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INSPECTORS REPORT ON A LICENCE APPLICATION	
To:	DIRECTORS
From:	MALCOLM DOAK - LICENSING UNIT
Date:	10 AUGUST 2005
RE:	APPLICATION FOR A WASTE LICENCE BROWNFIELD RESTORATION IRELAND LTD, LICENCE REGISTER 204-1. WHITESTOWN LOWER, CO. WICKLOW

APPLICATION DETAILS	
Type of facility:	Integrated Waste Treatment Facility and Non-Hazardous Residual Landfill
Classes of Activity (P = principal activity):	3 rd Schedule: 4, 5, 7(P), 11, and 13 4 th Schedule: 2, 3, 4, 11 and 13
Quantity of waste managed per annum:	180,000 tonnes
Quantity of waste already deposited:	Waste types: previously deposited wastes and commercial, C&D, and household waste. c.240, 000 tonnes
Location of facility:	Whitestown Lower, Stratford-on-Slaney.
Licence application received:	18 March 2004
Third Party submissions:	121 (one invalid)
EIS Required:	Yes
Article 14 compliance date:	21 May 2004
Article 16 Notices sent:	14 December 2004 22 March 2005 30 May 2005
Site Inspections:	21 April 2004 (M. Doak) 18 January 2005 (M. Doak & K. Creed)

1 FACILITY

This waste licence application is for activities associated with the cleanup and remediation of an unauthorised landfill¹ of approximately 240,000 tonnes (applicant's estimate) of mixed construction, household and commercial waste (all non-hazardous) emplaced during the 1970s to 2001 at three areas (Zones A, B, & C) at a working sand and gravel pit of area 15ha, in Whitestown Lower, Co. Wicklow, and the establishment of various waste infrastructure including a lined landfill facility, and a composting facility to process the previously deposited wastes and imported wastes for commercial recovery/disposal. All reclaimed (excavated) waste shall be run through a mobile recovery unit and imported (received) waste, via plant in a waste treatment building. The site of the proposed development is located approximately 2.5 km south west of Donard, the nearest town, and 8 km north of Baltinglass. Brownfield Restoration Ireland Ltd. activities are focused on rehabilitating and restoring the site at Whitestown. The company is independent to the landowners at the time of illegal waste activity and is not party to any of the previous waste disposal activities on site (EIS Section 1), since purchase of the lands occurred in 2003.

The site lies 50m – 100m from the Carrigower River, designated a Site of Community Importance (SCI) (salmonids) as per EU Decision of 7 December 2004. In May 2005 the applicant revised the application to amend the boundary of the facility and avoid encroachment onto the SCI. GSI documentation supplied by the applicant determines the site overlies an aquifer which has a Groundwater Protection Response Matrix for Landfills² of R2¹.

A detailed site plan of the facility is provided as Figure 1 next page.

In summary Brownfield Restoration Ireland Ltd. proposes the following remedial strategy and waste activities:

- Emplace a permanent sequence of vertical cement-bentonite barrier walls locked into rockhead around the entire facility to prevent recharge to the Carrigower River via the existing illegal waste landfill, and hence prevent and stop the ongoing/current contamination at the river;
- Protect the river from spills or plugs of contamination that may be caused during waste excavation;
- Operation of a mobile waste recovery unit for the excavation and treatment of previously deposited wastes at the gravel pits;
- Waste treatment building (*Resource Recovery Building [RRB]*);
- In-vessel composting facility;
- Engineered lined landfill facility [within the vertical barrier system] for disposal of the residual waste and other commercial and industrial wastes that cannot be recycled;
- Restoration of all lands by infilling the gravel quarries with the lined landfill for agricultural purpose in the future.

Overall the applicant proposes a processing capacity of at least 180,000 tonnes per annum made up approximately by the following waste streams:

On site or imported Commercial, C&D and Household Wastes	160,000 t/a
Source Separated Recyclable Wastes	10,000 t/a
Source Separated Organic Wastes	10,000 t/a
	Total 180,000 t/a

¹ Note: Other unauthorised landfills in Wicklow which the Agency has processed since 2002, are: Russborough Landfill (138-1) 4.5ha and 30,000t; Carnegie (80-1) 15ha and 500,000t; Coolamadra (181-1) 0.4ha and 8,000t; and, Roadstone (213-1) 267ha and 180,000t.

² R2¹: Acceptable subject to guidance outlined in the EPA Landfill Design Manual or conditions of a waste licence.

The recovered products will be marketed and/or used for on-site engineering or aggregate to produce several potentially saleable or reusable products such as topsoil, subsoil, stone, compost, bricks, crushed aggregate, scrap metal, wood, glass etc. Residual materials that cannot be reused, will be disposed at the six proposed landfill cells at a capacity tonnage of 780,000t, to which this proposed decision limits to a total of FOUR cells/phases at a lower capacity.

TWO residences lie immediately adjacent to the proposed landfill on the south side no more than 20m from the facility boundary and 40m from the landfill footprint. A farm and residence lies approximately 200m west, on the otherside of the N81 and upgradient. A disused house and yards lies on-site which is to be demolished.

The principal activity (3rd Schedule, Class 7) is specifically related to the excavation and recovery of waste by sorting and treatment (via the mobile trommel and onward processing at the RRB) and its segregation prior to re-use and the disposal of the residual at the new lined cells.

The application received is complicated, detailed, and technical; spread across three volumes of an EIS, a waste application booklet, and several specific Article 16 responses including very recent new proposals to amend the boundaries and install new underground vertical barriers to encapsulate the existing wastes before their necessary removal and processing.

This application (204-1) contains a wide range of proposals regarding remediation technology, recovery, disposal, and all in a relatively small 15ha locale, based on detailed site investigations, boreholes, sampling data, conceptual models and a quantitative risk assessment. The evaluation of the application and proposals was difficult and some of the submissions received exaggerate the issues in my reasoned opinion. Simply, this 15ha facility lies in an area of outwash gravels at the very final point of a narrow hydrological system where illegal waste of approximately 240,000t lies. If left in place, the illegal waste will impact the Carrigower River and landfill gas may be a risk to the two adjacent houses. However, the proposed waste excavation and its treatment will negate these impacts, the residues of the treatment process will be placed into lined cells, and the lands will be restored to natural ground levels in time. Groundwater is not at issue here for reasons as stated below.

I have tried to write this report as an interpretation based on facts, where a succession of sections build to form my conclusion and recommendation that a waste licence be granted, for all of the waste disposal and recovery activities applied for, subject to certain key recommendations and conditions, as set out under the following main headings:

- Environmental Site Assessment
- Facility Remediation
- Facility Development & Emissions
- Government Policy and Law
- Submissions

2 ENVIRONMENTAL SITE ASSESSMENT

Illegal Waste Bodies

A trial pitting exercise (c.70 trial pits December 2003) was undertaken by the applicant's consultants using a 7m long-arm track machine in areas suspected of containing wastes, which had been previously deposited at this site. It was found there are three primary zones east of the power lines which contain imported wastes including construction and demolition wastes. These zones have been denoted as Zones A to C in Figure 1, above. Each zone has a surface layer of cover material (made-ground) consisting mainly of soft brown clayey silts typically greater than 0.4m in thickness. The surface cover material is underlain with varying percentages of waste material.

The estimated quantity of wastes in Zones A to C is c. 180,000m³ or c. 240,000 tonnes. The applicant determines no obvious hazardous waste materials were identified at any of the trial pit locations on the site. Tonnages etc, are set out below in Tables as per Appendix 9 of the EIS.

Estimate of Surface Area in each Waste Zone

Zone	Surface Area (m ²)
Zone A	10,300
Zone B	8,550
Zone C	11,300
Total	30,150

Rounded Estimates of Waste Volumes and Tonnages

Waste Type	Inert Wastes	Non-readily Biodegradable Wastes	Readily Biodegradable Wastes	Total Volume (tonnes)
Typical Density t/m ³	(1.7)	(1.0)	(0.4)	
Zone A	70,000	15,000	5,000	90,000
Zone B	49,000	3,000	3,000	55,000
Zone C	75,000	15,000	5,000	95,000
Totals of Waste in Zones A, B and C	194,000	33,000	13,000	240,000

Zone A typically contained wood, metals, plastics & paper/cardboard, in a soils/fines matrix. Waste in Zone C appears to date back to 1998 (based on newspapers identified in the waste) and is the most decomposed. Some of the wastes in this zone appear to have been passed through a shredding process. The waste body at Zones A and C were found to be in excess of 5m in thickness underlain by natural ground (silts/sands and gravels). Subsequent air rotary drilling in January 2004 indicates that this natural sandy layer beneath the waste body is shallow, and may be less than 1m thick in places.

At Zone B a waste layer was identified at 3m thickness but as sparse waste intermixed.

The perched water of each waste body is characterised by elevated manganese, ammonia, certain heavy metals, minor petroleum hydrocarbons, but no volatile or semi volatile organic compounds. The presence of manganese and ammonia at all bodies suggests reducing conditions in parts of the waste.

Groundwater

Site investigations since December 2003 and Geological Survey of Ireland (GSI) records specify the gravel pits are underlain by Ordovician schists and volcanics; overburden has been removed in some areas of the pit floor to rockhead, causing an extreme vulnerability.

22 groundwater monitoring wells have been installed on and surrounding the Whitestown Lower facility (8 off-site & 14 on-site). Groundwater levels were recorded at the site between December 2003 and April 2005, and a general groundwater flow map for the facility and surrounding area shows groundwater flow is northwest to southeast with a hydraulic gradient in the range of 0.02 to 0.03 as outlined in Figure 2.

As requested by the Agency in December 2004, the applicant supplied a letter from the GSI, dated 15 December 2004, which classifies the area as a Groundwater Protection Zone of LI/H (locally important aquifer/high vulnerability) and attaches the Response Matrix for Landfills as R2¹. It is understood that two hydrogeological units underlie the site:

1. Shallow water table in overburden sand and gravels and upper fractured bedrock.
2. Deeper bedrock *Ordovician* aquifer classified by the GSI as 'LI', a locally important aquifer, moderately productive, only in local zones.

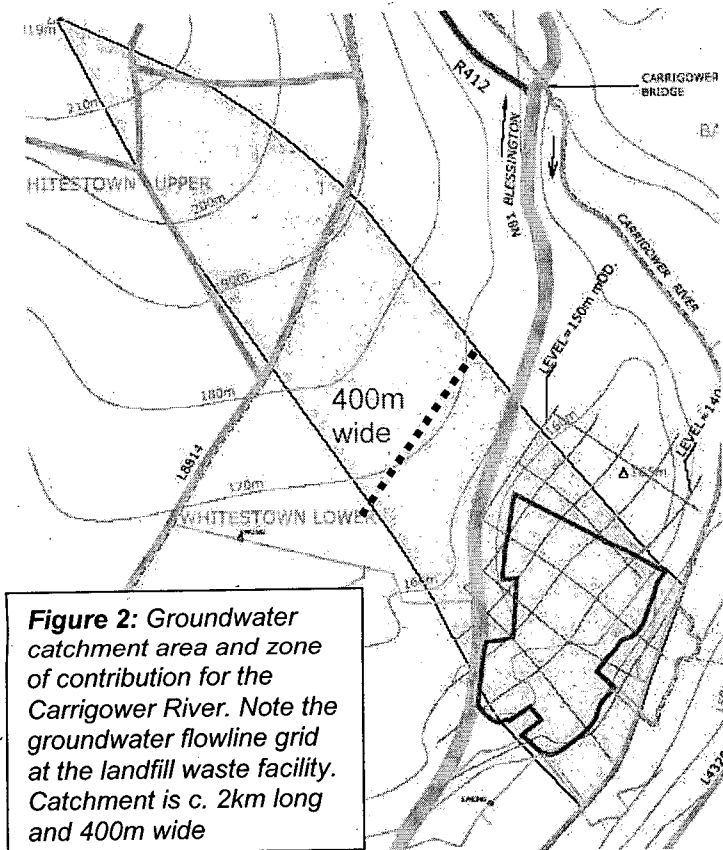


Figure 2 shows the facility lies in a very localised zone of groundwater, and as a result any groundwater users in this local catchment will be upgradient and not impacted by the facility works etc. Further, it is understood that the two residences located immediately south of the site are supplied by the Eadestown Public Water Supply. A narrow pipe runs north from the Whitestown crossroads to supply these two residences.

Chemical concentrations, determined independently by the EPA³, indicate various contaminants are present as elevated concentrations in the aquifer at rockhead downgradient of the three waste zones A, B, and C. The table next, summarises groundwater quality in the wells between the river and the illegal landfill; values are compared to the Drinking Water Standards, and show that the current waste bodies (unlined) are impacting the small segment of aquifer between the waste and the Carrigower River, and has particularly high levels of nickel and arsenic:

³ The EPA has been undertaking groundwater sampling and analysis at the site/facility since 2003. Alan Stephens, Richview Dublin.

	Sampling Location	pH	Conductivity $\mu\text{S/cm}$	Ammonia mg/l N	Chromium $\mu\text{g/l}$	Nickel $\mu\text{g/l}$	Copper $\mu\text{g/l}$	Zinc $\mu\text{g/l}$	Arsenic $\mu\text{g/l}$	Cadmium $\mu\text{g/l}$	Lead $\mu\text{g/l}$
Drinking Water Standards		6.5 - 9	1500	0.3	50	20	2000	5000	10	5	10
01/08/2002	MW5	6.6	194	0.04	62	99.9	640	566	44.2	20.06	641
10/09/2002	MW5			0.69	120	419	2910	1290	189	96.7	1250
10/10/2002	MW5	6.6	242	0.8	46	53	261	147	14	4.02	145
19/02/2003	MW5	6.3	130	1.11	49	76	575	342	31	13.4	532
29/04/2003	MW5	6.9	230	0.08	192	144	303	247	16	2.8	141
19/08/2003	MW5	6.9	267	0.054	145	132	363	168	34	3.59	196
01/08/2002	MW8	7	808	0.05	18.2	15.8	56.6	49.9	28	1.89	54.1
10/09/2002	MW8			0.11	25.9	66.4	199	191	190	15.7	330
10/10/2002	MW8	6.8	864	0.4	17	28	48	91	27	2.76	47
19/02/2003	MW8	7.1	549	0.14	32	66	308	256	91	11.2	267
29/04/2003	MW8	7	656	0.07	156	458	857	982		46.3	482
19/08/2003	MW8	6.8	785	1.25	82	248	474	551	140	20.9	373
01/08/2002	MW9	6.9	682	1.77	47.4	77.9	2.9	30	60.9	2.29	<1
10/09/2002	MW9			1.88	32.5	49.4	4.4	32.4	97.9	2.8	2.5
10/10/2002	MW9	6.8	770	2.96	22	66	73	128	51	2.8	73
19/02/2003	MW9	6.8	659	2.67	48	162	362	305	104	10.9	347
29/04/2003	MW9	6.9	678	2.28	63	211	292	488	91	8.8	178
19/08/2003	MW9	7.2	720	1.46	32	102	102	195	58	4.4	85
01/08/2002	River d/s	7.6	353	0.04	3.3	<1	1.8	246	3.6	<0.10	<1
10/09/2002	River d/s			0.01	2.8	<1	<1	4.1	2.9	<0.10	<1
10/10/2002	River D/S	8.2	307	<0.01	2	<1	2	3	3	<0.10	<1
19/02/2003	River d/s	8.1	256	<0.01	3	<1	<1	4	2	<0.10	<1
29/04/2003	River D/S	8.6	274	<0.01	<1	<1	<1	3	2	<0.10	<1
19/08/2003	River d/s	8.6	254	0.014	2	<1	<1	3	3	<0.10	<1
01/08/2002	River u/s	7.8	281	0.03	2.1	<1	<1	<1	3.2	<0.10	<1
10/09/2002	River u/s			0.01	1.7	<1	<1	2.9	2.4	<0.10	<1
10/10/2002	River U/S	8.3	307	<0.01	2	<1	2	7	3	<0.10	<1
19/02/2003	River u/s	8.1	257	<0.01	3	<1	2	7	2	<0.10	<1
29/04/2003	River U/S	8.5	267	<0.01	<1	<1	<1	<1	2	<0.10	<1

Carrigower River

The Carrigower River holds a Q rating of 3-4 (slightly polluted status) and the applicant observes river quality adjoining the site has deteriorated over the last 10 years. The Carrigower River SAC includes the floodplain lands comprised mainly of wet grassland with some rich fen, and willow trees. A submission to the Agency on 29 April 2004 from the Eastern Region Fisheries Board has the following comments in relation to water quality of the River Carrigower:

'ERFB has reported a year on year deterioration in water quality in the Carrigower River since 1998, which may be related to the commencement of intense commercial waste disposal activities in 1997.'

It is noted that background water quality monitoring of the river by the applicant between December 2003 and April 2005 shows concentrations of ammonia ranging between 0.07mg/l and 0.20 mg/l. Thus, the salmonid river quality standard (0.02mg/l N) is currently not being met.

Landfill Gas & Housing

There is limited information regarding the impacts, if any, on the TWO residences immediately adjacent to Cell 1 and no more than 40m distance from the footprint. Page 29 (Section 2 EIS) specifies gas volumes will be minimised by treating putrescible wastes, to the extent practical at the facility and the side slopes and base of the landfill excavation will be lined such that there is a barrier to horizontal migration of landfill gas.

3 FACILITY REMEDIATION

The Quantitative Risk Assessment (QRA) Report (May 2005) specifies the groundwater catchment of the site as outlined in Figure 2. The area of the groundwater catchment is estimated to be at ca. 80ha, which is exceptionally small, the least this inspector has ever dealt with for a waste licence application. It is estimated the amount of groundwater which flows into the River Carrigower is 460m³/day. Hydraulic conductivity of the overburden material/fractured rockhead beneath the site is estimated to be 1x10⁻⁴.

The main source of contaminants are the three illegal waste deposits as described above where perched water within the waste is in direct contact with the groundwater at rockhead.

The main groundwater pathway is beneath the site at the saturated glacial sand deposit below the waste and along the upper zone of fractured bedrock. The thickness of this active zone of groundwater is approximately 4 metres, and is hydraulically connected to the river. Landfill gas is also a factor of the QRA, and will travel from the existing waste areas through and along ground.

The main receptors are the Carrigower River (groundwater & leachate) and the two houses immediately south (landfill gas).

It is envisaged that the end-use of the entire site will be agricultural as specified in the QRA report

The remediation strategy is to emplace a sequence of vertical barrier walls around the entire facility to prevent recharge to the river via the existing illegal waste landfill and protect the Carrigower River from spills or plugs of contamination that may be caused during waste excavation. Treatment of the unauthorised wastes will occur at the resource recovery/composting area on-site, and disposal of the residual (this will have minimal putrescent waste) to newly constructed engineered cells on-site. Landfill gas management trenches will be installed on the south side to break the pathway to the houses.

As proposed by the applicant (Article 16(1) response May 2005) [Drawing BRI/116] the two cut-off walls shall be installed prior to waste excavation (Condition 3.25).

As indicated by letter to the Agency dated 25 February 2005, the Applicant (BRI) is committed to maintaining the adjoining floodplain located to the southeast of the proposed application site boundary. With this in mind, they invite the Agency to include a condition in the Waste Licence for the Whitestown Lower site in accordance with Section 41(4) of the Waste Management Acts. This is done as per Condition 6.16. and will help the protection of the floodplain for the future.

4 FACILITY DEVELOPMENT

The entrance to the pit is via a very poor track directly off the busy main N81 road. Operations on-site are proposed to be between 7:00 am and 6.30 pm Monday to Friday and on Saturday between 7:00 am and 5:00 pm. The facility will accept materials from Monday to Friday, 8:00 am to 5:30 pm and Saturday 8:00 am to 4:00 pm. The facility will be closed on Sundays and Bank Holidays. These hours are acceptable as specified in Condition 1.4. There will be approximately 10 operatives and a site manager employed directly to operate and manage the facility. Consultants will be retained to undertake environmental monitoring.

The applicant is required to build new truck queuing/traffic entry lanes within the existing entrance complex in order to make vehicle entrance into the facility straightforward and to prevent accidents at the entrance to the facility. This is formalised as Condition 3.11.3.

My recommendation regarding the various waste activities at the facility is as follows, aspects on emissions appear next section:

(i) Resource Recovery Building

The Resource Recovery Building (RRB) is to be located to the NW of the facility (roadside). The plant inside the RRB will comprise some or all of the following:

- Excavator (s)/ Grabs
- Fingerscreen(s)
- Trommel Screen
- Shredder
- Various hoppers and conveyors
- Picking line, magnet to remove metals & eddy current (aluminium)
- Air compressor with blower to remove light wastes
- Baler
- Fork-lift

All waste incoming at the front gate shall be directed to the RRB as well as wastes from the existing unlined landfill via the MRU (see iii).

(ii) Composting Facility

The Composting Facility is designed to handle 10,000 tonnes per year of imported food wastes and green wastes from commercial and household sources and wood wastes recovered from previously deposited wastes (*i.e.* for use as an amendment to the composting process) to be located at the RRB as a bay (x2 composting tunnels in Drawing No. BRI/103 Facility Development & Restoration Plan Stage 1), – see Figure 1 above.

An in-vessel composting technology has been selected (Wright Environmental Management Ltd), which has two fully enclosed flow through tunnel systems with mechanical/hydraulic rams running at 14 day intervals. It is proposed that wastes that have been composted in the in-vessel system will be cured (*i.e.* finished) in outdoor windrows as well as excess green wastes. The area will be a hardstand with a drainage system or on the surface of wastes deposited in lined areas. The design of the entire composting facility is set out comprehensively as Appendix 3 of the EIS and has been addressed to meet the requirements of the Animal By Products Regulations.

The installation of the composting infrastructure is specified under Condition 3.32 of the RD and the SEW. The Schedules of the RD specify the composting process control and monitoring, including monitoring of the biofilters and bio-aerosols. The requirement of Regulation (EC) No. 1774/2002 with regard to animal by-products will apply (kitchen wastes are a Category 3 Animal By-Product). Any leachate that is generated in the composting tunnel shall be re-circulated back onto the compost in the area of generation.

(iii) Mobile Waste Recovery Unit

The Mobile Waste Recovery Unit (MRU) will include some or all of the plant as for the RRB except for the baler and will run for approximately three years duration at the existing waste deposits/landfill excavations.

Any leachate encountered during the excavation of wastes will be pumped to the leachate collection system/holding tank and hazardous waste shall be directed immediately to site quarantine.

Overall for both the MRU and RRB operations, the various recovered recyclable products (e.g. metal, soils, stones etc.) will be segregated: Large rocks and chunks of concrete will be sent through a crusher to produce recycled aggregate.

(iv) Landfill

Lining System:

Although the GSI specify an R2¹ classification, the applicant in the March 2004 EIS proposes a design for the more conservative setting of R2², to take in account the shallow depths to rock on the pit floor currently. The applicant proposes that soils will be placed to form a minimum of 3m overburden above the bedrock surface but including the 1m thick clay liner liner. These proposals are acceptable since groundwater is not used in the vicinity of the proposed landfill, the groundwater catchment(aquifer) is small, the segment of aquifer downgradient of the facility is very limited in scope (the Carrigower River is a discharge boundary). The landfill design shall be subject to guidance outlined in the EPA Landfill Design Manual and Condition 3 of the proposed decision.

The current design levels of the formation for all cells are shown on Drawing BRI/112 Rev. A.

The computed potential volume of the void is approximately 920,000m³ causing an anticipated tonnage of residual wastes at 782,000 tonnes. The plan for this site is to develop the lined landfill in six distinct Phase (Phases 1 to 6), the sixth phase comprising the area of the proposed RRB, composting facility and adjoining hardstand (all to be decommissioned). Overall the landfill will ultimately produce a landform suitable for agricultural lands. The final restoration contours are shown on Drawing BRI/109, Rev A.

The EPA Landfill Manuals series specifies Restoration Design must take account of waste management plans and landuse proposals to include liaison with local communities and aftercare responsibilities. The Landfill Directive [Article 13 (c)] goes further; it obliges the operator to be responsible for the 'after-care phase for as long as may be required by the competent authority'. I consider that the proposals to landfill into phases 5 and 6, and the arising requirements to demolish key waste recovery infrastructure including composting and new recovery methods are shortsighted and do not meet government policy (Changing our Ways). The obvious demolition of such critical waste infrastructure in the era of waste prevention and recovery is not BAT in my view, and in the context that Wicklow County Council are actively seeking to encourage this type of infrastructure in their Waste Plan. Further this will require the licensee to stay on site at the facility well into the next decade and so aid the aftercare responsibilities the law requires and increase public confidence in the facility and aid the public in maintaining their own waste recovery responsibilities at a new facility in Whitestown. Hence I recommend that landfilling shall only occur as far as Phase 4 only (Conditions 3.3 and 3.4). To extend the landfilling into Phases 5 and 6 will require demolition of important waste recovery infrastructure, which is beyond the scope of this Inspector's Report and is not consistent with BAT. My view is that such a philosophy and proposal can only be processed via a licence review application in the future. Overall, this recommendation will serve to reduce the tonnage of landfilling of residual waste to approx 650,000t rather than the 782,000t the applicant envisaged.

Capping & Restoration: The applicant considers it will not be possible to fill and restore each cell as a separate unit because of site topography. As a result during most of the life of the

facility the wastes will be open and the surface will not be restored apart from interim soil covers placed on the waste surfaces in areas where active filling is no longer taking place. The full and complete restoration of cells will not occur until the last 2 years of the filling programme. This is not acceptable and would not be BAT. Condition 10.3 specifies the capping regime shall have an intermediate cap. Final low permeability clay and LLDPE cap will be put in place within two years of completed cell and will be to BAT standards. Condition 10.1 specifies a new restoration plan be submitted due to the filling only to Phase 4.

Condition 1.1 and Schedule A2 of the proposed decision controls the quantities and types of waste to be handled at the facility to a maximum tonnage of 180,000T/annum.

5. USE OF RESOURCES

The facility will use diesel fuel, electricity, water and smaller amounts of vermin controls and herbicides. Construction materials will also be needed for the development of the site. Diesel and electricity consumption is not currently available. Site water will be obtained from a water main, which is fed by the Edestown Spring group water supply. Water will be used for dust suppression, wheel wash, toilets and a small canteen at 165 m³/year.

6. EMISSIONS

The following concentrates on those operations or aspects of the facility that may have a significant impact on the environment:

6.1 Air

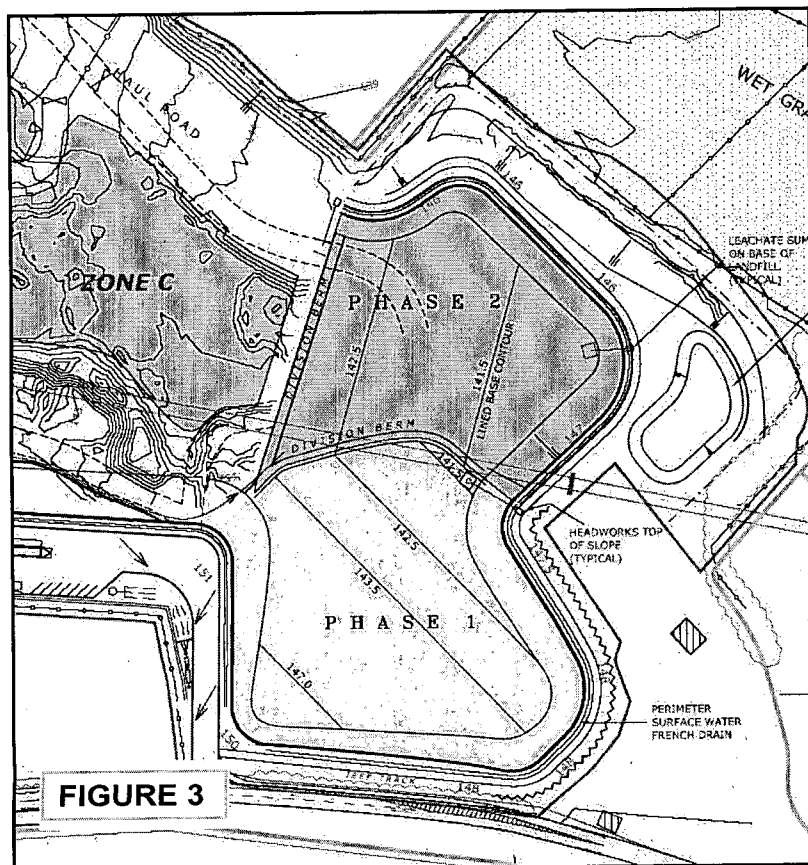
At the waste zones: During the December 2003 to February 2004 investigations, odours were observed during the excavation of trial pits in the vicinity of monitoring wells. These odours were associated with the previously deposited wastes. It is expected that the introduction of oxygen into the wastes during excavation and treatment with the MRU plant will minimize odour generation (Section 2 of the EIS). There will be no smoking or open flames in proximity of excavation areas. The applicant states any adverse impact from odorous emissions on excavation will be short-term (3 years) and as a contingency, a recognised odour suppressant product will be available onsite.

At the RRB. As the retention time for wastes tipped in the RRB will be short and as oxygen will have been introduced into the waste during excavation, the likelihood of gases arising in the building will be low.

At the CF. Gases will be generated during the in-vessel composting process as part of the normal composting process. Off-gases from the tunnel composting process will be directed to a biofilter and vented to atmosphere as described in Section 3.3.2 of Appendix 3, (Volume II of the EIS).

At the Landfill Cells. The applicant considers the principal source of gas at the Facility will be the residual waste disposal facility as determined by a 'GasSim' risk assessment. It has been assumed that paper, card and textiles part will be constant waste streams, and the element of putrescible waste will be very low, since residual waste is only to be accepted at the new cells. The quantities of wood, putrescible and non-biodegradable wastes have been estimated to vary. The outcome of the waste stream scenario is an estimate of peak landfill gas at 680–830 m³/hour after eight years of landfill operation with methane at 64% and CO₂ at 34%. Further it is proposed to actively collect gas at the perimeter of the waste body to prevent the migration of gas through the subsurface. The design of the landfill should have regard to residential proximity, the two houses (see Figure 3) are not mentioned specifically (neither of the occupants have made any submissions).

To avoid the element of risk regarding landfill gas at the houses (even though the landfill is to handle only residual waste) I consider only inert waste shall be authorised in Phase 1, (Schedule A 1 Limitations).



Schedule B of the RD imposes acceptable limits on air emissions, while Schedule C requires monitoring of landfill gas, dust, odour, noise and emissions from the composting process.

6.2 Emissions to Sewer

Leachate collected will be stored in a purpose built tank and tankered off-site to an approved waste-water treatment plant (WWTP) at Baltinglass, Co Wicklow. Infrastructure will be provided to allow recirculation of leachate to facilitate degradation of the encapsulated waste.

6.3 Emissions to Surface Waters & Groundwater

Surface Drainage systems will be provided for all paved areas. These will comprise closed pipes draining to silt settling tanks, and oil-water separators. Storm water management ponds for clean surface water will be provided in the southeast corner of the site at Zone B/east of Phase 2 Cell. Liquid from wheel washes will be drained back into the landfill. Runoff from completed landfill areas will be collected in perimeter French drains and directed to soakaways or storm water management ponds.

The only discharge to the Carrigower River is associated with storm water run-off from the hardstanding and landscaped areas and completed cells. The main potential impact is in relation to this run-off is from suspended solids. The applicant proposes a series of settlement lagoons as well as interceptors and grit traps to deal with these emissions adjacent to Phase 2 as per Figure 3 above, to include a valve release and a sampling chamber. The RD sets ELVs for suspended solids and other marker quality standards such as ammonia. The site settlement lagoons will be operational during construction as well as landfill stages. The Recommended Decision includes for control and monitoring of the storm water emissions (Condition 3.22 and Schedule C).

7. WASTE MANAGEMENT PLANS

Wicklow Co Co is in favour of the remediation of illegal landfills as per their policy 'General Policy Regarding Remediation of Illegal Landfills'. Further, Wicklow sent in a submission on the matter (#7; 22 July 2004). Importantly, page 4 of 13 of their submission report specifically is in favour of the remediation of Whitestown landfill and this shall include 'the construction of engineered landfill on site to retain residual wastes, and restoration of the site'.

8. ENVIRONMENTAL IMPACT STATEMENT

I have examined and assessed the EIS and am satisfied that it complies with the EIA and Waste Licensing Regulations.

Alternatives Considered

The EIS Regulations specify alternative sites are assessed, which the applicant addresses in section 1, Vol 1 of the EIS (pages 6 – 7). Only when the EPA/GSI/DoE Groundwater Protection Response Matrix for Landfills shows a matrix score of R3¹ or higher does the proposal need to show that it is not practicable to site the landfill site in a lower risk area. This site's score is R2¹, negating the requirement that the applicant seeks alternative sites of lower risk.

9. COMPLIANCE WITH DIRECTIVES/REGULATIONS

Technical requirements arising out of the LFD were discussed in Section 4 above.

The RD also takes account of the requirements of the IPPC Directive, the Groundwater Directive and the EU Animal By-Products Regulations (in relation to composting).

The Minister for Environment's Circular (WIR: 04/05) of 3 May 2005 specifies the aim in all cases of illegal waste activity should be the making safe of the site, including the removal of waste where required as a consequence of a risk based assessment, the removal of hazardous waste where it is detected, and the removal of recyclable material if environmentally sustainable. All of these are to be done at 204-1.

The Circular determines certain sites should at all times be remediated such as:

lands proximate to existing or planned residential development or educational facilities; in which case remediation shall require the removal, in the shortest practicable time, of all waste except only where it is shown that an alternative solution provides greater protection to the environment and the health of the local population.

As per Section 3 of this report the main remedial strategy specifies excavation of waste under a controlled groundwater barrier environment. Hence remediation by removal at Whitestown meets the Minister's policy.

The Minister's policy goes further; where it is deemed appropriate to leave waste in situ the holder of the waste shall:

- i. *carry out, or arrange for the carrying out, of a risk assessment to determine the environmental impact, if any, of the waste illegally deposited;*
- ii. *make application for a permit or licence to the relevant local authority or the Agency which will determine the actions required by the holder to remediate and manage the site into the future;*

- iii. *comply with any permit or licence so given to ensure that all remediation and management measures determined by that permit or licence are complied with and that the site poses no identifiable future threat to the environment or human health;*
- iv. *not be permitted to import greater quantities of material for deposition other than such inert material/soil as may be necessary for site conditioning.*

My view is that this project and my recommended decision meets each of the requirements of items i to iii. The replacement of illegal waste and void space by a significant remediation scheme and engineered filling so as to ultimately create a natural agricultural landform that mirrors the original historical landscape meets the requirements of item iv, since only certain tonnages of residual waste and aggregate are authorised to be deposited into ground - the facility has been limited to a lower final tonnage for disposal as per Section 4(iv) of this report (only Phases 1 to 4 are authorised). Further, the authorisation to use only 'residual' waste and C&D aggregate at the lined landfill (Schedule A Limitations) meets the obligations of Recital 16 of the Landfill Directive and the strategies set out in the DoEHLG *Draft National Strategy for Biodegradable Waste* document, since other than residual landfill the only other outlets for residual waste are thermal treatment with energy recovery and Mechanical-Biological Treatment (MBT), neither of which are yet developed in Ireland.

10. FIT & PROPER PERSON ASSESSMENT

Brownfield Restoration Ireland Ltd., was formed in 2003 to enable the purchase of lands at Whitestown Lower. The company consists only of two directors (Mr & Mrs Stokes) who own other property companies.

Brownfield Restoration Ireland Ltd., meets the requirements of the Acts to be a fit and proper person, viz:

40 (7)(a) neither that person nor any other relevant person has been convicted of an offence under this Act, the Act of 1992, the Local Government (Water Pollution) Acts 1977 and 1990 or the Act of 1987; and,

40(7)(b)..... any person or persons employed by him or her to direct or control the carrying on of the activity to which the waste licence will relate has or have the requisite technical knowledge or qualifications to carry on that activity in accordance with the licence.

40(7)(c) in the opinion of the Agency, that person is likely to be in a position to meet any financial commitments or liabilities that the Agency reasonably considers will be entered into or incurred by him or her in carrying on the activity to which the waste licence will relate in accordance with the terms thereof or in consequence of ceasing to carry on that activity.

In relation to S40(7)(c) of the WMAs, the application includes details of the substantial assets of the company Directors. Further, Brownfield Restoration Ireland Ltd., set out a financial provision/bond proposal under Section L.3.1 of the application. To meet the requirement of the Acts and particularly Section 40(7)(c), Brownfield Restoration Ireland Ltd., would, prior to the commencement of waste activities at the site, need to set up a secure bond or other type of financial provision as per Agency agreement, to which the Agency has first call and above any requirements of a company liquidator. Furthermore, recent EPA guidance documents on Financial Provision (FP) Assessments (OEE -04-03) deems that this facility will require a Closure Plan, and Restoration & Aftercare Plan (CRAMP) and a site specific Environmental Liability Risk Assessment (ELRA) to cover risks of any unplanned events occurring during the operation of the landfill and waste facility. Known and unknown liabilities during and after facility life shall be covered by the financial provision.

I consider that BRI meet the requirements of Section 40(7) of the Acts, if it arranges for a bond etc., prior to any handling of wastes. Hence, I recommend that the handling and acceptance of all wastes shall not occur until the Financial Provision agreement and bond are submitted and are agreed to the satisfaction of the Agency (Conditions 3.1 & 12.3.2).

11. SUBMISSIONS

A total of 120 valid submissions were received in relation to this application as per the Table next page. One submission (no. 30) from Whitestown Awareness Group attached 215 individual signatures with the statement 'I wish to register my opposition to the proposal (Register No. 204-1) to site a Waste Management Facility at O'Reilly's Pit in Whitestown'. The individual signatories of submission no. 30 come from as far as Dundrum, Dublin 14, Blackrock, Co. Dublin, Derry N Ireland, and Trim Co Meath.

I recommend that a Communications Programme be developed by the licensee since the facility application has achieved a considerable number of submissions, and if the facility becomes operational the community is entitled to dialogue with the management who are running the facility. Condition 2.3 sets this out and is modelled on a brownfield licence the Agency issued in Waterford (190-1).

Nuisance, the proximity of the Carrigower River SAC and its water quality, increased traffic on the already busy N81, health matters, and general opposition/objection are central to the submissions received on this application. All 120 submissions have been tabled for convenience (see Table 1, Appendix A) and are classified into five themes:

THEMES	Reference in Table 1
<i>Nuisance</i>	A
<i>Surface water & Groundwater</i>	B
<i>Health Impacts</i>	C
<i>Habitat Impacts</i>	D
<i>Traffic/Planning/Waste Plans</i>	E
<i>Other</i>	Z

Response to Submissions:

Nuisance

Ten submissions received refer to nuisance. The issues in relation to nuisance were predominately concerned with dust, noise and vermin. Condition 5.4 of the RD specifically provides for the control of such nuisances and Schedule C 3 requires comprehensive dust monitoring and sampling at 5 locations around the facility perimeter.

Surface Water and Groundwater

Eleven submissions referred to the risk of pollution of the Carrigower River via seepage or overland flow, or impact from new aspects such as wheelwash. The RD specifies a number of protection measures for the River as specified in Section 6.3 of this report including the construction of permanent cut-off walls, and the discharge of surface/storm water controls from the facility to the Carrigower River. In relation to the disposal of the landfill leachate the RD requires Agency approval of the chosen WWTP. There are no well users at risk, since any wells are upgradient of the facility. A previous Agency decision at 31-1 Doora was quoted

(from a technical committee report) which specified that an aquifer is any groundwater and must be protected under the law, regardless of beneficial users. Groundwater here will be protected for the rationale set out in Section 3 of this report.

Health impacts

Eight submissions were concerned with both human and animal health. Where the EPA grants a licence for a waste facility it is satisfied that the facility will not endanger human health. The Recommended Decision as drafted includes numerous conditions to limit and manage the emissions and operations at the facility such that in accordance with the principles of BAT any risk to human health and the environment is mitigated.

Habitat Impacts

Habitats and wildlife were mentioned in twenty submissions, and in particular concerns on proximity to the Carrigower River Special Area of Conservation and Salmon spawning. A submission (#13) from the Eastern Regional Fisheries Board has concerns on current leachate escape into the river, and the already poor status of same. The Board requires works on immediate interception of leachate and a treatment programme including an engineering programme, and are concerned the WWTP at Baltinglass may not have enough capacity. Conditions 3.25 and 3.26 meet these concerns. Further the Board regards all waters shall be considered leachate given their potential to discharge to the river, concerns which are met by *Surface Water and Groundwater*, as above.

Other

77 submissions consisted of the following words:

'I wish to register my opposition to the proposal (Register No. 204-1) to site a Waste Management Facility at O'Reilly's Pit in Whitestown'.


11. CHARGES

Environmental monitoring, inspection and audit charges set for this facility are set at €19,651.

12. RECOMMENDATION

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached RD and for the reasons as drafted.

Signed,

pp 
EurGeol Malcolm Doak,
Inspector

BA (Mod) Earth Science, MSc (Hydrogeology). PGeo.

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2003.

APPENDIX A

TABLE 1

ASSESSMENT OF SUBMISSIONS



Sub #	Name	Organisation	Sub Rcvd	Comment	Themes of grounds
98	Mr Jack O'Sullivan	on behalf of Whitestown Awareness Group	11/02/2005	17 pages. Quotes Doora 31-1 TC. Interference with water in the proximity of the site ie ground water and the carrigower river. Increased traffic on the N81 resulting in numerous problems. Health hazards arising from increased dust and odours. Impact on nearby properties. Special Area of Conservation. In conflict with EU Directive 80/68/EEC of 17th December 1979. Risk of pollution and current pollution	ABD
103	Mr Michael Nicholson	Environmental and Water Services	22/02/2005	EIS matters. Further submission noting extensive extraction of sand and gravel. The suitability of the site for a landfill has not been proven in terms of the Response Matrix for Landfills. A Flood Risk Assessment has not yet been undertaken. Unsuitable Ecological Mitigation Measures. Proximity could impact on the Special Area of Conservation. The nature and volumes of waste have not been adequately characterised. Inadequate Leachate Generation and Management Assessment. Inadequate Landfill Gas Risk Assessment. Will impact on landscape.	ABD
10	Deputy Billy Timmins	Fine Gael	26/04/2004	Proposed activities contravene the County Development Plan and the Waste Management Plan. Landowner involved in current litigation. Condition of the soil not suitable for a landfill site. The river Carrigower passes through the quarry. Concerns of seepage could have serious implications for the surrounding population. Primary school located nearby. Site is located on a totally unsuitable part of the N81. Local amenities will be affected.	ABE
108	Ms Marie Fluskey		22/02/2005	Cause numerous problems in the area, ie pollution and rats. Health risks are also increased.	AC
105	Ms Patricia Cummins		22/02/2005	Obvious health hazards would include the attraction of vermin, flies, and scavenging birds all attracting disease and bacteria. Local primary school is within 5 km of the site. Concerns for the local wildlife habitats and floodplain which is protected by the EU regulations. Increased traffic on the N81 will heighten it's already dangerous nature.	ACE
6	Ms Florence Staunton		15/04/2004	Local cultural heritage, business and amenities together will impact on the local tourist industry. The increased volume of traffic on the N81 will result in hardship, hazards, danger and obstruction. Noise pollution will be caused by the heavy goods vehicles and plant machinery. There is concern about the landscape and it's preservation.	ADE
9	Ms Emer Bailey		23/04/2004	Contaminated soil tonnage between (8,000,000 and 16,000,000). Area of special conservation with salmon spawning and an otter population in the river valley. Unsuitable as a landfill site due to the porous nature of the land - sand and gravel bed with no clay deposits. The N81 is not suitable to take an increased volume of traffic. Owners are involved in litigation concerning the site. Noise pollution will occur as a result. Two constantly burning flames will cause major intrusion to the rural environment. Increase in rodent and carrion population.	ADE
33	Mr & Ms John & Lindy Lloyd	Fauna Cottage	13/05/2004	Increased traffic will cause harm to human lifestyle as well as the N81 inability to cope with extra traffic. Lorries increase danger levels. Special conservation area and salmon spawning will be severely disrupted. Dust will cause health problems for the local residents.	ADE
2	Terry Byrne	Chrysalis Holistic Centre	15/04/2004	Effects of noise pollution as well as the potential landfill gas emissions and odours is a matter of grave concern for the objectors. Effects to local businesses and amenities, impacting on the local tourist industry. Increased traffic on the N81, which is suggested cannot take an increase in the volume of such.	AE
84	Ms Ailish Greene		20/06/2004	Litigation procedures are in action against the landowner. Hazardous waste is causing on-going environmental pollution. Public were refused data by the EPA on emissions to the atmosphere and leachate to the groundwater and the Carrigower river.	AE
13	Mr Alan McGurdy	Eastern Regional Fisheries Board	29/04/2004	Hazardous or household waste already at site would lead to the risk of leachate escape and migration into the river catchment. Engineering methods to recover such not always effective. No proposal for the treatment of dumped soil and gravels which have been contaminated by diesel/oil/other pollutants. Concerns of an inadequate capacity to treat the leachate from the landfill. Concerns about the wheel wash.	B
120	Ms Emer Bailey		14/07/2005	SAC boundary and application boundary have both been changed. Carrigower River is still at risk. On going criminal investigations should be completed before an EPA decision	B D
121	Mr James Somerville		20/07/2005	SAC boundary and application boundary have both been changed. Carrigower River is still at risk even with new barriers installed.	B D
118	Ms Ann Maria Dunne	Chrysalis Holistic Centre	28/06/2005	Detrimental to business. Unsightliness of major industrial unit, noise pollution. Pollution caused by heavy good vehicles traffic, health risks caused by high levels of dust in the atmosphere coupled with toxic spores and gases in the environment. Water contamination. Increased carrion rodent and bluebottle population.	BCE
106	Ms Brid Rochfort	Development Applications Unit	22/02/2005	Special area of conservation. High risk of pollution to the Slaney. There will be elevated suspended solids in the river during construction. Greater risk when previously dumped materials are being removed. Runoff will be discharged into the river at the construction phase. Process could release a large amount of contaminated water. Some material lies below the river level. If mitigation measures are not followed it would result in 30 years contd pollution as material break down. Fear of abandonment of mitigation measures creating serious implications for the future.	BD
112	Ms Ailish Greene		22/02/2005	Copy of NPWS submission included. The local wildlife population will be severely affected. It is an area of special conservation. Such activity bears an enormous risk on the sparse salmon spawning category. Runoff will be discharged into river at construction phase. Contamination will continue as long as materials decompose. Movement of such will release large amounts of contaminated water.	BD
5	Anne & Malachy Sheridan		15/04/2004	Suggested as unnecessary due to the legal dump already in West Wicklow. Special area of conservation. Environmentally unsuitable as a landfill site. Litigation procedures are in place against the applicant of the licence.	BDE
97	Mr. Russ Bailey		20/06/2004	No provision made for any foreseen development in the County Development Plan dealing with any further landfill sites in the area. Special Area of Conservation forming part of the site in question. Interference with wildlife. Impact on local business development. Concerns for water safety- well is located less than 400 metres across the Carrigower from the site.	BDE
100	Mr James Somerville		22/02/2005	Geological unsuitability. Health and safety of local residents including hygiene and issues relating to the N81. A Special Area of Conservation.	BDE
3	Mr John Pilling		15/04/2004	Litigation procedures are in action against the applicant of the licence. Leakage of pollution into the Carrigower River leading to a lack of suitability for landfill. Local business and development will be effected.	BE
107	Ms J Montefone		22/02/2005	Reference to the N81 stating its dangerous nature with numerous accidents already occurring. A dump in the area would increase this to 100 travellers per day. The river Slaney is at risk of being polluted. Tourists visiting the area, not a great scenic place if dump is in the area.	BE
116	Ms Margaret Metcalfe		27/06/2005	Threat to the salmon spawning industry. Movement of the SAC causes concern. Health risks are greatly increased-fear for younger generation. Increased criminal activity resulting in reward for those involved.	CD
24	Ms Lisa Byrne	Bymeshill	06/05/2004	Unnecessary due to the existence of dump which already caters for the area. Impact on air pollution which in turn causes health problems, in particular respiratory problems.	CE

86	Ms Niamh Drew	Department of the Environment, Heritage & Local Government	20/06/2004	Criminalisation of the area. Environmental reputation with the EU will be further damaged and will, in turn, impact on the tourism industry. Future generations will be greatly affected and this activity will also cause health problems such as respiratory difficulties.	CE
101	Mr & Ms Richard & Geraldine Riordan		22/02/2005	Health risks are significantly increased and include cancer and birth defects, which occur within a 5 km radius of such a site. Safety issues with regard to the primary school nearby. Increased traffic on the N81.	CE
102	Mr & Ms Thomas & Patricia O'Toole		22/02/2005	Concerns relating to livestock by local residents and farmers. Impacting on livelihood. Health risks especially to the younger generation. Increased traffic on the N81.	CE
104	Mr Ciaran O'Connell		22/02/2005	Serious Health effects due to unwanted vermin etc. The tourism industry will be affected. Increased traffic on the roads. Property value around the dump will plummet.	CE
110	Ms Claire Pilling	Chrysalis Retreat Centre	22/02/2005	Increase in traffic on the roads. Hazard to human health due to smells and noise. Negative impact on the local area and its development projects. (€20 fee enclosed in submission)	CE
113	Ms Bridy O'Neill		17/06/2005	Health risks are high in the area. Carcogenic related diseases can only increase within the local proximity. The N81 is already extremely dangerous. Any increase in traffic would be serious for the local population. Risks to livelihood - farmers and stock producers will be affected. High risks of pollution.	CE
114	Mr James Butler		24/06/2005	Site is not geologically suitable for landfill because it is in a gravel/sand pit in a river valley. Site is within a close proximity to the Special Area of Conservation. Ecology of the district would be adversely affected. Salmon spawning industry will be severely affected.	D
115	Mr & Ms Malachy & Anne Sheridan		24/06/2005	Suggested movement of the SAC boundaries allows very poor environmental practice to take place. Home to many wildlife and a distinct salmon spawning area.	D
117	Mr & Ms Paul & Mary Metcalfe		27/06/2005	Further objection to the movement of the special area of conservation fearing damage to wildlife and salmon spawning population fear of rewarding criminal behaviour by this move.	D
4	Ms Claire Harrison		15/04/2004	Business and local amenities will suffer greatly. Increased traffic on the N81 will cause difficulty.	E
47	Ms Mary Lee-Stapleton	Labour	01/06/2004	Concerns involving the current litigation procedures associated with the landowner will award precedent, accepting criminal activity as behaviour to be condoned.	E
95	Ms Ann Maria Dunne	Chrysalis Holistic Centre	20/06/2004	Retreat centre is 250m from site; noise and traffic issues	E
70	Mr Michael Nicholson	Environmental and Water Services	20/06/2004	The issue of litigation procedures has been highlighted as well as the investigation into criminal activity. There are concerns as to the proposed importing of additional material.	E
89	Mr Noel O'Reilly		20/06/2004	Failure to prosecute by local authorities, those responsible for illegal dumping set out in the Waste Management Act 1996 - 2003. The granting of such licence would give immunity to those responsible for such. Unsuitable land ie sand and gravel. Unwillingness to tackle environmental crime.	E
109	Ms Judy Heffernan		22/02/2005	Increase in a number of lorries on the road, mud and gravel all the time on the road as it is. High risk of accidents occurring on the road.	E
111	Mr & Ms Russ & Emer Bailey		22/02/2005	Concerns about preparation of a new cell in order to accept more waste. Work continues unabated. No planning permission for mentioned activity.	E
119	A Greene & N O'Reilly		12/07/2005	Unsafe entrance, steep drop into quarry. H&S concerns. Phase 1 cell is currently being excavated. Sustainability of up to 180,000T haulage of waste on local roads.	E
1	Mr Peter Walton	Whitestown Awareness Group	18/03/2004	Query on application details. One page.	Z
7	Ms Marie Lennon		22/04/2004	Submission to note objection.	Z
8	Ms Susie Walton		23/04/2004	Highlight the EPA's obligation to the environment.	Z
11	Mr Martin Bennett		26/04/2004	Submission to note objection.	Z
12	Ms Mary Donohoe		26/04/2004	Submission to note objection.	Z
14	Mr Daniel J Losty		30/04/2004	Submission to note objection.	Z
15	Mr Sean Dwyer		30/04/2004	Submission to note objection.	Z
16	Ms. Elizabeth A. Losty	Bushfield	04/05/2004	Submission to note objection.	Z
17	Mr. Jerome Kelly	Studfield North	05/05/2004	Submission to note objection.	Z
18	Mr Ross Wilson	Four Winds	06/05/2004	Submission to note objection.	Z
19	Mr Walton Wilson	Four Winds	06/05/2004	Submission to note objection.	Z
20	Ms Catherine Hyland	Davidstown	06/05/2004	Submission to note objection.	Z
21	Ms Eileen Wilson	Four Winds	06/05/2004	Submission to note objection.	Z
22	Ms Stella Wilson	Ballintruber	06/05/2004	Submission to note objection.	Z
23	Mr & Ms Francis & Jenny Moynihan	Intack	06/05/2004	Submission to note objection.	Z
25	Ms Joy Murphy	Ballyureghan	07/05/2004	Submission to note objection.	Z
26	Mr Norman W Murphy	Ballyureghan	07/05/2004	Submission to note objection.	Z
27	Ms Gretta Kearney	Faine	07/05/2004	Submission to note objection.	Z
28	Ms Margaret Lennon	Davidstown	10/05/2004	Submission to note objection.	Z
29	The Walshe Family	Kilshamon	11/05/2004	Submission to note objection.	Z
30	Mr & Ms Russ & Emer Bailey	Whitestown Awareness Group	11/05/2004	Submission to note objection. (215 submissions enclosed)	Z

31	Mr & Ms Martin & Avril Brady	Castleruddery Lower	12/05/2004	Submission to note objection.	Z
32	Ms Geraldine WhyteFamily	Ballytoole	12/05/2004	Submission to note objection.	Z
34	Mr & Ms Andrew & Deirdre Segrave	Davidstown	14/05/2004	Submission to note objection.	Z
35	Ms Grainne Quinne		18/05/2004	Submission to note objection.	Z
36	Dawn Moody Lawless		18/05/2004	Submission to note objection.	Z
37	Mr Peter Lawless		18/05/2004	Submission to note objection.	Z
38	Ms Eileen Cullen		18/05/2004	Submission to note objection.	Z
39	Ms Jean Murray		17/05/2004	Submission to note objection.	Z
40	Mr David Swift		17/05/2004	Submission to note objection.	Z
41	Mr Bryan Swift		17/05/2004	Submission to note objection.	Z
42	Mr Rory Adams	Castleruddery	19/05/2004	Submission to note objection.	Z
43	Ms Wendy Hanbidge	Eadestown	20/05/2004	Submission to note objection.	Z
44	Ms T Byrne	Rathdangan	24/05/2004	Submission to note objection.	Z
45	Mr & Ms Dave & Brenda Collier	Castlesallagh	24/05/2004	Submission to note objection.	Z
46	Ms Deirdre Howard	Logatryna	24/05/2004	Submission to note objection.	Z
48	Ms Maeve Holohan	Mr Billy Carroll	02/06/2004	Submission to note objection.	Z
49	Mr Patrick Lynch		20/06/2004	Submission to note objection.	Z
50	Mr Fabio Adriano Ramos		20/06/2004	Submission to note objection.	Z
51	Mr Gavin Lynch		20/06/2004	Submission to note objection.	Z
52	Mr/Ms P Lynch		20/06/2004	Submission to note objection.	Z
53	Ms Patricia Cummins	Garretfield	20/06/2004	Submission to note objection.	Z
54	Mr M.D. Cummins	Donard	20/06/2004	Submission to note objection.	Z
55	Mr Nigel Orr		20/06/2004	Submission to note objection.	Z
56	Ms Sue Ship		20/06/2004	Submission to note objection.	Z
57	Mr Paul Farrell		20/06/2004	Submission to note objection.	Z
58	Ms Anna Young		20/06/2004	Submission to note objection.	Z
59	Mr Ronald McKeown		20/06/2004	Submission to note objection.	Z
60	Ms Heather Byrne		20/06/2004	Submission to note objection.	Z
61	Mr Paul Murphy		20/06/2004	Submission to note objection.	Z
63	Mr Noel Murphy		20/06/2004	Submission to note objection.	Z
64	Mr Joe Wilson		20/06/2004	Submission to note objection.	Z
65	Mr/Ms Maritza O'Wilson		20/06/2004	Submission to note objection.	Z
66	Ms KAREN Allison		20/06/2004	Submission to note objection.	Z
67	Mr. James Butler		20/06/2004	Submission to note objection.	Z
68	Onagh McElligott		20/06/2004	Submission to note objection.	Z
69	Mr Kevin Sheahan		20/06/2004	Submission to note objection.	Z
71	Mr Ray Griffin		20/06/2004	Submission to note objection.	Z
72	Mr Brian McMullen		20/06/2004	Submission to note objection.	Z
73	Ms Pauline McMullen		20/06/2004	Submission to note objection.	Z
74	Mr Eoghan McMullen		20/06/2004	Submission to note objection.	Z
75	Ms Niamh McMullen		20/06/2004	Submission to note objection.	Z
76	Mr Seán Byrne		20/06/2004	Submission to note objection.	Z
77	Mr/Ms B O'Connor		20/06/2004	Submission to note objection.	Z
78	Ms Margo Kelly		20/06/2004	Submission to note objection.	Z
79	Ms Pauline Lawrence		28/03/2002	Invalid	
80	Ms Pamela Finlay		20/06/2004	Submission to note objection.	Z
81	Mr & Ms Shane & Valerie Fearon		20/06/2004	Submission to note objection.	Z

82	Ms Breda Kelly		20/06/2004	Submission to note objection.	Z
83	Mr Charles Kelly		20/06/2004	Submission to note objection.	Z
85	Ms Vera Carson Finlay		20/06/2004	Submission to note objection.	Z
87	Mr William Chisholm		20/06/2004	Submission to note objection.	Z
88	Ms Ann Marie Mullen		20/06/2004	Submission to note objection.	Z
90	Ms Tess Healy		20/06/2004	Submission to note objection.	Z
91	Ms Ann Dooley		20/06/2004	Submission to note objection.	Z
92	Ms Alice Doyle		20/06/2004	Submission to note objection.	Z
93	Ms Terri Kenny		20/06/2004	Submission to note objection.	Z
99	Ms. Colette LynchGethings		22/02/2005	Submission to note objection.	Z
62	Mr/Ms J Case		20/06/2004	Submission to note objection.	Z
94	Mr Brendan Mahon	Department of the Environment, Heritage & Local Government	20/06/2004	Details on SAC for the area, direct from Duchas after Agency request	Z
96	Mr Geoff Parker	Environment & Resource Management Ltd	20/06/2004	Licensing Process query. From applicant's consultant	Z