

**INSPECTORS REPORT**  
**WASTE LICENCE REGISTER NUMBER 26-1**

**(1) Summary:**

The facility consists of an existing municipal waste landfill in a peatland area. The site has been used for landfilling since ca. 1959 and has been identified in the Waste Management Plan 1991 as the central landfill for county Laois. It is proposed that the development will be on-going for a period up to 20 years. There is a Civic Waste Facility at the landfill for use by the public. There is a pilot leachate treatment plant on site since November 1998. The current landfilling activities are in unlined cells. Cells 1-3 have been filled with waste and preparation works have been carried out on cells 4-5 including leachate drainage installation. The PD restricts the landfilling to Cells 1-5. A licence review for the remaining cells (6-12) is proposed. The applicant did not make any proposal to line future cells.

<b>Name of Applicant</b>	Laois County Council
<b>Facility Name (s)</b>	Kyletalesha Landfill
<b>Facility Address</b>	Kyletalesha, Clonsoughy, Kyleclonhobert, Co.Laois
<b>Description of Principal Activity</b>	Landfill
<b>Quantity of waste (tpa)</b>	38,000
<b>Environmental Impact Statement Required</b>	Yes
<b>Number of Submissions Received</b>	3
<b>INSPECTOR'S RECOMMENDATION</b>	The proposed decision as submitted to the Board be approved.

Notices	Issue Date(s)	Reminder(s)	Response Date(s)
<b>Article 14 (2) (b) (i)</b>	Not applicable		
<b>Article 14 (2) (b) (ii)</b>	22 <sup>nd</sup> May 1998		29 <sup>th</sup> June 1998
	23 <sup>rd</sup> June 1998	11 <sup>th</sup> August 1998	27 <sup>th</sup> July 1998

	31 <sup>st</sup> July 1998 14 <sup>th</sup> September 1998		24 <sup>th</sup> September 1998 29 <sup>th</sup> January 1999
<b>Article 14 (2) (a)</b>	26 <sup>th</sup> April 1999		
<b>Article 16</b>	21 <sup>st</sup> September 1999	n/a	18 <sup>th</sup> October 1999

<b>Applicant Address</b>	County Hall, Portlaoise, Co. Laois
<b>Planning Authority</b>	Laois County Council
<b>For Local Authority applicants, is the facility within its own functional area</b>	Yes
<b>Is the facility an existing facility:</b>	Yes
<b>Prescribed date for application:</b>	Prior to 1 <sup>st</sup> March 1998
<b>Date Application received:</b>	27 <sup>th</sup> February 1998
<b>Location of EIS in Application</b>	Three Volumes (1, 2 and 3)

**FACILITY VISITS:**

<b>DATE</b>	<b>PURPOSE</b>	<b>PERSONNEL</b>	<b>OBSERVATIONS</b>
18/3/98	Site visit and notice check	MK	Art 8 compliance
3 <sup>rd</sup> March 1999	Site visit and notice check	MK	Requested EIS and new notice to be erected - Art 8 compliance

**(2) Class/Classes of Activity**

**The class(es) of activities for which the applicant has applied are marked below. The principal activity is indicated by (P), other activities by (X).**

<b>Waste Management Act, 1996</b>			
<b>THIRD SCHEDULE Waste Disposal Activities</b>		<b>FOURTH SCHEDULE Waste Recovery Activities</b>	
1. Deposit on, in or under land (including landfill).	P	1. Solvent reclamation or regeneration.	
2. Land treatment, including biodegradation of liquid or sludge discards in soils.	X	2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).	X
3. Deep injection of the soil, including injection of pumpable discards into wells, salt domes or naturally occurring repositories.		3. Recycling or reclamation of metals and metal compounds.	X
4. Surface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons.	X	4. Recycling or reclamation of other inorganic materials.	X
5. Specially engineered landfill, including placement into lined discrete cells which are capped and isolated from one another and the environment.	X	5. Regeneration of acids or bases.	
6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule.	X	6. Recovery of components used for pollution abatement.	
7. Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule.	X	7. Recovery of components from catalysts.	
8. Incineration on land or at sea.		8. Oil re-refining or other re-uses of oil.	
9. Permanent storage, including emplacement of containers in a mine.		9. Use of any waste principally as a fuel or other means to generate energy.	X
10. Release of waste into a water body (including a seabed insertion).		10. The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system,	X
11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.	X	11. Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.	X
12. Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.	X	12. Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule.	X
13. Storage prior to submission to any activity referred to in this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.	X	13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.	X

**Class description:**

The applicant described the classes as follows;

**Third Schedule;**

- Class 1.** Landfilling of waste
- Class 2.** .Re-circulating of leachate in lined cells only and discarding of sludges to landfill.
- Class 4.** Leachate lagoon is in place at the site.
- Class 5.** Future phases may be covered by this class of activity.
- Class 6.** Leachate treatment will involve biological treatment on site.
- Class 7.** Physiochemical treatment of leachate is also undertaken at the site.
- Class 11.** Wastes may be mixed or compacted prior to submission to the site.
- Class 12.** In future, baled waste or other compacted waste may be taken into the site.
- Class 13.** Storage of wastes prior to treatment or final disposal may be necessary at the site.

**Fourth Schedule;**

- Class 2.** Composting of garden waste, hedge trimmings etc. May be undertaken in future operations at the site.
- Class 3.** Recycling of metals at the facility.
- Class 4.** Builders rubble or inert material may be diverted from the waste stream in future operations
- Class 9.** Landfill gas may be used to generate electrical power in the future operation of the site.
- Class 10.** Composted materials or peat may be used as cover material or to restore finished sections of the landfill.
- Class 11.** Wastes deposited at the site such as rubble or top soil may be used as raw materials at the facility.
- Class 12.** Exchange of waste may be undertaken in the future operation of the site.
- Class 13.** Wastes may be stored prior to submission to particular activities such as re-cycling, re-use or reclamation.

**Activities recommended for licensing:**

It is recommended that the above activities, with the exception that the recirculation of leachate referred to in Class 2 of the Third Schedule is prohibited in unlined cells, be licensed subject to the Conditions contained in the attached Proposed Decision (PD).

<b>(3) Facility Location</b>
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**Appendix 1 contains a location drawing and a layout drawing showing the significant features of the facility.**

Kyletalesha landfill is located approximately 5 km from Portlaoise off the N80 (Drg. 1). The landfill is located in predominantly cutaway bog with a peat thickness of 6-8 metres. The landfill site occupies an area of 79.3 ha of which approximately 30 ha. have already been landfilled with municipal waste. The proposed development will occupy a further approximately 30 ha. over the next 20 years, however, this PD relates only to Cells 1-5 which occupies an area of approximately 7 ha.. The area along the western boundary has been set aside for future road improvement.

The facility is within the upper catchment of the River Barrow for which a Water Quality Management Plan has been developed. The southern part of the facility drains south into a bog stream and onwards to the Triogue River which then flows northerly to the River Barrow. The northern part of the facility drains via peat drainage channels to the Blackwater River which is a tributary of the Owenass River. In the landfilled area of the facility the drainage is primarily southerly to the bog stream to the east of the site. Surface water runoff from the western area also eventually drains to the bog stream.

The bedrock geology of the area is Ballysteen Limestone formation which is overlain by a gravel layer, a limestone till and peat which has predominantly been cutaway. The bedrock is most likely a poor aquifer. The groundwater is confined by the till and peat. The groundwater flow direction is in a south eastern direction towards the Triogue River.

A landfill monitoring group was established in 1990 which comprises local interested groups. There is a Civic Waste Facility at the landfill which allows for public recycling of organic (composting of hedge, tree cuttings) and inorganic wastes (cans, bottles, textiles and metals). The development of cells 6 -12 requires excavation of approximately 423,600 m<sup>3</sup> of peat which will be removed off site for sale and used for restoration purposes. The nearest residence is 800m from the boundary of the facility.

**(4) Waste Types and Quantities**

<b>Expected life of the facility (in years)</b>	3.5 Years for Cells 1-5 (20 years overall lifetime if cells 6-12 are included)
<b>Maximum Annual Tonnage</b>	38,000

**(5) Activity Summary**

Wastes deposited at the facility include non hazardous domestic waste, compatible commercial and industrial waste and municipal sewage sludge. Liquid wastes and hazardous wastes are not accepted at the facility.

Currently waste is deposited in two locations, the main tipping area is located west of the leachate treatment plant and waste in the public tipping area is compacted in-situ south of the leachate treatment plant. There is a proposal to upgrade the Civic Waste Facility with the waste from the general public being placed into a skip. Waste is currently being deposited directly onto peat which provides an element of attenuation and some restriction of lateral and vertical movement of leachate. The peat is de-watered by means of drainage channels prior to the deposition of waste.

The applicant does not propose to install a liner system in future cells as they contend that the peat has a permeability of  $1 \times 10^{-9}$  m/s which they say satisfies the Landfill Directive. In my view there is insufficient information submitted to substantiate this claim and therefore this proposed decision relates only to cells 1-5 which have already been prepared for landfilling. A licence review and possibly an EIS would then be required to landfill future cells.

The Civic Waste facility currently contains receptacles for glass, aluminium cans, waste oil, textiles and refrigerator degassing. Construction and demolition waste as will be diverted away from the waste stream and stockpiled for recovery and use on site.

*Condition 5.11* requires proposals for the separation of the recyclable fraction from the waste, while *Condition 5.12* requires proposals for the recovery of construction and demolition waste within nine months. *Condition 5.14* requires proposals for the composting of waste at the facility

## **(6) Facility Operation/Management**

### **• Waste Acceptance Procedures**

*Conditions 5.1 and 5.2* restrict the waste types to be disposed of at the facility to non-hazardous domestic, industrial, commercial, construction and demolition wastes and sewage sludges. Hazardous, liquid, and industrial non-hazardous sludges are prohibited. The waste acceptance procedures outlined in Attachment E.2 will be followed as required by *Condition 5.3*. *Condition 5.4* requires the licensee to inspect the waste at the active tipping face, unless otherwise agreed in advance with the Agency. A record of all inspections shall be maintained.

### **• Waste Handling**

All waste entering the site is recorded at the weighbridge. Domestic users, cars and trailers are directed to the Car Tipping Area. Refuse vehicles and large loads are then directed to the main tipping area. *Condition 4.14* requires details of the storage of fridges on site and procedures for the de-gassing of CFC's from these fridges to be submitted to the Agency for its agreement. A recycling area is maintained on-site for the storage of aluminium cans, glass, textiles and metal prior to collection for recycling.

- **Nuisance Control**

Potential nuisances are controlled by *Condition 6 Environmental Nuisances*. The use of daily cover, as required by *Condition 5.10*, minimises potential odour nuisance, the attraction for birds and vermin, nuisance caused by insects and litter problems. Vermin will also be controlled by an outside contractor as set out in Attachment F7 of the application. Landfill gas and the odours associated with it will be controlled by *Condition 4.18* which requires proposals for utilisation of landfill gas and for the active collection and flaring of the gas for agreement of the Agency. Traffic using the site will use the proposed wheel-cleaning unit to prevent the tracking of any materials onto the public road and daily inspection of the public highway shall be undertaken as outlined in Attachment F.5. Scavenging is not allowed at the facility and is prohibited by *Condition 5.7*.

- **Landfill Operation Hours**

The licence will restrict the operation hours to Monday to Saturday 8.00 to 16.30 and excluding Bank Holidays. Any changes in these hours are subject to the prior written agreement of the Agency.

<b>(7) Facility Design</b>
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- **Infrastructure;**

The facility is secured along its southern boundary by a double fence, the outside fence is a 2 metre high concrete pillar and chainlink fence. The inside fence is a 2.5m high metal palisade fence. There is no fencing along the N80 route. A drainage channel separates the facility from road access along the N80. Site drainage and the Tip stream prevent access to the site from the north and eastern boundaries. A review of site security is required under *Condition 4.3.1*.

The main infrastructure within the facility includes a weighbridge, site accommodation in the form of a portacabin, toilet, plant sheds and equipment area, civic waste facilities and a public tipping area. *Conditions 4.7 and 4.10* requires the construction of a waste inspection and quarantine area and a wheel cleaning unit.

- **Liner System;**

In Cells 1-5 there is no lining system in place with waste being deposited directly on cutaway peat, however, the peat provides some attenuation and retardation of lateral and vertical flow.

- **Leachate Management:**

The applicant has in place a leachate management plan incorporating a pilot leachate treatment plant. Leachate is collected in drains within the landfill. It is then drained by gravity to a collection sump. The leachate is pumped to the



treatment plant. Some leachate is pumped for irrigation over an area of uncut bog. The recirculation of leachate is prohibited by the PD in cells 1-5 as they are unlined.

The pilot leachate treatment plant is funded by the EC LIFE Programme and is run by Laois Co. Co. The purpose of the LIFE project is to assess the suitability of peat for the on-site treatment of leachate and disposal of the treated leachate to a receiving surface water body.

The plant comprises a leachate storage lagoon (4,000m<sup>3</sup>), 4 circular steel tanks with 2m of peat, pipework, pumps and irrigation systems and telemetry controls and monitoring systems.

The initial leachate discharge rate is estimated at 68 m<sup>3</sup>/day (24,820 m<sup>3</sup>/annum) increasing to a rate of 83 m<sup>3</sup>/day (30,000 m<sup>3</sup>/annum) which would treat all the leachate generated at the site. The summary results of the treated leachate composition set out in the EIS are shown in Table 1.

Table 1. Composition of Treated Leachate

Parameter (mg/l except pH and EC)	Median	Maximum	Minimum
PH	8.08	9.01	5.98
EC	2975	6770	312
Ammonium nitrogen	18	380	0.11
COD	322	1111	48
BOD	19	101	2
Cl	642	1388	83
NO <sub>3</sub>	190	890	7
PO <sub>4</sub>	3.59	7.31	0.046

- **Landfill Gas Management;**

Landfill gas is monitored on a monthly basis at nine monitoring points which are located within the waste area and at the boundary between the waste area and the nearest dwelling. The facility has a landfill gas management plan including emergency procedures in operation. Landfill gas was passively vented to the atmosphere and to the surface water drains located between the fill area and the off site buildings. The invert of the drains is below the level of the waste and as such acts as a venting trench. *Conditions 4.18.1 and 4.18.2* require the applicant to assess and make proposals for the flaring and utilisation of landfill gas within six and twelve months respectively. *Condition 9.2* requires that permanent gas monitoring be carried out in the site office.

- **Capping System;**

The final capping is specified in *Condition 4.18* and *Condition 5.11* requires daily capping to minimise nuisances.

## **(8) Restoration and Aftercare**

It is proposed that the landfill be restored to peat land cover with appropriate indigenous plant and tree species. Any breaches in the existing hedgerow which screens the landfill from the N80 will be repaired. The final profile of the facility, its restoration and aftercare are controlled by *Condition 8 Restoration and Aftercare*. The leachate treatment plant will be maintained for at least a 30 year period.

## **(9) Hydrogeology**

Groundwater beneath the current landfilled area flows in a south easterly direction towards the Triogue River. The Ballysteen limestone formation which underlies the facility is considered to be a poor bedrock aquifer (draft GWPS 1997). This is the main water bearing unit beneath the facility. The groundwater in the bedrock is confined by the overlying subsoil and peat deposits.

Monitoring has been carried out upgradient and downgradient of the facility. It indicates that there are elevated levels of ammonia and nitrate both upgradient and down gradient of the facility. The presence of ammonia has been known to occur naturally in other peatland areas which are the subject to waste licence application. Some of the high levels of ammonia may be related to the possible conversion of complex organic compounds to ammonium and ammonia. As there are exceedances in the background monitoring wells the landfill cannot be the sole contributor of ammonia in the area.

The remainder of the analyses indicates, in some cases, elevated iron and manganese which is naturally occurring due to the nature of the subsoils and bedrock. In general the analyses suggest that the landfill is not having an impact on the bedrock aquifer beneath the landfilled area. Three domestic supplies were sampled. These are located approximately 1km to the northeast of the site (Delaney x 2) and 1km to the south (Tarlton). The private well downgradient of the landfill has elevated ammonia (similar to background), manganese and potassium. There is a monitoring well (G1) between the landfill and the private well which has elevated ammonia. The wells to the northeast have elevated potassium which is considered to be from local sources and not the landfill as the K:Na ratio is greater than 0.4. All private wells within 500m of the landfilled will be monitored in accordance with *Condition 9.3*.

The applicant proposes to monitor eight groundwater boreholes surrounding the facility. *Condition 9.1* and Schedule F.4 specify the monitoring requirements.

## **(10) Emissions to Air**

Emissions to air include landfill gas, odour, dust and aerosols.

### **Landfill Gas**

Landfill gas is passively vented to the atmosphere by means of interceptor ditches and vertical vents. Monitoring has been carried out at nine points around the site. Four of these points are located outside the fill area and will be used to monitor potential migration of landfill gas as required by *Condition 9.1*. One of the monitoring points located near the leachate treatment plant has given results of 0.1 %v/v outside the fill area otherwise there is no evidence of migration.

### **Odour**

An odour evaluation was carried out during the air emission monitoring. No perceptible odour was detected at the four monitoring points at the boundary of the site. Monitoring was carried out for hydrogen sulphide and the results indicate levels less than the level of detection of  $1\mu\text{g}/\text{m}^3$ .

### **Dust**

Monitoring for total suspended particulates and deposited dust was also carried out at the four boundary monitoring points. The measured concentrations for the monitoring points was approximately  $100\mu\text{g}/\text{m}^3$  which is three times less than the limit set in EU Directive 82/779/EEC.

Dust deposition was monitored using a Bergerhoff gauge. The results indicate that two locations exceed the limit of  $350\text{mg}/\text{m}^2/\text{day}$  specified in the PD. However, the explanation for these elevated results is the presence of sand particles in the gauges as a result of construction works on the site and the presence of bird droppings.

Dust control is required by *Condition 6.7 and 6.8*. Dust and landfill gas monitoring requirements are established under *Condition 9.1*.

### **Aerosols**

Samples for Faecal coliforms, Total coliforms, Faecal Streptococci and TVC 37C (total viable count at  $37^\circ\text{C}$ ) were taken at distances of 50 and 100 metres upwind of the leachate treatment plant and similarly at distances of 50, 100, 150 m downwind of the plant.

Faecal coliforms and streptococci were completely absent from all samples. Total coliforms were detected in three upwind samples and 1 downwind sample. The upwind results are considered to be aerosols from the landfill surface. TVC bacteria were recorded in the upwind and downwind samples. The results are very low in comparison with some reference data. There are no Irish health and safety limits for worker protection.

### **Others**

Air emission monitoring was carried out for nitrogen and sulphur oxides which are emitted during combustion events. The results indicated levels less than the levels of detection which were  $5\mu\text{g}/\text{m}^3$  for  $\text{NO}_2$  and  $25\mu\text{g}/\text{m}^3$   $\text{SO}_2$  respectively. Monitoring for heavy metals - lead, cadmium, mercury and arsenic- which may occur in landfill emission were all less than the level of detection of  $0.1\mu\text{g}/\text{m}^3$ . A general limit of  $2\mu\text{g}/\text{m}^3$  exists for lead in the EU Directive 82/884/EEC for ambient air.

## **(11) Noise Emissions**

Three noise sources were identified on site (bulldozer and two compactors). Noise monitoring was carried out at four points at the boundary of the site (N1, N2, N3, N4) and at S1 which is the nearest sensitive receptor. It is a residential property located east of the facility at a distance of approximately 1,500 m from the active face of the landfill. The noise monitoring results taken during operational hours at location S1 indicates that the primary contributor to the ambient noise levels is the local traffic and agricultural activities on adjacent farmlands. It is stated by the applicant that the resident indicated that the landfill was barely audible.

Noise emission limits are established by *Condition 7.1*. Noise monitoring is required by *Condition 9.1*.

## **(12) Emissions to Sewer**

There are no direct emissions to sewer. A septic tank and percolation area treats sewage arising from a single toilet on the facility. There are proposals to upgrade the toilet facilities to incorporate showers for site operators.

## **(13) Emissions to Surface Water**

The existing landfill area and all runoff and treated effluent discharges all discharge to the Triogue River catchment. There are no discharges to the Owenass River from Cells 1-5 of the landfill area.

### **13.1 Flow Control**

The treated leachate will discharge to the Triogue River. The estimated 95%ile flow in the Triogue River is given as  $0.14\text{m}^3/\text{sec}$  (140 l/s) in the Water Quality Management Plan for the Barrow Catchment.

When the flow is less than the 95%ile flow there shall be no discharge of treated leachate and instead it will be returned to the storage lagoon.

The treated effluent is collected to a sump within the treatment plant where a Sonde continually monitors for ammonia, EC, pH and turbidity. Currently, there is a Magflow meter which controls discharges to the Tip Stream. In the event that the leachate exceeds the ELV's then the leachate will be returned to the storage lagoon. A second Sonde will be installed in the Triogue River in accordance with *Condition 7.7*.

### **13.2 Emission Limit Values**

The Triogue River is not a designated salmonid river. It is part of the Barrow catchment and therefore falls within the Water Quality Management Plan (WQMP).

The emission limit values set in the PD are compared with the Urban Waste Water Treatment (UWWT) Discharge Limits and the WQMP standards for the Triogue river.

The PD ensures that the discharge of treated leachate to the Triogue River will not result in a breach of the WQMP when the applicant complies with all relevant conditions. The PD requires reporting of stream flows, discharge flows and a record of the final disposal route of the leachate.

Table 2: Emission Limit Values

Parameter	UWWT Discharge Limits (all units in mg/l except pH)	PD Limit (all units in mg/l except pH)		Concentrations post dilution (200:1) (mg/l)		WQMP Standards (mg/l) -apply outside the mixing zone
		note1	note2	note 1	note2	
pH	6-9	6-9	6-9	-	-	-
BOD	25	25	200	0.125	1.0	<5.0
COD	125	125	-	0.625	-	-
SS	35 - 60	35	60		0.3	-
Total N (as N)	15	15	-	0.075	-	11.0
Total P (as P)	2	2	4	0.01	0.02	O/phosphate <0.2
Total Ammonia (as N)	-	10	250	0.05	<b>note 3</b>	<0.5

**note 1:** These ELV's shall be satisfied by the 30<sup>th</sup> June 001.

**note 2:** In the interim these ELV's shall apply to discharges to the Triogue River and cannot increase the background levels of CBOD by greater than 1mg/l and of ammonia by 0.3 mg/l.

**Note 3:** The discharge rate shall be decreased such that the background level of ammonia is not increased by greater than 0.3 mg/l.

The level of phosphates in the leachate ranges from a minimum of 0.046 to maximum of 7.31 mg/l with the median being 3.59mg/l. The recent phosphorous legislation (SI No. 258 of 1998) sets out the long term goals for phosphorous in water courses and based on the 95%ile flow the discharges from the treatment plant will comply with the requirements of the legislation. A limit of 2mg/l is set for the discharge to ensure that excess phosphorous is not overdosed to the leachate influent to the leachate treatment plant.

### 13.3 Toxicity Testing

Toxicity testing against two of the most sensitive of four tropic groups will be undertaken twice a year.

### 13.4 Contaminated Run-off

The surface water at the facility is collected in perimeter drains which discharges to the Tip Stream. There has been evidence of contamination of these drains which when investigated indicated that the contamination resulted from seepage from the leachate lagoon. Remedial measures have been put in place and the drain will continue to be monitored as part of *Condition 9.1*. *Condition 7.6* requires that a proposal be submitted to the Agency to deal with the surface water runoff at the facility within nine months.

### **13.5 Biological Assessment**

Biological assessment of the river in the immediate vicinity of the landfill is requested on an annual basis.

### **(14) Other Significant Environmental Impacts of the Development**

None.

### **(15) Waste Management, Air Quality and Water Quality Plans**

A Waste Management Plan and a Special Waste Plan were published in 1991 for Laois County Council. No Air Quality Management Plan exists for County Laois. A Water Quality Management Plan was developed for the River Barrow and was published in 1985. Regard has been given to the information outlined within these plans in assessing the licence application and in the proposed decision.

### **(16) Submissions/Complaints**

An overview of all submissions received in relation to the waste licence application is provided. This includes a summary of the main issues raised in the submissions and shows how these issues are dealt with in the proposed decision.

#### **16.1 Summary of submissions**

1. A submission was received from Ms.Mary White, Green Party Spokesperson for the Environment, dated 20<sup>th</sup> November 1998.

The submission was on behalf of concerned locals in the Montmellick area in relation to pollution of the Owenass and Triogue Rivers. In particular the discharges from the landfill into the Triogue River and the peat filtration system at the facility are of concern.

#### ***Response***

*The leachate produced at the site is controlled by Condition 4.16 of the PD. This controls the leachate treatment plant, the discharge of treated leachate, leachate levels and prohibits the re-circulation of leachate at the landfill. Schedule G sets emission limit values for the discharge of treated leachate to the stream.*

*Condition 9.1 requires the monitoring of the stream and of the surface water in the vicinity of the facility.*

2. A submission was received from Dr. Peter Foss, Irish Peatlands Conservation Council, dated the 17<sup>th</sup> February 1999.

The submission was concerned with the effects any pollution could have on Clonsoghey Bog, NHA No. 879.

***Response***

*In a letter from the National Parks and Wildlife Section, Duchas, to the applicant's consultants it was stated that following a re-survey of Clonsoghey Bog in March 1997, the site was de-listed. It also stated that the site ceased to be of any significant conservation interest, due to the extensive drying as well as peat cutting and frequent burning.*

*See also response to item 1 above.*

3. A submission was received from Bridgeen Kelly dated 21<sup>st</sup> May 1999 on behalf of *Dúchas*: National Monuments and Historic Properties Section.

The submission concerned one issue relating to the archaeology of the site. They have submitted a report outlining requirements which the Agency should consider if granting a licence.

In general, they recommend that an archaeological consultant should be appointed to the project team and that prior to commencement of the development an intensive survey of the existing drains be carried out. In addition, they recommend that an archaeological monitoring programme be put in place for all peat removal and provision to be made for the excavation and conservation of such artefacts in the event that archaeological material is found.

***Response***

*Condition 9.12 of the PD provides for the implementation of the above recommendations.*

Signed: \_\_\_\_\_

Margaret Keegan

Dated: \_\_\_\_\_

## **APPENDIX 1**

1. LOCATION DRAWING
2. LAYOUT DRAWING



**APPENDIX 2**

SUBMISSIONS