on how best to deal with the archaeology. A report on the monitoring shall be submitted to the Heritage and Planning Division of the Department of the Environment, Heritage and Local Government.

   Reason: To ensure the protection of any items of archaeological interest which may be impacted upon by the development.

7. A 20 m buffer zone shall be established around RMP monument numbers KD008:059 and KD008:030. The berm shall be constructed generally in accordance with Drawing No 3369-1018 submitted to the Board at the oral hearing on the 10th September 2008, with its final position agreed with the planning authority in consultation with the Heritage and Planning Division of the Department of the Environment, Heritage and Local Government following completion of the archaeological assessment required under Condition No 6 above.

   Reason: To protect items of archaeological interest which may exist in the area.

8. The site landscaping shall generally be in accordance with the submitted Environmental Impact Statement. Detailed submissions, including a timescale for all landscape measures (which shall also include replanting in the event of failures) shall be agreed with the planning authority.

   Reason: In the interests of visual amenity.

9. All materials being transported to the site, either in the construction or operational phases shall be transported via one of the haul routes identified in Fig 4.9.1 of the EIS. After two years of the acceptance of the facility of the increased capacity of

360,000 tonnes, a review of the impact of the Heavy Goods Vehicle movements generated on the local road network (defined in Fig 4.9.1 of the EIS) shall be carried out by the developer in conjunction with the planning authority. Any revisions to the routes allowed to and from the site shall be agreed and implemented within six months of the review any additional payments necessary under Condition No 14 below shall be agreed between the developer and the planning authority or, in default of agreement, the matter shall be referred to the Board for determination.

Reason: In the interests of traffic safety, orderly development and the protection of amenity.

10. The developer shall pay a sum of money to the planning authority, either annually or in such manner as may be agreed, towards the cost of the provision of environmental improvement and recreational or community amenities in the locality. The identification of such projects shall be decided by the planning authority having consulted with the community liaison committee as provided for under the parent permission governing the development of the site. The amount of the contribution and the arrangements for payment shall be agreed between the developer and the planning authority or, in default of agreement shall be referred to the Board for determination. The amount shall be index linked in the case of phased payments.

    Reason: It is considered reasonable that the developer should contribute towards the cost of environmental, recreational or community amenities which will help to mitigate the impact of the extended landfill facility on the local community in accordance with Government Policy as set out in " Changing Our Ways".

11. Prior to commencement of development, the developer shall lodge with the planning authority, a cash deposit, bond of an insurance company, or other security to ensure the provision and final landscaping restoration measures that may be necessary to ensure compliance with the proposals for site restoration as set out in the Environmental Impact Statement, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory completion of any restoration. This bond, cash or other security shall have an expiry date of not sooner than five years after the completion of landfilling.

    Reason: To ensure satisfactory completion of the landscape restoration plan in the interests of orderly development.

12. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000. The contribution shall be paid prior to commencement of the development or in such phased payments as the planning authority may facilitate and shall be the subject of any specified Indexation provisions of the Scheme which shall be applied from the date of making of the Scheme. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000 that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

13. The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2)(c) of the Planning and Development Act, 200 in respect of road improvements and traffic calming measures, which will benefit the proposed development. This contribution shall be paid prior to the commencement of the development or in such phased payments as the planning authority may facilitate. Payment is subject to the provisions of section 48(12) of the Planning and development Act 2000.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which will be incurred by the planning authority which are not covered in the Development Contribution Scheme and which will benefit the proposed development.

Breda Gannon
Senior Inspectorate
October 1st, 2008