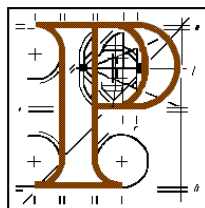


# An Bord Pleanála



## Inspector's Report

**Development:** Waste management landfill with lifespan of 20 years at the townlands of Parsonstown, Loughnacush, Kilkeaskin, Timahoe West, Drummond, Coolcarrigan, Killinagh Upper and Killinagh Lower at Drehid, Co. Kildare.

### Planning Application

Planning Authority : Kildare County Council  
Planning Authority Register Ref. : 04/371  
Applicant : Bord na Mona PLC  
Type of Application : Permission  
Planning Authority Decision : Grant permission

### Planning Appeal

Appellant(s) : Bridie & John Logan  
: Allenwood Celtic AFC  
: Bernard J. Durkan T.D. & Others  
: An Taisce  
: NW Kildare Env. Promotion Group

Type of Appeal : 3<sup>rd</sup> Parties v Grant

Observer(s) : David Malone  
: Emmet Stagg T.D. & Chris Rowland  
: Allen J. Byrne (Oral Hearing only)

**Date of site inspection** : 12<sup>th</sup> July & 8<sup>th</sup> August 2005.

Inspector: **Michael Dillon**

## **1.0 SITE LOCATION AND DESCRIPTION**

The site, with a stated area of 139ha. (within an overall landholding of 2,544ha. at Timahoe Bog), is located approximately 18km due north-west of the town of Naas in Co. Kildare. The villages of Derrinturn and Allenwood are located approximately 2.5km and 5.5km respectively from the landfill footprint. There is an extensive amount of one-off housing on all roads in the vicinity of the site. Many more houses are under construction with further permissions sought. Proposed access to the site is from a straight stretch of the R-403 Regional Road, at a point where there is a broken white line in the centre of the road and where the 80kmph speed restriction applies. Sight distance in either direction at the proposed entrance is good, and can be improved further by cutting back hedgerows on either side. There is an existing agricultural entrance at the point of the proposed entrance. There are no houses in the immediate vicinity of the entrance – the grounds of Allenwood Celtic AFC being located to the south-east. These grounds are separated from the entrance by a good-quality hedgerow. The changing facilities at the sports grounds consist of metal containers from trucks. The first 500m of the access road run across a flat grassed field before entering the bog proper. The access road traverses the bog in a wide arc of approximately 4.3km. Timahoe Bog has been used in the past for milled and sod peat extraction for the Allenwood Power Station (since decommissioned). The power station is now a small industrial estate with garden centre and childcare centre. Parts of the bog are still used for winning milled and sod peat and others have been re-colonised by scrub vegetation. The bog is traversed by industrial railway lines (now completely overgrown and tracks are no longer visible – except at places where they cross public roads). There are also disused 3-phase power lines traversing the bog to service pumping stations. Deep drains (3-4m deep) have been dug at regular intervals trending north-west/south-east. A number of these drains have become overgrown while others remain open and filled with water. These drains are connected, via a piped 12” drain, to a lagoon, located to the south of the proposed sand and gravel area. This lagoon is somewhat overgrown. It in turn drains to the Cushaling River to the south. The flow of this river was little more than that of a small stream on the dates of site inspection.

The site is relatively flat, with the aforementioned deep drains rendering passage across the bog difficult. In the vicinity of the landfill footprint, scrub vegetation has effectively colonised the entire area and it is difficult to penetrate to the interior. Some willow and birch trees have reached heights of 8-10m. The railway line to the east of the landfill footprint is raised above the level of the bog on either side. To the north of the site, the L-5025 is a county road constructed on bog rampart for part of its length. This road is wide enough for two cars to pass at speed. To the west of the sand and gravel borrow area, there is an abandoned sand and gravel pit. This pit extends right up to the fence which marks the site boundary. On the site side of this fence is an overgrown area in which the rare Alder Buckthorn species is to be found among bracken and birch trees.

## **2.0 THE PROPOSED DEVELOPMENT**

Permission sought on 24<sup>th</sup> February 2004, for development comprising the following elements-

- Engineered landfill site (footprint of 21.2ha.) in 8 no. phases, to accept up to 120,000 tonnes per annum (total 2.3 million tonnes over 20-year lifetime of permission) of non-hazardous residual municipal waste for disposal. Final height of capped facility to be 20m above excavated base of the landfill – finished level of 103m OD.
- A composting facility with ‘bio-filter’ - within an enclosed building (4,157sq.m), to accept 25,000 tonnes of bio-waste per annum. Building to have 3m high concrete walls with Kingspan colour-coated metal above and on the roof. Overall height of building is 11.5m. Building to operate under negative pressure. Two no. vehicular entrance and exit doors will be provided – each fitted with ‘Rapid Response’ roller shutter doors.
- In addition to 20-year operational limit, an additional 2-year period is required to facilitate preliminary development works prior to acceptance of waste and to allow for restoration of the site.
- New entrance from R-403 Regional Road to include right-turning lane. Wing walls to be of natural stone and gates of tubular steel. Sections of palisade fencing to link the wing walls with the entrance gate.
- Access road , surfaced with tarmacadam, from R-403 to landfill footprint of 4.8km length – varying in width between 5.5 and 7.5m.
- Internal hard surface haul roads of 2.38km.
- Clay borrow area of 10ha. – (212,300 cubic metres) excavating 5-7m below existing ground level. Excavation will be below the water table and the area will be left as a lagoon when extraction is completed.
- Sand and gravel borrow area of 12.7ha. – (248,410 cubic metres) excavating 5-7m below existing ground level. Excavation to be below the water table and the area to be left as a lagoon when extraction is completed.
- Dormer style administration building of 434sq.m with the appearance of a large house.
- Parking area for 17 cars, 2 vans and 1 coach.
- 2 no. weighbridges and kiosk.
- Maintenance facility building of 180sq.m. The building to have solid block walls up to a height of 2.2m and pressed metal upper walls and pitched roof. The overall height of the building to be 6m.
- Bunded concrete hardstand for waste inspection and quarantine (585sq.m), to include three no. concrete walled bays.
- Bunded oil storage area of 22.5sq.m for oil tank of 5,500 litre capacity.
- On-site water borehole.
- Wheelwash for trucks.
- 5 no. surface water settlement lagoons (5,564sq.m) – three for landfill and one each for clay borrow area and sand and gravel borrow area.
- 2 no. circular leachate holding tanks (2m high) with combined capacity of 400 cubic metres, within leachate compound of 1,000sq.m.
- Landfill gas collection compound surrounded by 2.4m high palisade fencing; and gas flare of 35sq.m. with stack height of 6.5m.
- Security fencing to include a 2.25m high chainlink fence with three strands of barbed wire around the landfill footprint.

- 5m high berm around the northern half of the landfill to help screen it from view.
- Provision for removal of buildings and reinstatement of the site.

The application is accompanied by an Environmental Impact Statement.

Following a lengthy request for additional information, dated 16<sup>th</sup> April 2004, a comprehensive additional information submission was received by the Council on 12<sup>th</sup> August 2004, as follows-

- New newspaper notice.
- Upon cessation of landfilling, access road will be retained. Composting facility, administration building, maintenance building, weighbridges, oil storage area and other site infrastructure will be decommissioned and removed. Gas flare compound will remain in place until it is no longer necessary to flare gas (approx. 20 years after last deposition of waste). Leachate compound will be retained also.
- The Waste Management Plan over-rides the County Development Plan in reference to the Robertstown Countryside Amenity Area. Restoration will provide for progressive provision of forestry and water features which satisfy the long-term objectives for the Robertstown Countryside Amenity Area.
- National and Regional Guidelines recognise the need for inter-regional transfer of waste.
- The pre-treatment of waste is generally covered by way of condition attached to a Waste Licence from the EPA. Waste for the composting facility does not need to be pre-treated. There is no civic amenity site proposed at Drehid. Unacceptable waste will be refused entry. Checks will be made at the quarantine area and on the working face of the landfill.
- Composting is preferred to anaerobic decomposition, as this is a proven technology for treatment of bio-waste. Composting is more viable with lower volumes of bio-waste – anaerobic treatment requiring in excess of 75,000 tonnes per annum.
- Dates of pre-planning and EIS-scoping meetings and correspondence are listed.
- Site investigations and baseline studies, set down in the EIS, establish the suitability of the site for the proposed development. Sensitive areas such as natural watercourses, areas of bog woodland, potential archaeological sites and inferred geological faults were avoided. The facility is remote from houses and roads.
- The EIS was prepared with regard to relevant guidance documents from the EPA.
- A small percentage of the Bord na Mona rail network is contaminated with asbestos (mixture of lagging material with ash from power stations in order to provide ballast upon which to lay railway tracks). A specialist will be engaged if any of the contaminated ballast has to be disturbed. The submission includes a report on this issue, carried out by Forbairt, in 1997. The asbestos (amosite) has, over the years, fused into a solid mass, and considerable force would be required to generate airborne fibrous dust. The tracks have become overgrown with vegetation and moss, and are effectively entombed. The dampness of the site would render the production of airborne dust unlikely. Only a small amount of the overall track network is contaminated. Rigorous sampling will be required if track is to be removed to see if asbestos is present.
- It is not intended to operate a Construction & Demolition waste recovery facility.

- Laboratory testing for EPA samples will take place off-site.
- Drainage from the wheelwash will be directed to the leachate collection network. Leachate will be tankered off-site to an approved wastewater treatment facility.
- A description of the composting process is included in the response documentation. In the short term, compost will be used for landfill remediation on-site. If the grade of compost meets regulation requirements, it may be possible to use it off-site. Separate buckets can be fitted to machinery in the composting building to ensure that there is no cross-contamination of waste.
- Gravel from the site can be used for the leachate drainage blanket. Discussions on this matter are proceeding with the EPA. There are a number of potential sources of this material – should the material on site prove to be unacceptable. Some 79,250 cubic metres would be required to be imported to the site. This would involve an additional 4.8 HGV movements per day, based on the importation of the material over a 12-month period, in 22-tonne trucks, over 280 days, with the density of stone taken to be 1.5 tonnes per cubic metre. If gravel is to be imported, the sand and gravel borrow area would be reduced from 12.7 to 6.7ha.
- Bentonite enhanced sand (BES) can be used as a replacement for natural clay in lining the cells of the landfill. The applicant has had the sand on site tested, and it has been found to be suitable for mixing with bentonite. Appendix C-2 contains the relevant certification from ‘Cebo Envirotek’.
- Formation levels for the landfill vary from 79.917m OD at the south-east of the footprint to 85.75m OD at the extreme north-west. The surface water level reading from borehole GW5S (measured at 85.724m OD) does not concur with readings from the other boreholes – measurements taken on 18<sup>th</sup> July 2004. The difference in levels may be explained by the presence of very hard clay in the borehole. Measurements were taken in February 2003, when boreholes showed water level at its maximum. Interpolated readings (taking account of hydraulic gradient) at the lowest point of the site will result in a requirement to lower the water level by 3.62m. Following removal of peat material, it is proposed to excavate a perimeter trench around the landfill. The depth of the trench will be graded to enhance the flow – the maximum depth of the trench being 4m at the extreme south-east. Shallow groundwater boreholes will be installed around the periphery of the landfill during the initial construction works and these will monitor water levels. Suction pumps will be used to dewater the southern portion of the landfill – the northern portion being just above the water table. The dewatering process will link to the settlement lagoons. The volume of water is expected to be 10 cubic metres per ha. per day, for each metre depth excavated. Passive dewatering around the periphery of the landfill and active pumping within the active area of the landfill, will negate the possibility of hydrostatic uplift. Hydrostatic uplift will not compromise the integrity of the liner and when additional weight is provided by the deposited waste, the requirement to pump will be negated.
- It is proposed to construct 5m high screening berms to the north-east, north and north-west of the landfill footprint. A quantity of 150,000 cubic metres of material will be required (incorrectly shown as 15,000 cubic metres on Table 3.6.1 of the EIS). The location of these embankments is shown on drg. no. 1131/01/496 of the application drgs.

- Material excavated from the landfill footprint is suitable for and will be utilised in the construction of the bunds and for topsoil and subsoil in the final capping. Only the low-permeability clays required for the temporary and final capping will be sourced from the clay borrow area; resulting in a significant reduction in the size of the clay borrow area from 10ha. to 4.9ha. A total of 276,000 cubic metres of spoil material will be excavated from the landfill area. If the drainage material is won on-site then there would be a potential surplus of 388,000 cubic metres. It is proposed to widen and extend the perimeter berms around the landfill footprint. The location and final extent of these berms is shown on drg. 1131/01/347 (Rev C). Berms will be grassed with native species. The berms will provide for noise attenuation and will enhance the mitigation of any dust emissions from the working face of the landfill. Berms will be constructed on a phased basis; as and when material becomes available.
- The estimated annual average quantity of leachate is 2,975 cubic metres for 2005. This will increase as the landfill progresses – with a peak suggested for 2008. This is because none of the phases will have been finally capped at this date – phase 1 not being capped until 2009. This will decrease slightly at phase 8 (the final phase). Leachate generated will drop upon the installation of the final capping system. Leachate will be tankered to Council wastewater treatment plants at Osberstown and Leixlip. Appendix C-4 is a letter from Kildare County Council; stating a willingness to discuss the possibility of accepting leachate, subject to the developer paying the full cost of disposal. No on-site leachate treatment is proposed.
- The leachate drainage blanket will extend up the side slopes of the landfill cells.
- A temporary capping layer, comprising 300mm of clay will be installed above a mineral drainage layer of 300mm (effectively the gas equalising layer). The maximum amount of this clay will be salvaged for re-use in the final capping layer. Clay will have to be removed to lay the gas collection pipes. Work is to be carried out as speedily as possible to reduce the potential for odour nuisance.
- A 20-year period is required for accepting waste – divided into 8 phases of 2-3 years. The final capping of phase 8 will be two years after waste acceptance has ceased – to allow for settlement. Table 3.11.1 of the submission gives a timetable for construction and development of the Drehid waste management facility.
- The surface water management infrastructure will ring-fence the construction area prior to any earth moving on site.
- Additional landfill gas monitoring wells will be installed at 150m intervals around the active phase of the landfill prior to deposition of waste. On final capping, gas collection wells, (placed at 40m centres) will also be used to monitor gas composition, flows and pressure within the waste body.
- Two additional dust monitoring locations will be provided at the clay borrow area. Dust monitoring will take place twice yearly. Additional PM10 monitoring will be carried out at the entrance and at the sand and gravel borrow area.
- Houses are located between 1,330m and 3,420m from the landfill gas flare. The potential for odour nuisance is limited. Any cumulative odour from the Drehid facility will be below detection threshold - based on dispersion modelling for odours (Claremorris data). Under Article 5 of the EU Landfill Directive (1999/31/EC), bio-waste going to landfill must be reduced by 65% in 2016. This will significantly reduce odour emission rates by a conservative 30-40%.

- Leachate holding tanks will be covered to prevent ingress of rainwater.
- No particulate matter will enter the gas flare burner. No emissions of lead will be present. Air emissions of nitrogen dioxide, sulphur dioxide, carbon monoxide, hydrogen chloride, hydrogen fluoride and total hydrocarbons were modelled (worst case scenario) for the landfill gas flare; and all were found to be below the emission levels set down by the EPA.
- All construction works will be carried out during daytime. Estimated noise generated will be well below nuisance level as measured at any of the 4 no. monitoring points.
- Additional construction traffic entering the site will be insignificant in terms of the overall volumes of traffic using the R-403 and will result in only a slight increase in noise. Higher noise impact will be most noticeable at the nearest residences – monitoring points N1 and N2. Noise impact on these houses will be marginal.
- There will be no significant short- or long-term effects, arising from all traffic to the site coming from either the Allenwood or the Derrinturn direction – based on existing traffic flows on the R-403.
- In the event that the proposed ring road for Naas is constructed, the Caragh Road would be utilised as the preferred access to the site. A map of potential haul routes is submitted at Figure TR1. This shows the location of Silliot Hill transfer station relative to the proposed site. The applicant is prepared to contribute to traffic management plans which may be implemented on the regional routes along which it is proposed to haul waste.
- A drill hole, bored by the applicant, showed depth to bedrock on the site at 128.3m. This is consistent with a filled valley – depth to bedrock at the sides of the valley being 11-17m. The Geological Survey of Ireland has no record of any karst feature in Waulsortian limestone in County Kildare. The clay-filled valley, on which the site rests, is not believed to be karstic in nature. The presence of such thickness of low-permeability clay, means the site has one of the most protective layers overlying any bedrock aquifer in Ireland. Dolomitisation of the limestone bedrock has been investigated and has not shown any zones of high permeability.
- The average depth of peat on site is not greater than 2m. It is estimated that between the landfill footprint, sand and gravel borrow area and the clay borrow area, that 553,500 cubic metres of peat will be excavated (80,000 cubic metres less if sand and gravel for the leachate blanket is not won on site and has to be imported). All of this peat will not be excavated at the one time – approximately 52,000 cubic metres associated with each of the 8 phases of development of the landfill. The peat will be used for the final capping of the landfill and the construction of the perimeter embankment.
- It is not proposed to dewater the sand and gravel borrow area – aggregates being won by dredging. The settlement lagoon will be used for wash water from the processing area. Within the clay borrow area, surface water will be extracted using a suction pump. Due to the low permeability of the clay, groundwater contribution is estimated at 10 cubic metres per day per hectare for each metre depth of excavation. The settlement lagoon will be 40 x 10m, and 2m deep.
- Leakage of leachate from the landfill is estimated at 1.6 cubic metres per annum in a worst-case scenario. It would take 166 years for this leakage to flow through the BES layer. Groundwater beneath the site would further dilute any leakage.

- The pumping rate for water testing on site was 56 cubic metres per day and not 43 cubic metres per day as stated in the EIS. No appreciable drawdown was detected in monitoring boreholes – apart from GW1D. Groundwater flow is predicted in a general southerly direction. There are no private or public water abstraction points between the landfill footprint and the discharge point to the Cushaling River.
- The aquifer beneath the site has been downgraded to the status of Locally Important Bedrock Aquifer Productive only in Local Zones in the provisional aquifer classification issued by the Geological Survey of Ireland.
- Additional ground water monitoring boreholes will be excavated around the verge of the landfill footprint upon grant of planning permission and Waste Licence from the EPA.
- Mineral subsoil on site, beneath the peat, is of low permeability. Export of leachate off-site will result in the highest level of surface water run-off being reached only after the landfill area of 21.2ha. is fully capped. The swale around the site can accommodate the maximum run-off of 681 litres per second, in the event of a 50-year storm event of 44mm of rainfall over a four-hour period. The swale will be 2m deep, with a maximum width of 6.75m when flowing full. Settlement lagoons will have the capacity to accept surface water from a storm event.
- The waste management facility is located within the catchment of the Cushaling River and not the Slate River. Flooding in 1993 (a 100-year storm event) would have been caused by all lands within the catchment, and not just Bord na Mona lands. There is no evidence that Bord na Mona was responsible for flooding in the Figile River. The Cushaling River is not silted at the proposed point of discharge. Discharge to the Cushaling River will be throttled at 176 litres per second.
- The site is already traversed by large artificial drains at approximately 200-250m centres - to enhance drainage of the peat. These drain to a sunken 12-inch culvert. It will be necessary to divert a small number of these drains along the western boundary of the landfill, in order to facilitate construction works.
- Road drainage will be diverted through grit traps and oil traps before discharge to surface water outfalls.
- Lagoons will be constructed by excavating subsoil material to form the necessary embankments. They will be lined with high-density polyethylene geo-membrane to ensure integrity. The retained 2m of water within the lagoons will prevent any hydrostatic uplift.
- The EIS indicates that the current Q-value pollution rating of the Cushaling River is Q2-3. This is an improvement on earlier EPA recorded values.
- The channel capacity of the Cushaling River, at the western boundary of the site, is estimated to be 8,550 litres per second. The downstream capacity, where the river passes in culvert under the R403, at Dillon's Bridge, is estimated to be 9,900 litres per second. Water from the development would contribute approximately 2% of the capacity of the river. It should be noted that the site drains naturally to the Cushaling River at present.
- Concentrations of phosphate in the Cushaling River are well below acceptable levels – while they are considered to be above natural background levels. The pH of the water shows it to be within drinking water range. Total coliforms and faecal coliforms are not elevated above normal background levels. There is no agricultural



activity on site and any faecal coliforms in the river can only come from animals or humans. While there are some mammals on the site, it is likely that faecal coliform contamination, observed in testing, arises from agricultural activity or septic tank discharge outside the site.

- The access road will be constructed before construction of the landfill. The road will be sealed from the R-403 to the wheelwash.
- The site will not be open to the public. An automatic control barrier will be fitted at the gate from the R-403 – operated by swipe-card and via a CCTV monitor connected with the administration building.
- Public lighting will be provided at the site entrance as per drg. no. 1131/01/471 – 6 no. lamp-standards.
- Only enclosed haulage lorries will be used for waste. As there is no C&D waste accepted, netted covering for lorries will not be an issue.
- Entrance details to include turning facility in event of gates to premises being closed. Sightlines at this entrance are more clearly shown on drg. no. 1131/01/469 and the road layout has been colour-coded.
- Methane gas has an auto-ignition temperature of 537 degrees Celsius. This temperature would not be reached in a modern landfill operated in accordance with Best Available Techniques (BAT). Fires can be either at the surface or within the landfill. A fire-main will be provided in the location of the facility infrastructure. It will be provided with water from the surface water retention lagoons. There is more than adequate capacity (18 times the required volume) in the surface water retention lagoons. A water delivery pump adjacent to the lagoons will provide water for the hydrants in the event of a fire. Any firewater within the composting facility will be retained within the building and will eventually discharge to the leachate tanks.

The additional information submission is accompanied by a number of appendices, amongst which is a Road Safety Audit.

There is a Fax on file, received by Kildare County Council on 17<sup>th</sup> September 2005, containing a missing page from the additional information submission of 12<sup>th</sup> August 2005. This page covers additional information items 22-26 as follows-

- To provide gravel (for the drainage blanket) from off-site will require an additional 4.8 HGV movements per day.
- Traffic analysis in the EIS assumes that waste collected in Clane, Prosperous and Rathangan will be transported direct to the facility.
- Drg. no. 1131/01/469 shows how the proposed alterations to the R-403 will tie into the existing road.
- The above drg. shows the entrance walls and sign relocated outside the sight visibility triangle.
- CPO of lands to facilitate road works on the R-403 will not be required, as road works are within the existing curtilage of the road or within lands owned by Bord na Mona. The portion of the road which encroaches onto Bord na Mona land will be handed over to the local authority.

Following a request for clarification of additional information, dated 6<sup>th</sup> October 2004, a

submission from Bord na Mona was received by the Council on 29<sup>th</sup> October 2004, as follows-

- Bord na Mona owns 80,000ha. of peat land. The site selection involved various counties and is information which is of a sensitive nature and could be used by competitors.
- None of the investigations undertaken within the landfill footprint identified any significant permeable layers or zones of groundwater. Even if such are encountered, the water treatment infrastructure will be capable of dealing with them. Only part of the site will be constructed at a time – in association with each phase.
- Temporary additional pumping capacity can be installed during construction, in the unlikely event of additional flows being experienced, due to more permeable material being encountered.
- A number of pits extract sand and gravel from beneath the water table within the country. The ground water level at the extraction area will not be lowered. The sand and gravel borrow area is bounded by low-permeability materials. There is no hydraulic continuity between the water bearing sands and gravels and local surface water units (principally the Cushaling River). This river is 200m from the sand and gravel area. Flow through the subsoil will act as a natural filter. Processing water will be diverted to a settlement lagoon.

On 20<sup>th</sup> December 2004, Kildare County Council received a copy of a revised newspaper notice referring to significant further information received. The notice had been published on 16<sup>th</sup> December 2004.

The planning authority published a newspaper notice, on 18<sup>th</sup> February 2005, indicating its intention to grant permission for a development which was in accordance with the Waste Management Plan for the county but which was in contravention of the Development Plan for the county.

### **3.0 PLANS AND POLICY**

#### **3.1 Development Plan**

The relevant document is the Kildare County Development Plan 2005-2011. Section 3.4 of the Plan deals with Waste Management. Section 3.4.1 refers to the Waste Management Plan 2000, and the connection between it and the Development Plan, as provided for under Section 22 of the Waste Management Act, 1996 (as amended by Section 4 of the Waste Management (Amendment) Act, 2001. Section 3.4.3 of the Plan states that it is the policy of the Council, *inter alia*-

*WM7 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.*

It is an objective of the Plan, RP14-

*To improve and realign, where necessary, the following regional roads:* as set out in Table 3.2; of which the R-403 Regional Road from Allenwood to Derrinturn is one.

Map ref. 3.1 also indicates a schematic possible future Outer Orbital Route linking the junction of the M7/M9 motorway with the heart of north Kildare.

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 liaise 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 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 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 gives a broad outline of where the Robertstown Countryside is located but does not actually define the boundaries of the area. The 1999 County Development Plan did contain such a map [copy enclosed included with this report].

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.

### 3.2 Kildare County Council Waste Management Plan 2000-2005

This plan was adopted in July 2000. In a 1998 Study carried out for the Council, Drehid/Timahoe was one of three sites within the county identified as being suitable for further study to see if they were appropriate for a residual landfill – the other two being Usk and Newtowndonore/Mylerstown. The Council waste facility at Silliot Hill, Kilcullen, has been closed for purposes of waste disposal and is now being used as an integrated waste facility, for biological treatment and as a temporary transfer facility. Waste is sent to Dublin for baling before being brought to Arthurstown landfill, Kill, Co. Kildare (owned by the Dublin authorities). Arthurstown is due to close in December 2007. Some waste from the county is disposed of to Counties Carlow and Wicklow. Two civic waste facilities are being developed at Athy and Kilcock. It is predicted that waste volumes will increase at the rate of 3% per annum.

Chapter 2 defines categories of waste as follows-

Household waste: waste produced within the curtilage of a building or self-contained part of a building used for the purposes of living accommodation: such waste may be collected by or on behalf of the local authority, delivered to civic waste/other bring facilities or comprise waste which although generated in the county is not managed by Kildare County Council.

Commercial waste: is defined as waste from premises used wholly or mainly for the purposes of a trade or for the purposes of sport, recreation, education or entertainment, but does not include household, agricultural or industrial waste. Commercial waste in Kildare is collected by private waste collectors. Most, if not all of this waste category, is disposed of to landfill.

Industrial waste: is defined as waste which is produced or which arises from manufacturing or industrial activities or processes.

Table 2.4 shows a total of 102,379 tonnes of estimated household, commercial and industrial waste arisings in County Kildare in 1998; (household waste tonnage includes bio-waste).

Chapter 2.5 lists the waste management facilities in County Kildare, which include; Silliot Hill landfill site - the only site operated by Kildare County Council, which in 1998 accepted a total of 188,620 tonnes of mixed waste; a landfill site at Johnstown; the KTK sand and gravel site at Kilcullen, which provides disposal facilities for imported dry waste materials arising from construction and demolition sites, road and pipeline projects and commercial/industrial premises; Arthurstown landfill at Kill, which provides disposal facilities for baled municipal waste collected by the Dublin Authorities.

Chapter 3 of the Plan forecasts the following waste arisings in 2018; 80,388 t/a of household waste based on an estimated population of 175,903 persons, 40,194 t/a of commercial waste (based on the assumption that commercial waste arisings are typically

50% of household waste arisings) and 42,100 t/a of industrial waste (this is based on the rate of growth of 1.5% per annum to the period 2011, followed by an average of 1% per annum between 2011 and 2018; the fall-off in the growth rate over time is based on the assumption that minimisation and clean technologies will progressively impact on waste production by all industrial sectors as the new century progresses).

Table 3.4 of the Plan explores the status of waste-related infrastructure in adjoining local authorities and the potential for interaction with waste disposal needs of County Kildare.

Chapter 4 of the Plan sets out waste management policy. It refers to the recommendations of the Waste Management Strategy Study for County Kildare 1999, which include, providing or arranging for a new engineered landfill disposal site capable of accepting residual waste material generated in the county over a 20-year period; the study also recommended that an examination be undertaken of the feasibility of directing all or a significant proportion of County Kildare's waste to suitable facilities in the Dublin, Midlands and South-eastern regions, as and when these are proposed/developed.

Chapter 4.2 of the Plan sets out an eight-point policy on waste disposal, which reiterates that in the short-term, upon closure of Silliot Hill, Kildare County Council will dispose of municipal solid waste arisings through landfill in adjacent authorities, particularly that operated by South Dublin County Council at Arthurstown. In the medium- to long-term, Kildare County Council will consider alternative arrangements in co-operation with neighbouring local authorities. The Council will also provide, or arrange for the provision, of a new engineered landfill site capable of accepting residual waste material generated in the county over a 20-year period... a site selection process has already been initiated in that regard. Notwithstanding the Council's efforts to establish a waste management facility, it will also have due regard to developments by or in adjoining local authorities.

### **3.3 Proposed Review of Kildare Waste Management Plan 2005**

The new Draft Waste Management Plan for the Region (County Kildare) was published in July 2005. Comments have been invited on or before 14<sup>th</sup> October 2005. This document lists waste arisings within the county for 2003, and estimates waste tonnages for the year 2006 – household 78,268 and commercial/industrial 76,552 – total 154,820. This overall figure rises to 164,845 tonnes for 2009. The design year of 2009 was selected as it corresponds with the more onerous deadlines of the Landfill Directive targets, of 50% diversion of biodegradable waste from landfill. Section 8.7 of the Plan refers to final disposal and mentions private planning applications (listed at table 4.9) for landfill facilities within the county – pending the outcome of planning decisions on which, the Council does not intend to pursue the development of a landfill facility of its own. Table 4.10 of the Draft Plan gives an indication of the possibility in the short-, medium- and long-term, to disposing of Kildare's waste in adjoining Waste Regions. The outlook for such disposal would appear to be good, based on the information set down in the table [copy attached to this report].

### 3.4 National Overview of Waste Management Plans 2004

This document, from the Department of the Environment, Heritage and Local Government (April, 2004), provides an overview of waste management plans for the 10 waste management planning regions, and was published in association with the latest government policy statement “Waste Management - Taking Stock and Moving Forward”. Chapter 10 of the overview deals with Kildare. Key points in the chapter are as follows:

- Kildare’s population increased from 134,992 in 1996, to 163,995 according to the 2002 census of population - representing a total increase of 21.5%. Population projections would suggest that the population of the county could increase by 14.6% to 187,961 over the period 2002 to 2010. (The forecast arisings for household wastes set out at Table 3.2 of the Waste Management Plan show the estimated population for 2011 at only 165,123 persons).
- That any assessment of the validity of the Plan’s projections for future waste arisings must be limited to household waste rather than municipal waste, having regard to uncertainties in reported commercial waste figures. The overview states that although the plan projection for domestic waste was 80,388 t/a in 2018, it is possible that that figure could in fact be reached in 2010/11.
- Regarding landfill, the 2001 EPA National Waste Database Report estimated that Kildare had only 2 years of landfill capacity remaining on the basis of landfill rates for that year; the overview then goes on to state that “more recent estimates from the EPA suggest that 6 years capacity is now available; however it should be noted that this takes account of a proposed private sector residual landfill at Usk for which a [*“proposed decision”*] to grant a Waste Licence has issued, but for which planning permission has not yet been granted.
- The overview goes on to state further, that “*notwithstanding the expected progressive reduction in the proportion of waste going to landfill, additional residual landfill capacity will be required. Now that the Silliot Hill landfill facility has closed, the Council has no landfill capacity of its own. Accordingly, waste is being directed to the South Dublin County Council landfill at Arthurstown. Given the limited remaining life at Arthurstown... steps need to be taken to address the implementation of the Plan’s objective in relation to providing or securing the provision by others of an engineered landfill to meet the county’s requirements for 20 years. The fate of landfill proposals which have been put forward by private sector interests is therefore of crucial importance as is the exploration of securing access to capacity in landfills in neighbouring regions/counties*”.

Regarding the Dublin Region, key points are:

- Regarding municipal waste, the EPA National Waste Database Report of 2001 shows that municipal waste arisings in 2001 stood at 855,706 tonnes - already well in excess of the 745,045 tonnes which the Waste Management Plan has forecast for 2004. On that basis, the region’s municipal waste arisings, in 2010, could be of the order of 1,090,000 tonnes.
- Progress is being made in advancing the procurement process for a single thermal treatment facility to serve the Dublin region.
- The Dublin Waste Management Plan envisaged 16% of the region’s overall waste

arisings going to landfill, hence the need for a landfill capacity of 10-11 million tonnes to serve the region to 2011.

- Recent estimates from the EPA suggest that seven years landfill capacity is now available in the Dublin region. However, notwithstanding the expected progressive reduction in the proportion of waste going to landfill, additional residual landfill capacity will be required to replace existing facilities. Fingal and Dun Laoghaire-Rathdown/County Councils have, therefore, initiated site selection processes for two new landfill facilities for the region.
- Regard must of course be also taken of any available private landfill capacity.

County Kildare is adjoined to the west by the Midlands Waste Management Plan region. The national overview of the Midlands Waste Management Plan refers to the following:

- Regarding municipal waste arisings, these have grown at a significantly faster rate than forecast in the Waste Management Plan; consequently, the 2001 level of municipal waste generation is already approaching the estimated level for waste arisings in 2013.
- Although the Plan provides for thermal treatment of waste, it also envisages that 15% of the region's household, commercial and industrial waste arisings will be landfilled.
- Recent estimates from the EPA suggest that available landfill capacity stands at 7 years.

County Kildare is adjoined to the south by the South-eastern waste management region. Key points in the national overview of the Waste Management Plan for that region are as follows:

- Regarding municipal waste arisings, those have increased at a significantly greater rate than forecast in the Waste Management Plan, i.e. waste arisings in 2001 had already exceeded the 2011 forecast of 221,360 tonnes.
- Although the Waste Management Plan envisages a single thermal treatment facility for the region, operational by 2009, 11% of the region's municipal and industrial waste arisings are proposed for landfilling in 2011.
- Recent estimates from the EPA suggest 4 years landfill capacity is available.
- Approval has been sought for an extension of Carlow County Council's landfill and a Waste Licence application has been submitted for a new landfill in Wexford. Legal proceedings have delayed the advancement of proposals for a new facility in County Waterford.

County Kildare is adjoined to the north by the North-eastern region. National overview comments on the Waste Management Plan progress in that area may be summarised as follows:

- Projections in the growth of municipal waste, contained within the Plan, would appear to be reasonable (305,902 t/a in 2014).
- Recent EPA estimates show 19 years of landfill capacity in the north-east region. The north-east region is well-served in terms of landfill capacity.

### 3.5 Waste Management - Taking Stock and Moving Forward 2004

This document, from the Department of the Environment, Heritage and Local Government, published in April 2004, sets out government policy in relation to waste management.

Some previous policy indications:

“Changing our Ways”, 1998: This encouraged local authorities to adopt a regional approach to waste management planning and set out a number of waste management targets to be achieved by 2013.

“Delivering Change”, 2002: Deals mainly with prevention and recycling of waste.

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. The document summarises the estimated remaining landfill capacity for each of the 10 waste management regions in 2004. 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 4.3 concludes with key point 3, namely, that “*an examination of the issues arising in terms of the inter-relationship between regional boundaries and waste facilities will be completed with a view to providing guidance to the relevant authorities...*”

The following policy guidance was provided in circular WIR:04/05 published by the DOEHLG in May 2005, which stated-

*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.*

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...

### **3.6 Draft National Biodegradable Waste Strategy 2004**

It is estimated that approximately 65% of municipal waste is potentially biodegradable. The strategy is based on the need to reduce the levels of biodegradable waste going to landfill, as required by the Landfill Directive. By the year 2016, an additional capacity of 2,577,661 tonnes per annum for treatment of bio-waste is required nationally.

### **3.7 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).

#### **4.0 PLANNING HISTORY**

**Ref. 04/222:** Refers to an invalidated application for a landfill facility on this site.

**Ref. 03/1379:** Permission granted for pilot environmental technologies research station.

**Ref. 03/1294:** Refers to an invalidated application for a pilot environmental technologies research station.

**Ref. 96/246:** Permission granted for an electricity line.

**Ref. 05/1230:** Permission granted on 5<sup>th</sup> September 2005, to Y. Kavanagh, for construction of a house on a landholding immediately to the west of the proposed sand and gravel area.

**Ref. 02/1348:** Permission granted by Kildare County Council for integrated waste management facility and residual non-hazardous waste landfill for 220,000 tonnes per annum over a 13-year period at Calf Field, Ballynadrummy: a portion of the site was located in Co. Meath, ref. TA/20263. On appeal to the Board [Ref. PL 09.209320 & 17.203801] permission was refused on 28<sup>th</sup> July 2005, for 3 reasons relating to hydrology, traffic and residential amenity.

**Ref. 01/2176:** Permission was refused by Kildare County Council for engineered residual landfill of 200,000 tonnes per annum over a 10-year period at Usk, Kilcullen. The decision was the subject of 1<sup>st</sup> and 3<sup>rd</sup> party appeals to the Board [Ref. PL 09.131473] with no decision to date.

#### **5.0 THE PLANNING AUTHORITY'S DECISION**

By Order dated 13<sup>th</sup> April 2005, Kildare County Council issued a Notification of decision to grant planning permission subject to 24 no. conditions – the principal ones of which can be summarised as follows-

1. Development to be carried out in accordance with submissions of 24<sup>th</sup> February, 12<sup>th</sup> August and 29<sup>th</sup> October 2004.
2. Relates to restoration plan and outline proposals for future use in accordance with the policies for the Robertstown Countryside Amenity Area.
3. Requires employment of a wetland archaeologist to monitor groundwork.
4. Relates to proposals for disposal of asbestos from old railway tracks on site.
5. Relates to provision of berms.

6. Acceptance of waste to cease after a period of 20 years from the date of commencement of landfill. Landfilling after that date shall require a new planning application.
8. Access to be in accordance with drg. no. 1131/01/469.
11. Construction and operational haul routes to be as identified on Figure TR1 (Rev. A). Any proposals to use an alternative route to be subject of a separate planning application.
12. Relates to record of all vehicles entering and leaving the site.
13. Hours of operation to be those specified in the EIS.
14. Relates to noise levels – 55dB(A) by day and 45dB(A) by night during construction phase.
15. Relates to monitoring of noise, dust and suspended solids in surface water run-off during construction phase.
16. Relates to public lighting throughout the site.
18. Relates to payment of a special contribution to the Council for road improvements, traffic calming and public lighting.
19. Landscaping to be carried out as per Section 4.5 of the EIS.
20. Relates to external finishes of buildings and structures.
21. Relates to payment of a bond (amount unspecified) for reinstatement of the site.
22. Requires payment of a contribution of €238,283 for services.
23. A Community Liaison Committee shall be established for general monitoring of the development, identification of environmental works and community facilities which may be funded under condition 24 and other matters of a community nature relevant to the operation of the facility. Composition of the committee shall be subject to prior agreement with the Council.
24. Requires payment of a sum of money (amount unspecified) to the Planning Authority, either annually or in such frequency to be agreed, for the purpose of establishing a fund sufficient to defray expenditure on works or services of an environmental or community nature identified as necessary by the planning authority and the committee established under condition 23. Amount to be agreed with the planning authority, or in default of agreement,

with An Bord Pleanála. Sum of money to be index-linked in event of periodic payments.

## **6.0 GROUNDS OF APPEAL**

There are a total of five no. 3<sup>rd</sup> party appeals against the decision to grant permission. The issues raised can be summarised in bullet point format as follows-

- Road gullies and surface water run-off from the new entrance to the site will negatively impact on the house of one of the 3<sup>rd</sup> party's which directly adjoins the entrance off the R-403. There is already a high water table in this area. This land drains to the Barony River and Slate River which are unable to deal with existing surface water flows and which are subject to flooding. Flooding in these rivers is caused by siltation arising from excavation in the Timahoe/Drehid Bog.
- The proposed entrance off the R-403, which is heavily trafficked, will be a traffic hazard. Pedestrians and cyclists on the road will be put at risk. People entering and leaving Allenwood Celtic AFC grounds would be put at risk from the volume of trucks entering and leaving the landfill.
- Exhaust and noise from trucks stopping and starting at the entrance to the site will cause a health nuisance for Allenwood Celtic AFC members and adjoining residents.
- Loose rubbish from trucks, which may be blown by the wind, will also cause a health hazard for people in the vicinity of the entrance.
- The entrance to the landfill will be an attractive spot for illegal tipping and dumping – given the levels of such activity which already exist in the county consequent upon the introduction of waste charges.
- Vermin, insects and birds will be attracted to the landfill which will cause further health risk for surrounding residents and visitors to the area.
- Property in the area will be devalued.
- The proposed entrance is located too close to the grounds of Allenwood Celtic AFC and would result in the demise of the club. The club has been operating from this site since 1995. The club bought the site in 2000. The club has plans to provide a building containing changing rooms, meeting-room, kitchen, gym and store-room for machinery. It is also intended to provide a car-park for 80-100 cars and floodlighting of the main pitch. An additional 8-10 acres of land will be required to provide adequate training pitches. Public liability insurance may be difficult to obtain if this landfill proceeds. The proximity of the entrance to the landfill, and the landfill itself, will devalue the lands of Allenwood Celtic AFC. People would be less likely to financially support a club which was located beside a dump. Many parents will withdraw children from the club if this dump proceeds.
- The development will pose a threat to the road network over a wide area. The capacity of the network is already compromised by the amount of rural housing which has been granted permission by the Council and also arising from the expansion of villages in the area. This growth is likely to continue. Notwithstanding claims that designated routes will be used, the Council placed no requirement on the applicant to adhere to traffic management systems in relation to HGVs. The road network is not capable of accommodating the additional traffic generated by this development. Leachate tankers removing leachate from the site will further

contribute to traffic volumes. There may be up to 6 HGV movements per hour into and out of the site at peak periods. If the leachate drainage layer of stone has to be imported, an additional 140,000 cubic metres of material may have to be imported. Persons living along the route for such potential haulage have been denied the right of commenting on the likely impact on their amenity. The axle loads of trucks on roads which were not designed for such heavy loads will lead to costly maintenance and possibly replacement. The cost of such deterioration should be estimated and recovered by the planning authority. There has been no estimate of the cost of damage to railway and canal bridges and the possible need for widening and replacement of these structures.

- The proposal will contribute to an already serious flooding problem.
- The development constitutes a major pollution threat to the area due to a high water table and connected drainage system linking to the Grand Canal and its feeder. Placing this amount of waste in the area will raise the water table further.
- The development would be negative feature on the landscape.
- The development would seriously damage tourism in the area.
- Bord na Mona is not legally entitled to make an application as it is not constituted as a waste management agency. The Bord is referred to the Burren Interpretative Centre judgement with regard to the OPW's specific statutory entitlement to carry out a development.
- The site is within the Robertstown Countryside, identified in the County Development Plan 1999. The Plan refers to possible after uses such as amenity and forestry. The sections of the Draft Development Plan in relation to cutaway bogs makes no reference to landfill. The proposed development contravenes the Development Plan and the Draft. Such a facility will result in environmental and social damage; something at variance with the objectives for the Robertstown Countryside.
- The issue of asbestos on site is unresolved and it has been left to condition 4 of the permission to try to solve the problem. This is unacceptable. The issue should have been comprehensively addressed in the EIS and specific permission should have been sought to remove this material.
- If stone for the leachate blanket is to be imported, there is no indication given of the amount or phasing of this operation and the volume of HGV traffic which it will generate.
- The Council did not have due regard to environmental pollution issues – instead insinuating that these would be more properly dealt with by way of a Waste Licence from the EPA. A planning authority or An Bord Pleanála must consider pollution issues and may refuse permission on such grounds.
- Development would be prejudicial to the future reinstatement of this bogland and would prevent the raising of the water table and the blocking of drains in the surrounding area to allow for alternative ecological or land management uses.
- The proposal is put forward without an overall strategic management plan for Bord na Mona's landholdings and the planning authority failed to take this into account.
- Groundwater levels in the footprint of the landfill will have to be lowered by as much as 6m according to information supplied in the EIS. The landfill will slope from 79.917m OD to 85.75m OD as shown on drg. no. 1131-01-473. Groundwater in

borehole GW5S is shown at 85.7m. This has long term drainage implications, not just for the landfilling period, but also for the long-term maintenance of the site. It will be necessary to pump water from this area for an indefinite period in order to keep the water table at a reduced level.

- There are no conditions attached to the permission relating to groundwater protection. The Council has a Draft Ground Water Protection Scheme (December 2002) – based on the Ground Water Protection Schemes published by the DoELG, the EPA and the GSI, 1999. The Council has ignored its own protection scheme by not attaching any condition relating to protection of ground water. There is a locally important aquifer beneath the proposed site. This aquifer is a buried river channel, infilled with gravels and alluvium. It has considerable potential for development as a source of water supply. Putting a landfill on top of such an aquifer does not represent sustainable development. The hydrogeological model for this site is still inadequately understood from the limited number of boreholes excavated. The Water Framework Directive requires that all ground waters attain, or are maintained at, good water quality status. The applicant has downplayed the importance of the aquifer beneath the site, which could serve up to 500 households.
- Dewatering of the borrow areas will be required in order to extract clay and sand & gravel. There is inadequate calculation with regard to scale and location of ponds to which water will be pumped.
- Surface water run-off from the bog is already problematic because of high Q-values. The problems associated with construction, borrow areas, drainage and possible leachate will, without any improvement in the overall drainage performance or absorption of the surrounding area, effectively sterilize this area or even require further lowering of the water table in the future.
- The proposal lacks clarity in relation to the sources of waste for this proposal. The Council has already granted permission for two similar waste facilities within the county – ref. 2176/01 and 1348/02 at Usk, Kilcullen and Calf Field, Ballynadrummy on the Kildare/Meath border. This continuing emphasis on landfill is inconsistent with broader objectives of Irish and European waste management policy. The Council is continuing to grant permissions for landfills in excess of the identified needs of the county as set down in the Waste Management Plan for Kildare.
- Condition 4 of the permission does not put any limit on the duration of landfilling at this site and there is a possibility that landfilling could continue after the 20-year period has elapsed.
- The hierarchy for waste management operations, as set down in European Directives, places final disposal at the bottom of the hierarchy, below waste prevention, recycling and other types of recovery. The Council has not had regard to this in permitting this landfill activity and others in the county.
- In granting permission to three different companies to create landfills within the county, the Council is abrogating its responsibility to control waste within the County as required by the Waste Management Plan.
- Article 5 of Directive 97/11/EC has not been properly transposed into Irish law. Therefore, the EPA Guidelines on the Preparation of EIS 2002, do not adequately reflect European requirements and the EIS, as prepared for the applicant, is flawed. The 1997 Report into the disposal of 3 tonnes of asbestos (contained within 225,000

tonnes of ash) is not properly addressed in the EIS. This contaminated ash has further contaminated 200,000 tonnes of peat. Bord na Mona cannot remove, store and/or dispose of this hazardous waste without applying for planning permission and submitting another EIS. Another licence for this hazardous waste will have to be sought from the EPA. There is no facility for this waste in Ireland and it will have to be exported.

- The proposed borrow pits constitute significant developments in themselves and the EIS fails to adequately address environmental concerns in relation to their operation. Exposing the groundwater at these pits will result in a greater likelihood of pollution.
- The proposal to use composting in place of anaerobic digestion on grounds of cost alone is not in accordance with the requirements of Integrated Pollution Prevention Control (IPPC) which requires the use of Best Available Techniques (BAT) and not Best Available Technology Not Entailing Excessive Costs (BATNEEC).
- The proposed development does not constitute sustainable development, as it infringes several European Directives and the European Fifth Environmental Action Programme of policy and action in relation to the environment and sustainable development. The rights of the public to participate in the decision-making process were seriously encroached upon.
- The process of site selection is far from transparent. Bord na Mona has never effectively answered the question of why this site was chosen above any others. The choice of 3 sites within the county for landfills was part of study carried out by a consultancy firm, which the Council has now engaged to comment and advise on the current application. A bogland site presents many more constraints than other sites within the county. The site is located on the edge of a regionally significant aquifer. The site is located within an identified amenity area with recreation and conservation potential. The site is remote from key transport routes. The consideration of alternative sites is mandatory under Directive 97/11/EC. The applicant never carried out an assessment of alternative sites. Fehily Timoney & Company, in a report of July 1999, stated that the company carried out site selection in accordance with the EPA Manual on Landfill Site Selection (September 1996). The appeal site would appear to be excluded because of its location within an exclusion zone for Natural Heritage/Amenity Areas. It should also be excluded because of its location within an aquifer exclusion zone. The site is in close proximity to a regionally important aquifer. Poor road access and poor drainage could also exclude the appeal site from consideration. The Drehid site was added to the list of other possible sites within the county, with no justification for its addition to the list. Elimination of possible sites for reasons which are not quite clear, promoted the Drehid site up the list of possible sites. Advantages of some sites have been downgraded and disadvantages of others ignored. The entire selection process must be seen as flawed. This site should have been excluded at an early date from the site selection process.
- The increase in the number of rural dwellers in the area will result in a greater impact from the proposed development. The Council has not been slow to grant planning permission for rural housing in this area. The applicant failed to provide the community with detailed information in relation to the development. The impacts of the development upon human beings as set out in the EIS are inadequate.
- The permeability of the subsoil on site is significantly greater than estimated by the

applicant and this could lead to contamination of groundwater.

- There is concern at the possible loss of avifauna and mammals resulting from secondary poisoning. The remoteness of the site renders it an important habitat. The EIS has failed to identify a number of important species (particularly butterflies) on the site. The site currently has wilderness ambience, providing an unbroken view of bog, native woodland and water. The fact that the site comprises cutover bog does not render it degraded. The site contains a large number of habitats, and vegetation is colonising the area. The site's ecological diversity is greater than that of a fully intact blanket bog, and it is an enhanced habitat rather than a degraded one. The EIS states that 21 species of birds have been recorded at the site. In fact over 50 species have been recorded by others. A number of plant species on site are not included in the EIS. Evidence of otters, bats and badgers was encountered in the vicinity of the site. The Drenid site is strategically located in relation to designated areas and impacts here are likely to have impacts on species in those areas.
- Vermin drawn to the site and certain bird species will have a deleterious impact on native bird species. Poisoning of vermin will lead to a risk of secondary poisoning of birds and mammals which prey on mice and rats. The use of insecticides will quickly enter the food system of frogs, newts, birds and animals, and result in secondary poisoning.
- Archaeological investigations of the site have been inadequate. Features were discovered and potential sites were identified. Vegetation may mask further archaeological material on site. Two toghers on site were not encountered during the field survey. Inserting probing rods into the bog can often identify sub-surface archaeology. Up to 70 previously unrecorded sites were discovered at Lisheen Mine in Co. Tipperary using probing and monitoring of the removal of bog. The site merits further exploration to adequately assess archaeological conditions.
- The site forms part of the large Bog of Allen complex. Over 90% of this bog has been altered by turf cutting, drainage and agricultural reclamation. More recently, residential and infrastructural development has encroached on the bog. Remaining examples of raised bog within the site are affected by drainage channels. The Timahoe cutaway bog was recommended for conservation by the Irish Peatland Conservation Council. There is a raised bog remnant just to the north of the landfill site. Development at the landfill site may have a detrimental impact on the remnant of raised bog. Use of a bog for landfill could set a dangerous precedent.
- The construction of a 6km access roadway will have an impact on surface hydrogeology. The foundations of this road will have to be deep in order to reach solid ground. The claim that all drainage will go to the Cushaling River would seem unlikely given the distance of sections of this road from the river.
- Key issues, such as the pre-treatment of waste are not addressed in the application.
- Issues in relation to potential fires at the landfill have not been properly addressed together with the possibility of methane entering buildings on site.
- The development will be contrary to the Kildare Heritage Plan 2005.

Appeals are accompanied by copies of extracts from the Development Plan 1999, internal reports of the Council, copies of original objections lodged with the Council, lists of birds, butterflies and plants found on the site – together with some photographs.



## **7.0 OBSERVATIONS**

The observation from David Malone of EEC Eurolaw Environmental Consultants is included in the appeal submission of the North West Kildare Environment Promotion Group. The observation is accompanied by a copy of a newspaper article (27<sup>th</sup> July 1997) in relation to dumping of 10 tonnes of asbestos on the bog by the ESB.

The issues raised by the second observer, Emmet Stagg T.D. & Chris Rowland, have already largely been referred to and summarised in the section of this report headed 'Grounds of Appeal'. In addition the observer refers to the safeguards in the Development Plan for the use of this area for recreation and amenity in line with the protection of the Robertstown Countryside and the possible deleterious knock-on sterilising effect on surrounding boglands.

## **8.0 RESPONSE SUBMISSIONS**

### **8.1 1<sup>st</sup> Party Response to Grounds of Appeal**

The response of Bord na Mona to the 5 no. 3<sup>rd</sup> party appeals, was received by the Board on 10<sup>th</sup> June 2005. The response is accompanied by a copy of the EPA Inspector's Report, dated 1<sup>st</sup> February 2005, recommending granting of a Waste Licence for this development (W201-01). The response can be summarised in bullet point format as follows-

- Issues of geology and hydrogeology have been addressed in sections 2.4 and 4.3 of the EIS, in items 15, 16 & 18 of the response to the additional information request and in item 3 of the response to the clarification of additional information request. The aquifer beneath the site is classified as 'locally important, generally moderately productive in local zones, with a vulnerability rating of Low'. The Response Matrix for Landfill Selection indicates that the site falls within the R1 zone. The R1 zone is the lowest risk category. In spite of the presence of some dolomitisation in the limestone bedrock, the site has low transmissivity - in keeping with the Waulsortian limestone for this part of Ireland. There are no groundwater abstraction wells within 1km of the site. Due to low-permeability of the natural subsoil, and the thickness of the unconsolidated material, the development will not impact negatively on water abstraction. Mitigation measures include a low-permeability double protection liner.
- Issues relating to surface water and water management are dealt with in sections 2.5 and 4.4 of the EIS, items 9, 16, 17 & 18 of the response to the additional information request and item 2 of the response to the clarification of additional information request. Two surface water channels to the Figile River sub-catchment originate within the southern portion of the Bord na Mona lands. Other than a section of the access road, all activity on site will drain to the Cushaling River. A significant portion of the 139ha. site will not be affected by the development and only approximately 23% of it will be occupied by the landfill activity. Discharge to the Cushaling River will be throttled at 176 litres per second even during extreme storm events. The access road will be constructed on top of the peat using geogrids to

reinforce its stability. This will minimise impacts on surface water drainage and the Figile River. A mobile grit trap will be used during construction of the road. The net contribution of surface water to the Cushaling River will be replaced when full capping of the landfill is in place. The construction and phasing of the landfill are in accordance with best design specification and relevant EU legislation.

- Issues relating to traffic and roads are covered in sections 3.12.10, 3.14.7 & 4.9 of the EIS and items 8, 14 & 22-28 of the request for additional information. Worst-case traffic generation scenarios show that there will be no significant long-term impact due to construction or operational traffic. The applicant is prepared to contribute towards the implementation of traffic management plans along the potential access route. Alternative access points to that eventually chosen on the R-403 were examined. Junction sightlines of 160m are available in each direction at the entrance to the site. A new, right-turning lane will help traffic flow at the entrance. Additional traffic impacts, arising from the need to import stone for the leachate blanket, have been dealt with in item 9 of the additional information response. This would result in an additional 4.8 HGV movements per day into and out of the site.
- Issues relating to socio-economic factors have been addressed in sections 2.1.2, 2.8, 3.12.11, 4.7 & 4.10 of the EIS. The site is within a sparsely populated area with no houses within 1km of the landfill footprint. The two nearest houses are 1.07km and 1.35km respectively from the landfill footprint. Timahoe is the nearest village at 2.3km from the site. The development will be constructed in accordance with Best Available Techniques (BAT). With respect to community gain, section 4.7.5 of the EIS proposes, amongst others, the establishment of a Community Liaison Group and Community Development Fund of €1.27 per tonne of waste disposed.
- Issues relating to tourism and amenity are dealt with in sections 2.6, 3.12.11, 4.7 & 4.7.3 of the EIS and item 1 of the additional information response. In excess of 10sq.km has been designated as the Robertstown Countryside Area of High Amenity for water recreation and amenity forestry purposes. The waste management facility is in accordance with the Waste Management Plan and, therefore, in the planning context, Section 22 (10B) of the Waste Management Act, 1996, as amended by the Waste Management (Amendment) Act, 2001, applies. There will be no visual impact on surrounding items or facilities of tourism potential. The Grand Canal is at such a distance as to exclude views of the landfill footprint from it.
- Allenwood Celtic AFC grounds are a considerable distance from the landfill footprint and composting facility.
- The issue of impact on property values has been dealt with in Section 4.7.4 of the EIS. There is no study carried out in Ireland to estimate the disamenity costs of landfills – although one has been carried out in Britain. This report estimated that there was a disamenity effect for houses within 0.5 miles of a landfill. There are no houses within this distance of the landfill in this instance. Meath County Council and An Bord Pleanála granted permission for a landfill at Knockharley, and adjudged that, if properly engineered and run, there would be a neutral impact on property values. Tara Mines, Arthurstown Landfill and Irish Cement are all large-scale operations which do not have a negative impact on property values. The site is remote, and machinery operating within the site will not give rise to significant noise impacts on any residential property.

- A comprehensive consultation process has been followed by the applicant. Details of consultation are provided in section 1.7 of the EIS and further expanded upon in items 5 & 6 of the additional information response.
- Impact on landscape has been dealt with in sections 2.6 and 4.5 of the EIS. There are no scenic roads and views within a 5km radius of the study area. The distance of the site from roads and houses, and the large landholding controlled by the applicant, render the site ideal for screening purposes. The introduction of a mound into the flat bogland landscape will change the local character. However, views from outside the site boundary are limited due to the presence of intervening vegetation. The retention of as much of the existing tree/scrub cover as possible will assist in screening the development. Hedgerow planting along the county road directly to the north of the site will be provided. Similar planting is proposed for the vicinity of the landfill when final capping is added. A berm to the north and east of the landfill will be grassed and planted with native species.
- Health and safety issues are dealt with in section 4.7.2 of the EIS and the related issue of nuisance is dealt with in section 3.14 of the EIS. Bord na Mona will utilise 'Best Available Techniques' (BAT) in all aspects of design and management of the site. The imminent waste crisis facing Ireland should ensure that there is no delay in the provision of modern integrated waste management. The development will not prove a threat to human health.
- Noise, odour and dust are dealt with in sections 2.2, 3.14 and 4.1 of the EIS. Specific emission control measures for the composting facility are set down at section 3.3.17 and landfill gas control measures are detailed in section 3.8 of the EIS. Air emissions from the gas flare are also dealt with at item 12 of the additional information response. The impacts from traffic noise are dealt with in sections 3.12 & 4.1 of the EIS and at item 13 of the additional information response. Plant operating within the landfill and the clay and sand and gravel areas is unlikely to cause noise nuisance due to distance from nearest houses. Noise emissions from traffic will result in a negligible noise impact at all residences on the approach route. Transportation noise will only occur during the day. Weekly and temporary covering of the waste, combined with final capping and gas collection will ensure that odours do not present a significant impact on neighbouring residences. The composting facility includes an air collection system and 'bio-filter' which will minimise emissions. Air dispersion modelling showed that, even in the worst-case scenario, there would be no disamenity caused to neighbouring residences from the gas flare.
- Sections 2.9 and 4.8 of the EIS deal with archaeology. Given the scale of the site, further archaeological monitoring will be required during the construction phases of the development. This point is recognised in the EIS. The development was designed to avoid recorded monuments. The activity boundary does incorporate sections of two toghers, including their point of intersection, to the north of the landfill footprint. A survey will be undertaken prior to construction when the vegetation is being cleared to determine the extent of their survival and their current state of preservation. No construction will take place within at least 30m of the recorded monuments.
- Sections 2.7 & 4.6 of the EIS deal with ecology. The proposal will entail the removal of all existing vegetation and the underlying peat from all areas within the footprint of

the proposed development. This area is comprised predominantly of a mixture of cutover bog, associated birch and willow scrub, and a pond. Remnants of raised bog and areas of bog woodland are not directly impacted by the proposed development. Some degree of impact on the ecology of the area is inevitable with a development of this size. The boundary of the sand and gravel area has been selected so as to avoid a stand of rare alder buckthorn to the south-west. Mitigation measures will be undertaken to prevent siltation of watercourses. It is not the function of an EIS to compile detailed species of all floral and faunal groups. Species of conservation concern, that are likely to be impacted by the proposed development, are addressed in the EIS. No significant populations of such species are found on the site.

- The issue of asbestos on site was addressed in item 9 of the additional information response. The issue relates to only limited stretches of railway track ballast which will be crossed by the proposed access road. The issue has been dealt with by way of condition attached to the planning permission. A separate EIS and planning application will not be required. Specific recommendations of the Forbairt Report (commissioned by Bord na Mona) will be followed in any disturbance of railway tracks.
- Bord na Mona plc and its subsidiaries are companies formed under the Companies Acts and have the same entitlements and powers to operate as any other company.
- The issue of site selection is set out in section 1.5.2 of the EIS and item 7 of the additional information response. Fehily, Timoney & Co., on behalf of the Council, identified the site at Drehid as the preferred site in County Kildare for the development of a landfill – satisfying the general criteria as set down in Annex I of the EU Directive on the Landfilling of Waste. Section 1.5.2 also refers to baseline studies and investigations carried out within the Timahoe Bog and adjoining areas, which resulted in the optimisation of the siting/location of the landfill footprint and other infrastructure.
- Item 9 of the additional information response deals with the possibility that stone for the leachate blanket may have to be imported to the site. It may be possible to use gravel from the site, if the EPA is in agreement. An additional 4.8 HGV movements per day would be required - based on the importation of the material over a 12-month period. This additional level of traffic generated will not be significant.
- The proposed facility, the EIS and subsequent assessment, are in accordance with the relevant legislation - viz. European Directives and Irish Acts.
- The site comprises 139ha. within an overall landholding of 2,544ha. The landholding is within a 10sq.km area which has been designated as the Robertstown Countryside Area of High Amenity for water recreation and forestry purposes. This relates primarily to consideration of improvements to the waterways and proposals for development of the cut-away bogs for recreational purposes. The 1978 Foras Forbartha study was carried out at a time when Timahoe Bog was being actively cut for 'sod' peat. Its principal premise was that the bog floor contours were such that open bodies of water could be created in the topographical depressions. However, to achieve this objective, it would first be necessary to remove the peat to the bog floor. This could not be achieved with the sod cutting machines which left up to 3m of peat in depressions. Sod peat removal ceased upon closure of Allenwood Power Station in the early 1980's. Peat removal was changed to the milled peat extraction method and

milled peat was subsequently produced in approximately 50% of Timahoe South. Markets for milled peat declined, and Timahoe Bog is now retained as a peat production reserve with some commercial sod peat production activity continuing today. If the Edenderry power station requires peat, then peat will be removed from the depressions in Timahoe Bog. This will be towards the end of the decade beginning 2020. The current peat supply agreement for Edenderry power lasts until 2014. The Foras Forbartha Report was a study and not a plan. The study in its entirety was adopted by Kildare County Council and has been part of the Development Plan since. There are niche activities such as wind farms, sand and gravel extraction and peat deposition (Bellanaboy gas terminal) for after uses of bogs. Landfill is another such niche use. The development of a landfill is not prejudicial to the reinstatement of surrounding bogland or indeed to any potential to create lakes in exposed depressions in the bog floor. Condition 2 of the permission refers to reinstatement and proposals for use in accordance with the Robertstown Countryside Area. Section 4.7.5 of the EIS indicates the intention of the applicant to provide a suitable location within the overall site for the development of a recreational/water amenity, subject to the approval of the independent board set up under the aegis of the planning authority to manage the community development fund proposed.

- Sections 1.2 & 3.1 of the EIS and items 2 & 3 of the additional information response deal with the issue of compliance with the Waste Management Plan 2000. The objectives of the Waste Management Plan are automatically included in the Development Plan under Section 22 (10A) of the Waste Management Act, 1996, as amended. The National Waste Database 2001, published by the EPA in July 2003, revealed that waste generation in County Kildare has grown at a rate greater than forecast in the Waste Management Plan 2000. The Waste Management Plan recommends that source-separation and separate collection of bio-waste should be introduced. The composting facility on site will be able to handle such bio-waste. The acceptance of waste from a regional base is consistent with national waste management policy.
- The EIS prepared must be considered adequate in relation to the two borrow pits for clay and sand & gravel. The EIS was prepared having regard to EPA guidelines.
- The planning permission granted by the Council is adequate, as regard was had to the EIS and the additional information submissions, in arriving at a decision. The hydrogeological suitability of the site has been established. The facility will be designed and operated in accordance with Best Available Techniques. There will be no direct emissions to ground water.
- The development, operation and maintenance of the landfill is set out in section 3 of the EIS and items 3, 9, 35 & 36 of the additional information response. Waste entering the facility will be pre-treated. This will be a condition of the EPA Waste Licence also. The issue of fire hazard is dealt with in sections 3.3.15 & 3.14.13 of the EIS and items 34 & 35 of the additional information response. A fire main and firewater holding facility will be provided at the site.
- The facility will not accept waste from the general public. Site security arrangements make provision for a CCTV system at the entrance which should assist in discouraging fly-tipping.
- The facility has been designed using BAT – ‘Best Available Techniques’ and will be

constructed and operated with BAT in mind.

- The development will not prejudice the realisation of the aims of the Kildare Heritage Plan 2005.

## **8.2 2<sup>nd</sup> Party Response to Grounds of Appeal**

There is no response from Kildare County Council to the grounds of appeal submitted.

## **9.0 BOARD PUBLISHES NOTICE OF RECEIPT OF EIS**

The Board published a newspaper notice of receipt of an Environmental Impact Statement on 6<sup>th</sup> July 2005. There were no observations received within the appropriate period – on or before the 2<sup>nd</sup> August 2005.

## **10.0 ORAL HEARING**

### **10.1 Oral Hearing Request**

One of the 5 no. 3<sup>rd</sup> parties, the North West Kildare Environment Promotion Group, has requested that an oral hearing be held.

The application is accompanied by a substantial, 4-volume EIS, together with application drawings and associated information. The planning authority issued a comprehensive and detailed, 11-page additional information request on 16<sup>th</sup> April 2004, covering all aspects of the development; this was responded to by the applicant on 12<sup>th</sup> August 2004, in a lengthy submission running to hundreds of pages (exclusive of drawings and maps). This submission made alterations to the proposed development and revised and expanded upon some sections of the EIS. The planning authority sought clarification of additional information relating to a small number of issues on 6<sup>th</sup> October 2004. The applicant responded on 29<sup>th</sup> October 2004, in a shorter 8-page submission.

Appendix B-1 of the additional information submission of 12<sup>th</sup> August 2004, lists correspondence and records of meetings with statutory bodies, non-government organisations and the public, between December 2002 and February 2004. This list is extensive and shows that there was considerable consultation undertaken by the applicant prior to lodging the planning application with Kildare County Council. During the course of consideration of the application, substantial submissions were received by the Council objecting to the development. These have resulted in a total of five no. 3<sup>rd</sup> party appeals to the Board and 2 no. observations. One 3<sup>rd</sup> party appellant only has requested that an oral hearing be held. The applicant has responded to the grounds of appeal and has submitted a stout rebuttal. Kildare County Council did not make any response to the ground of appeal submitted. The Board published notice of receipt of an EIS with this application and received no responses within the statutory time period

I have visited this site on two separate occasions and have read the EIS. My Draft Inspector's Report includes a number of photographs taken during my second site visit on

8<sup>th</sup> August 2005. These photographs augment photographs included in the EIS. I have also read the additional information submission and clarification of additional information submissions submitted by the applicant. I have read the internal reports of the Council, including those of consultants retained by the Council to report on the EIS and the planning application. I have also read the reports of the statutory bodies consulted by the Council. I have read and summarised the objections to the development. I have summarised the relevant sections of the Kildare County Development Plan 2005-2011 and the Kildare Waste Management Plan 2000. I have also summarised the relevant sections of Government Policy in relation to waste management, and the Regional Planning Guidelines for the Greater Dublin Area 2004-2016. I have noted the decision of the Board to refuse planning permission for a landfill facility at Calf Field, Ballynadrummy, Co. Kildare and Co. Meath (PL 09.209320 & PL 17.203801). I further note that the appeal on a landfill facility at Usk, Kilcullen, Co. Kildare, is currently under consideration by the Board. The Environmental Protection Agency issued a copy of Proposed Decision to grant a Waste Licence on 11<sup>th</sup> March 2005. The actual Waste Licence issued on 3<sup>rd</sup> August 2005.

## **10.2 Oral Hearing Recommendation**

Having regard to the substantial amount of information available on file; the recent adoption of a new Development Plan for the county; county, regional and national waste management policy; I consider that there is sufficient information available in relation to this appeal to enable the Board make a decision without the need for an oral hearing.

## **10.3 Oral Hearing Decision**

By decision, dated 11<sup>th</sup> August 2005, the Board decided that an oral hearing should be held.

## **10.4 Oral Hearing Arrangements**

The oral hearing into this appeal was held at the Ambassador Hotel in Kill, Co. Kildare, from Tuesday 20<sup>th</sup> to Friday 23<sup>rd</sup> September 2005. The proceedings were electronically recorded and I would refer the Board to the four discs (one for each day) for a detailed record of what transpired at the hearing. A considerable number of written submissions were made in conjunction with oral presentations - and for ease of reference I have compiled the submissions into four bound volumes (one for each day) in mustard covers. These volumes contain lists of attendees at the oral hearing each day - which lists do not purport to be exhaustive. I have attached the letter 'A' to submissions made on Tuesday, 'B' to submissions made on Wednesday, 'C' to submissions made on Thursday and 'D' to submissions made on Friday. Not all parties to the appeal presented written submissions at the oral hearing and a number went on to elaborate in verbal fashion on their written submissions. Again, I would refer the Board to the record of the hearing on disc for such elaborations. All parties to the appeal were represented at the hearing and an additional observer (Allen J. Byrne) made a verbal presentation. As inspector, I was assisted by Jerome Keohane, a geo-technical and hydro-geological expert (retained by the

Board) in relation to the issues of surface water and ground water. Mr. Keohane was present throughout most of the four-day oral hearing and put a number of questions to the 1<sup>st</sup> and 2<sup>nd</sup> parties.

## **10.5 Order of Business**

With minor variations to facilitate parties and expert witnesses, the following was the order of business adhered to during the hearing

1. Opening of hearing by Inspector on Tuesday 20<sup>th</sup> September at 10.00am – procedural and housekeeping matters.
2. Short outline/description of the proposed development by Bord na Mona.
3. Presentation by developer (1<sup>st</sup> party).
4. Presentation by Kildare County Council (2<sup>nd</sup> party).
5. Presentation by 3<sup>rd</sup> party appellants in the following order-
  - Bridie & John Logan.
  - Allenwood Celtic AFC.
  - Bernard J. Durkan, T.D. & Others.
  - An Taisce.
  - North West Kildare Environmental Promotion Group.
6. Cross-examination by parties.
7. Inspector's questions.
8. Presentation by observers in the following order-
  - David Malone.
  - Emmett Stagg T.D. & Chris Rowland.
9. Any other observers presenting at the Oral Hearing.
10. Closing statement by developer.
11. Closing statement by Kildare County Council.
12. Closing statement by 3<sup>rd</sup> party appellants in same order as above.
13. Closing of hearing by inspector.

## **10.6 The Oral Hearing**

It is not proposed to summarise the proceedings of the oral hearing – the recorded discs



are available to the Board, should it wish to consult them for a detailed record of what transpired at the oral hearing. Rather, it is proposed to concentrate on significant issues raised by way of clarification of information already presented and entirely new issues. In certain instances, the assessment section of this report will highlight issues which arose during the oral hearing. For the most part, the information presented at the oral hearing involved repetition of information already on the appeal file. This is borne out by the written submissions to the oral hearing and the detailed record of the oral hearing on discs.

### **Issue – Title and Sufficient Interest to Carry Out Development**

The fifth 3<sup>rd</sup> party raised the issue of title/interest in the land before the oral hearing proper commenced and requested that the oral hearing be postponed until such time as Bord na Mona could prove title/interest to the appeal site, or that the Board could satisfy itself that the applicant had sufficient title/interest to make the application. There was a question as to whether the transfer of the land to Bord na Mona by the Land Commission and various ministers of government, entitled Bord na Mona to carry out activities other than those in relation to the winning and extraction of peat – in other words, that interest in the land did not extend to using it for purposes other than those related to peat extraction. The issue was expanded into a more general grievance felt by original owners of the land (which was compulsorily purchased at low land values) into a claim that they should be monetarily compensated for the increased land value. No evidence was submitted in relation to any title/interest difficulty with the lands in question. The issue was raised again later and copies of title documents to a certain folio (forming part of the overall site) were submitted to the hearing. This documentation seemed to confirm Bord na Mona as ‘registered owner’. Bord na Mona was satisfied that it had sufficient title/interest to enable it to proceed with the development should permission be granted. The Inspector pointed out that the granting of a planning permission did not entitle a developer to carry out a development and that there may be other codes which had to be observed. In any event, a dispute over title was not an issue which the Board had competence to adjudicate on, and that such dispute, if one arose, would be dealt with by the courts. The fifth 3<sup>rd</sup> party pointed out that if Bord na Mona’s title to the site did prove to be problematical, it would consider applying for costs to the Board for the expense in attending a four-day oral hearing which, perhaps, should never have proceeded in the absence of clarification of title/interest.

### **Issue – Inter-Regional Transfer of Waste**

The 1<sup>st</sup> and 2<sup>nd</sup> parties argued that transfer of waste between regions has now been accepted by government and also in recent decisions of the Board. It was pointed out that the grant of permission from Kildare County Council did not require waste to be sourced within the county. This was strongly contested by the 3<sup>rd</sup> parties. With a decision pending on the Usk site in south Kildare, there would be an over-provision of landfill within the county should permission be granted for that facility. Kildare County Council pointed out that, notwithstanding a grant of planning permission, there was no guarantee that any development would proceed – as the applicant was a private developer. The

developer pointed out that, with the exception of the North-East Region, there was a looming crisis in relation to landfill capacity in the wider area. The proximity principle would seem to indicate that the practice of shipping County Kildare waste to Dublin for baling and then bringing it back to Kildare for disposal was not sustainable. The 1<sup>st</sup> party pointed out that the decision of the Board to refuse permission in relation to the Calf Field development, did not include a reason relating to the need for only one waste facility for the county, and the Inspector's Report informed that assessment.

### **Issue – Waste Licence**

It was pointed out by the 1<sup>st</sup> and 2<sup>nd</sup> parties that, since the granting of permission by Kildare County Council, the Environmental Protection Agency had issued a Waste Licence for this landfill operation. Bord na Mona now operates a number of waste facilities and has the technical competence to operate this landfill. The 3<sup>rd</sup> parties pointed out that the Board could still refuse permission on the grounds that the development would cause pollution.

### **Issue – Robertstown Countryside**

It was pointed out that the 2005 County Development Plan considerably downgrades the status of the Robertstown Countryside. It was now shown as a rectangular box on map 18.1 of the Development Plan, and that this box even extended into adjoining Counties Meath and Offaly. It also includes the town of Prosperous. The landfill and borrow areas will take up only 2% of the landholding of Bord na Mona at Timahoe Bog. This was vigorously contested by 3<sup>rd</sup> parties who claimed that the development of a landfill was completely at odds with the original objectives of the Robertstown Countryside - to use this area for forestry and flooding for amenity and recreational uses. The site is considered to be a 'Brownfield' one by the Council. The amenities which could be developed within the Robertstown Countryside are merely desirable objectives – none of them have been achieved. It was stated that the site was definitively not within the 'Allen' remnant of raised bog – this being located close to Newbridge. The 3<sup>rd</sup> parties contended that the area was now one of significant beauty and amenity since the colonisation by vegetation and associated fauna. It was noted by 3<sup>rd</sup> parties that the Council had refused permission for single houses on grounds of visual amenity. It was questioned how such a facility as this could be granted permission, if regard was had to the preservation of visual amenities in this area. The 2<sup>nd</sup> party pointed out that the current application was the first opportunity the Council had of gaining some hold over this bog area in planning terms, since the introduction of the planning acts. The Council had required, by way of condition, that Bord na Mona give an indication of future proposals for the bog at Timahoe. The BL2 policy of the Development Plan provides for economic uses of bogs and suggests types of developments using the term 'such as'. This term does not imply an exhaustive list. The 1999 County Development Plan contained much more specific policies in relation to the Robertstown Countryside, and indicated areas for forestry and flooding. For this reason the proposed development was considered to be a material contravention of the Development Plan. Arising from changes to the Robertstown Countryside status in the 2005 Development Plan, the Council would not

consider the proposed development to be a material contravention of the new Plan. The 2<sup>nd</sup> party pointed out that the Development Plan does not zone land outside urban areas, and there is no specific 'landfill' zoning. The fifth 3<sup>rd</sup> party questioned why the proposed site was not zoned for landfill use given that the application was lodged during consideration of the new Development Plan, or why bogs in general were not identified as being appropriate for landfills. It was questioned why windfarms were mentioned as being appropriate uses on cutaway bogs, but not landfills. The 2<sup>nd</sup> party pointed out that this was a private site and like the other two landfill sites within the county at Calf Field and Usk, there was no guarantee that development would proceed, even following the granting of planning permission. Planning is not an exact science and the material contravention procedure is there to allow Council's consider unforeseen proposals. It was pointed out by the fifth 3<sup>rd</sup> party that all three landfill proposals within the county were considered to be material contraventions of the Development Plan by the Council. It was countered that the makers of the 1999 County Development Plan did not have the benefit of the work done on the Site Selection Process for Landfills carried out by Fehily Timoney & Company.

### **Issue – Road Network**

The 3<sup>rd</sup> parties stated that the road network in the area was unsuitable for the additional HGV movements which this development would generate. Photographs were submitted showing a number of trucks which had left the road network and entered ditches in the area. A considerable portion of the road network in the area is built on bog rampart and needs constant attention and repair. The major damage is caused by HGV's. The 1<sup>st</sup> party pointed out that, given the age of the road network in the area, most settlement of bog rampart roads had already happened. The appellants had failed to produce any evidence of the road network breaking-up in the vicinity of the site. The 1<sup>st</sup> party stated that the main problems would relate to reduction in the lifespan of the pavement structure due to the HGV movements associated with this development. This was disputed by the third 3<sup>rd</sup> party in relation to the level of maintenance required by Kildare County Council. Maintenance of bog rampart roads is a considerable engineering challenge for the Council and the only satisfactory solution is pile-driving to the bog floor. The Council pointed out that traffic volumes on the road network in the county were growing by 3% per annum on a compound scale, and that even without this development, there would be more traffic on the R-403 and surrounding roads in the area within a year. The proposed development would only lead to a 2% increase in traffic volumes (150 vehicle movements per day within the context of an existing AADT of 5,200 on the R-403). Of these 5,200 vehicle movements, 800 are HGV's. The road network was already handling a substantial volume of HGV movements, and the R-403, at 6m wide, was capable of handling the additional traffic volumes. The 2<sup>nd</sup> party made a written submission to the oral hearing outlining the traffic-calming, road improvements and junction improvements which would need to be carried out to facilitate the proposed development. It was pointed out by the 1<sup>st</sup> party that traffic to the development would not be new traffic on Kildare roads, but would rather be a redistribution of traffic from Silliot Hill, and that much of the traffic to and from the development would be outside peak periods. The Council pointed out that National Roads within the county were essentially radial roads

from Dublin to the provinces and that the real road network for the county was its Regional Roads, which linked the urban areas. The 3<sup>rd</sup> parties pointed out that the necessity to construct a 5km access road, indicated just how remote this site was, and how far it was from the National Road network – the type of road from which a landfill facility should be accessed. The 3<sup>rd</sup> parties mentioned the congestion already experienced in Clane and the perpendicular parking there, which further exacerbated traffic problems. On being asked by the Inspector, the 1<sup>st</sup> party stated that regard was had to the access to Allenwood Celtic AFC grounds in designing the proposed access to the site. There was a distance of 45m between the two entrances. Vehicles exiting Allenwood Celtic grounds would be able to turn right across the stacking lane for right-turning vehicles entering the appeal site.

It was suggested by the 1<sup>st</sup> and 2<sup>nd</sup> parties, that the Board might consider the rewording of condition 18 in line with a submission made by Kildare County Council in written format (submission 6D in the bound submissions submitted with this Inspector's Report).

It was confirmed to the Inspector that the inner relief road at Naas - linking the Caragh Road with the Newbridge Road should be open shortly. The onward link between the Newbridge Road and the Kilcullen Road is to go to tender within two months and it is hoped to have the link completed within 18 months.

### **Issue – Traffic**

The first party compared the traffic generated by this development to that of a small housing development of 30 houses, in terms of passenger car units (PCU's). While they may be comparable in terms of PCU's, they are most definitely not comparable in terms of HGV movements. Kildare County Council considered that the additional HGV movements generated by this development would be significant and, therefore, attached condition 18 in relation to a special contribution for road improvements, traffic calming and public lighting. The 3<sup>rd</sup> parties pointed out that there were many schools along the haul route to the site and children on foot and on bicycles would be endangered by HGV movements generated by this development.

### **Issue – Access Road to Site**

The fifth 3<sup>rd</sup> party claimed that the EIS was completely deficient in relation to information concerning the construction of the access road to the site – 4.8km in length. There was no detailed survey carried out along the route of the road and, in particular, no attempt made to establish the depth of peat beneath it. The EIS did not indicate why this route was chosen. This road is to be constructed across peat – and the weight of the road, as designed, will ensure that it sinks into the bog. The 1<sup>st</sup> party claimed that no regard was had to the proposal to use geo-grids to bind the structure together. It was confirmed to the Inspector that arch culverts would be used to cross the artificial drains along the route of the road. The depth of peat beneath the proposed road varies along its length. The route chosen was one which avoided the source of the Abbeylough River and some associated bog woodland. The fifth 3<sup>rd</sup> party maintained that the road was too narrow to

allow two trucks to pass. The width of 5.5m was adequate to allow trucks to pass, it was claimed by the 1<sup>st</sup> party, and any problem relating to failure in the road would be a problem for the developer. Bord na Mona has extensive experience constructing roads over bogs since its setting-up. The road is not a public road and will only be used by traffic to and from the landfill and composting facility. The fifth 3<sup>rd</sup> party expressed concern at the volumes of materials which might have to be hauled to this site in order to construct the road in the event that foundations had to be dug and that peat might have to be transported off site.

### **Issue – Fire**

The owner of Coolcarrigan Demesne (immediately to the east of the Timahoe Bog) made an interesting presentation in relation to bog fires. He listed his involvement over the years in combating such fires and the damage which they caused. Evidence was presented as to spreading of fires by wind and in subterranean fashion – the latter being the most dangerous. The remoteness of the bog and the nature of the terrain made the use of conventional fire-fighting equipment almost impossible. Means of controlling fires largely rested with cutting fire breaks and using bulldozers to turn wet peat on top of burning peat in order to bury a fire. Such work was carried out by landowners and Bord na Mona. The fifth 3<sup>rd</sup> party pointed out that the EIS had failed to address the issue of bog fires at all and questioned the rationale of placing a landfill on a flammable material such as peat. The applicant pointed out that all peat would be removed from beneath the landfill footprint so that it would not be possible for a subterranean fire to threaten the integrity of the HDPE liner. It was pointed out that landfills were located within forests, such as at Bottlehill – and forests contained flammable material. The bentonite enhanced soil (BES), 500mm thick, beneath the liner was fire-proof. The structural berms would be 20m from the nearest peat. The fifth 3<sup>rd</sup> party stated that, as peat was to be used in the creation of the embankment around the landfill, and also within the structural berms of the landfill itself, that it would be possible for bog fires to threaten the landfill. The 1<sup>st</sup> party pointed out that the road around the landfill, together with the surface water swale and the dewatering trench (4m deep in places) would prevent the spread of fire and would enable fire-fighting equipment to be quickly deployed around the landfill. The access road to the site would enable fire-fighting equipment to quickly reach the site – something which could not happen at present. The surface water retention lagoons would provide water which would be available for fire-fighting purposes. There would be a number of mobile pumps on the site – of the type currently used by Bord na Mona for pumping water from drains to deal with bog fires. This, together with the permanent presence of staff on the site, would help in monitoring any fire threat. The 1<sup>st</sup> party disputed the claims that the gas flare could lead to fires by way of bog dust particles being blown through the flame. The fifth 3<sup>rd</sup> party pointed out that even after the landfill was capped that the site would have to be monitored for fire for at least 30 years. The 1<sup>st</sup> party listed a number of other landfills which are located on bogs viz.-

- Kyletelesha, Co. Laois.
- Rathroeen, Ballina, Co. Mayo.
- Derrynurera, Newport, Co. Mayo.

- Carrowbrowne, Co. Galway.
- Marlinstown, Mullingar, Co. Westmeath.
- Derryclune, Tullamore, Co. Offaly.
- Muingnamuinnane, Tralee, Co. Kerry.

In addition, Bord na Mona operates 3 no. landfills within bogs being:-

- Clonbulloge, Edenderry, Co. Offaly.
- Shannonbridge, Co. Offaly – for ESB.
- Lanesboro, Co. Longford – for ESB.

The 1<sup>st</sup> party pointed out that Bord na Mona had extensive experience in dealing with bog fires and, in over 40 years, there had never been a fire which could not be quenched. Bord na Mona has the personnel, plant and equipment to deal with bog fires. The fifth 3<sup>rd</sup> party pointed out that there were no meaningful firebreaks around the facility. The Board had written to the developer of the Usk landfill proposal in relation to insufficient information in relation to fire. The 1<sup>st</sup> party stated that the working face of the landfill was limited to 25 x 25m by the terms of the EPA Waste Licence; fire within such a limited area could be quickly controlled.

### **Issue – Thermal Springs**

The third 3<sup>rd</sup> party made an interesting contribution in relation to thermal springs and stated that most such springs are located in south Meath and north Kildare – trending in a north-east/south-west direction. Reference was made to channels being 24 million years old, with warm springs at approximately 5km intervals. The channel beneath the site is 128m deep. In January 2003, a warm spring (13 degrees Celsius) was discovered on the opposite side of the L-5025. It was subsequently bulldozed over by the farmer. There is an acknowledged thermal spring at Dysart and this could extend as far as Robertstown where a thermal spring at Toberheeny was discovered. Any pollution to these thermal springs would be serious.

### **Issue – Flooding**

The 3<sup>rd</sup> parties stated that the high water table in the area led to significant flooding – particularly in the Slate River catchment. The Council had allocated a fund of €100,000 to clean and dredge the Slate River. Drainage works carried out by Bord na Mona had led to flooding on the first 3<sup>rd</sup> party's lands. The 1<sup>st</sup> party pointed out that the development would not lead to the generation of any additional surface water and would somewhat reduce surface water by tankering leachate off the site. Only a small portion of the entrance road will drain to the Abbeylough River – all the remainder will go to the Cushaling River. None of the development will drain to the Slate River Catchment. The Abbeylough and Cushaling Rivers are tributaries of the Figile River.

### **Issue – Property Values**

The 1<sup>st</sup> party produced evidence of studies carried out in the UK in relation to reduction in property values in the vicinity of landfills. They calculate that, outside of a 0.8km radius, there will be no reduction in property values. Extensive interviews were carried

out with local estate agents. Some prospective purchasers would be completely put off by proximity to a landfill – others would not. The 3<sup>rd</sup> parties claimed that the applicants failed to interview those estate agents who carry out the bulk of property transactions in the area and listed the three estate agents not included in the questionnaire. The 1<sup>st</sup> party acknowledged that there could be a 5% reduction in property values for the 10 houses in the vicinity of the entrance to the landfill facility on the R-403. Kildare County Council pointed out that there were a considerable number of landfills in existence in the state which were significantly closer to residential and sporting facilities than this facility was to houses or the Allenwood Celtic AFC grounds.

### **Issue – Asbestos**

The 1<sup>st</sup> party pointed out that only 30m of the railway track would be affected by construction of the access road. There was no definite evidence that this section of track was affected by asbestos. Any asbestos found on site would be double-bagged and disposed of to a licensed disposal facility. The Council stated that the removal of asbestos would not require an EIS and the relevant consideration was the licensing of the ultimate disposal facility. It was contended by the first observer that the holding of asbestos within railway ballast on the bog was unauthorised waste disposal – albeit the ash containing asbestos was deposited at a time when the dangers of asbestos were not known. It will ultimately all have to be removed and safely disposed of. If asbestos is to be disposed of abroad then the issue of transboundary effects should have been considered in the EIS, and the relevant country notified and comments sought. The 1<sup>st</sup> party pointed out that the issue of asbestos disposal was also dealt with in the Waste Licence from the EPA.

### **Issue – Ground Water**

Trial pits and boreholes carried out within the landfill footprint, together with geo-physical imaging did not indicate the presence of water-bearing gravels according to the 1<sup>st</sup> party. This issue was widely discussed at the hearing. It was acknowledged that gravel lenses had been encountered in boreholes outside the landfill area. The 3<sup>rd</sup> parties stated that insufficient boreholes had been excavated within the landfill footprint site and that the only borehole within the footprint (GW5D) had been stopped at 27.5m below ground level without rock having been reached. It is contended that there could be water bearing gravel lenses beneath this 27.5m cut-off point. The 1<sup>st</sup> party claimed that the drilling of boreholes was informed by the geo-physical imaging carried out over the entire site. The 3<sup>rd</sup> parties claimed that the liner would be likely to leak in the future and questioned the stability of the liner hundreds of years after landfilling had ceased, when it would be still required to prevent leachate contaminating ground water. The fifth 3<sup>rd</sup> party contended that this development could lead to pollution of ground water supplies, which the Council is to develop, at Donadea and Johnstown Bridge. The 1<sup>st</sup> party stated that the proposed Johnstown Bridge supply wells were located 8km from the landfill footprint and within a different river drainage catchment. Leachate would be tankered off-site to Osberstown or Leixlip. The third 3<sup>rd</sup> party pointed out that there were problems with odours from both these plants and that they may be already operating

above capacity. The 1<sup>st</sup> party pointed out that the volume of leachate generated by the development would be less than 1% of the volume handled by a 4,000 population equivalent (p.e.) plant – both the plants referred to having a design capacity considerably in excess of this p.e. figure. The cells within the landfill will have a buffering capacity for leachate in the event of storm conditions – with bund walls of 4-6m high. Leachate recirculation will also provide additional emergency holding within the landfill. Leachate recirculation helps in the degradation of waste by enabling the growth of bacteria. It is a condition of the Waste Licence that the issue of recirculation of leachate is to be agreed with the EPA. The fifth 3<sup>rd</sup> party questioned the inferred groundwater divide to the north of the landfill footprint – separating the Boyne River and Barrow River catchments. This could not be definitively stated from the tests carried out on site. Concern was expressed by the fifth 3<sup>rd</sup> party in relation to spraying of insecticide and the possibility that wind would carry it to the exposed ground water within the sand and gravel borrow area. The 1<sup>st</sup> party stated that insecticide would be used sparingly and responsibly and not on windy days. Any residue would eventually be percolated down as leachate and tankered off the site. It was confirmed to the Inspector that the 12” land drain running parallel to the railway track would remain *in situ*.

### **Issue – Health Impacts**

It was mentioned by the 1<sup>st</sup> party that those most likely to be impacted in relation to health would be workers at the facility – particularly those working within the composting building, where evidence of respiratory and skin problems had been identified in studies. Studies shown that problems only arise within 400m of a composting facility.

### **Issue – Ecology**

The Timahoe Bog is classified as being of high local ecological value, according to the 1<sup>st</sup> party. Because of the alteration to drainage networks and the extraction of peat, it is no longer capable of natural regeneration. The 3<sup>rd</sup> party appellants stated that hen harriers had been observed in the area, although there was no proof that they were nesting in the area. The 1<sup>st</sup> party pointed out that the terrain was not of a type which would be attractive to hen harriers for nesting and that such birds often hunted over vast areas of countryside. The fifth 3<sup>rd</sup> party claimed that the EIS was completely deficient and failed to identify significant elements of avifauna and lepidoptera which were encountered on the site. In addition, bats, badgers and otters had been seen on the site. The 1<sup>st</sup> party stated that the EIS did not have to be exhaustive – rather to identify protected and rare species. An exhaustive list would require a year-round survey. The fifth 3<sup>rd</sup> party stated that the rare alder buckthorn was also found to the north of the landfill footprint – an area not identified in the EIS. Any rodenticide or pesticide used would quickly enter the food chain, as other species preyed on poisoned pests.

### **Issue – Landfill Site Selection Process**

Kildare County Council pointed out that with the imminent closure of Arthurstown at



Kill, there would only be two remaining waste facilities in the county – both private – and both accepting construction and demolition waste – with one accepting commercial and industrial waste. These facilities accept waste from other regions. It was pointed out that section 26 of the Protection of the Environment Act, 2003, amended section 22 of the Waste Management Act, 1996, by the addition of section 22(10AA) which states that permission for a development shall not be refused solely on the grounds that a development is not specifically referred to in a Waste Management Plan. The Council set out in detail the operation of the site selection process and the presentation of various reports. The 3<sup>rd</sup> parties contend that the site at Drehid was parachuted into the selection process at the second stage - after the original sites had been selected and, that the location within the Robertstown Countryside should have automatically excluded it. A considerable amount of argument was generated over the soundness of the weighting procedure adopted within the various reports to the Council, and a number of questions were raised over its robustness and freedom from subjectivity. The 1<sup>st</sup> party stated that the appeal site at Drehid was originally excluded from the site selection process because it was still being commercially worked. Bord na Mona subsequently informed the consultants (Fehily Timoney & Company) that it was available, and so it was introduced into the second round of site consideration. The original Drehid site considered in the first round was on the north side of the L-5025 (appearing as site no. 79). The fifth 3<sup>rd</sup> party pointed out that the original report to Kildare County Council stated that the original 79 sites were listed in order of preference. It is contended that the procedure is one of ‘site justification’ rather than ‘site selection’. The EPA Draft Manual on Site Selection for Landfills states that sites can be added or withdrawn during the process. The examination of certain sites may suggest adjoining sites which were not originally considered. The EPA has licensed this proposed facility and obviously, therefore, was happy with the site selection process. It was pointed out by the fifth 3<sup>rd</sup> party that the Waste Management Plan referred to ‘a’ landfill within the county and not three, as were subsequently adjudicated upon by the Council. The Waste Management Plan refers to a ‘facility’ in the singular and not ‘facilities’ in the plural. The 2<sup>nd</sup> party stated that p.65 of the Waste Management Plan referred to ‘privately operated disposal facilities’ (in the plural) at paragraph 3. If private facilities fail of provision, the Council may well have to re-enter the market for waste disposal in the county.

### **Issue - Spoil**

Concern was expressed that the peat and marl to be excavated within the landfill footprint would be unusable for construction of bunds or cover of the landfill. The 1<sup>st</sup> party stated that approximately 157,000 cubic metres would be used for the construction of the embankment on three sides of the landfill. The fifth 3<sup>rd</sup> party also expressed concern at the amount of peat and marl (50,000 cubic metres) to be removed from the clay borrow area and what this spoil would be used for. Again, it was stated that it would be stockpiled and used for the perimeter screening embankment. Unusable material would not be taken off-site.

It was confirmed to the inspector that the extended screening embankment, to the east of the landfill footprint, would be constructed over the existing overgrown railway track.

### **Issue – Odour**

The 1<sup>st</sup> party pointed out that the reduction in the amount of bio-waste going to landfill, as required by the Landfill Directive (1999/31/EC) on a phased basis, would be the single, most important factor in relation to reduction of odour emissions from the landfill. The third observer pointed out that there was a history of bad operating procedures at Silliot Hill in relation to odours and flies. The same could happen with this facility, despite promises made.

### **Issue – Archaeology**

The fifth 3<sup>rd</sup> party pointed out that preliminary archaeological survey work carried out on the site was insufficient and should have been considerably more extensive and should have included metal detecting equipment and bog probing. The absence of such detailed information in the EIS means that the planning process cannot be properly informed. The 1<sup>st</sup> party pointed out that the overgrown nature of the site made detailed survey difficult. The fact that the site had been used for extraction of peat meant that many archaeological items could have been already destroyed. The Council pointed out that the Department of the Environment, Heritage and Local Government were consulted and that there was no objection. Full archaeological monitoring would accompany stripping of soil and earth works on the site and a wetland archaeologist would be employed by Bord na Mona.

### **Issue - Principle of Development**

No elected representatives support this landfill application. It is only the un-elected officials of the Council who support it. Vienna has an incinerator in the city centre and the same could happen in this country. Kildare is plagued by repeated demands to handle Dublin's waste.

### **Issue - Community Contribution**

It was confirmed to the Inspector that the community contribution to be paid per tonne of waste, as required by condition 24 of the planning permission, would extend to all waste entering the site - including waste going to the composting facility.

### **Issue – Waste**

The first observer pointed out that the achievement of a Waste Management Strategy for a region could not be left in the hands of private operators, and that there was an onus on the local authority to implement the Waste Management Plan for the region. It would be possible for a local authority to team-up with a private operator to achieve the objectives of the Plan. It is claimed that the Board should not even be considering an application from a private company. The 1<sup>st</sup> party stated that the planning authority and the Board had to implement the law as it found it. If there were errors or omissions in introducing

European Legislation into Irish law, then the Government would be the responsible body and not individuals or companies. The first observer stated that individuals and companies were not immune from prosecution under European law.

The first observer stated that the choice of aerobic composting over anaerobic composting, on cost grounds alone, was not in accordance with the principles of Best Available Technology (BAT).

In the absence of a national strategy to reduce bio-waste going to landfill – as required by the Landfill Directive, the fifth 3<sup>rd</sup> party stated that the Board was precluded from making a decision on this appeal.

It was confirmed to the Inspector that the facility could accept baled waste and that the possibility of confining waste deposition to baled waste only had not been considered by the applicant. Some waste proved difficult to bale – such as mattresses.

It was further confirmed to the Inspector that no treatment of municipal or commercial waste takes place at Silliot Hill. The facility is for transfer purposes only and bulking-up of truck payloads to 20 tonnes – the standard bin lorry having a payload of only 12 tonnes. The entire responsibility for separation of waste rests with the individual or the company. In other words, the residual nature of the waste entering the proposed landfill will be entirely dependent on individuals or companies separating waste. There are proposals for separate bin collections from households within the county – for biodegradable waste, recyclables and residual waste.

It was confirmed to the Inspector that waste collected in the immediate area could be brought direct to the landfill. The round trip journey to Silliot Hill for bulking-up would not be economically sustainable.

It was confirmed to the Inspector that trucks depositing waste at the landfill would drive onto the landfill to do so.

### **Issue – Re-use of Buildings on Site**

It was confirmed to the Inspector that all buildings on site would be removed upon cessation of landfilling with the exception of the leachate compound and the gas flare compound. On being questioned if some buildings could be retained for other uses, such as leisure use in connection with the flooded borrow areas, it was stated that such proposals could be examined as the life of the landfill drew towards an end.

### **Issue – Stone for Leachate Blanket**

It was confirmed to the Inspector that the EPA had not yet decided if the stone to be won from the sand and gravel borrow area could be used for the leachate blanket. It was pointed out that the EPA Waste Licence did not specify the use of non-calcareous stone for the leachate blanket – the stone within the site being calcareous.

## **Issue - Tourism**

It was suggested by observers and 3<sup>rd</sup> parties that this area was ripe for tourism and recreational development – regard being had to its proximity to significant urban areas. In particular, walking and cycling networks could easily be developed along the railway lines (used and disused) throughout the bogs. The fifth 3<sup>rd</sup> party outlined tourism proposals for the adjoining Coolcarrigan Demesne, which would be deleteriously affected by the presence of a landfill next door. A fence all the way around the site would not be in the interests of walking or nature watching. This bog could be developed for leisure purposes like the Coillte site at Donadea Forest Park. The 1<sup>st</sup> and 2<sup>nd</sup> parties pointed out that the development of this facility did not preclude the amenity and forestry uses on other parts of the Timahoe Bog.

## **Issue - Undergrounding of Cables**

It was confirmed to the Inspector that all cables within the site would be undergrounded.

### **11.0 ASSESSMENT**

#### **11.1 The County Development Plan**

This planning application was lodged and decided upon during the currency of the Kildare County Development Plan 1999. Since that time, a new Development Plan for the county has been adopted for the period 2005-2011. A considerable amount of the appeal documentation obviously refers to the old Plan. It is proposed to have regard only to the current Development Plan for the area.

The County Manager considered that a grant of planning permission for this development, under the 1999 Development Plan, constituted a material contravention of the Plan and, therefore, published the relevant notices inviting comment on 18<sup>th</sup> February 2005. It was considered that the development would contravene stated objectives in relation to the Robertstown Countryside. I would agree with this assessment. A copy of the relevant map 1.5 is attached to this Inspector's Report and clearly shows part of the appeal site as being 'suitable for flooding'. The 2005 Development Plan clearly alters the status of the Robertstown Countryside. The only relevant map is 18.1, which shows a large rectangular box covering approximately one quarter of the county, and even extending into adjoining Counties Meath and Offaly. Included within the box are the towns of Clane, Prosperous and Rathangan. In the written statement, section 18.4.5.1 deals with Robertstown Countryside. It refers to the 1978 Study carried out in relation to the potential of the area. I note that the major development, the creation of the amenity lakes within the area, has yet to take place. Policy RC1 is general in nature, and refers to the protection of amenities and strict control of development. Section 18.4.5 relates to the Western Boglands area of the county – roughly corresponding to the Robertstown Countryside - and gives a broad description of the terrain in the area. Section 11.2.2 of the Plan deals with objectives in relation to boglands, and states at no. 3 that, it is an

objective *'To encourage a balanced approach to the re-development of cutaway bogs'*. Under section 11.2.3, policy statement BL2 reads as follows:- *'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'*. I would contend that the term 'such as' is not exclusive and that other uses, apart from the three types suggested, can be considered. A narrow reading of the policy would seem to imply that not even a single house or a mobile phone mast could be considered on any portion of bogland. This would not seem to be a reasonable approach. Policy BL4 refers to the cutaway boglands being *'degraded landscapes and/or brownfield sites which are potentially robust to absorb a wide variety of sympathetic developments'*. The term 'wide variety' would seem to indicate that the Council would consider a broad range of developments. Having regard to the status of the Robertstown Countryside and the policies for the Western Boglands, as set out in the current Development Plan, I would not consider that the proposed development constitutes a material contravention of the Development Plan.

Section 3.4 of the Plan deals with the issue of waste management. In particular, 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 or the objectives of the County Kildare Waste Management Plan'*. This policy refers to 'a' landfill 'facility' for the county. I do not consider that this can be strictly read to mean only 'one' facility. It may be that a number of smaller facilities could be provided. At the time the Development Plan was being drawn up – a total of 3 no. landfill sites within the county were in the planning process. The Board, in refusing permission in relation to the Calf Field landfill (PL 09.209320), made no reference to the requirement or desirability of providing only one landfill for the county/region. Notwithstanding the grant of any planning permission, there is no guarantee that a development will be carried out – either for commercial reasons or other legal challenges or impedimenta. And even if a development does proceed, there is no guarantee that it will remain commercially viable or that new technologies or waste management will not lead to its obsolescence and closure. The thrust of the policy is that the Council would wish to see a landfill provided to meet the landfill requirements of the county/region. As discussed elsewhere in this report, the capacity of a landfill might not be confined to acceptance of waste from the region in which it is located – in this instance, the county of Kildare.

The comment of the fifth 3<sup>rd</sup> party at the oral hearing in relation to all three landfill applications in the county (Calf Field, Usk and Drehid) being considered material contraventions of the Development Plan is noted. However, the fact that the Landfill Site Selection process, carried out under the Waste Management Plan, had not been completed by the time the 1999 Development Plan was adopted, would have a bearing on this issue.

## 11.2 Waste Management

The Kildare Waste Management Plan 2000, estimated that the amount of household waste generated in the county in 1999 was in the region of 47,000 tonnes (based on 330kg of waste per head of population per annum). This figure is forecast to rise to 80,400 tonnes per annum in 2018 – based on a population increase to 176,000 and an increased generation of waste to 457kg per head of population. The amount of commercial waste (excluding household, agricultural and industrial waste) generated within the county is estimated as being approximately half the household figure – 23,500 tonnes and will rise accordingly to half the household figure in 2018, ie. 40,200 tonnes. This estimate is based on the experience of other counties. IPC-licensed industries in the county generate 68,000 tonnes of waste per annum – of which approximately 30,000 tonnes is landfilled. This figure is expected to rise to 42,100 tonnes in 2018. Approximately 18,000 tonnes of municipal sludges from the county are landfilled. The cost of disposing of 1 tonne of waste at the Council landfill at Silliot Hill, Kilcullen in February 2000, was £48. Silliot Hill accepted approximately 188,600 tonnes of waste for landfill in 1998. A significant amount of this (84,000 tonnes) was inert waste for daily cover, road works and rehabilitation. The Plan refers to the provision of *‘a new engineered landfill disposal site capable of accepting residual waste material generated in the County over a 20-year period’*. As argued in the foregoing section, I would not consider that this restricts the provision of one single landfill facility within the county/region. Development of sites will be based on commercial considerations and more than one facility in the county will promote competition in the industry. The Plan also refers to encouraging private sector collectors in the use of approved privately operated disposal facilities (in the plural). It is clear that the Regional policy on disposal envisages the provision of a new engineered landfill as well as encouraging private sector disposal facilities.

If permission is granted by the Board for the Usk landfill and for the current appeal, it has been argued that there would be overprovision of landfill within the region. The document *‘National Overview of Waste Management Plans’* (2004) indicates that household waste arisings in County Kildare have significantly exceeded the volumes predicted in the Kildare Waste Management Plan 2000. The anticipated tonnage for 2018 (80,000 tonnes per annum) being generated by 2010. This figure does not take into account commercial, industrial or construction & demolition waste. The Draft Kildare Waste Management Plan 2005 bears out this contention. Approximately 165,000 tonnes per annum of household/commercial/industrial waste will be generated by 2009. Even allowing for recycling, the proposed 110/120,000 tonnes per annum for this landfill facility is not excessive. Although the original national policy document on waste management *‘Changing Our Ways’*, focused on regional delivery of waste management infrastructure, more recent Government policy *‘Taking Stock and Moving Forward’* (2004), recognised that a broader approach was needed. Key Point 3 within that document referred to the interrelationship between regional boundaries and the need for guidance on the issue. Circular WIR: 04/05, issued by the Minister for the Environment, Heritage and Local Government under section 60 of the Waste Management Act, 1996 (as amended), on 3<sup>rd</sup> May 2005, referred to the movement of waste. It referred to the

'proximity principle' and stated that Waste Management Plans should not interpret administrative waste management planning boundaries in such a manner as to inhibit the development of waste infrastructure which would support the attainment of national waste management policy objectives through the rational development and use of such infrastructure. This constitutes clear Government policy on the issue of shipment of waste across regional boundaries. The Regional Planning Guidelines for the Greater Dublin Area 2004-2016, recommend at section 8.6.3 that inter-regional transfer of waste be permitted to allow for appropriate economies of scale. Kildare County Council, in granting planning permission, did not restrict the facility to accepting waste from the region only and this would appear to be reasonable. The applicant acknowledges that some of the waste for this facility may come from the Dublin region. From 2008 onwards, with the closure of Arthurstown, there will be large deficit in landfill capacity within the Dublin region in the absence of alternative sites or thermal treatment of waste. The 'National Overview of Waste Management Plans' (2004) projected the generation of 1 million tonnes of waste by 2010 within the Dublin Region. With a recycling rate of 50%, approximately half a million tonnes will need to be disposed of to landfill or by way of thermal treatment. Even with thermal treatment in place, 160,000 tonnes of waste will have to be disposed of to landfill. Taking the Dublin Region and Kildare Region together, the landfill capacity proposed at Drehid would not appear to be excessive.

The Draft Kildare Waste Management Plan 2005, estimated household waste at 62,600 tonnes, commercial waste at 70,000 tonnes, and industrial waste at 160,000 tonnes in 2003. Obviously, not all of this waste will be landfilled. Nonetheless, the increase in tonnages is significant.

The EU Landfill Directive requires a steady reduction in the quantity of biodegradable waste entering landfill up to the year 2016, when the quantity will have to be reduced by 75% over the amount being landfilled in 1995. The Directive also requires that all waste be treated and certain components removed (for safety and recycling reasons). The development of a composting facility at this site will assist in reducing the amount of waste going to landfill. However, in this instance, most of the treated compost will be used in daily/weekly cover of the landfill and for landscaping purposes – in effect it will still end up being landfilled in the short term – pending the development of markets for the compost product. I do note that composting reduces the volume of waste to 40%. The compost being deposited on the landfill will have the benefit of treatment and will not, therefore, lead to the generation of gases and odours as biodegradable waste would. The location of the composting facility, adjacent to the landfill, will facilitate the achievement of the targets set out in the Landfill Directive for the reduction of bio-waste going to landfill. The Kildare Waste Management Plan 2000, refers to composting, together with other biological treatment of waste as an alternative to landfill and refers to treatment facilities capable of handling 300,000 tonnes per annum of biodegradable waste being required. Composting is now an accepted form of treatment of waste and a number of permissions for aerobic composting have been granted by local authorities and the Board to date. The applicant has stated that the volumes of bio-waste currently available would make anaerobic composting financially unviable – with quantities in excess of 75,000 tonnes per annum being required (where only 25,000 tonnes per annum are

proposed with the current application). The Draft 2005 Kildare Waste Management Plan does promote the provision of biological treatment of waste by the private sector at section 8.6 of Volume 2. Section 6.2 of Volume 3 lists the various types of composting and refers to the Draft National Biodegradable Waste Strategy (2004). The Strategy refers to diversion of biodegradable municipal waste from landfill sites with a target diversion of 1.8 million tonnes by 2009. The proposed composting facility will assist in achieving this target.

### **11.3 Site Selection Process**

A considerable amount of appeal documentation and time at the oral hearing was given over to the site selection process engaged in by Fehily Timoney & Company on behalf of Kildare County Council. A site selection process cannot, of its nature, be a definitive end process. It can only be regarded as a guidance tool to the selection of appropriate landfill sites. It is only following detailed site studies that a judgement can be made on whether a site is suitable or not. It may be that sites within the county were overlooked and that those chosen may not in fact be the optimal ones, or what might be an optimal site could change over time to being less than optimal, depending on surrounding developments (roads, mines, public water supply proposals, drainage, major housing/retail/leisure developments etc.) or the availability and dissemination of baseline knowledge (archaeology, ecology, history etc.).

Reports, back as far as April 1999, were prepared for the Council – culminating in a final site selection in November 2002. In the original shortlisting of sites (79 in total), Drehid does not feature. It appears to have been introduced at the second stage – following an indication from Bord na Mona that the site was no longer needed for commercial peat harvesting (bringing the total to 80). A total of 8 sites were shortlisted (including Drehid). In February 2001, a shortlist of 5 sites was presented to Kildare County Council (including Drehid). It was recommended to the Council in February 2001, that 3 sites be subjected to detailed site investigation, being the final shortlist – Drehid, Usk and Newtowndonore/Mylerstown in that order of preference. Following detailed site investigation, the last site was discarded due to its proximity to proposed public water well supply at Robertstown. The final recommendation to the Council was made in November 2002. A reclassification of aquifers within the county by the Geological Survey of Ireland did not result in any alteration to the shortlist rankings. I am satisfied that a recognised methodology was used throughout the site selection process and presentation of progress reports to Kildare County Council. Some element of subjectivity must inevitably enter into a site selection which is not entirely based on scientific data. Throughout the process the elected members of Kildare County Council were kept informed of progress. The site selection process was stated to have been carried out in accordance with the EPA Guidelines for Site Selection (still in Draft form).

The 3<sup>rd</sup> party appellants objected to the introduction at a later stage of a new site (Drehid) which would have originally been excluded based on the criteria for the original site selection – namely its location within the Robertstown Countryside, and the existence of definite proposals for flooding and leisure. The entire process was based on justifying a



site all the way to final preferment over other more eligible sites within the county. The fifth 3<sup>rd</sup> party appellant sought to indicate that the site selection process did not result in the selection of the best site for a landfill in the county. Notwithstanding this, it would appear that, even though there was disagreement over the methodology between the parties to the appeal, it was acknowledged that the Drehid site would still have featured in the top ranking of preferred sites – always assuming it should have been admitted in the first instance.

The Board considered an application for a landfill at the Calf Field, notwithstanding that it did not feature in the shortlist of preferred sites within the county. In deciding to refuse planning permission for that development (PL 09.209320), the Board made no reference to the absence of this site from the final shortlist arising out of the Site Selection Process – even though this had been strongly argued during the appeal. In particular, the Board must be mindful of Section 26 of the Protection of the Environment Act, 2003, which amends Section 22 of the Waste Management Act, 1996, through the insertion of Section 10AA which reads:-

*An application for permission under Part III of the Planning and Development Act 2000 shall not be refused by a planning authority or An Bord Pleanala solely on the ground that the development to which the application relates is not specifically referred to in the waste management plan in force in relation to the functional area of the planning authority if the planning authority or the Board, as the case may be, considers the development will facilitate the achievement of the objectives of that waste management plan.*

This provision allows for changed circumstances during the lifetime of a waste management plan and could be used in the consideration of a site for landfill which may have been overlooked in the Site Selection Process. So, even if the arguments of the 3<sup>rd</sup> parties are accepted, and the site selection process is acknowledged to be faulty, it is still within the powers of the Council and the Board to consider an application which would facilitate the achievement of the objectives of the Waste Management Plan. I have argued elsewhere in this report that this application does facilitate the achievement of the objectives of the Waste Management Plan.

The Site Selection Process can be considered a factor in relation to the obligation on developers to consider alternatives where a development is subject to an Environmental Impact Statement. The Site Selection Process will obviously have guided Bord na Mona to the selection of this site over and above other sites within the county and also within its landholding. I am satisfied that the applicant considered other sites within the Timahoe Bog complex of 2,554ha., and settled on the current appeal site following considerations in relation to depth of soil beneath the landfill footprint, availability of clay and gravel borrow areas in close proximity, road access, distance from houses and other sensitive landuses, archaeology, ecology and other engineering matters. I have referred elsewhere in this report to the consideration of alternative technologies for composting. An aerobic, enclosed facility, such as that proposed is least likely to have detrimental impacts on the environment and the amenity of surrounding residents.

#### **11.4 Compliance with European Legislation**

It has been contended that failure to properly implement European Directives into Irish law results in the EIS prepared under the Planning Acts and Regulations being inadequate. I am satisfied that the EIS is in accordance article 94 and Schedule 6 of the Planning & Development Regulations, 2001. Any alleged failure on behalf of Ireland to correctly implement European Directives is a matter for the Commission and the Irish Government.

#### **11.5 Title/Interest in Land**

The issue of title/interest in the lands comprising the appeal site was raised at the oral hearing. Documentation in relation to ownership of a certain folio was presented by way of evidence. This documentation appeared to show Bord na Mona as being owners. It would appear that the issue of ownership is not in contention, rather the interest which Bord na Mona acquired in the land when it was obtained by way of compulsory purchase by various ministries of government. It is contended (though no proof was forthcoming) that Bord na Mona's interest in some of the lands comprising the appeal site only extend to the winning and extraction of peat and that it does not extend to the use of the lands for other purposes unconnected with the winning of peat. This may or may not be the case. However, the interest of Bord na Mona in the lands is not something which the Board is able to adjudicate on, based on the evidence submitted with this appeal. If there is a dispute arising in relation to interest in the lands, this may have to be dealt with and settled in the courts.

#### **11.6 Waste Licence**

The Environmental Protection Agency issued a Waste Licence in respect of the proposed development Ref. 201-1, on 3<sup>rd</sup> August 2005 (copy attached to this Inspector's Report). In the event of a grant of planning permission, the Board is precluded from attaching conditions relating to the control of emissions.

#### **11.7 Roads**

The Regional Road network is the principal one connecting the towns of the county. The National Road network is, essentially, a radial route network from Dublin to the provinces – and while it does link some of the towns within the county, it certainly does not link the county town (Naas) with the majority of towns within the county. The northern villages/towns of Maynooth, Celbridge and Leixlip more properly form part of metropolitan Dublin and its commuter hinterland. The R-403 is the principal access road serving the site. It is estimated that traffic to the site will split - two thirds from the south and one third from the north - along this route. This would seem to be a reasonable supposition – although all traffic from Silliot Hill transfer station will obviously come from the south. Not all traffic will come through the village of Clane – although traffic from Dublin is likely to come via that route. The completion of the inner relief road

between the Kilcullen Road and the Newbridge Road at Naas, will result in the most likely haul route from Silliot Hill being along the R-448 to Naas, then along the R-409 through Caragh, and then onto the R-403 east of Allenwood. Access to the site from the M7 is somewhat complicated due to the nature of the junctions for Naas and Newbridge. Traffic to the site from the M4 to the north will be via the village of Enfield – along the R-402 to Carbury and then onto the R-403. Some of the southern approach routes will involve negotiating canal bridges – some of which are hump-backed or skewed and some of which are both. There is a one-way bridge over the River Liffey on the R-409 Regional Road between Caragh and Naas. Notwithstanding this, the road network in the area is already used by a substantial number of HGV's – particularly sand and gravel trucks. The R-403 is 6.0m wide in the vicinity of the site and the 80kmph speed restriction applies. There are no footpaths or cyclepaths in the vicinity of the site entrance. This is not unusual in a rural area, footpaths and cyclepaths being generally confined to the villages and towns. The fact that there are no footpaths and cyclepaths proposed with this development is not significant. It is acknowledged that all traffic to the site will be by motorised vehicle.

Evidence was presented at the oral hearing relating to the poor structure of the road network in the area – much of it constructed on bog rampart – and the difficulty this presented to the Council in keeping the network in repair. A number of photographs were submitted showing trucks which had accidentally left the road and overturned. Such accidents cannot be laid at the door of the applicants. No evidence was submitted showing the road network in the area to be breaking-up. Notwithstanding this, I accept that maintenance of bog roads poses particular problems for Councils and that HGV's are the major cause of damage. The Roads Department of the Council was satisfied to recommend a grant of planning permission, subject to payment of a financial contribution for road improvement works (condition 18). During the oral hearing the Roads Department of the Council presented a document (item 23A) outlining the works which would have to be carried out, by way of mitigation, to accommodate this development. Works involved traffic calming, road improvements and junction improvements. The Council (with the agreement of the 1<sup>st</sup> party) submitted a document (item 6D) to the oral hearing, suggesting a reworded condition 18, which specifically refers to a special contribution for roads improvements. I would see no difficulty with the substitution of this condition in any grant of permission. The applicant had indicated, in application documentation, that it was willing to contribute to roads improvements and traffic-calming along the haul routes to the site. It was suggested by objectors that the proper place for a landfill was directly off a National Road. However, such sites are limited – and if the Landfill Site Selection process was to be limited to sites which only had direct access off a National Road, it is quite likely that no site at all would be recommended. The proposed development will be of limited duration – admittedly 20 years. I am satisfied that the road network in the area is capable of dealing with the traffic generated by a development of this nature and that it would not result in traffic hazard. Objections at the oral hearing referred to the fact that conditions of the planning permission did not restrict the haul routes to the site. I would not see any necessity for this – and the policing of such a condition would be difficult of implementation. Condition 11 does refer to Figure TR1 (Rev A), which details the various possible haul routes to the site. It

is indicated that all of the outlined haul routes may be used.

## **11.8 Traffic**

The Roads Design Section of Kildare County Council has carried out traffic counts on the R-403 and other regional roads in the vicinity in 2005. On the R-403, between Allenwood and Derrinturn, the AADT was 5,155 of which 711 were HGV's – 13.8%. This is consistent with figures quoted in the EIS, which are slightly higher. It is estimated that the annual growth in traffic is 3% (compound). So, even without any development at the appeal site, traffic on the R-403 will grow by 3% in 2006 and so on. The EIS estimated that the development would result in the generation of 64 HGV trips per day and 40 cars/light goods vehicles per day. The oral hearing was given a figure of approximately 75 HGV trips per day (to include leachate tankers and possible importation of stone for the leachate drainage layer/blanket). The removal of compost for sale off-site may lead to the generation of HGV movements (maximum 5 per day) should a market become available. Such HGV generation must be looked at in the light of the existing HGV component of traffic on the R-403. The applicant described the AADT generated by the development being equivalent to the AADT of a small housing estate of 40 houses. This is somewhat disingenuous – given that the HGV content is the critical factor in this instance. In addition, construction materials for buildings and part of the access road will have to be imported to the site, as well as the landfill liner and geotextiles. Some of this traffic will be spread over the 20-year lifetime of the landfill – as the landfill is to be constructed in 8 phases.

If the stone from the sand and gravel borrow area is not suitable for the leachate blanket, then it will have to be imported to the site – again over the phased development of the landfill. The additional information response indicated that the some 79,250 cubic metres of stone might have to be imported. It was calculated that, based on 1.5 tonnes per cubic metres, in 22-tonne payloads, and over a 280-day import period, that an additional 4.8 truck movements per day would be generated. I have done the sums on these figures and cannot make them add up. I calculate that 19.3 truck movements per day would be generated over a 280-day period. Or using the applicant's figures – at the rate of 4.8 truck movements per day, it would take 1,125 days and not 280 days to import the material. It is not clear why a 280-day period was taken. The stone would be imported as each cell within each phase was developed and so may be imported right up to the laying of the leachate blanket in the last cell of phase 8 – 18/19 years after the commencement of development on site.

Objectors are concerned that failure of the structure of the access road will lead to the importation of significant amounts of material to remedy the problem. As already pointed out elsewhere in this report, the sand and gravel borrow area is to provide road construction materials with possible augmentation by use of C&D waste (exactly how much is not stated in the EIS).

## **11.9 Property Devaluation**

The applicant stated to the oral hearing that the development was unlikely to lead to devaluation in property prices based on the distance which houses were located from the landfill footprint – in excess of 1.0km. This was based on studies carried out in the UK which referred to houses within half a mile of landfills being affected by the development. The information given to the oral hearing did refer to a possible 5% devaluation for the 10 houses in the vicinity of the entrance to the site. Obviously the proposed development will bring more traffic onto the R-403 – particularly HGV's. However, Kildare County Council noted that there was an annual increase of 3% in traffic volumes on the road network. No evidence was put forward to substantiate the claim of a reduction in property values. Kildare County Council pointed out that there were other landfills within the country which were significantly closer to houses than the current proposal. The original Kildare County Council landfill at Silliot Hill is a case in point; Powerstown in County Carlow is another; Ballealy in Donabate; Ballyogan in south Dublin; and Dunsink in Finglas are other examples. While the entrance will be signposted as being the entrance to a landfill facility – the actual landfill will be 4.8km from the entrance. The concept of a community contribution scheme must be regarded as in some way compensating a community for what is generally regarded as an undesirable landuse neighbour. This proposed development will be of a limited duration (20-years of landfilling with an additional two years for final capping of phase 8). I am satisfied that the proposed development would not lead to any significant devaluation in property (either residential or otherwise in the area).

## **11.10 Impact on Tourism**

I consider that the distance of the proposed development from the adjacent Coolcarrigan Demesne would be sufficient to ensure that there will be no significant impact on the tourism development potential of that estate. The owner has planted woods along the boundary with the Bord na Mona landholding. These woodlands must provide some screening of the proposed development. The landfill footprint is 1km from the estate boundary and 2.5km from the estate house. I acknowledge the point made in relation to the attractiveness of walks across the bog at Timahoe, and the potential for developing a walking trail along the line of the now disused railway. However, such proposals are not contained in the Development Plan. The bog is not in public ownership. Condition 2 of the planning permission required the developer to submit outline proposals for the future use of the overall property (Timahoe Bog). It may be that Bord na Mona does not have any plans at present for the remainder of the bog. The landfill will not be visible from the Grand Canal to the south and south-west and is 8km from Donadea Forest Park to the east. It will not have any impact on these amenity and tourism facilities.

## **11.11 Visual Amenity**

The site is located in a remote area – a considerable distance from the local road network. The closest road is the L-5025 county road, approximately 0.75km from the landfill footprint. It is proposed to construct an earthen embankment around the western,

northern and eastern landfill boundaries. A gap in the embankment will have to be left to facilitate the roadway from the clay borrow area. By way of additional information submission, the embankment was extended to the full length of the eastern and western boundaries. This is partly to facilitate the use of spoil from the excavated landfill footprint. The extended embankment will require 388,000 cubic metres of material. At 5m high, it will help to screen the development from view – at any rate the base of the landfill and lined/bunded areas. The embankment will be constructed on a phased basis – as material becomes available. The embankment is to be grassed with natural species. Informal woodland planting is to be undertaken to the north of the landfill footprint. Colonising vegetation on the cut-over bog is already starting to provide such a screen of vegetation. There will be some impact on the visual amenity of the area during the lifetime of the landfill, particularly prior to final capping of individual phases. The flat landscape will acquire a 20m high conical hill where none previously existed. The County Development Plan indicates that there are no listed views or landscapes in the immediate vicinity. The landfill will be in excess of 1.0km from the nearest house.

There is a deciduous hedgerow separating the entrance to the site from the Allenwood Celtic AFC grounds to the south-east. I recommend that the applicant be required to plant a 10m wide belt of mixed evergreen and deciduous screen planting along this boundary in order to screen the entrance from view from the playing fields and which will also serve the purposes of noise mitigation from trucks. The belt will have to be somewhat less than 10m wide at the widest extent of the turning area in front of the gates to the site.

### **11.12 Entrance & Access Road to the Site**

The entrance to the site was redesigned by way of additional information, to provide for a turning area in front of the entrance gates – as requested by Kildare County Council. The entrance will be controlled by a lifting barrier, with gates locked outside of business hours. The entire will be monitored by CCTV from the administration building within the landfill compound. This should serve to discourage possible fly-tipping at the entrance outside of business hours. Members of the public will not have access to the site, and only contracted trucks and staff will be allowed to access the site. A right-hand turning lane is to be created on the R-403, to facilitate traffic entering the site. Drg. no. 1131/01/469, received by Kildare County Council on 12<sup>th</sup> August 2004, is the relevant drawing in relation to access proposals. This drawing fails to show the position of the access to the grounds of Allenwood Celtic AFC – located 45m to the south-east of the proposed access. It will be possible for cars, exiting the Allenwood Celtic AFC grounds to turn right across the right-turning lane for the landfill. The provision of advance warning signs, together with 6 no. public lighting standards, will help to improve traffic safety at the entrance. The design of the proposed entrance is acceptable on visual and traffic safety grounds.

The access road to the site, at 4.8km in length, shows at once how remote this site is - something that can be considered either a disadvantage or an advantage, depending on the point of view of the observer. Bord na Mona had originally considered an access from

the L-5025 county road to the north of the site. This road is approximately 750m from the landfill footprint and would certainly have provided a more direct access. However, I would agree that the width and condition of this road are unsuitable to serve a development of this magnitude. Other roads to the west of the landfill are little more than laneways and would be inappropriate for access to the development. The only realistic access is the one proposed from the R-403 or something similar to it. The access road has been routed to avoid the headwaters of the Abbelylough River and associated bog woodland. The initial section from the R-403 is through flat fields with the principal part being across cutaway bogland. The aerial photograph, which accompanies the EIS, shows the nature of the terrain which the road traverses. The aerial photograph is somewhat out of date and a substantial portion of the bog has been colonised by scrub vegetation. Deep drains are to be spanned by arched culverts. The proposed road will cross the now overgrown Bord na Mona railway line at one point with implications for asbestos disturbance (see section on Asbestos in this assessment). Certainly, the cost of building such a length of road to serve the development will be significant. However, Bord na Mona will be constructing a private access road which will not be used by the general public.

It has been argued that little information in relation to construction of the road is available in the EIS. In particular, it was noted that no indication was given of the amount of peat beneath the road – estimated to be on average 2.4m deep. In addition, peat is underlain by soft marl – between 0.1-1.2m deep. It is contended that the weight of the road will sink the structure into the bog. Evidence was presented of the failure of other bog rampart roads in the area. The EIS noted that where the road crossed peat, an additional 400mm of granular sub-base would be used. I note that this is a private road. Bord na Mona have extensive experience in constructing roads and railways across bogs. Any problems with road failure will be for Bord na Mona to sort out. It is proposed to excavate some peat along the line of the road and to use two layers of geo-grids to support the road base and to hold it together. Materials for road construction, other than asphalt, are to be won from the sand and gravel borrow area. It is not clear if clause 804 (or similar) granular base for the road can be won on site ie. if the gravel deposits are suitable for the work. The EIS also refers to the possible use of C&D waste for construction of the road – so, importation of some construction materials at least, was envisaged. The objectors are concerned that failure of the road will lead to the importation of a significant amount of materials for repair thereby leading to additional traffic movements. It is also contended that the 5.5m width is too narrow for two trucks to pass. I am satisfied that 5.5m is adequate for two trucks to pass with care. The road will be somewhat wider at the entrance gates. It would be possible to provide for slightly wider passing places if this is deemed necessary. Surface water drainage is to be to the surrounding bog. I would see no difficulty with this. The line of the road is already traversed by a number of parallel bog drains and discharge from the macadam surface will be spread evenly over these drains. No additional surface water run-off will be generated by this road.

### **11.13 Borrow Areas**

The sand and gravel borrow area, to the south of the landfill footprint, was originally proposed at 12.7ha. It is estimated that gravel will be extracted to a depth of between 5 and 7m below existing ground level using dredging equipment. Extraction will take place over the 20-year lifetime of the landfill. There is to be no dewatering of the area and it will naturally expose the current water table. I would see not difficulty with this arrangement. Initial tests showed that the clay/silt content was low and that washing might not be needed. Grading and crushing would be carried out. A surface water settlement lagoon measuring 10 x. 50m is proposed for any wash water to be used. This settlement lagoon will discharge to the Cushaling River. There is a much larger surface water lagoon to the south - associated with the existing drainage network of the Timahoe Bog. It would appear that this is to remain as is. Approximately 248,140 cubic metres are to be extracted for use in the basal and capping drainage material, sand for the Bentonite Enhanced Sand (BES) layer beneath the landfill membrane and also for sub-base for roads. At the time of the holding of the oral hearing, there was no confirmation from the EPA as to whether the calcareous stone from the sand and gravel borrow area would be suitable for the leachate drainage blanket. In the event that this stone for the leachate blanket has to be imported to the site (79,250 cubic metres), the sand and gravel borrow area will be reduced to 6.7ha. It is not indicated just what portion of the original area would not be used. The borrow area is to be left open with the water table exposed following completion of landfilling. The advantages of having such materials on site are evident in relation to costs and particularly the reduction in traffic movements.

The clay borrow area, to the north-west of the landfill footprint, is square – measuring 316m on each side - extending to some 10ha., which is to be excavated 5-7m below existing ground level. Some peat and marl will have to be stripped from the area first. Allowing for say 2-3m of peat and marl overlying the clay – that leaves at least 3m of clay over a 10ha. area – or 300,000 cubic metres. The required cover material for the landfill is 136,176 cubic metres. This results in an excess of 160,000 cubic metres of clay. The response to the additional information request indicated that some excavated material from the landfill footprint might be suitable for construction of the landfill bunds and final capping of the landfill. If this is the case, then the amount of clay to be taken from the borrow area may be substantially reduced and the area consequently reduced to as small as 4.9ha. (from the original 10ha.) Extraction will be carried out over the 20-year lifetime of the permission – approximately 212,300 cubic metres. The clay will be used for embankment construction, temporary cover and the low-permeability fraction required for final capping. Sourcing this material on site will obviate the need for importation and associated traffic movements. It will be necessary to dewater the borrow area, by means of pumping, while extraction work is progressing. A 10 x. 40m surface water settlement lagoon will be constructed for dewatering of the pit. This lagoon will ultimately discharge to one of the existing deep drains on the bog; which eventually discharge to the Cushaling River. Following the completion of extraction, the pit will be allowed to flood. It was stated at the oral hearing that peat and marl stripped from the borrow area would be used for embankment construction. There would be considerable amount of such material – notwithstanding the cut-over nature of the site – the borrow



area extending to 10ha. It is possible that the unwanted spoil could be stockpiled on site with unwanted material being re-deposited in the flooded pit.

It is possible that the flooded borrow areas could be used for recreational purposes - together with possible re-use of some of the buildings on site - on completion of landfilling. This point was made to Bord na Mona at the oral hearing. That organisation indicated that such a decision would be taken closer to the end of the lifespan of the landfilling permission. The original application documentation made provision for removal of all buildings upon cessation of landfilling – other than the leachate and gas flare compounds. The notification of decision to grant planning permission made no reference to removal of buildings upon cessation of landfilling. It would seem that some consideration should be given to possible re-use of buildings on site prior to their demolition and removal. I recommend that a specific condition be attached to any grant of planning permission from the Board, requiring the written agreement of Kildare County Council to the removal of the composting building, the administration building or the maintenance building.

#### **11.14 Design & Layout**

##### Construction Period

Section 3.11 of the EIS sets out the construction schedule for the facility. No waste will be accepted until phase 1 of the landfill is prepared – approximately 9 months. The composting facility will be provided within the first 12 months, as will all site infrastructure in the landfill compound. The three surface water retention lagoons will be phased over the lifetime of the landfill. The landfill gas treatment compound will not be constructed until year 5.5 – following final capping of phase 1 and installation of gas extraction network of pipes. Subsequent phases of the landfill will be constructed over the lifetime of the permission. Deposition of waste in the final phase (8) of the development will cease in year 23 with final capping of this last phase in year 25.

##### Landfill

The landfill footprint will extend to 21.2ha. It is to be developed in 8 phases (over 20 years), with each phase being divided into 4-6 cells. The landfill will fall from a formation level of 85.75m in the north-western corner to 79.9m in the south-eastern corner. A dewatering trench, up to 4m deep, will be excavated around the landfill footprint to facilitate development works and to avoid hydrostatic uplift of the liner. Upon completion of landfilling, the natural water table will be allowed to re-establish, whereupon it will rise to beneath the BES layer. The landfill is to have a capacity of 2,315,000 tonnes of waste – based on acceptance of 110,000-120,000 tonnes of waste per annum (equivalent to 2,725,000 cubic metres) over a 20-year period. The EIS estimated that 489,000 cubic metres of peat and soil would have to be excavated to achieve the landfill formation levels. The extended embankment around the site will utilise 388,000 cubic metres of material. It will extend onto the railway line to the east of the landfill and will be constructed on top of the 12” existing drain running parallel to the railway. It is estimated that 113,370 cubic metres will be required to construct the landfill bunds. The EIS stated that 136,176 cubic metres of cover material would be required. This is to be

won from the clay borrow area. The soil beneath the landfill footprint has been tested and has low-permeability properties. This is to be overlain with 500mm of Bentonite Enhanced Soil (placed in two lifts of 275mm each) and compacted. This BES has low-permeability properties. The BES is to be overlain by a 2mm thick high-density polyethylene (HDPE) liner which will run up the sides of the landfill berms. Based on international studies, potential leakage through the HDPE liner is calculated at 1.6 cubic metres per annum over the entire landfill footprint. It is estimated that it would take this volume of leachate 166 years to penetrate the BES layer. Further flow through 10m of natural subsoil beneath the landfill would take a further 385 years. Woven geo-textile is to be laid on top of the HDPE liner in order to protect it from puncturing. On top of this will be placed 500mm of stone (leachate blanket) with associated collection pipes.

The working area of the landfill is to be confined to an area of 25 x. 25m as per the terms of the EPA Waste Licence (an area of 40 x. 40m had been stated in the EIS). Daily and weekly cover of landfill material will be spread. On completion of each phase, a temporary clay covering of 300mm (seeded with grass) will be laid and allowed to settle for two years. After that, as much of the temporary clay covering as possible will be stripped away for re-use. I would have reservations as to the ability to remove any of this layer. The final capping will comprise a geo-synthetic gas extraction layer above the waste with associated collection pipes. On top of this will be respectively placed a 2mm barrier liner, 300mm compacted clay, woven geo-textile, mineral drainage layer of 300mm (for rainwater collection), 850mm of subsoil and finally 150mm of topsoil. Where trees are to be planted, a water permeable geo-textile membrane will be placed above the drainage layer to prevent root penetration into the mineral drainage layer. The final mound (20m above formation levels) will be replanted. I am satisfied that the design of the landfill will be such as not to cause pollution.

#### Leachate Management

The fall of each cell will lead to a sump from which leachate will be pumped to two no. 200 cubic metre holding tanks (8 days storage capacity). Leachate within the landfill will be allowed a 1m head. The design of the berms will allow for substantially more leachate to be held within the cells in the event of extreme rainfall events or malfunction of the pumps or tanks. Leachate will be tankered (23 cubic metres per truck) off-site to either Leixlip or Osberstown treatment plants for final disposal. Leachate can be accepted, subject to agreement in relation to cost per load. In line with the 'polluter pays' principle, it is assumed the developer will be charged the full cost of disposing of the leachate. The 2 holding tanks will be covered but not sealed. A leachate recirculation system is proposed in order to allow for overflow and also to assist in the decomposition of waste – a certain level of humidity being required for the various stages of decomposition of the waste within the landfill and the consequent production of landfill gas. Details of the leachate recirculation are required to be agreed with the EPA under the terms of the Waste Licence. Upon completion of landfilling, it may be possible to pump leachate directly from the landfill to tankers, thereby obviating the need to retain the leachate holding compound. Final capping will significantly reduce the amount of leachate generated. Notwithstanding this, leachate will have to be removed from the landfill for an indefinite period.

### Surface Water Drainage at Landfill

Rainwater on the landfill, prior to final capping, will be disposed of as leachate. On final capping of each phase, rainwater will be discharged to a surface water swale around the perimeter of the landfill – 6.75m wide and up to 2m deep. Water from this swale will discharge by gravity (in places in the EIS, it is stated that pumping will be required) to three no. surface water retention lagoons, to be constructed on a phased basis over the life of the landfill. The lagoons will be fully lined and will allow for a maximum discharge of 176 litres per second (634 cubic metres per day) to existing bog drains – some of which will have to be rerouted to facilitate the landfill construction - and ultimately to the Cushaling River. Average daily flows in the Cushaling River are estimated at 3,250 cubic metres per day. The water level in the lagoons will be 2m with a stormwater freeboard of an additional 1m above that. Each lagoon will measure 124 x. 10m. Approximately 11.5 hours retention of stormwater will be provided within the lagoons prior to outfall, in order to settle out any suspended solids. The proposed development will not create any additional surface water, but will manage the discharge. Surface water from the clean areas of the landfill compound will discharge to the lagoons. The tankering off of leachate will somewhat reduce the amount of water discharging to the Cushaling River. The lagoons will be used for water supply for dust suppression purposes in dry weather and for fire-fighting purposes. Drainage from the wheelwash, sanitary facilities in the administration building, waste inspection/quarantine area and composting facility overflow will all go to the leachate compound. Other surface water drainage will be direct to the surface water lagoons via a grit trap and oil interceptor. The oil storage area will be bunded to prevent pollution.

### Buildings & Compound

All buildings associated with the development will be located within a compound to the south-east of the landfill. I would see no difficulty with the design of these buildings – given the isolated nature of the site. The landfill itself will ultimately screen any buildings from view from the L-5025 county road to the north. The entire compound and landfill will be surrounded by 2.25m high chainlink fencing and barbed wire. Car-parking for 17 cars, 2 vans and 1 coach will be provided in the vicinity of the administration building. All cables are to be undergrounded within the site. Water supply for the facility is from an on-site water borehole. The location of the borehole has not been indicated on drawings submitted. Lighting standards are to be provided throughout the compound, but not along the perimeter haul roads.

### **11.15 Composting Facility**

There are a number of composting facilities already in operation throughout the state. The technology is not new and has been licensed by the EPA. The provision of composting facilities is in line with government policy for the reduction of the amount of bio-waste going to landfill. The provision of a composting facility is in accordance with the Draft National Biodegradable Waste Strategy 2004. The composting facility will be confined within a building maintained under negative pressure. Extracted air will be routed through a bio-filter to remove odours and spores. Any impact on human health is

likely to be confined to workers within the facility. The distance at which the facility is located from nearest residences, will ensure that there will be no negative impact on residential amenity. The location of the composting facility alongside the landfill facility will enable economies of scale in relation to management, machinery use, fire, leachate management and, most importantly, a ready use for the compost in the form of cover of the landfill (pending the development of a market for the compost product).

### **11.16 Archaeology**

This site is largely comprised of cut-away bog. Arising from this commercial working of the bog, a number of archaeological features may already have been lost. The EIS refers to archaeological assessment of the area. The landfill footprint has been somewhat determined by the presence of two intersecting toghers to the north of it – notwithstanding that this area of bog has been cut-away. These are the only recorded archaeological monuments in the immediate vicinity of the site. It must be acknowledged that bogs often provide rich finds of archaeological material due to the preservative properties of peat. The application was referred to the Department of the Environment, Heritage and Local Government for comment. That body had no objection to the proposed development and recommended archaeological monitoring of soil stripping and excavation. It has been contended that insufficient testing was carried out during preparation of the EIS. Colonisation of the bog by scrub vegetation, together with the presence of deep bog drains makes penetration of this site extremely difficult. It is possible to easily penetrate those portions of the bog traversed by railway lines and also where peat has recently been extracted. The perimeter of the bog is also relatively easy of access. Most of appeal site (including the access road) comprises cutover bog, on which vegetation has had up to 15 years to colonise. However, without the necessary machinery to strip away scrub vegetation (some trees have reached heights of 8-10m), it would be difficult to estimate the archaeological potential of such a large and spread-out site. Condition 3 of the grant of planning permission required the applicant to retain a wetland archaeologist during all groundwork, and the applicant indicated a willingness to comply with this condition at the oral hearing. This would appear to be reasonable.

### **11.17 Odour & Gas**

Section 4.1.3 of the EIS deals with odour emissions. Odour emanating from the landfill will be mitigated through, limitation of the working area (25 x. 25m), immediate compacting and daily and weekly cover of working areas. Odours from the composting facility will be controlled by speedy handling of waste, thereby reducing the possibility of anaerobic decomposition of waste within the process, the enclosed nature of the process within tunnels and within a building, and extraction air being routed through a bio-filter. Waste to the facility will be delivered in covered trucks which will assist in limiting odours. Leachate will be stored in covered tanks and handling will limit disturbance to the liquid. Odour modelling for the site was carried out for different phases of landfill development. Odour was modelled for years 2.5, 6 and 14.5. The final capping of phases of the landfill would reduce likely odours by year 14.5. Figure 4.1.8 of the EIS shows the furthest likely extent of odour impact for year 14.5 – the area of impact

extending slightly beyond the Bord na Mona ownership boundary in a number of areas. No houses were impacted by this area. The principal advantage of this site in relation to odour mitigation and dispersal of odours, is the distance of the landfill and composting facility from houses – more than 1.0km (figure 4.1.1 of Volume II of the EIS shows the position of houses relative to the landfill gas flare). Odour emissions are limited by way of the EPA Waste Licence. With best management practice, I am satisfied that the proposed development will not lead to any significant odour nuisance at the nearest sensitive receptors.

Decomposing bio-waste within the landfill can lead to odour nuisance with the creation of landfill gas (60% methane/40% carbon dioxide). Landfill gas will continue to be generated long after landfilling has ceased and, for this reason, the landfill gas flare compound will be retained. The steady reduction in the amount of bio-waste going to landfill (as required by the Landfill Directive) will reduce the potential for odour nuisance. Pending the final capping of each phase of the landfill, passive gas extraction vents will be used – each one fitted with a carbon filter. During the active working of each phase it will not be possible to fit gas extraction pipes because of the damage which machinery would cause to them. Part of the final capping will involve a gas extraction system with wells placed at 40m centres. This gas will be piped to the landfill gas flare compound immediately to the south of the landfill. A flare stack, 6.5m high, will burn off gas. This flaring will significantly reduce odours. Detailed requirements in relation to flaring of gas are contained in the EPA Waste Licence. Upon final capping of phase 1, the economic feasibility of installing a combined heat and power plant (CHP), to extract energy from the landfill gas, will be examined. Estimations of gas generated at Drehid indicate that the utilisation of the landfill gas for energy is unlikely to be commercially viable. Landfill gas monitoring wells will be sunk outside of the landfill footprint. The basal liner, gas venting and the extraction system will ensure that the uncontrolled subsurface landfill gas migration will be minimal. Gas alarms will be installed in all buildings on the site and gas venting provided underneath.

### **11.18 Noise**

The most significant noise impact from this development will be from trucks and dumpers. The vehicles associated with the composting will be located indoors which will help to attenuate noise. The earthen embankment around the landfill footprint will provide some noise attenuation. The site landfill footprint is located more than 1km from the nearest houses. The borrow areas are located somewhat closer - 840m from the clay borrow area to the nearest house and 670m from the sand and gravel borrow area to the nearest house. Working hours are to be confined to 0800-1830 hours Monday-Saturday with no waste accepted after 1800 hours on any day. The facility will not be operational at night. The most likely impact from the development in terms of noise will relate to traffic to and from the site. In terms of the existing traffic volumes using the R-403, the additional traffic generated by the development will not lead to any significant noise impact. Regular noise monitoring will be carried out as part of the Waste Licence process. Noise, arising from construction activity, should not be a problem given the distance of the landfill facility and compound from the nearest noise-sensitive receptors.

### **11.19 Dust & Litter**

Bog dust during dry periods is already a problem in this area. Given the distance of the landfill footprint from nearest houses, it is unlikely that the development will lead to dust nuisance. Deliveries of waste to the facility are to be in enclosed trucks. The working area of the landfill is confined to an area measuring 25 x. 25m by the terms of the EPA Waste Licence. The waste is to be covered with hessian or other similar material at the end of each day, with weekly soil cover added. The 2.25m high chainlink fence surrounding the landfill and compound will catch some windblown litter which may occur. Windblown litter is a problem which must be dealt with at any landfill, and proper site management procedures, including litter gathering by hand, may have to be resorted to. I note that the site is surrounded by Bord na Mona lands and any windblown litter is likely to affect the applicant primarily. The baling of waste is likely to result in significantly less windblown litter – although that is not proposed for this facility. The site can accept baled waste. There is currently no baling facility at Sillioth Hill transfer station and no plans for one either. Waste deposited on the landfill will be immediately compacted in order to reduce the likelihood of dust or litter being carried outside the site by the wind. Stockpiles of aggregates are to be covered. A water bowser is to be used on the access road and haul routes during dry weather if dust becomes a problem. The access road is to be asphalted and tarred to prevent dust nuisance. Other haul roads will comprise only aggregate and will not be sealed. Regular dust monitoring will be carried out as part of the Waste Licence process. C & D waste will not be accepted at the landfill – although some C & D waste may be used for road construction.

### **11.20 Ground Water**

The bedrock beneath the site is Waulsortian limestone which is an aquifer indicated as being ‘locally important, generally moderately productive in local zones’ and with a vulnerability rating of ‘Low’. The Board retained the services of a hydrogeologist and geo-technical expert to comment on the issue of ground water. I refer the Board to the report of Jerome Keohane, received on 20<sup>th</sup> October, 2005. I met with Jerome Keohane prior to the oral hearing, during the oral hearing, and spoke with him by telephone on a number of occasions. I endorse the conclusions reached in relation to ground water issues. I note the comment of Jerome Keohane in relation to the absence of any ammonia concentration in borehole BH7 – the deep borehole to the north of the landfill footprint. A high ammonia concentration could be an indicator of connectivity between deep ground water and surface waters. This absence was not commented upon in appeal documentation or at the oral hearing.

The oral hearing heard evidence in relation to the location of thermal springs in the area. I consider that the evidence produced was in no way conclusive and no maps, test results or hydrogeological data was presented to in any way substantiate what is, a partially researched hypothesis, from which no definite conclusions can be drawn.

## **11.21 Surface Water**

The Board retained the services of a hydrogeologist and geo-technical expert to comment on the issue of surface water. I refer the Board to the report of Jerome Keohane, received on 20<sup>th</sup> October 2005. I met with Jerome Keohane prior to the oral hearing, during the oral hearing, and spoke with him by telephone on a number of occasions. I endorse the conclusions reached in relation to surface water issues.

I have elsewhere in this Inspector's Report referred to surface water issues, where relevant, such as in relation to surface water retention lagoons, access road drainage, landfill drainage/leachate management and the design and layout of the landfill compound. All surface water within the development will discharge to the Cushaling River, with the exception of a section of the access road which will ultimately discharge to the Abbeylough River. Both these rivers are tributaries of the Figile River which in turn is a tributary of the Barrow River. No part of the proposed development site will drain to the Slate River catchment. Other lands within Bord na Mona's ownership at Timahoe Bog do drain to the Slate River.

## **11.22 Fire**

Sections 3.3.15 and 3.14.3 of the EIS deal with the issue of fire control. Items 34 & 35 of the additional information response of 12<sup>th</sup> August 2004, provide elaboration. Firewater, arising from a fire within the composting building, will ultimately drain to the leachate holding system. Small fires on the landfill surface will be dealt with using a water bowser. Subsurface fires within the landfill are more problematic. Best management practices are to be used to try to prevent such fires. Landfill gas is to be monitored and extracted following final capping of each phase. The landfill gas flare is to be located in a separate compound to the south of the landfill. I would not accept the contention of the appellants that this flare could in any way cause bog fires through windblown bog dust igniting in the flare. Water from the surface water attenuation lagoons will be used for fire purposes with a permanent pump located on the lagoon bank and pumping to a firemain within the landfill compound. The firemain is indicated in drg. no. 1131/01/RFI-1, received by Kildare County Council on 12<sup>th</sup> August 2004. The Fire Officer of Kildare County Council has indicated that 135 cubic metres of water would be required for fire-fighting. Each of the three lagoons holds 2,480 cubic metres of water.

At the oral hearing, it was contended by the fifth 3<sup>rd</sup> party that no consideration had been given to the impact of bog fires on the proposed development. The EIS makes no reference to surface or subterranean bog fires. The landfill had not been designed to prevent damage from subterranean fires. Happy accident would seem to indicate that the landfill is protected from such fires. All peat will be stripped away from the landfill footprint. The BES layer beneath the HDPE liner is fire resistant. The landfill is surrounded by a 4m deep dewatering trench which will provide a barrier to the spread of any subterranean fire. The landfill is surrounded by a road and a surface water swale (6.75m wide) which will retard subterranean fires. In relation to surface fires on the bog, the road around the site and the surface water swale will provide some protection. The

constant human presence on the site will also allow for continuous observation during the fire season. The access road around the landfill will provide ready access for fire-fighting equipment and a water bowser will be maintained on site. Fire-fighting water will be provided from the surface water retention lagoons. The access road to the site will provide access for fire service vehicles, should such be required to fight a fire in the vicinity of the site. Large diggers and grabs on site can be used for fire-fighting purposes, if required. The 1<sup>st</sup> party pointed to the experience of a number of existing landfills being located on bogs. Bord na Mona has extensive experience in dealing with bog fires over its long history of extracting peat. I would be satisfied that the integrity of the proposed development would not be threatened by surface or subterranean bog fires. Buildings on site will be subject to the fire requirements of the Building Regulations. The EPA Waste Licence makes no direct reference to fires – but does refer to the reporting of ‘Accident Prevention and Emergency Response’ and ‘Notification’ of ‘incidents’ which might lead to environmental contamination. I note that it will be necessary to monitor the landfill integrity after completion of deposition of waste for possible threat from fire.

The statement made to the oral hearing that the Board had written to the developer in the Usk landfill proposal, requesting additional information in relation to fire measures, is factually incorrect.

### **11.23 Ecology**

The site is not covered by any European designation. It is described in the Development Plan as being ‘brownfield’. I would dispute the term ‘brownfield’ which generally relates to degraded industrial-type lands. While this site may have been used for the extraction of peat, the almost complete cessation of peat harvesting activities has allowed for the colonisation by vegetation and associated fauna of large parts of the site. Certainly on my second inspection, during which I spent the entire day on the bog, I was particularly taken with the beauty, isolation and tranquillity of the scene – admittedly on a hot sunny day. Photographs attached to this report will bear out this assertion. The applicant has acknowledged that the bog is of high local ecological value. Works carried out in relation to drainage and harvesting of peat render this raised bog incapable of regeneration. There are some isolated pockets of intact raised bog within the overall Timahoe Bog, but drainage works are likely to impact on the long-term survivability of these remnants. There are also isolated remnants of bog woodland. The sand and gravel borrow area has been sited so as to avoid an area of bog woodland in which the rare alder buckthorn species is found. The appeal site forms only a small part of a much larger landholding controlled by Bord an Mona - 2,544ha. Even within the 139ha. site boundary, not all of the area will be used, and much of the existing vegetation will be left undisturbed. It is proposed to restore the landscape on completion of landfilling – albeit with a 20m high hill in the position of the landfill. Natural species will be allowed to colonise the capped landfill. The clay borrow area and the sand and gravel borrow area are to be allowed to flood and this will further increase the ecological diversity of the site. Objectors claimed that the EIS did not list all species to be found on the site. It is not the purpose of an EIS to list exhaustively all species on a site. Rather, its purpose is to try to



identify any significant impacts on the environment and rare or endangered species. It is proposed to fence around the landfill footprint to prevent access by humans and larger mammals. Confinement of landfill to an area of 25 x. 25m (as required by the Waste Licence) together with daily and weekly cover of waste will discourage pests and birds from scavenging. Proper pest control measures, including for insects, should ensure that the impact on the ecology of the area is contained. It is not proposed to fence the access road and this will allow for passage of humans and animals over its route. In practice, the isolation of the site and difficulty of access, results in few visitors to the area.

### **11.24 Asbestos**

The proposed access road to the site crosses with existing bog railway at only one point. The composting building and the leachate compound would appear to encroach on the railway embankment. Approximately 30m of rail line is stated to be affected by the proposed development. The ballast used in the construction of the railways is contaminated by asbestos (mainly amosite). This contamination was the subject of a Forbairt Report (January 1998) on behalf of Bord na Mona wherein it was concluded that a small percentage of the track network is contaminated by asbestos. Most of the track is now overgrown with vegetation and the ash ballast has fused into a hardened solid mass. The Forbairt Report estimated that only a small amount of the track network was contaminated (approx. 2%) having regard to the amount of contaminated lagging mixed with ash, and the length of the rail network. However, it is not known just which stretches of track are contaminated. It may be that there is no contamination of the sections of track (only 30m of a total network of 50,000m). Only detailed tests will be able to identify if contamination is present. The objectors argue that the possible contamination of the affected track should have been established during the EIS process. A rigorous sampling exercise is to be carried out prior to construction of the access road to establish if contamination is present. Condition 4 of the grant of permission refers to any possible asbestos on site. I would consider that the disposal of any asbestos, which may be encountered on site, is more properly a matter for the Waste Licence procedure. The applicant states that any asbestos found on site will be double-bagged and disposed of to a licensed facility. Indication was made at the oral hearing that there was no such disposal facility in Ireland and that it would have to be exported. The issue of transboundary effects was raised. Given the amount of waste involved (if any) I do not consider that this would have any significant impact on any other country. Section 3.5.2 of the Waste Licence issued by the EPA refers to the assessment of railway ballast for contamination and disposal in a manner to be agreed by the Agency. I note the distance of the road crossings from nearest residential development. I am satisfied that any possible asbestos disturbance would not have any noticeable impact on human health of surrounding residents.

### **11.25 Community Contribution**

Conditions 23 and 24 of the planning permission related to the setting up a Community Liaison Committee and its funding. The figure of €1.27 per tonne of waste was mentioned during the hearing. The applicant confirmed that the levy would also apply to

the 25,000 tonnes per annum of waste being accepted at the composting facility – 500,000 tonnes over the 20-year life of the permission. It is proposed to landfill 2,315,000 tonnes of waste within the facility. Condition 24 of the permission does not actually specify an amount to be paid – but rather refers to an agreement between the applicant and the Council. In default of agreement, the matter is to be referred to the Board. At the oral hearing, the 1<sup>st</sup> party referred to the agreement of the exact amount with the Council and stated that the figure of €1.27 per tonne was not specified. The amount of €1.27 was considered by some objectors to be derisory in the context of the amount per tonne which would be received by the developer from waste depositors.

I note that in the Carrowbrowne, Co. Galway landfill planning application and appeal (PL 07.205181), Galway County Council required a contribution of €3.00 per tonne. It appeared that this figure was not based on any detailed examination of the costs to be imposed on the local community. There is no doubt that a proposed landfill is a major source of concern for a local community and it does involve some level of disamenity, especially for residential and other sensitive land uses within circa 1.0km of the landfill footprint, and to a lesser extent the entrance in this instance. The setting up of a community fund is a way of providing some community gain in an obviously concrete manner. In some parts of the USA, communities actively tender for infrastructural projects on the basis of community gain. The developer is not opposed to making a community contribution. Government policy, as set out in the document ‘Changing Our Ways’ issued by the Department of the Environment and Local Government in September 1998, states at section 9.2 that *‘Local authorities, working closely with local communities, should utilise a proportion of income from waste charges and gate fees to mitigate the impact of such facilities on these communities through appropriate environmental improvement projects’*. I can find no reference to an amount to be charged per tonne of waste. I note that in its decision on the Carrowbrowne site (dated 18<sup>th</sup> May 2004), the Board required payment of a contribution of €1.27 per tonne of waste – condition no. 20. The Board attached a community contribution condition (no. 7) to the Carranstown, Co. Meath, incinerator decision, dated 3<sup>rd</sup> March 2003 (PL 17.126307), requiring payment of an amount to be agreed between the planning authority and the applicant, or in default of agreement by the Board. I recommend the latter approach in any grant of planning permission using wording similar to that of the condition quoted by Kildare County Council. I note that the EPA Waste Licence refers for the current appeal site refers to payment to a community support and development fund of €1.27 per tonne of waste. Section 4.7.5 of the EIS did refer to the community contribution being used for water-based recreation facilities within the Bord na Mona landholding.

## **11.26 Other Issues**

It was claimed that Bord na Mona is not so constituted so as to enable it to make a planning application for uses beyond activities relating to peat. Bord na Mona pointed out that the group was a public limited company and that the comparison with the Commissioners of Public Works was not valid. The company has already branched out into other areas of business and operates a number of landfills already. This case, if indeed there is one to answer, is not one which the Board has the competence to deal

with, and is one which may be decided in the courts.

No evidence has been produced to substantiate the claim that the proposed development contravenes the Kildare Heritage Plan.

It was claimed by objectors that the absence of a bring facility at this landfill further illustrated the separation of this facility from the surrounding community. The operation of a bring facility and recycling centre is a completely different operation to that of a landfill. I am aware that a number of landfills also operate bring facilities in tandem with landfilling. Kildare County Council has developed civic amenity sites at Silliot Hill in Kilcullen, at Athy and at Kilcock. There is no necessity for every waste installation to contain a bring centre or recycle area.

Bord na Mona stated that a room within the administration building would be available for educational purposes and for visiting groups to the landfill facility.

Condition 21 of the permission required a bond for satisfactory completion of the development. This would appear to be reasonable. Condition 22 required payment of a contribution of €238,283 in accordance with the Development Contribution Scheme of the Council. This would appear to be reasonable.

## **12.0 RECOMMENDATION**

I recommend that the decision of Kildare County Council be upheld, and permission granted for the Reasons and Considerations set out below and subject to the attached Conditions.

### **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), “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 the Kildare Region, 2000-2005,

- (e) the Landfill Site Selection Process Report for County Kildare, 2002,
- (f) the Kildare County Development Plan 2005-2011,
- (g) the location of the site in an area which is not designated for amenity purposes in the current Kildare County Development Plan,
- (h) the separation distances between the proposed landfill/composting facility and residential properties or other sensitive receptors, and
- (i) the Environmental Impact Statement, additional information and clarification submitted in connection with the planning application and the appeal,

it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, would not interfere to any significant extent with existing land uses in the vicinity, would be acceptable in terms of traffic safety and convenience and would be in accordance with the proper planning and sustainable development of the area.

### **CONDITIONS**

1. The proposed development shall be carried out in accordance with the plans and particulars lodged with the application, as amended by the revised plans and particulars received by the planning authority on the 12<sup>th</sup> day of August and 29<sup>th</sup> day of October, 2004, and in accordance with the provisions and proposals contained in the accompanying Environmental Impact Statement, as amended, except as may otherwise be required in order to comply with the following conditions.

**Reason:** In the interest of clarity.

2.
  - (a) The landfill footprint shall be as proposed in the documentation submitted to the planning authority on the 24<sup>th</sup> day of February, 2004. The active deposition of waste is permitted for a period of twenty years and shall not exceed an annual tonnage of 120,000 tonnes for the deposition of waste. Capping and restoration works on the site shall be completed within two years of the expiry of the period for waste deposition.
  - (b) The amount of bio-waste to be accepted at the composting facility shall not exceed 25,000 tonnes per annum without prior specific grant of planning permission. The acceptance of waste is permitted for a period up to and including the final capping of phase 8 of the landfill.
  - (c) The planning authority shall be informed in writing, at least one month before the landfill and the composting facility become available to receive

waste, and indicating the commencement date(s).

- (d) Each consignment of waste arriving for disposal at the landfill/composting facility shall be accompanied by a certificate which shall identify the weight of each consignment, the name and address of the waste collection contractor disposing of the waste and the composition and nature of the waste for disposal.
- (e) Every three months, in a manner to be agreed with the planning authority, the developer shall submit to the planning authority records of all waste delivered to the site on a daily, weekly and monthly basis. These records shall be available for public examination.

**Reason:** To define the scale of the proposed development, in the interest of minimising recourse to landfill in accordance with national policy.

- 3. Any stockpiling arrangements for excavated soil and/or peat, other than for use in the screen embankment around three sides of the landfill, shall be agreed in writing with the planning authority.

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

- 4. The developer shall ensure 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.

**Reason:** In the interest of preservation of habitats on site and the proper planning and sustainable development of the area.

- 5. Prior to commencement of development, the developer shall submit, for the written agreement of the planning authority, details of the external finishes and colours of all buildings on site.

**Reason:** In the interest of visual amenity.

- 6. Working hours during the construction phase of the proposed development 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). No Heavy Goods Vehicle (HGV) movements to or from the site shall be permitted outside of these hours.

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

7. During the initial construction phase of the proposed development, noise levels at the site (when measured at noise sensitive locations in the vicinity) shall not exceed 65dB(A) between 0800 and 2000 hours, Monday to Friday inclusive and 0800 and 1300 hours on Saturdays, excluding public holidays and Sundays, and 45dB(A) at any other time.

Noise monitoring locations for the purposes of the construction phase of the proposed development shall be agreed in writing with the planning authority prior to commencement of development.

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

8. Prior to commencement of development, the developer shall put in place monitoring arrangements for the measurement of noise emissions, dust deposition and suspended solids of surface water run-off associated with the initial construction phase of the development. During the construction phase of the development, the developer shall submit to the planning authority, on a frequency to be determined by the planning authority, the results of the monitoring programme. Monitoring locations for the above shall be agreed in writing with the planning authority prior to commencement of development.

Dust deposition during the initial construction phase of the proposed development shall not exceed 350 milligrams per square metre per day (DIN standard) when measured at the site boundaries and averaged over 30 days.

**Reason:** To protect the amenities of the area.

9. The hours of operation of the proposed development shall be as set out in the Environmental Impact Statement.

**Reason:** In the interest of amenity and proper planning and sustainable development.

10. Prior to commencement of development, details of lighting arrangements for the entrance, access road and landfill compound shall be submitted to the planning authority for written agreement.

**Reason:** In the interest of public safety and residential amenity.

11. During the construction phase of the proposed development -

- (a) Bunded storage areas shall be provided for the containment of oil, fuel storage tanks, chemicals and any other materials which pose a risk to ground or surface water. The bunded area shall be equivalent to a volume of 110% of the capacity of the largest container stored. The proposed method of drainage of the bunded area shall be to the satisfaction of the

planning authority.

- (b) Arrangements for the collection, storage and disposal of all foul sewage effluent arising from temporary site sanitary facilities shall be submitted to and agreed with the planning authority prior to commencement of development.

**Reason:** In the interest of public health and the protection of the amenities of the area.

- 12. 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 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 as to 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.

- 13. All materials being imported to the site, either in the construction or operational phases are to be transported via one of the haul routes identified on Figure TR1 (Rev A), received by the planning authority on the 12<sup>th</sup> day of August, 2004.

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

- 14. Prior to the development of phase 8 of the landfill, the developer shall agree, in writing, with Kildare County Council, proposals for re-use, if any, of the composting building, maintenance building and administration building on site

**Reason:** In the interest of proper planning and sustainable development of the area.

- 15. The internal road network accessing and serving the proposed landfill/composting facility, including turning bays, junctions, parking, hardstanding areas, footpaths, kerbs and the construction of the R-403 entrance, shall be carried out in accordance with the detailed requirements of the planning authority for such works. No waste shall be accepted without the prior written agreement of the planning authority that these arrangements have been implemented to their satisfaction.

**Reason:** In the interest of amenity and safety.

16. A Community Liaison Committee shall be established, the composition of which shall be based upon equal representation of personnel from the planning authority, the developer, local residents and elected members of Kildare County Council. The composition of the committee and any variation thereof shall be subject to the prior agreement of the planning authority. The committee shall identify environmental works and community facilities to be funded under the following condition.

**Reason:** To identify appropriate environmental community projects which will mitigate the impact of the landfill facility on the local community, in accordance with Government policy as set out in “Changing Our Ways” published by the Department of the Environment and Local Government in September, 1998.

17. 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 in the previous condition. The amount of the contribution, and the arrangement for payment, shall be agreed between the developer and the planning authority or, in default of agreement, shall be determined by An Bord Pleanala. Such sum of money shall be index-linked in the event of periodic payments.

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

18. The developer shall ensure a potable supply of water to the site at all times during the construction and operational phase of the proposed development.

**Reason:** In the interest of public health.

19. The site landscaping shall generally be in accordance with the submitted Environmental Impact Statement, as amended. Prior to commencement of development, 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 interest of visual amenity.

20. Prior to acceptance of any waste at this facility, the developer shall plant an 8-10m wide belt of mixed deciduous and evergreen trees and shrubs along the entire boundary of the site with the grounds of Allenwood Celtic AFC.

**Reason:** In the interest of visual amenity and noise attenuation.



21. Before development is commenced, the developer is to arrange for the payment to Kildare County Council, a special contribution of an amount to be agreed between the planning authority and the developer, which is required as a contribution for the provision of road improvements, traffic-calming and public lighting which will benefit the proposed development, and, in default of agreement, the matter is to be referred to An Bord Pleanala for determination.

**Reason:** The provision of such services facilitate the proposed development and it is considered reasonable that the developer should contribute to the cost of providing same.

22. Prior to commencement of development, the developer shall pay, in accordance with the provisions of Section 48 of the Planning and Development Act, 2000, a development contribution of €238,283 (two hundred and thirty eight thousand two hundred and eighty three euro) to the planning authority in respect of infrastructure which is necessary in order to facilitate the proposed development. This amount shall be linked to the Construction Price Index and shall be reviewed on the first day of January of each year, up to the date on which payment is made in full to the planning authority.

**Reason:** It is considered reasonable that the developer should contribute towards the expenditure, which is proposed to be incurred by the planning authority, in respect of works facilitating the proposed development.

23. 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 secure the provision and satisfactory 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 (as amended by additional information received by the planning authority on the 12<sup>th</sup> day of August 2004), coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory completion of any part of the restoration. This bond, cash or other security shall have an expiry date of not sooner than five years after the expiration of the grant of permission for the proposed development.

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

24. Within two years of the final capping of the last phase of the landfill, the planning authority shall, by way of formal notification, require the developer to implement any final landscaping restoration measures it may require. In the event of failure to comply with that formal notification, the planning authority shall be empowered to apply the funds, or part thereof, as referred to in the bond condition attached to this decision, to the satisfactory completion of such restoration

measures.

**Reason:** To ensure satisfactory restoration of the site in the interest of amenity.

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**Michael Dillon,  
Inspectorate.**

**21<sup>st</sup> October 2005.**