

INSPECTORS REPORT

WASTE LICENCE REGISTER NUMBER: 9-2

FACILITY: Balleally Landfill, Balleally, Lusk, Co. Dublin.

APPLICANT: Fingal County Council

INSPECTOR'S RECOMMENDATION:

That a Revised Waste Licence 9-2 be granted subject to conditions.

(1) Introduction:

This report relates to an application received from Fingal County Council for a review of the existing waste licence for Balleally landfill (Reg. No. 9-1). Fingal County Council has operated a landfill at Balleally since 1971. A waste licence (Reg. No. 9-1) was issued to the Council for the facility on 16 February 2000. The facility is located in a rural area 2km south of Lusk. The existing landfill is triangular in shape and covers an area of 43ha bounded to the south by Rogerstown Estuary, to the east by the Dublin-Belfast railway line and to the north by a road and agricultural land. There are approximately 22 dwellings within 1 km of the facility's footprint with a population of 75. The existing licence allows for a maximum waste disposal of 462,700 tonnes per annum.

The application for a review of the Waste Licence is for the extension of the landfill by way of installing six engineered lined cells (10ha area) with a leachate collection structure adjacent to the existing landfill on the north-western side and to allow the acceptance of waste into the existing landfill at the construction and demolition waste recovery area where there is up to c.100,000m³ void space. The waste in the six lined cells will be 'piggy backed' onto the existing landfill in order to achieve one merged profile, rather than two landfill mounds. The existing landfill and new extension shall be connected to a landfill gas collection system; the energy is to be used for the production of electricity to the National Grid. The extension will cause a group of four houses to come into close proximity of the landfill ranging from 60m to 300m distance at the north-west corner boundary, whereas this distance would have been 360m to 600m before.

The applicant has applied for a total waste intake for disposal and recycling of 451,500 tonnes per annum which includes C&D waste (63,000T) and sludge waste (36,000T). The proposed extension shall have a void space of 1.29million m³ which will provide for filling of 1.04million tonnes of waste. It is envisaged that the extension will receive waste until 2005.

The classes of activity applied for by the applicant and for which I recommend to be granted are:

Waste Disposal Activities – 3rd Schedule

Class 1/Class 5. Relates to the landfilling of waste in lined cells and part of the existing landfill.

Class 10. Relates to the discharge of treated leachate from the onsite treatment works to the Rogerstown Estuary at Rogerstown railway viaduct (east side) via the Lusk sewage outfall.

Classes 12 and 13. Relates to the temporary storage of waste and/or repackaging at the Civic Waste Facility in containers prior to disposal at the landfill or at other facilities while in operation or an alternative appropriate facility.

Waste Recovery Activities – 4th Schedule

Class 3. Relates to recovery of metals from C & D Waste and the Civic Waste Facility.

Classes 4 and 11. Relates to the collection of glass at the Civic Waste Facility and the C & D waste deposition area, and the reuse of inert waste for landfill restoration and construction works.

Class 9. Relates to the collection of gas and its conversion to electricity.

Class 13. Relates to temporary storage of recyclable and reusable wastes pending their collection at the Civic Waste Facility.

I recommend that the following waste activities applied for be refused:

Third Schedule

Class 2. - The disposal of sludge with soil as daily cover is not acceptable.

Class 4. - The existing landfill no longer has the infrastructure of surface impoundment, pits, ponds or lagoons. Any sludge disposal shall be at the working face of the existing landfill or landfill extension. To avoid stabilisation problems in the new lined cells, the disposal of sludge/filtercake with greater than 25% solids is acceptable under the Third Schedule, Classes 1 and 5.

Class 11.- No relevant proposals were included in the licence application for the mixing of sludge with soil to provide daily cover. Furthermore the use of sludge for daily cover is not acceptable.

Fourth Schedule

No relevant proposals were included in the licence application for **Classes 2, 10 and 12.**

Site Visits:

DATE	PURPOSE	PERSONNEL
21 August 2001	Site Notice Check	M. Doak
2 November 2001	Site Visit	M. Doak
28 February 2002	Site Visit	M. Doak
27 June 2002	Site Visit	M. Doak

General Information:

Quantity of Waste (tpa)	451,500 tonnes per annum
EIS Required	Yes, in compliance with the Regulations
Date of Application	13 July 2001

Number of Submissions received	29
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A plan showing the location of the facility to which the application relates is provided in Appendix 1.

(2) Issues arising from this Application for Review
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- I The main issue arising from this application is that the leachate from the six new lined cells (and the newly installed vertical barriers on the main landfill) will be collected and treated on-site necessitating discharge to the Rogerstown Estuary which is a Special Area of Conservation (SAC). The applicant intended to tanker all treated leachate offsite to the nearest municipal wastewater treatment works at Rush/Lusk, but these works will not be ready for another three years. The applicant later proposed in an Article 16 reply (14 May 2002) that treated leachate will be discharged to the Rogerstown Estuary at the southwest end of the landfill. However flow at that point in the estuary is often minimal since it is at the mudflats and at the edge of the high tide mark. New information received as an Article 16(1) reply on 8 August 2002 proposes that all treated leachate shall be discharged via the Lusk sewage outfall (only at 2hrs each side of the high tide) to the Rogerstown Estuary at the Rogerstown Viaduct, and at the low water mark. These proposals are adopted as **Condition 6.6.1 and Schedule C7** of the recommended Proposed Decision.
- II The second issue arising is the proposal to continue the acceptance of treated sewage sludge and industrial sludge to the quantity of 36,000T per annum. This aspect causes me concern since the emplacement of such a large volume of sludge into individual cells of approximately 160,000m³ would cause stability problems among the emplaced waste matter lying in the cells. **Condition 5.8.1.1** of the recommended Proposed Decision specifies that only treated sewage and industrial non-hazardous sludges/filtercakes both with greater than 25% solids shall be disposed of at the landfill extension. In the interim and to provide Fingal Co Co time to supply a sludge dewatering service, sludge with a lower solids content may only be disposed of at the existing working face in the Construction & Demolition Waste Recovery Area void space (see paragraph V below) in accordance with the requirements of **Condition 5.8.1.1**.
- III The third issue is the proximity of the proposed landfill cells, particularly Cell 1, to a number of nearby residences. Two residences will lie within 60m of the proposed Cell 1. In order to mitigate against any potential environmental nuisances in close proximity to these residences I consider that mitigation measures be taken at Cells 1 – 6 to avoid odours and to remedy visual/noise intrusion of the landfill:
- a As discussed above, **Condition 5.8.1.1** of the recommended Proposed Decision specifies that only sludges/filtercakes with greater than 25% solids shall be disposed of at the landfill extension. This will also result in reducing odours which often arise from wetter sludges.
 - b **Condition 5.6.1** of the recommended Proposed Decision specifies that the detailed visual mitigation measures (the installation of 3m high screening bunds progressively as waste is emplaced) proposed by the applicant in an Article 13 reply (dated 13

September 2001) shall commence within three months in order to ameliorate visual intrusion on at least 10 of the dwellings identified in the reply. The existing hedgerow network which forms the northern boundary (Balleally Lane) of the proposed extension shall be retained by the licensee (Condition 5.6.2).

- c Condition 8.1 of the recommended Proposed Decision specifies that the noise and dust monitoring at all locations shall commence no later than two months from the date of grant of licence. The dust and noise monitoring locations are specified in Schedule D.1 (Emission limits are specified in Schedule C), all centred on the housing nearest the landfill extension as specified in the EIS, Volume 3.
 - d I have included a 25m buffer zone between the landfill footprint for the proposed extension and the facility boundary on the northwestern facility boundary (Condition 3.13.1) This will replace the applicant's proposal for a 5m wide buffer zone only. The combination of a 25m buffer zone, the retaining of the existing hedgerow on Balleally Lane (Condition 5.6.2), the 3m high bund screening, and the tree planting on a bund at the leachate treatment plant (Drawing No. DG013 Rev A01, Article 16(1) reply dated 13 May 2002) will mitigate the proximity to the extension.
- IV The fourth issue relates to the 'piggybacking' of the new lined cells onto the existing landfill and the *interface* between the new lined landfill and existing landfill at the northwestern side. The purpose of the piggybacking is to achieve one merged profile, rather than two landfill mounds. Today the site of the 'interface' consists of a toe at the foot of a landfill embankment. The landfill embankment rises irregularly from approximately 3mOD to 23mOD over a distance of 50m (gradient of 1:2.5). The toe consists of a gravel hardcore haul road and a boundary drain up to 2.0m deep. Various Article 16 (1) replies confirm that this drain receives moderate volumes of leachate from the existing landfill and also, because of its depth, it acts as a groundwater discharge point since it intercepts a watertable. Presently the boundary drain flows unintercepted direct to the Rogerstown Estuary.

The applicant proposes to plug the existing boundary drain with cohesive low permeability material and to 'piggy back' the six new lined cells onto the rising northwestern embankment of the landfill by lining the slope in 5m high increments as filling takes place. The base of the liner is to be underlain by 'Class 1 Fill' in order to construct a flattened 1:2.5 slope. The extent of the piggy back is to the embankment peak at approximately 25mOD. These proposals are adopted as Condition 3.12.4 of the proposed decision by way of reference to detailed application engineering drawings and accompanying text.

The leachate management infrastructure proposal for the *interface* is complicated. In summary it was proposed that the main boundary drain would be plugged; two 'french drains' would be installed to the base of existing waste on either side of the toe haul road and run to the leachate treatment works; and a shallow vertical barrier (0.5m depth [their proposal]) would be constructed between the haul road and the boundary drain (plugged).

These three actions will have the function of channelling all leachate/surface water arising from the northwest side of the existing landfill to the leachate treatment plant. In time all this infrastructure will be buried by the rising lined cells and therefore the liner design and subgrade needed to be rigorous and drainage design needed to be passive. However, [Condition 3.17.2](#) specifies that the depth of the vertical barrier at the boundary drain be reviewed from 0.5m to 2m below the base/invert level of the existing boundary drain and keyed into natural soils, to avoid upwelling of leachate into the filled/plugged boundary drain and to prevent the mixing of clean groundwater with leachate.

- V The fifth issue is the applicant's proposal to utilise the existing Construction & Demolition Waste Recovery Area void space (c.100,000m³) in the south-east quadrant of the landfill for waste filling. The existing licence (9-1) specifies that waste shall not be accepted at the existing landfill after 31 December 2002 which would restrict the use of the void for waste deposition.

In applying for this revision the applicant considers that no additional environmental impact is expected since it was always assumed that this area would be filled with waste. I concur with this proposal since the special leachate and groundwater management infrastructure at the existing landfill (vertical barriers as specified in [Conditions 3.14.2 and 3.17.1](#)) will protect surface and groundwater downgradient of this waste body. In addition the void space will provide a 'cushion' period for waste acceptance while the six cells are being constructed.

- VI The sixth issue is that the location of the proposed extension is prone to flooding – flooding (considered an extreme '10 year event') occurred in the area of proposed Cells 1-4 and the proposed site of the leachate treatment plant on 1 February 2002. The present ground-level surface is at 1.9 – 2.1m OD; the flood level was approximately 2.00mOD. New information (Article 16(1) reply 14 May 2002) specifies that the applicant will raise the natural ground (base of the cells and leachate plant) by 0.5m to approximately 2.6mOD as specified in [Condition 3.12.3](#) of the proposed decision. The 0.5m buildup shall be filled with a cohesive material to prevent tidal ingress directly below the liner. The impact of the filling and the new cells upon the estuary and SAC was examined with an estuarine modelling package. The conclusions reported to the Agency on 1 July 2002 were that similar extreme flooding if it were to re-occur (with new raised underbase for cells) would not impact on the estuary, SAC or landfill extension.
- VII The seventh issue is the restoration of the four existing small dedicated lined cells which contain Nickel and Iron Hydroxide from a GE Superbrasives contract. All four cells have been capped with liner and some clay. Their restoration needs to be formalised and leachate levels within monitored as per [Conditions 4.1 and 3.21.3](#) of the proposed decision.
- VIII The eighth issue is the proposal to relocate the existing landfill gas combustion compound and landfill gas flare to the north of the facility to make way for the landfill extension. [Condition 3.15.5](#) specifies the required actions.

IX The ninth issue is the acceptance of C&D and inert waste. Currently at the existing landfill, two aspects, the use of two weighbridges and the waste acceptance criteria are causing problems for the licensee.

a Two weighbridges were in operation at the landfill during the May 2002 to August 2002 period. One was operated by *Barnmore* for construction, demolition and soils waste and the other was the main landfill weighbridge operated by Fingal Co Co staff. The Agency were never informed of this aspect by Fingal Co Co. nor was I informed of this on my visit conducted on 27 June 2002 – only that the weighbridge was installed for contractual issues between Fingal and *Barnmore*. *Barnmore* had been accepting contaminated soils to Balleally without maintaining a written record for each load of waste arriving at the facility, and had been carrying out waste activities (the disposal and/or treatment of contaminated soils) at a corner of Balleally landfill without the knowledge or permission of Fingal Co. Co. This is in breach of the Waste Licence 9-1 (Conditions 3.11, 4.9, and 5.4.1). **Condition 5.2.2** of the proposed decision specifies that all waste or recovered loads arriving at the facility, excluding those arriving at the Civic Waste Facility shall be processed through the main site weighbridge.

b The waste acceptance criteria for C&D waste, soils and inert material are no longer satisfactory contained in the existing licence. They were submitted as proposals by the licensee in August 2000 as required by the Conditions 5.4.1 and 5.5 of the existing licence. They do not contain trigger values for determining whether a waste is inert or contaminated. **Condition 5.8.2** and **Schedule G** of the proposed decision specify inert waste standards and **Condition 5.11.1 specifies an on-site** verification test to ensure that incoming inert waste loads are inert.

X The final issue is in relation to a closure date for landfilling. The previous licence 9-1 specified a closure date (for general waste acceptance) of 31 December 2002 (Condition 5.7 of Licence 9-1). Furthermore, the Fingal County Council '*Report on Short Term Options at Balleally Landfill*' (July 1999) states that “an extension to the existing facility will facilitate the disposal of a further 1.2 million tonnes over a two year period (July 2001 to July 2003) to allow filling at Balleally until the end of 2003”. This report was submitted with the application on 13 July 2001 and is cited in several of the submissions received.

The application is for the deposit of 451,500 tonnes per annum of which 388,500 tonnes per annum will be waste. The new cells would allow for the disposal of 1.04million tonnes of waste. The existing C&D void space can allow for up to 0.11million tonnes of waste. In total this approximates to three years lifespan at a disposal rate of 388,500 tonnes per annum (current input). Recovery activities across Dublin may reduce this annual figure which may again be eliminated by Dublin’s population growth.

At present, the majority of Dublin’s household and commercial waste is disposed of to Balleally Landfill or Arthurstown Landfill (via Ballymount bailing station). Dun Laoghaire Rathdown is served by its own landfill at Ballyogan. Dublin has no alternative

sites for waste disposal in the short term. However, the Waste Management Plan for the Dublin Region (1999 - 2003) adopted by Fingal County Council specifies that there will be the development of additional landfill capacity in the Dublin region by year 2000 with capacity range 10-11 million cubic tonnes.

In order to take into account the number of submissions received on this issue and the views of Fingal County Council and the Agency (previous licence) and the lack of void space in Dublin County, I am specifying in **Condition 1.5** that waste, other than Construction and Demolition waste for recovery, shall not be accepted at the facility after 31st December 2005 or on reaching the profile referred to in Condition 4.2, whichever is soonest.

(3) Facility Development

Infrastructure

Existing infrastructure includes security and stockproof fencing, a car park area, facility offices, weighbridge, haul roads and access roads to the cells, a wheelwash, a waste inspection/quarantine area, leachate collection infrastructure and a leachate storage tank. The applicant proposes new 24 hour CCTV security cameras and a new wastewater treatment system for sewage ('Biocycle' and percolation area). The provision and maintenance of all infrastructure is controlled by **Condition 3 Facility Infrastructure**.

Lining

The existing landfill is not lined since it was designed as a dilute and disperse unit. Condition 3.12 of the recommended PD sets out the requirements for the lining of the six future cells as per the EU Landfill Directive, and Condition 3.12.4 specifies the lining for the 'piggyback' as detailed in Section 2 above.

Leachate and Groundwater Management

The leachate and groundwater management (deep vertical barriers and clay capping) infrastructure at the existing landfill has been the subject of much correspondence between the Agency and licensee in the course of the enforcement of the existing waste licence (9-1). However, agreement has been reached with the Agency and the infrastructure is currently being emplaced (August 2002). However the various works are written into this proposed decision to ensure that the work is completed as agreed (**Conditions 3.14.2 and 3.17.1**). The leachate management infrastructure at the extension interface is complicated and has already been discussed in Section 2 of this report. For the actual six lined cells leachate is to be collected from each cell and pumped along the northern rim of the extension to a proposed leachate treatment plant.

Landfill Gas Management

It is intended to progressively install passive gas vents and carbon filters at the new cells as they are filled as detailed in Attachment D5 of the Application which is adopted as **Condition 3.15.1** and **Condition 3.15.3**.

Restoration & Aftercare

The restoration scheme proposed by the applicant relates to the combined restoration of the existing landfill and the proposed six new cells to form one rounded mound to a maximum

height of 40mOD. **Condition 4** sets out requirements for Restoration and Aftercare at the facility and requires a revised Restoration and Aftercare Plan to be submitted to the Agency to reflect changes due to requirements of this licence, and to include details on the ‘piggybacking’ and the restoration of the four nickel hydroxide cells. **Condition 4.3.2** sets out the standards for any reprocessed C&D material and inert waste which may be used in the capping system.

(4) Waste Types and Quantities

Conditions 1.4 and 1.6 of the recommended PD restrict the waste types to be disposed of at the facility to Municipal, Commercial and Industrial wastes. **Schedule A Table A.1 Waste Categories and Quantities** limits the quantity of waste to be accepted for disposal.

The application was for a maximum tonnage of 540,000 per annum as per table B11. However, this does not reconcile with the 451,500 maximum tonnage per annum including C&D waste stated in Table E2.1 of the application. The proposed decision is based on the detail of Table E2.1. The categories and volumes of waste are as follows:

152,500 tpa household¹; 200,000 tpa commercial; 30,000 tpa treated sewage sludge; 6,000 tpa industrial sludges; 63,000 tpa construction and demolition (these figures also include inert waste for restoration).

(5) Management and Control of Emissions to the Environment

The environmental impacts and associated mitigation measures associated with this facility were addressed in detail in the Inspector’s Report which accompanied the Proposed Decision for the existing Waste Licence 9-1. Requirements for facility management and an Environmental Management System for the management of leachate and the control of emissions to air (landfill gas, odour, dust and noise), surface water and groundwater, and requirements for the progressive capping and final restoration and aftercare of the landfill in general, reflect those set out in the existing Waste Licence. The new measures to be implemented particularly with regard to groundwater, surface water, leachate management and noise have already been discussed in detail in Section 2 of this report.

Monitoring locations and frequencies as specified in the relevant schedules of the recommended PD reflect the current monitoring regime as agreed with the Agency during the enforcement of the existing waste licence.

(6) Waste Management Plans

The Waste Management Plan for the Dublin Region (1999 - 2003) adopted by Fingal County Council was considered. The plan refers to the role of the local authority in the management of waste in the Dublin region including the applicant’s facility at Balleally. *‘The existing Balleally Landfill will be replaced at suitable site within the Dublin Region.....between the years 2000 and 2011’*. Fingal County Council and the other three Dublin Local Authorities

¹ The applicant has applied for two other types of household waste (as ‘household waste delivered to civic waste facilities and other bring facilities [1,500 tpa]’, and ‘other household waste [1,000 tpa]’). Both types have been subsumed into the bigger category of 150,000 tpa household bracket, to read as 152,500 above.

are proposing to try and recover as much waste as possible by segregating the waste either at source (*home address separation*) or at its destination (Ballymount and Ballyogan waste transfer stations) to cover 80% of the Dublin Region.

(7) Submissions/Complaints

A total of 29 valid submissions were received in relation to the licence application. I have had regard to all of the submissions in making this recommendation to the Board. Below is a summary of the main concerns raised in the submissions:

1. Proximity of Residences to Landfill

A number of submissions consisted of one paragraph statements stating that their properties will be directly opposite the landfill extension. Other submissions wanted a buffer zone between the houses and the landfill.

Response

This matter has been dealt with in Section 2 (III) of this report.

2. Dumping into Estuary

A number of submissions were concerned that dumping was to continue into the Estuary which is an SAC.

Response

Future waste filling is only to occur in the C&D void space and into the new extension which consists of lined cells built up on made ground above the 10 year event flood level of 2.0mOD. The special leachate and groundwater management infrastructure at the existing landfill (vertical barriers as specified in Conditions 3.14.2 and 3.17.1) will protect surface and groundwater downgradient of this waste body.

3. EIS

A number of submissions were concerned that the EIS lacks detail on landfill infrastructure

Response

The Agency has assessed this application using the documents submitted as part of the original application received at the Agency on 13 July 2001, and a number of other documents submitted to the Agency arising out of further information requests by the Agency under Articles 12, 14, and 16 of the Waste Management Licensing Regulations. The Agency was satisfied that it had enough information arising out of the various requests above in order to reach a proposed decision and that the EIS complied with the relevant regulations.

4. Closure Date

A number of submissions expressed concern with the date for final closure since the existing licence (9-1) and Fingal Co Co. reports specify an earlier closure date.

Response

This matter has been dealt with in Section 2 (IX) of this report.

5. Leachate Management/Control

A number of submissions raised the following issues:

- a) *Leachate was escaping into nearby drains and watercourses*
- b) *Lack of information regarding leachate in the application*
- c) *No contingency plan for leachate in the event of an accidental leak into the surrounding environment*

Response

Leachate management is specified under Condition 3.14 of the Proposed Decision. Liner specification is provided under Condition 3.12. The Proposed Decision (Condition 9.2) requires the licensee to submit an Emergency Response Procedure to the Agency in order to address any emergency situations which may originate on the facility.

5. Environmental Nuisance

A number of submissions expressed concern with regard to nuisances caused by birds, flies, rats and litter/dust blowing offsite and from vehicles bringing waste to the facility. The submissions refer to ongoing nuisance from the facility from the above and concern that such nuisances could increase due to the extension of the facility. Concern was expressed about the dangers to grazing animals due to birds dropping materials, such as plastic items and foil, on the surrounding land.

Response

Condition 7 of the recommended Proposed Decision deals with the control of nuisances from the facility and in particular Condition 7.1 requires the licensee to ensure that the facility is operated such that it does not give rise to nuisances. Litter control measures are specified (Condition 7.3) and include a requirement for litter fencing around the perimeter of the working area and that all vehicles delivering waste to and from the facility be appropriately covered. Appropriate dust deposition standards have been set and monitoring is to occur at four residences detailed in the EIS. Dust control measures will be applied to the facility. These measures include the wetting of site roads (Condition 7.4) and the installation of a wheelwash (Condition 3.9).

6. Health

A number of submissions express concerns as to the risk to their health and that of their children. All were accompanied by a Sunday Times article (10/3/02) entitled '*Report links Irish Birth Defects to Landfill Sites*'.

Response

Conditions of the recommended Proposed Decision require the licensee to control all emissions from the facility including leachate, landfill gas, odours and dust in order that these emissions will not cause environmental pollution. Ongoing monitoring of emissions are required under Condition 8.1 and Schedule D of the recommended Proposed Decision. Condition 7.1 of the recommended Proposed Decision charges the licensee with ensuring that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. The World Health Organisation in one of their briefing pamphlets on *Solid Wastes*, states that "*The health and safety aspects of landfilling wastes are numerous. All can be controlled and improved by good management*" [Ref. *Landfill: Local Authorities, Health and Environment, briefing pamphlet series 9* – World Health Organisation, 1995]. The subject

matter of the Sunday Times article was based on draft statistical research findings at TCD, the conclusion of which have not yet been peer reviewed nor published.

7. Traffic

Several of the submissions are concerned at the increase in traffic, including HGVs, as a result of the proposed extension at the facility. Balleally lane is very busy and concern was raised that Saturdays should be free of landfill traffic particularly in the afternoon. Mention was made that the existing landfill facility currently closes on a Saturday at 1pm.

Response

The recommended Proposed Decision limits acceptance of waste at the facility to 451,500 tonnes per annum, which is slightly less than for the existing licence and specifies that waste acceptance ceases at 1pm on a Saturday (Condition 1.7.1.1). Balleally Lane is currently (August 2002) being realigned and regraded by Fingal Co Co roads section. The applicant has proposed to build new truck queing lanes within the existing entrance complex in order to take trucks off the lane. This is formalised as Condition 3.5.3.

8. Farming

Several submissions requested assurances that farming in the area would not be safe and that the lands where the new extension is to be built are poisoned by buried cattle and contaminants from the existing landfill adjacent and to the east. The fields haven't been cropped for several years. *'The proposed review will have a negative impact on the surrounding agricultural and horticultural growing community, and on those living and working in the shadow of this 140ft. monstrosity which covers over 100 acres'*.

Response

The proposed extension to the landfill will utilise the fields in question. The piggybacking of the new cells onto the existing landfill will achieve one merged profile, rather than two landfill mounds, forming a smoother transition to the landfill peak. Currently the northwestern landfill face consists of a relatively steep embankment.

9. Compliance Record/ District Court Conviction

A number of submissions referred to the fact that the landfill has been in operation since 1971, and that the licensee has had a poor past record with the Agency over its existing licence (9-1). One submission specified that the current emissions from the gas utilisation plant are being exceeded. Furthermore the facility was convicted in Court in September 2001 for breaches of the Waste Licence.

Response

The licensee is charged with ensuring compliance with all conditions of its waste licence. Non-compliances with conditions of a waste licence are an offence and may be subject to prosecution. The licensee is required to report to the Agency on monitoring carried out at the facility and submit various reports at specified intervals. The Agency reviews these items and also carries out site inspections, audits and compliance monitoring at the facility. Non-compliances observed are notified to the licensee along with necessary actions to be undertaken. The Agency informs the licensee that non-compliance with conditions of the waste licence is an offence and may be subject to further enforcement action. The Agency will prosecute licensees for non-compliances based on the licensees performance and actions taken on foot of notifications and the severity of non-compliances.

10. Stone wall

Submissions referred to the presence of a protected wall structure along Balleally Lane and an old protected well. The submission states that the stone wall in its present condition will not withstand the impact of heavy machinery, which would be used in constructing the landfill site and that the wall would need to be reinforced.

Response

Condition 3.13.1 requires the licensee to maintain a minimum distance of 25m between the existing hedgerows (and stone wall). Condition 8.7.1 of the Proposed Decision specifies that prior to the development of any undisturbed area, the advice of Dúchas the Heritage Service shall be sought.

11. Airport Exclusion Zone

One submission referred to the fact that the landfill lies within the 13km exclusion zone surrounding Dublin Airport designed to protect planes from bird strikes.

Response

This is a matter for the Aviation Authority. The landfill has been in operation since 1971 at Balleally and the Agency is not aware that this is an issue for the landfill.

12. Submission from Dúchas

One submission from the Dúchas Regional Ecologist referred to the proximity of the landfill facility to the Rogerstown Estuary - a designated SAC. The restored landfill design presents a major opportunity to provide excellent grazing for Brent geese and Wigeon and high tide roosting for waders. Dúchas strongly recommend that scrub woodland planting be reduced and more confined to the perimeters.

Response

The submission is noted and the provisions referred to should be communicated again by Dúchas when the licensee must consult with them on the Restoration and Aftercare Plan (Condition 4.1).

13. Visual Intrusion

One submission suggests that the two landfill bodies should not be joined. They should be two distinct sites. *'While the Waste Act states that a site adjacent to an existing site is an extension, it does not imply that the existing mountain of clay & waste should merge with a new mountain of clay & waste. A clear valley should be maintained between the two sites'*. Another submission states that perimeter security fencing be erected behind the existing hedgerow.

Response

These submissions are noted. However the piggybacking of the new cells onto the existing landfill will achieve one merged profile, rather than two landfill mounds, forming a smoother transition to the landfill peak. Currently the northwestern landfill face consists of a relatively steep embankment. Condition 3.4.1 of the proposed decision has been amended so that the fencing (currently zinc coated) finish will blend in with the general environment.

14. Liaison Committee

One submission discussed that the current Liaison Committee should be empowered to discuss the extension and the existing site. It should not be restricted to matters relating to restoration and aftercare, as it is currently. It should be used as a vehicle for the community and local residents to raise their concerns with the landfill in a constructive manner. The liaison

committee should also specify that local residents of Balleally lane are entitled to participate fully in the committee in addition to the local community representatives.

Response

The submission is noted. Condition 2.4.1 of the Proposed Decision recognises the Liaison Committee as a partner in the Communications Programme for the facility. The agenda for the Liaison Committee should be set by both parties. It is up to each party to decide on the way forward.

15. Landfill Gas Monitoring

One submission specified that gas monitoring equipment should be installed in all houses within 500 metres of the perimeter fences.

Response

The submission is noted. Conditions 6.1, 6.2 and 6.3 of the Proposed Decision deal with landfill gas emissions beyond the facility boundary and sets the trigger level. Any trigger levels exceeded constitutes an incident as per Condition 1.7 of the Proposed Decision. The licensee is required to notify the Agency of the incident as per Condition 11.2 (a).

(8) Recommendation

I recommend the grant of a licence for the waste activities at the facility as listed and described in Part I: Activities Licensed for the following reasons:

1. I am satisfied that the activity concerned, carried out in accordance with the conditions attached will not cause environmental pollution particularly with regard to the Rogerstown Estuary.
2. I am satisfied that the best available techniques will be used to prevent or eliminate leachate contamination of the estuary and underlying groundwater, and air emissions/nuisances from the activity, if carried out in accordance with the conditions as attached to the licence.

In coming to this recommendation, I consider that the continued landfilling of non-hazardous waste in specified areas at the facility and the associated activities and works would, subject to the conditions of the recommended Proposed Decision, comply with the requirements of Section 40(4) of the Waste Management Act 1996.

Signed _____

Dated:

Mr Malcolm Doak
Inspector, Environmental Management & Planning.

APPENDIX 1

LOCATION MAP, EXISTING LAYOUT PLAN & PROPOSED LAYOUT PLAN