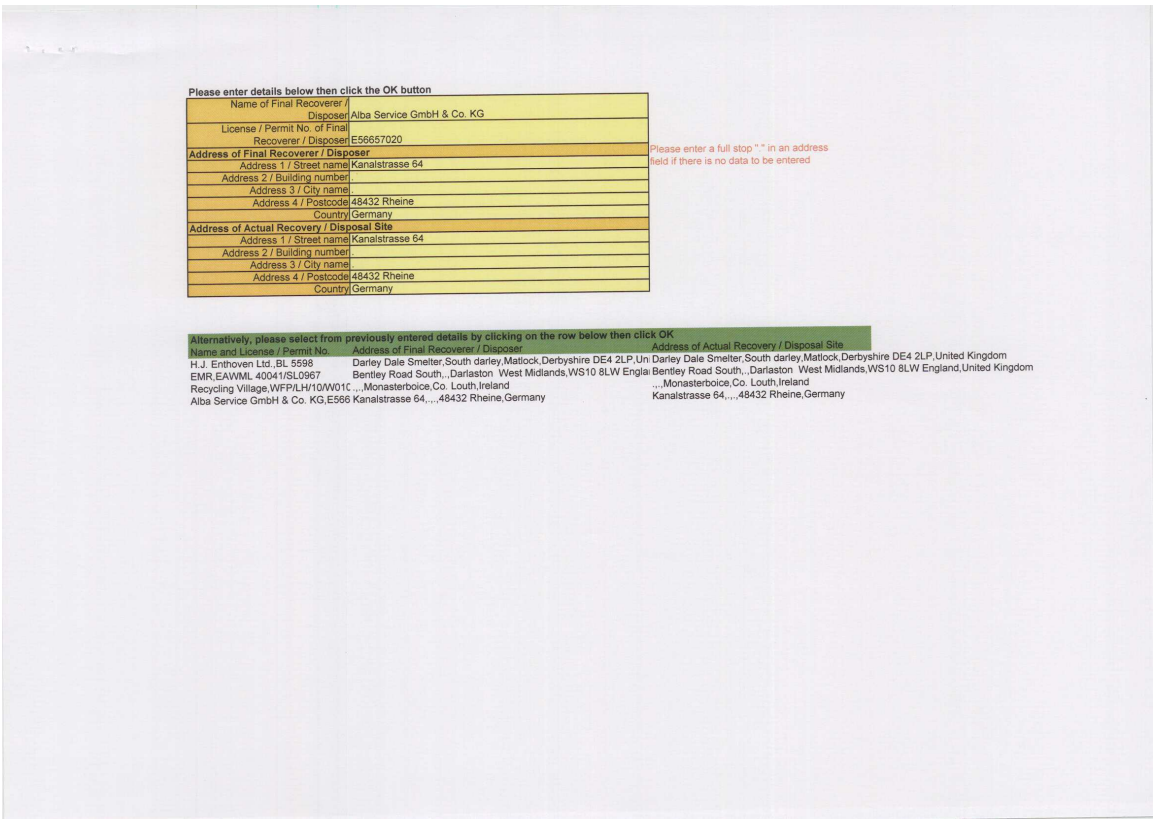


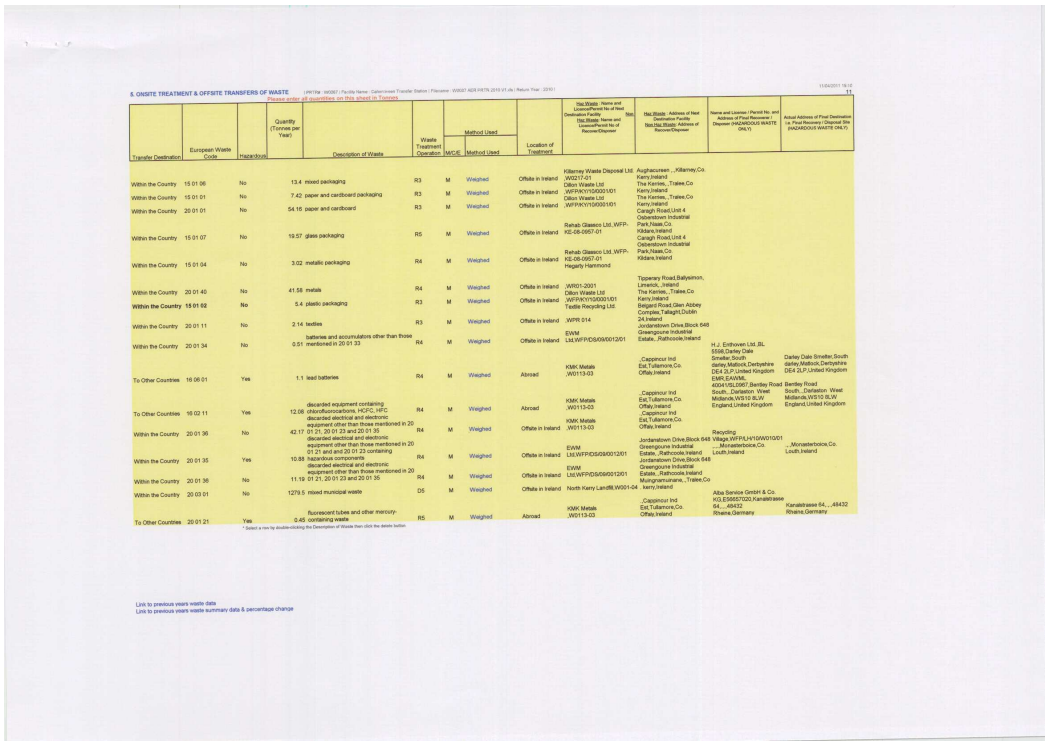
Please enter details below then click the OK button

Name of Final Recoverer / Disposer	Alba Service GmbH & Co. KG
License / Permit No. of Final Recoverer / Disposer	E56657020
Address of Final Recoverer / Disposer	
Address 1 / Street name	Kanalstrasse 64
Address 2 / Building number	.
Address 3 / City name	.
Address 4 / Postcode	48432 Rheine
Country	Germany
Address of Actual Recovery / Disposal Site	
Address 1 / Street name	Kanalstrasse 64
Address 2 / Building number	.
Address 3 / City name	.
Address 4 / Postcode	48432 Rheine
Country	Germany

Please enter a full stop "." in an address field if there is no data to be entered

Alternatively, please select from previously entered details by clicking on the row below then click OK

Name and License / Permit No.	Address of Final Recoverer / Disposer	Address of Actual Recovery / Disposal Site
H.J. Enthoven Ltd.,BL 5598	Darley Dale Smelter,South darley,Matlock,Derbyshire DE4 2LP,Un	Darley Dale Smelter,South darley,Matlock,Derbyshire DE4 2LP,United Kingdom
EMR,EAWML 40041/SL0967	Bentley Road South,,,Darlaston West Midlands,WS10 8LW Engla	Bentley Road South,,,Darlaston West Midlands,WS10 8LW England,United Kingdom
Recycling Village,WFP/LH/10/W01(	,,,Monasterboice,Co. Louth,Ireland	,,,Monasterboice,Co. Louth,Ireland
Alba Service GmbH & Co. KG,E566	Kanalstrasse 64,,,,48432 Rheine,Germany	Kanalstrasse 64,,,,48432 Rheine,Germany



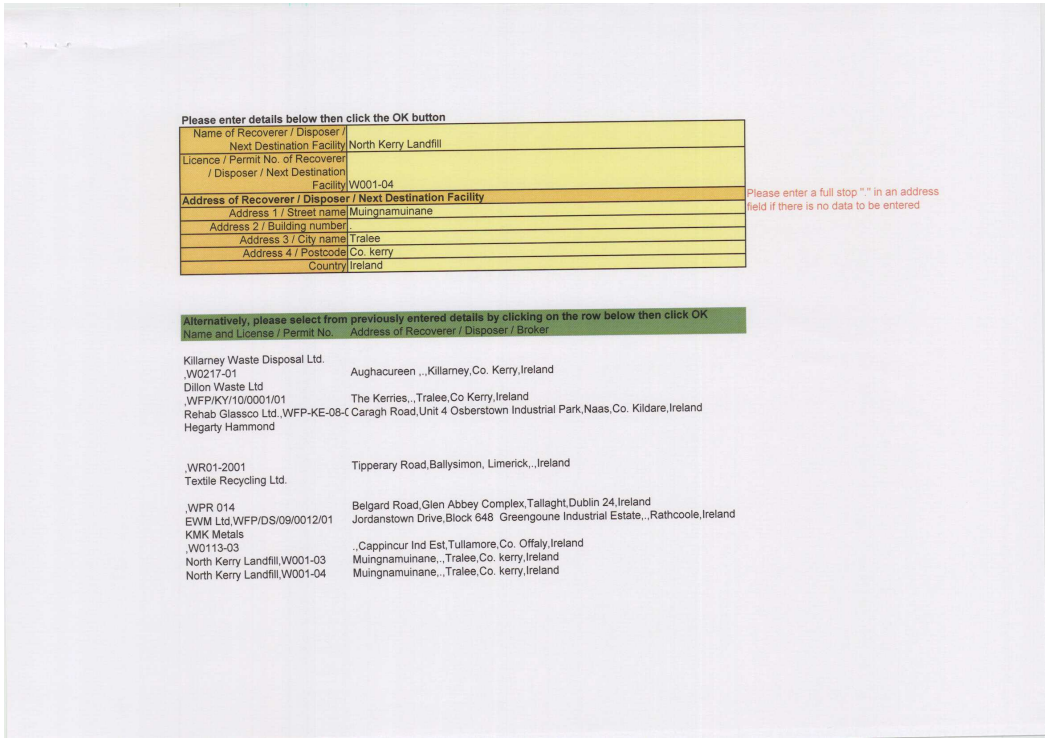
6. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used: M/C/E	Method Used: Method Used	Location of Treatment	Nwr Waste - Name and Licence/Permit No of Next Destination Facility / Nwr Waste - Name and Licence/Permit No of Recover/Disposer	Nwr Waste - Address of Next Destination Facility / Non Haz Waste - Address of Recover/Disposer	Name and Licence / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Within the Country	15 01 06	No	13.4	mixed packaging	R3	M	Weighed	Offsite in Ireland	Killarney Waste Disposal Ltd. W0217-01	Aughacureen ,,,Killarney,Co. Kerry,Ireland		
Within the Country	15 01 01	No	7.42	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Dillon Waste Ltd .WFP/KY/10/0001/01	The Kerries,,,Tralee,Co Kerry,Ireland		
Within the Country	20 01 01	No	54.16	paper and cardboard	R3	M	Weighed	Offsite in Ireland	Dillon Waste Ltd .WFP/KY/10/0001/01	The Kerries,,,Tralee,Co Kerry,Ireland		
Within the Country	15 01 07	No	19.57	glass packaging	R5	M	Weighed	Offsite in Ireland	Rehab Glassco Ltd.,WFP-KE-08-0957-01	Caragh Road,Unit 4 Osberstown Industrial Park,Naas,Co. Kildare,Ireland		
Within the Country	15 01 04	No	3.02	metallic packaging	R4	M	Weighed	Offsite in Ireland	Rehab Glassco Ltd.,WFP-KE-08-0957-01 Hegarty Hammond	Caragh Road,Unit 4 Osberstown Industrial Park,Naas,Co. Kildare,Ireland		
Within the Country	20 01 40	No	41.58	metals	R4	M	Weighed	Offsite in Ireland	,WR01-2001 Dillon Waste Ltd	Tipperary Road,Ballysimon, Limerick,,,Ireland The Kerries,,,Tralee,Co Kerry,Ireland		
Within the Country	**15 01 02**	**No**	5.4	plastic packaging	R3	M	Weighed	Offsite in Ireland	.WFP/KY/10/0001/01 Textile Recycling Ltd.	Belgard Road,Glen Abbey Complex,Tallaght,Dublin 24,Ireland		
Within the Country	20 01 11	No	2.14	textiles	R3	M	Weighed	Offsite in Ireland	,WPR 014 EWM Ltd,WFP/DS/09/0012/01	Jordanstown Drive,Block 648 Greengoune Industrial Estate,,,Rathcoole,Ireland		
Within the Country	20 01 34	No	0.51	batteries and accumulators other than those mentioned in 20 01 33	R4	M	Weighed	Offsite in Ireland	KMK Metals ,W0113-03	,,Cappincur Ind Est,Tullamore,Co. Offaly,Ireland	H.J. Enthoven Ltd. BL 55/56,Derley Dale Smelter,South Darley,Matlock,Derbyshire DE4 2LP,United Kingdom EMR,EAVML, 40/41/55,DW7,Bentley Road South,,,Darlaston West Midlands,WS10 8LW England,United Kingdom	Darley Dale Smelter,South darley,Matlock,Derbyshire DE4 2LP,United Kingdom Bentley Road South,,,Darlaston West Midlands,WS10 8LW England,United Kingdom
To Other Countries	16 06 01	Yes	1.1	lead batteries	R4	M	Weighed	Abroad	KMK Metals ,W0113-03	,,Cappincur Ind Est,Tullamore,Co. Offaly,Ireland		
To Other Countries	16 02 11	Yes	12.06	discarded equipment containing chlorofluorocarbons, HCFC, HFC	R4	M	Weighed	Abroad	KMK Metals ,W0113-03	,,Cappincur Ind Est,Tullamore,Co. Offaly,Ireland		
Within the Country	20 01 36	No	42.17	discarded equipment containing chlorofluorocarbons, HCFC, HFC discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	KMK Metals ,W0113-03	,,Cappincur Ind Est,Tullamore,Co. Offaly,Ireland		
Within the Country	20 01 35	Yes	10.88	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	R4	M	Weighed	Offsite in Ireland	EWM Ltd,WFP/DS/09/0012/01	Jordanstown Drive,Block 648 Greengoune Industrial Estate,,,Rathcoole,Ireland	Recycling Village,WFP/LH/10/W010/01 ,,,,Monasterboice,Co. Louth,Ireland	,,,Monasterboice,Co. Louth,Ireland
Within the Country	20 01 36	No	11.19	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R4	M	Weighed	Offsite in Ireland	EWM Ltd,WFP/DS/09/0012/01	Jordanstown Drive,Block 648 Greengoune Industrial Estate,,,Rathcoole,Ireland Muingnamuinane,,,Tralee,Co		
Within the Country	20 03 01	No	1279.5	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	North Kerry Landfill,W001-04	kerry,Ireland		
To Other Countries	20 01 21	Yes	0.45	fluorescent tubes and other mercury-containing waste	R5	M	Weighed	Abroad	KMK Metals ,W0113-03	,,Cappincur Ind Est,Tullamore,Co. Offaly,Ireland	Alba Service GmbH & Co. KG,E56057020,Kanalstrasse 64,,,48432 Rheine,Germany	Kanalstrasse 64,,,48432 Rheine,Germany

* Select a row by double-clicking the Description of Waste then click the delete button

Link to previous years waste data
Link to previous years waste summary data & percentage change



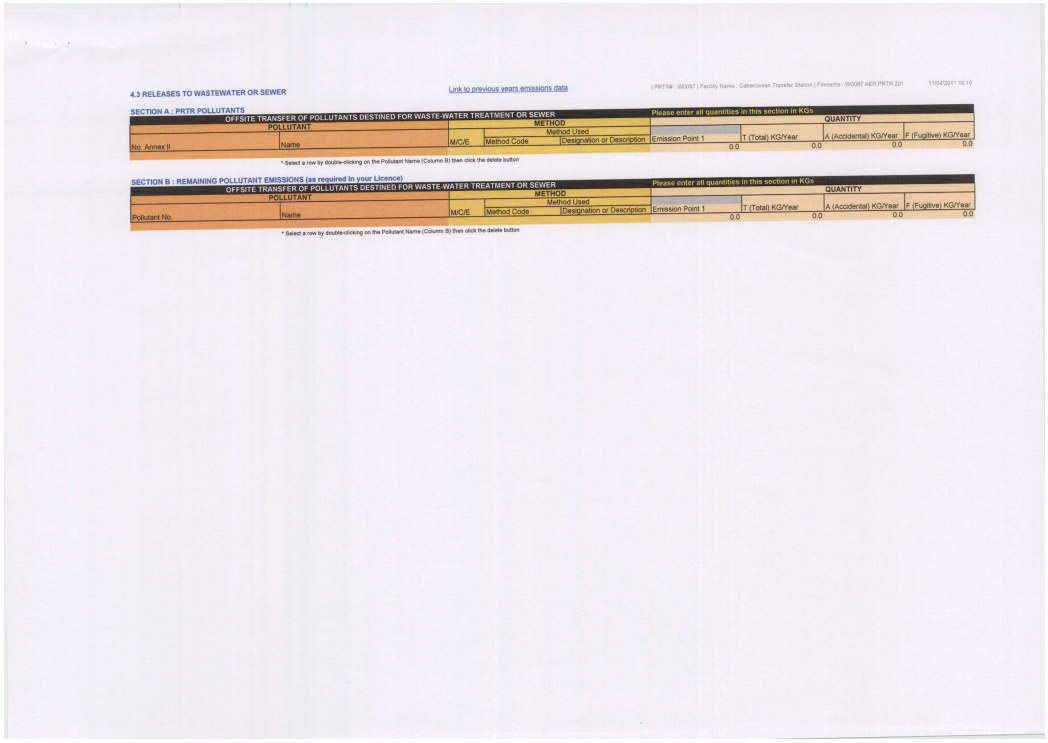
Please enter details below then click the OK button

Name of Recoverer / Disposer / Next Destination Facility	North Kerry Landfill
Licence / Permit No. of Recoverer / Disposer / Next Destination Facility	W001-04
Address of Recoverer / Disposer / Next Destination Facility	
Address 1 / Street name	Muingnamuinane
Address 2 / Building number	.
Address 3 / City name	Tralee
Address 4 / Postcode	Co. kerry
Country	Ireland

Please enter a full stop "." in an address field if there is no data to be entered

Alternatively, please select from previously entered details by clicking on the row below then click OK

Name and License / Permit No.	Address of Recoverer / Disposer / Broker
Killarney Waste Disposal Ltd. ,W0217-01	Aughacureen ,,,Killarney,Co. Kerry,Ireland
Dillon Waste Ltd ,WFP/KY/10/0001/01	The Kerries,,,Tralee,Co Kerry,Ireland
Rehab Glassco Ltd.,WFP-KE-08-(	Caragh Road,Unit 4 Osberstown Industrial Park,Naas,Co. Kildare,Ireland
Hegarty Hammond	
,WR01-2001 Textile Recycling Ltd.	Tipperary Road,Ballysimon, Limerick,,,Ireland
,WPR 014 EWM Ltd,WFP/DS/09/0012/01	Belgard Road,Glen Abbey Complex,Tallaght,Dublin 24,Ireland Jordanstown Drive,Block 648 Greengoune Industrial Estate,,,Rathcoole,Ireland
KMK Metals ,W0113-03	.,Cappincur Ind Est,Tullamore,Co. Offaly,Ireland
North Kerry Landfill,W001-03	Muingnamuinane,,,Tralee,Co. kerry,Ireland
North Kerry Landfill,W001-04	Muingnamuinane,,,Tralee,Co. kerry,Ireland



4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

| PRTR# : W0087 | Facility Name : Caherciveen Transfer Station | Filename : W0087 AER PRTR 201 | 11/04/2011 16:10

SECTION A : PRTR POLLUTANTS

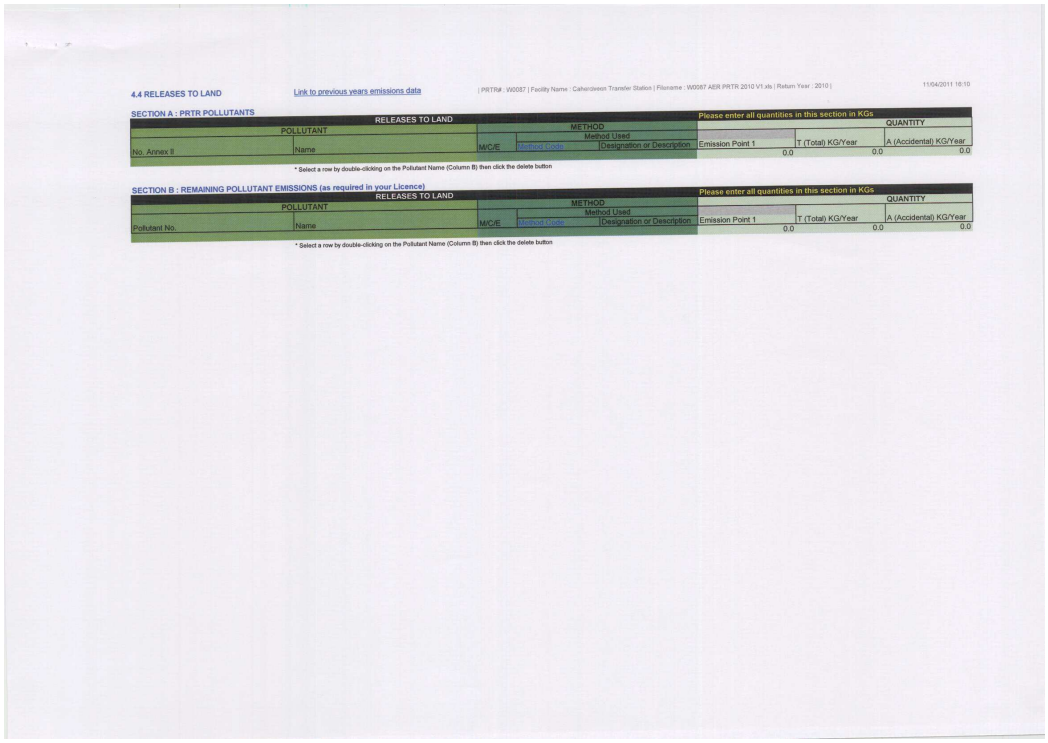
OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
		Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
		Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button



4.4 RELEASES TO LAND

Link to previous years emissions data

| PRTR# : W0087 | Facility Name : Caherciveen Transfer Station | Filename : W0087 AER PRTR 2010 V1.xls | Return Year : 2010 |

11/04/2011 16:10

SECTION A : PRTR POLLUTANTS

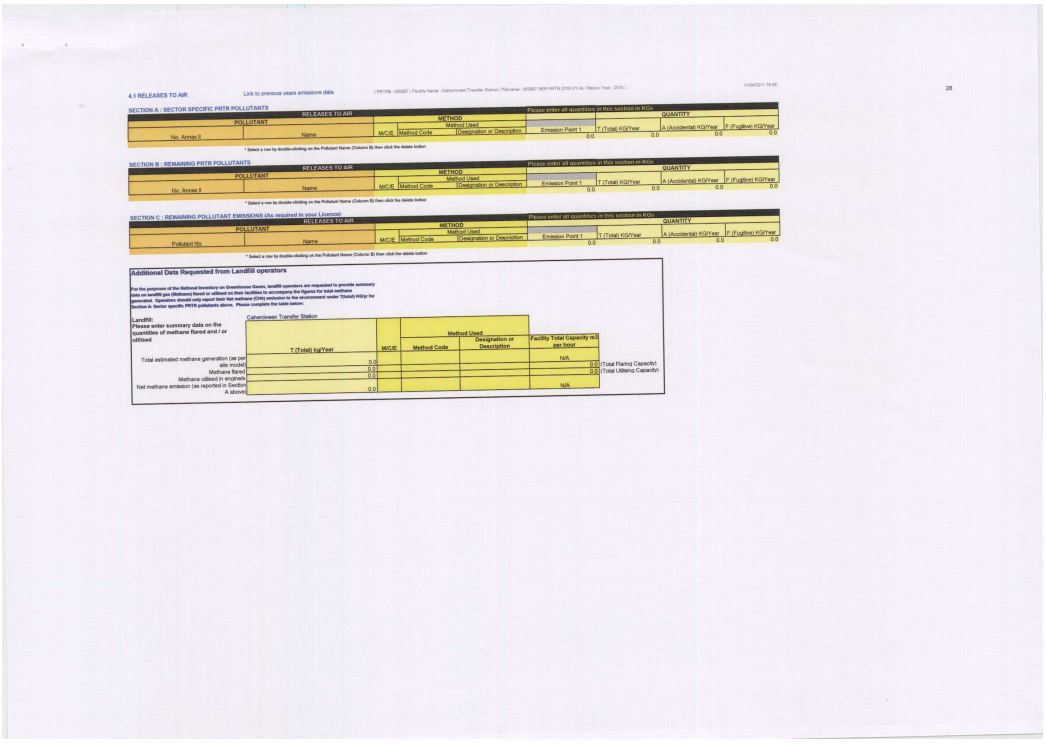
RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
		Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
		Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button



4.1 RELEASES TO AIR Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR		METHOD			Please enter all quantities in this section in KGs	QUANTITY		
POLLUTANT		Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR		METHOD			Please enter all quantities in this section in KGs	QUANTITY		
POLLUTANT		Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

RELEASES TO AIR		METHOD			Please enter all quantities in this section in KGs	QUANTITY		
POLLUTANT		Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

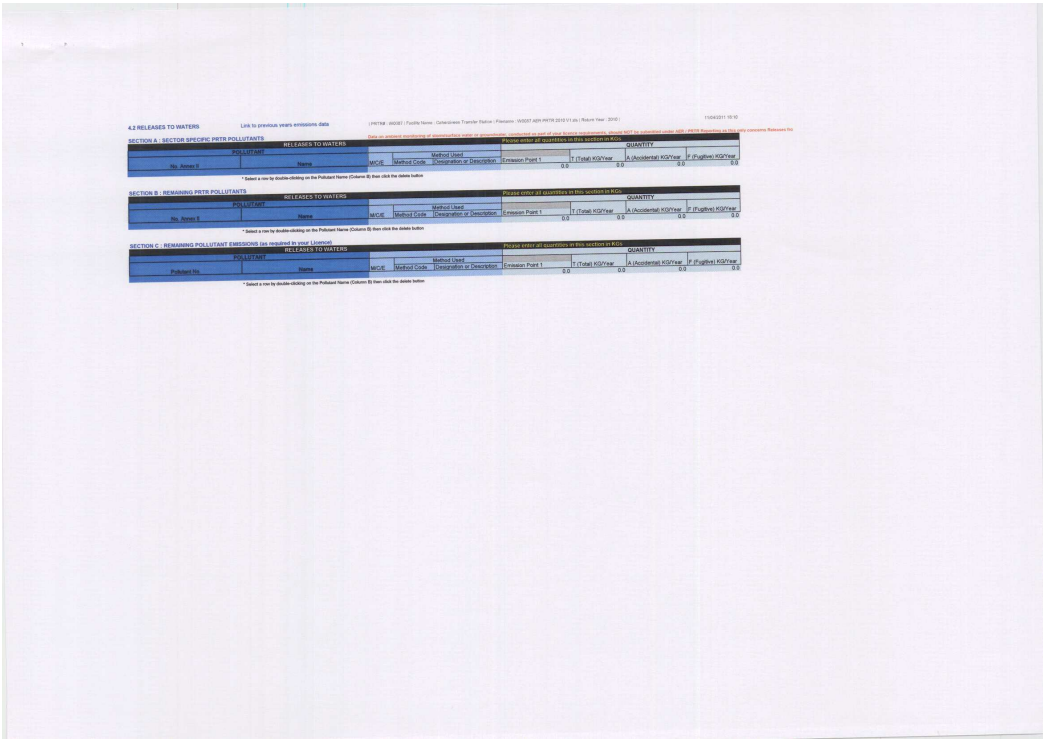
Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under Total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Caherciveen Transfer Station

Landfill:
Please enter summary data on the quantities of methane flared and / or utilised

	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: Designation or Description	Facility Total Capacity m3/ per hour	
Total estimated methane generation (as per site model	0.0				N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engines	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A	



4.2 RELEASES TO WATERS Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO WATERS		METHOD			Please enter all quantities in this section in KGs	QUANTITY		
POLLUTANT		Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS		METHOD			Please enter all quantities in this section in KGs	QUANTITY		
POLLUTANT		Method Used						
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

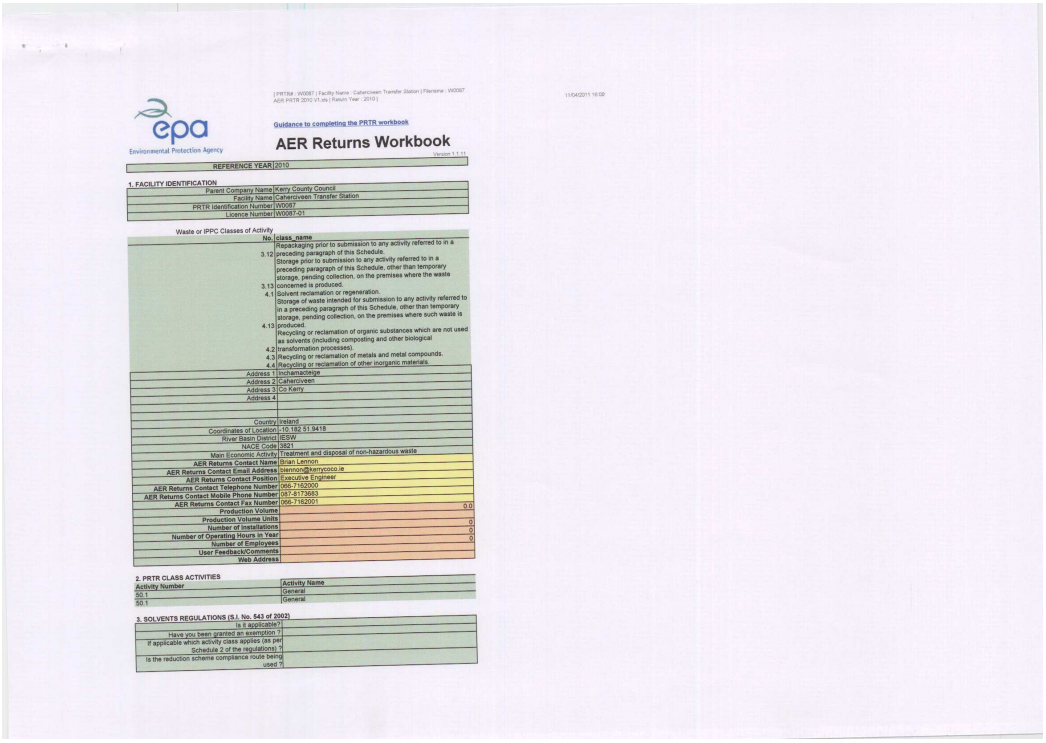
* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO WATERS		METHOD			Please enter all quantities in this section in KGs	QUANTITY		
POLLUTANT		Method Used						
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Appendix IV - AER/PRTR Return 2010



epa
Environmental Protection Agency

[PRTR# : W0087] [Facility Name : Caherciveen Transfer Station] [Filename : W0087 AER PRTR 2010 V1.xls] [Return Year : 2010]

11/04/2011 16:09

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.11

REFERENCE YEAR	2010

1. FACILITY IDENTIFICATION

Parent Company Name	Kerry County Council
Facility Name	Caherciveen Transfer Station
PRTR Identification Number	W0087
Licence Number	W0087-01

Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.1	Solvent reclamation or regeneration.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.

Address 1	Inchamacteige
Address 2	Caherciveen
Address 3	Co Kerry
Address 4	
Country	Ireland
Coordinates of Location	-10.182 51.9418
River Basin District	IESW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Brian Lennon
AER Returns Contact Email Address	blennon@kerrycoco.ie
AER Returns Contact Position	Executive Engineer
AER Returns Contact Telephone Number	066-7162000
AER Returns Contact Mobile Phone Number	087-2173663
AER Returns Contact Fax Number	066-7162001
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
50.1	General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

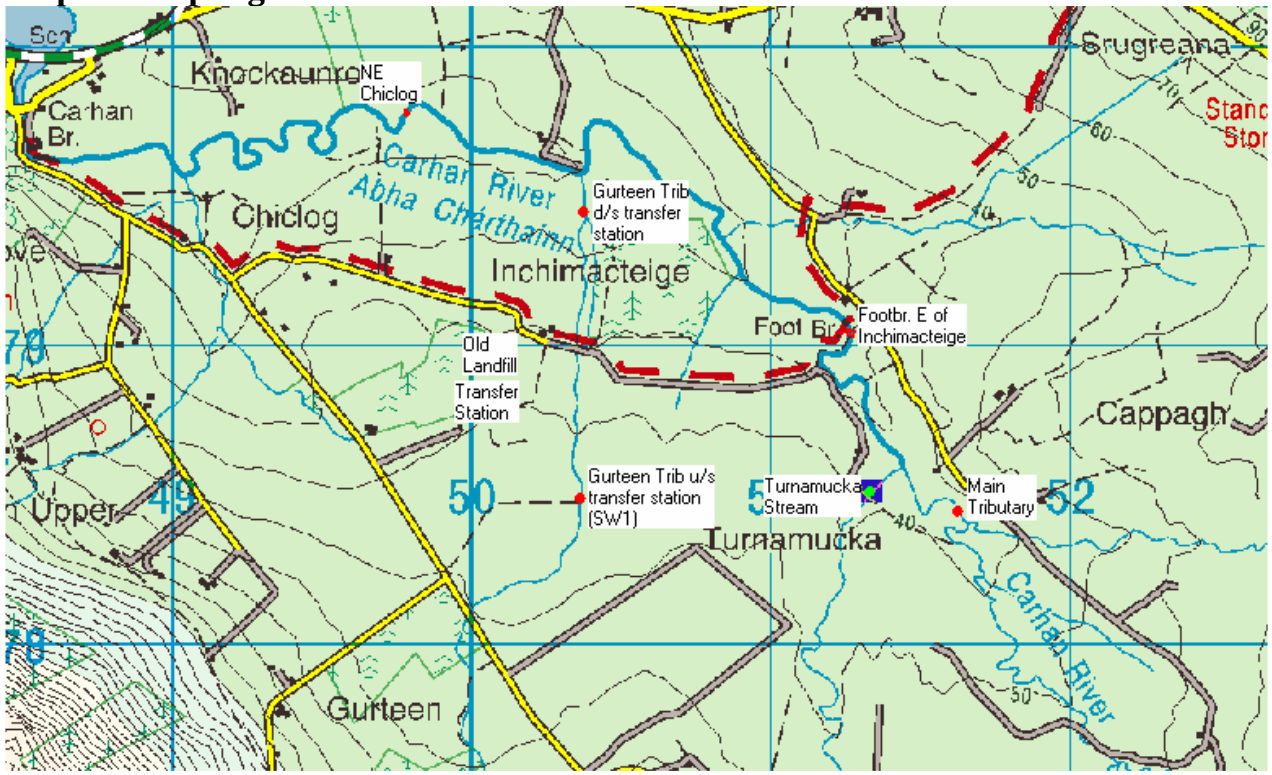
Appendix III - Landfill Gas Summary

Caherciveen Waste Transfer Station

Monitoring of Landfill Gas Levels

Date	Ref.	CH_4 % v/v	CO_2 % v/v	O_2 % v/v	Atm. Pressure Mbar	Temperature Degrees Celsius
6/10/08	L1a	6.8	2.5	20.1	1008	15
13/5/09	L1a	5.4	3.3	21.4	1010	16
3/12/09	L1a	6.9	3.4	20.9	1005	8
20/4/10	L1a	1.0	0.3	20.1	1017	15

Map of Sampling Points



Chemical Results & Biological Scores:

	Parameter	Ammonium	Colour	Conductivity	MRP	TON	D.O.	D.O.	Temp	pH	SSRS	Q Rating
		NH4	Hz	at 20 degC	P	NO3	O2	% sat			Score	
	Max.	--	20	--	0.03	--	15	150	--	9	--	
	Target	--	--	--	--	--	--	--	--	--	--	
	Min.	--	--	--	--	--	5	50	--	6	6.5	
Location	Lab Ref	Date	Time	mg/l	Hazen	µS/cm	mg/l	mg/l	mg/l	% O2	DegC	pH units	Score	Rating
Carhan River (Main tribuatary)	2010/0354	27.1.10	12:30	< 0.02	***57***	85	< 0.005	1.09	12.5	95	5.1	7	9.6	
Turnamucka Tributary	2010/0353	27.1.10	11:15	< 0.02	***79***	89	< 0.005	0.67	13.1	100	5	6.9	8.8	
Gurteen Tributary (SW1) u/s Transfer St.	2010/1490	8.4.10	11:07	< 0.02	***91***	92	< 0.005	0.97	11.5	96	8.1	6.6	***6.4***	
Gurteen Tributary d/s Transfer Station	2010/1491	8.4.10	14:25	< 0.02	94	98	0.008	1	11.3	101	10.7	6.6	9.6	
End of path NE Chiclog	2010/2643	16.6.10	14:00	< 0.02	***64***	204	< 0.005	0.35	10	107	16.2	7.4		4
Foot-bridge East Of Inchimacteige	2010/2642	16.6.10	10:50	< 0.02	72	113	< 0.005	0.6	***11***	109	15.6	7.3		***3.5***

The SSRS tool was carried out on three tributaries while a Q rating was done on the main river upstream and downstream of the transfer station. One of the tributaries north (downstream) of the footbridge was unsuitable for sampling. All sites sampled are shown in the map at the end of the report. A results table shows results obtained at all these sites and corresponding biological ratings also. An adjoining file shows the species identified and other information for both the SSRS sites and the Q rating sites. Three of the four SSRS sites scored well indicating they are 'probably not at risk'. However, the Gurteen stream upstream of the transfer station only scored 6.4 deeming it 'at risk'. It should be noted that this stream flowed through bog which may be a factor. It had recovered downstream gaining a score of 9.6. The main difference in the two sites was the absence of mayflies and the abundance of the GOLD group which were plentiful upstream.

The Q rating upstream of the transfer station was Q3 - 4. This site at the Footbridge E of Inchimacteige is also sampled by the EPA. In 2007 they obtained a Q rating of 3-4 also. However, when previously done in 2004 it scored a Q4 so there has been some deterioration over the last few years. It is difficult to see where the source of the problem is as the tributaries upstream all had good SSRS scores.

The Q rating downstream was carried out northeast of Chiclog where access was gained at the end of a track. The river had improved here scoring a Q4.

It would appear that any old landfill activities or the transfer station itself are not causing any deterioration in the river.

SSRS and Q index Monitoring of Carhan Stream 19 July 2010

A request was made by the Environment Department to check if old landfill activities at Cahersiveen Transfer Station were having an effect on the River Carhan. It was decided that biological sampling was the only method which would give a full picture of the water quality in the area.

The Biological Quality Rating System for Rivers (Q ratings) as outlined by the Environmental Protection Agency (EPA) is carried out on rivers. The rating system goes from Q1 to Q5 where a Q5 denotes a pristine river and Q1 indicates serious pollution. This system is based on the differing tolerances of invertebrates to pollution. Three-minute kick samples are carried out at each station accompanied by stone examinations and weed sweeps which are generally done from May to September. It is important to note there are different classifications for depositing and eroding substrates.

First of all an SSRS study was carried out on the tributaries upstream of the transfer station as they are too small for Biological Quality Rating System described above. One of the tributaries was also sampled downstream of the transfer station. The Small Streams Risk Score (SSRS) is a relatively new biological risk assessment system for detecting potential sources of pollution in rivers and is usually carried out on first and second order streams from October to April. It was developed by the Environmental Protection Agency (EPA) in association with Western River Basin District (WRBD). The SSRS is of particular value in detecting hard to find diffuse sources of pollution within catchments. The basic principle of the SSRS is similar, i.e. that aquatic insects and other invertebrates living in streams have varying sensitivities to pollution and therefore, can be used as continuous monitors of water quality. This method was devised to describe the status of a stream with the score indicating the probability of risk as follows:

SSRS Scores: >8 Probably not at risk
6.5-8 Probably at risk
<6.5 At risk

A further explanation of the SSRS tool will help in understanding the results. It is divided into 5 groups of invertebrates, the mayflies, stoneflies, caseless and cased caddis flies, the GOLD species which consist of snails and worms and Asellus. It is important to note that the SSRS tool has been statistically designed to give more weight greater abundance of the pollution sensitive groups (i.e. mayflies and stoneflies). On the other hand the converse is true for the GOLD species and Asellus, which are more tolerant to pollution.

Caherciveen	Sw6	50828.1	79458.5	2010/1481	08-Apr-10	13:10	< 0.02	6.8	< 1	84	31	16.5	12.4	1	10.4
Caherciveen	Sw6	50828.1	79458.5	2010/3117	14-Jul-10	13:30	< 0.02	6.8	< 1	66	36	18	10.1	1	15.1
Caherciveen	Sw6	50828.1	79458.5	2010/4730	12-Oct-10	12:40	< 0.02	7	< 1	91	26	15	11	< 1	11.9
Caherciveen	Sw7	49666	79782	2003/0353	21-Jan-03	14:15	0.1	6.7	< 1	105	10	24	11.2	4.5	7
Caherciveen	Sw7	49666	79782	2003/3925	22-Jul-03	15:35	< 0.02	7.3	< 1	147	24	25	9.6	10	16.4
Caherciveen	Sw7	49666	79782	2004/0536	28-Jan-04	13:25	< 0.02	7.2	1.2	109	< 10	28	12.3		7
Caherciveen	Sw7	49666	79781.7	2005/1934	19-Apr-05	13:20	< 0.02	7.1	< 1	133	22	27	11.8	< 1	8.6
Caherciveen	Sw7	49666	79781.7	2006/0522	31-Jan-06	13:20	0.03	7.3	1	170	< 10	25	12.3	< 1	4.8
Caherciveen	Sw7	49666	79781.7	2008/0027	03-Jan-08	13:40	< 0.02	6.8	< 1	140	16	32.5	11.6	< 1	6.8
Caherciveen	Sw7	49666	79781.7	2009/1948	07-Apr-09	13:52	0.02	6.9	< 1	125	43	25	11.3	< 1	10.1
Caherciveen	Sw7	49666	79781.7	2010/1482	08-Apr-10	12:40	< 0.02	6.9	< 1	103	31	17.5	12.6	< 1	10.3
Caherciveen	Sw7	49666	79781.7	2010/3118	14-Jul-10	13:00	< 0.02	7	< 1	87	36	18	10.2	2	15
Caherciveen	Sw7	49666	79781.7	2010/4731	12-Oct-10	12:10	< 0.02	7.1	< 1	123	27	16.5	11	1	10.8

Table 2 Surface Water Monitoring Results

Caherciveen	Sw5	50054.6	79046.1	2007/3906	19-Jul-07	14:20	***16.1***	6.8	9.2	503	33	53	***4.8***	18	16
Caherciveen	Sw5	50054.6	79046.1	2007/5807	25-Oct-07	11:50	***31***	6.7	2.6	643	40	42	5.7	***45***	11.9
Caherciveen	Sw5	50054.6	79046.1	2008/0025	03-Jan-08	12:22	***6.26***	6.8	1.4	297	37	42.5	9.4	2	7.1
Caherciveen	small st. d/s SW5	50158.6	79160	2008/0028	03-Jan-08	12:40	0.06	***5.8***	< 1	131	30	38	11.2	< 1	6.2
Caherciveen	Sw5	50054.6	79046.1	2008/1616	03-Apr-08	13:15	***4.18***	6.7	1.8	308	33	49	10	< 1	11.8
Caherciveen	Sw5	50054.6	79046.1	2008/3691	17-Jul-08	12:51	***2.58***	6.7	1.7	259	32	35.5	5.3	14	15.9
Caherciveen	Sw5	50054.6	79046.1	2008/5847	04-Nov-08	11:52	***22.4***	6.8	4.4	530	42	40	7.5	12	10
Caherciveen	Sw5	50054.6	79046.1	2009/0084	07-Jan-09	12:50	***13.2***	7	2.6	468	26	40	7.3	16	7.3
Caherciveen	Sw5	50054.6	79046.1	2009/1952	07-Apr-09	14:45	***7.35***	6.6	2.2	248	38	26	9.6	7	10.2
Caherciveen	Sw5	50054.6	79046.1	2009/3599	08-Jul-09	12:32	***1.15***	6.9	3.2	175	70	19	8.4	***38***	15.9
Caherciveen	Sw5	50054.6	79046.1	2009/5159	01-Oct-09	13:15	***27.6***	7	3.7	683	46	43	***3.6***	***40***	13.5
Caherciveen	Sw5	50054.6	79046.1	2010/0205	20-Jan-10	13:25	0.08	6.4	2.4	152	48	26	***4***	16	6.1
Caherciveen	Sw5	50054.6	79046.1	2010/1480	08-Apr-10	11:40	0.16	6.7	1.1	119	51	22	11.2	***21***	9
Caherciveen	Sw5	50054.6	79046.1	2010/3116	14-Jul-10	12:00	0.11	6.8	1	116	44	18	8.2	< 1	15.1
Caherciveen	Sw5	50054.6	79046.1	2010/4727	12-Oct-10	11:30	2.21	7.1	5.7	203	54	14	7.4	***24***	13.7
Caherciveen	Sw6	50828	79459	2003/0352	21-Jan-03	14:55	0.04	6.8	< 1	98	< 10	23	11.2	< 1	7
Caherciveen	Sw6	50828	79459	2003/3924	22-Jul-03	15:50	< 0.02	7.3	< 1	99	23	25	9.5	9	16.3
Caherciveen	Sw6	50828	79459	2004/0535	28-Jan-04	13:55	< 0.02	7.2	1.1	140	< 10	28	12.1		7.5
Caherciveen	Sw6	50828.1	79458.5	2005/1927	19-Apr-05	13:45	< 0.02	7.3	< 1	106	21	27	11.8		8.6
Caherciveen	Sw6	50828.1	79458.5	2006/0521	31-Jan-06	15:10	0.03	7.3	1	116	< 10	22	12.3	< 1	5.1
Caherciveen	Sw6	50828.1	79458.5	2008/0026	03-Jan-08	14:10	0.03	6.7	< 1	118	18	32	11.8	3	6.7
Caherciveen	Sw6	50828.1	79458.5	2009/1946	07-Apr-09	13:23	0.02	6.9	< 1	97	23	22	11.5	< 1	10

Caherciveen	Sw4	50061.3	78733.3	2010/0204	20-Jan-10	13:00	< 0.02	***5.3***	< 1	118	24	29	10.9	< 1	6.1
Caherciveen	Sw4	50061.3	78733.3	2010/0206	20-Jan-10	13:00	< 0.02	***5.2***	< 1	114	25	27	10.9	< 1	6.1
Caherciveen	Sw4	50061.3	78733.3	2010/1479	08-Apr-10	11:25	< 0.02	***5.3***	1.8	119	56	22	11.3	***36***	9.4
Caherciveen	Sw4	50061.3	78733.3	2010/3115	14-Jul-10	12:20	0.05	***5.5***	< 1	90	60	23	6.4	11	16.3
Caherciveen	Sw4	50061.3	78733.3	2010/4725	12-Oct-10	11:10	0.06	***5.9***	2.3	104	50	19.5	7.7	***68***	9
Caherciveen	Sw5	50055	79046	2003/0351	21-Jan-03	11:35	***3.3***	7	< 1	284	30	26	8.4	17	6.5
Caherciveen	Sw5	50055	79046	2003/1922	16-Apr-03	14:30	< 0.02	5.8	1.5	87	44		9.9	11	15.6
Caherciveen	Sw5	50055	79046	2003/3923	22-Jul-03	13:02	***14***	6.9	> 104	551	70	42	<1	***5100***	15.4
Caherciveen	Sw5	50055	79046	2003/5453	01-Oct-03	12:20	***34.5***	7.3	3.4	1188	64	70	3.7	***24.5***	12.2
Caherciveen	Sw5	50055	79046	2004/0534	28-Jan-04	12:25	***2.86***	7.2	1	483	22	34	3.8	< 1	7
Caherciveen	Sw5	50055	79046	2004/1705	14-Apr-04	13:15	***1.07***	7.4	5.3	503	43		5.6	14	12.5
Caherciveen	Sw5	50054.6	79046.1	2004/3705	21-Jul-04	12:02	***30.3***	7.9	4.5	1011	115	57.5	8.9	***124***	16.5
Caherciveen	Sw5	50054.6	79046.1	2004/5214	06-Oct-04	14:02	***2.56***	7.2	1.6	212	85	28	8.9	***28***	11.4
Caherciveen	Sw5	50054.6	79046.1	2005/0376	19-Jan-05	11:52	***5.59***	7.1	1.2	400	48	60.5	9.8	***22***	9.6
Caherciveen	Sw5	50054.6	79046.1	2005/1926	19-Apr-05	11:15	***11.5***	7.7	7.3	513	187	45	9.4		9.4
Caherciveen	Sw5	50054.6	79046.1	2005/3603	14-Jul-05	14:07	***44.99***	7.5	6.9	1499	101	83	4.4	10	18
Caherciveen	Sw5	50054.6	79046.1	2005/5321	13-Oct-05	11:26	***14.2***	7	1.4	596	44	34.5	7.4	5	11.7
Caherciveen	Sw5	50054.6	79046.1	2006/0520	31-Jan-06	12:40	***30***	7.2	1.4	841	24	42	8	***22***	6.9
Caherciveen	Sw5	50054.6	79046.1	2006/1664	20-Apr-06	12:09	0.79	6.8	1.4	134	37	18	10.1	17	10.8
Caherciveen	Sw5	50054.6	79046.1	2006/3670	03-Aug-06	12:45	***4.76***	7	7.3	367	51	23	7	***59***	15.8
Caherciveen	Sw5	50054.6	79046.1	2006/4996	12-Oct-06	11:20	0.16	6.9	< 1	131	152	19	9.7	2	13.9
Caherciveen	Sw5	50054.6	79046.1	2007/0628	01-Feb-07	13:42	***51***	6.7	1.2	1056	59	28	7.7	***52***	9.7
Caherciveen	Sw5	50054.6	79046.1	2007/1941	17-Apr-	12:00	***171***	6.8	6.8	2410	120	95	***4.1***	***113***	12.6

Caherciveen	Sw4	50061	78733	2004/1704	04 14-Apr-04	13:00	0.02 < 0.02	5.7	2	105	52		8.4	***23***	10.9
Caherciveen	Sw4	50061.3	78733.3	2004/5213	06-Oct-04	13:37	0.08	5.3	1.2	96	73	26	9.1	2	11.3
Caherciveen	Sw4	50061.3	78733.3	2005/0375	19-Jan-05	11:20	0.12	5.4	1.6	193	81	52	10.6	***160***	10.2
Caherciveen	Sw4	50061.3	78733.3	2005/1925	19-Apr-05	11:00	< 0.02	6	2.4	171	61	38	10.9	14	7.1
Caherciveen	Sw4	50061.3	78733.3	2005/3602	14-Jul-05	14:28	0.04	6	3	137	33	27	8.5	10	20
Caherciveen	Sw4	50061.3	78733.3	2005/5322	13-Oct-05	11:50	0.17	4.9	< 1	156	107	25	11.3	10	6.8
Caherciveen	Sw4	50061.3	78733.3	2006/0519	31-Jan-06	11:51	0.71	5.8	1.3	148	< 10	27	11	16	3.5
Caherciveen	Sw4	50061.3	78733.3	2006/1663	20-Apr-06	11:51	0.02	5.5	1.3	64	28	13	10.7	6	11.9
Caherciveen	Sw4	50061.3	78733.3	2006/3669	03-Aug-06	12:29	0.07	***4.7***	1.7	149	25	22	9.4	***86***	17.9
Caherciveen	Sw4	50061.3	78733.3	2006/4995	12-Oct-06	11:30	< 0.02	***4.8***	< 1	118	160	19.5	9.9	6	13
Caherciveen	Sw4	50061.3	78733.3	2007/0627	01-Feb-07	13:16	0.1	***4.9***	< 1	195	24	41	10.8	6	10.3
Caherciveen	Sw4	50061.3	78733.3	2007/1940	17-Apr-07	12:10	0.03	***5.2***	7.4	148	50	29	11.1	***36***	12.5
Caherciveen	Sw4	50061.3	78733.3	2007/3905	19-Jul-07	14:02	< 0.02	***4.5***	1.1	150	18	37	9.4	6	18.8
Caherciveen	Sw4	50061.3	78733.3	2007/5806	25-Oct-07	12:00	0.04	***4.5***	< 1	136	24	28	12.6	6	9.6
Caherciveen	Sw4	50061.3	78733.3	2008/0024	03-Jan-08	11:55	0.02	***4.7***	< 1	176	26	43	10.4	2	6.8
Caherciveen	Sw4	50061.3	78733.3	2008/1615	03-Apr-08	12:52	< 0.02	***4.7***	3.6	208	15	41	10.5	12	12.8
Caherciveen	Sw4	50061.3	78733.3	2008/3690	17-Jul-08	12:33	0.08	***4.7***	< 1	154	19	36.5	6.3	***22***	15.8
Caherciveen	Sw4	50061.3	78733.3	2008/5845	04-Nov-08	11:35	< 0.02	***4.9***	1.5	168	20	39	10.6	16	8.9
Caherciveen	Sw4	50061.3	78733.3	2009/0083	07-Jan-09	12:30	< 0.02	***5.1***	1.6	161	10	35	10	11	5
Caherciveen	Sw4	50061.3	78733.3	2009/1950	07-Apr-09	14:30	0.03	***5.3***	1.1	131	32	30	10.2	5	10.6
Caherciveen	Sw4	50061.3	78733.3	2009/3601	08-Jul-09	11:11	0.04	***5.7***	3.2	102	103	20.5	5.4	***275***	15.6
Caherciveen	Sw4	50061.3	78733.3	2009/3602	08-Jul-09	11:11	0.04	***5.6***	2.9	103	117	20.5	5.5	***286***	15.7
Caherciveen	Sw4	50061.3	78733.3	2009/5158	01-Oct-09	13:00	0.16	***5.5***	2.3	133	70	31	5	***29***	15.1

Caherciveen	SW3	50057	78930	2003/5452	01-Oct-03	11:50	< 0.02	7.8	2.9	890	50	42	7.9	***59***	12.9
Caherciveen	SW3	50057	78930	2004/0532	28-Jan-04	12:05	***1.14***	7.2	1.5	289	21	28	10.6	4	7
Caherciveen	SW3	50057	78930	2004/1703	14-Apr-04	13:07	0.9	7.3	3.6	250	36		9.6	2	13.1
Caherciveen	SW3	50057.4	78929.6	2004/5212	06-Oct-04	13:48	0.19	7	1.6	143	165	26	10.1	***61***	11.9
Caherciveen	SW3	50057.4	78929.6	2005/1924	19-Apr-05	11:08	0.05	7.1	1.6	148	86	31	10.8	***93***	9.3
Caherciveen	SW3	50057.4	78929.6	2006/0518	31-Jan-06	12:05	0.09	6.9	1.3	153	73	24	11.4	***134***	6.2
Caherciveen	SW3	50057.4	78929.6	2006/1662	20-Apr-06	12:01	< 0.02	6.7	1.5	92	29	15	10.6	9	10.9
Caherciveen	SW3	50057.4	78929.6	2006/4994	12-Oct-06	11:15	< 0.02	6.9	< 1	121	38	15.5	10	2	14.2
Caherciveen	SW3	50057.4	78929.6	2008/0023	03-Jan-08	12:12	0.03	7.1	< 1	185	43	38.5	10.8	12	6.7
Caherciveen	SW3	50057.4	78929.6	2008/1614	03-Apr-08	13:07	< 0.02	6.9	< 1	230	29	46	10.7	< 1	11.9
Caherciveen	SW3	50057.4	78929.6	2008/5846	04-Nov-08	11:46	0.03	6.7	1.5	154	47	28	10.7	***70***	9.8
Caherciveen	SW3	50057.4	78929.6	2009/0082	07-Jan-09	12:40	0.03	6.5	2	162	40	29	9.9	***80***	7.2
Caherciveen	SW3	50057.4	78929.6	2009/1951	07-Apr-09	14:39	0.02	6.6	1.4	120	36	22	10.5	6	10.2
Caherciveen	SW3	50057.4	78929.6	2009/3600	08-Jul-09	11:49	< 0.02	7.2	< 1	125	41	19	9.2	17	16.5
Caherciveen	SW3	50057.4	78929.6	2010/0203	20-Jan-10	13:14	< 0.02	6.8	< 1	144	27	32	11.4	< 1	7.2
Caherciveen	SW3	50057.4	78929.6	2010/1478	08-Apr-10	11:35	< 0.02	6.9	< 1	58	46	20.5	11.6	6	9.7
Caherciveen	SW3	50057.4	78929.6	2010/3114	14-Jul-10	11:45	< 0.02	7	< 1	112	46	20	9.2	2	15.2
Caherciveen	SW3	50057.4	78929.6	2010/4726	12-Oct-10	11:20	< 0.02	6.9	1.7	118	117	14	9.2	***189***	14.3
Caherciveen	Sw4	50061	78733	2003/0350	21-Jan-03	12:00	< 0.02	5.4	< 1	96	11	25	10	< 1	6
Caherciveen	Sw4	50061	78733	2003/1921	16-Apr-03	14:10	< 0.02	5.6	< 1	92	41		8.3	6	14.4
Caherciveen	Sw4	50061	78733	2003/3922	22-Jul-03	12:40	< 0.02	6.1	2.2	106	126	22	6.5	***224***	14.2
Caherciveen	Sw4	50061	78733	2003/5844	20-Oct-03	12:00	0.69	7.4	1.5	485	116	49	6.8	7	14
Caherciveen	Sw4	50061	78733	2004/0533	28-Jan-	11:45	<	5.6	1.3	113	27	31	8.6	7	6.7

Caherciveen	Sw1	50364.7	78554.9	2006/0517	31-Jan-06	13:37	< 0.02	6.7	1.1	118	< 10	27	11.7	< 1	5.5
Caherciveen	Sw1	50364.7	78554.9	2006/1661	20-Apr-06	12:33	< 0.02	6.3	1.3	85	42	22	10.7	20	10.1
Caherciveen	Sw1	50364.7	78554.9	2006/3668	03-Aug-06	12:03	< 0.02	6.8	< 1	113	< 10	23.5	9.8	< 1	14
Caherciveen	Sw1	50364.7	78554.9	2006/4993	12-Oct-06	11:45	< 0.02	6	< 1	84	68	21.5	10	1	13.4
Caherciveen	Sw1	50364.7	78554.9	2007/0626	01-Feb-07	14:09	< 0.02	6.6	< 1	135	20	29	11.1	1	10.1
Caherciveen	Sw1	50364.7	78554.9	2007/1939	17-Apr-07	12:30	0.07	6.7	1.1	136	20	28	11.9	1	10.7
Caherciveen	Sw1	50364.7	78554.9	2007/3904	19-Jul-07	14:52	< 0.02	6.7	< 1	125	34	26	9.4	1	16.1
Caherciveen	Sw1	50364.7	78554.9	2007/5805	25-Oct-07	12:19	0.05	6.1	< 1	110	25	27.5	12.4	2	9.7
Caherciveen	Sw1	50364.7	78554.9	2008/0022	03-Jan-08	13:02	0.03	6.5	< 1	124	32	34	11.1	1	7.2
Caherciveen	Sw1	50364.7	78554.9	2008/1613	03-Apr-08	13:50	< 0.02	6.5	< 1	163	< 10	39	10.8	< 1	11.9
Caherciveen	Sw1	50364.7	78554.9	2008/3689	17-Jul-08	13:34	< 0.02	6.9	< 1	154	27	35	9.3	2	15.4
Caherciveen	Sw1	50364.7	78554.9	2008/5848	04-Nov-08	12:20	< 0.02	6.6	1.1	125	17	31	11.4	< 1	7.9
Caherciveen	Sw1	50364.7	78554.9	2009/0081	07-Jan-09	13:05	< 0.02	7	2.2	139	14	34	11.9	6	5.6
Caherciveen	Sw1	50364.7	78554.9	2009/1949	07-Apr-09	14:10	< 0.02	6.3	1	111	36	27.5	10.5	5	9.9
Caherciveen	Sw1	50364.7	78554.9	2009/3598	08-Jul-09	13:09	< 0.02	6.4	1.1	95	55	21.5	9.6	4	15.9
Caherciveen	Sw1	50364.7	78554.9	2009/5157	01-Oct-09	13:40	0.13	6.7	< 1	129	21	28	9.2	1	14.2
Caherciveen	Sw1	50364.7	78554.9	2010/0202	20-Jan-10	13:55	< 0.02	6.3	1	86	26	25	11.4	< 1	7.1
Caherciveen	Sw1	50364.7	78554.9	2010/1477	08-Apr-10	12:15	< 0.02	6.6	1	97	31	22.5	12.2	3	9.5
Caherciveen	Sw1	50364.7	78554.9	2010/3113	14-Jul-10	12:45	< 0.02	6.5	< 1	81	45	22	10	1	14.4
Caherciveen	Sw1	50364.7	78554.9	2010/4728	12-Oct-10	11:55	< 0.02	6.8	< 1	100	31	19.5	10.7	1	12.1
Caherciveen	SW3	50057	78930	2003/0349	21-Jan-03	11:20	0.54	7.3	1.4	190	22	22	11.2	5.5	6.5
Caherciveen	SW3	50057	78930	2003/1920	16-Apr-03	14:20	< 0.02	6.2	2.6	87	43		9.6	***29***	16.9
Caherciveen	SW3	50057	78930	2003/3921	22-Jul-03	12:46	0.21	7.3	3.2	223	55	25	7.7	***40***	16.2

Landfill	Location	Eastings	Northings	Sample Reference	Sample Date	Sample Time	Ammonium (NH4)	pH	BOD (O2)	Conductivity @ 20 oC	Chemical Oxygen Demand (O2)	Chloride (Cl)	Dissolved Oxygen (O2)	Suspended Solids	Temperature
							mg/l	*pH units*	*mg/l*	*µS/cm*	*mg/l*	*mg/l*	*mg/l*	*mg/l*	*Degrees C*
Caherciveen	Sw1	50365	78555	2003/0348	21-Jan-03	13:15	0.03	6.4	< 1	104	< 10	27	10.9	< 1	7
Caherciveen	Sw1	50365	78555	2003/1919	16-Apr-03	14:45	< 0.02	6.7	< 1	109	17		9.5	11	14.4
Caherciveen	Sw1	50365	78555	2003/3920	22-Jul-03	15:10	< 0.02	6.9	< 1	110	42	26	9.1	8	14.5
Caherciveen	Sw1	50365	78555	2003/5451	01-Oct-03	12:40	0.04	6.7	< 1	137	11	26	9.7	1.5	11.5
Caherciveen	Sw1	50365	78555	2004/0531	28-Jan-04	12:55	< 0.02	6.7	1.2	116	< 10	31	11.8	< 1	7
Caherciveen	Sw1	50365	78555	2004/1702	14-Apr-04	13:42	< 0.02	6.9	1.7	115	19		10.9	< 1	11.6
Caherciveen	Sw1	50364.7	78554.9	2004/3704	21-Jul-04	12:43	0.06	6.7	< 1	123	29	28.5	9.7	3	14.4
Caherciveen	Sw1	50364.7	78554.9	2004/5211	06-Oct-04	13:12	< 0.02	6.6	< 1	106	35	26	10.3	2	11.8
Caherciveen	Sw1	50364.7	78554.9	2005/0374	19-Jan-05	12:08	< 0.02	6.4	1.1	145	14	39	11	1	9.6
Caherciveen	Sw1	50364.7	78554.9	2005/1923	19-Apr-05	12:30	< 0.02	6.8	< 1	111	33	30	11		9
Caherciveen	Sw1	50364.7	78554.9	2005/3601	14-Jul-05	15:04	0.13	6.8	< 1	129	18	33	8.9	10	15.5
Caherciveen	Sw1	50364.7	78554.9	2005/5320	13-Oct-05	12:28	< 0.02	6.7	< 1	117	93	25	11.4	< 1	8.9

Caherciveen	Se1	2006/3969	21-Aug-06	11:25	0.08	7	1.8	328	97	6		3	Not Detected
Caherciveen	Se1	2006/5073	16-Oct-06	11:50	0.28	6.7	1.7	468	42	2	16.3	6	Not Detected
Caherciveen	Se1	2007/0926	19-Feb-07	13:20	< 0.02	6.6	1.3	497	40	< 1	10.5	< 0.5	ND
Caherciveen	Se1	2007/2366	03-May-07	14:50	0.68	7.3	1.2	548	72	19		4	ND
Caherciveen	Se1	2007/3907	19-Jul-07	15:10	0.93	6.8	8.4	526	81	6	15.8	6.8	Slightsewageodour
Caherciveen	Se1	2007/6153	13-Nov-07	15:20	0.96	7.1	3.3	618	83	*48*	15.5	17	ND
Caherciveen	Se1	2008/0285	14-Jan-08	15:45	< 0.02	6.9	< 1	263	44	*40*	11	2.5	N/D
Caherciveen	Se1	2008/1979	21-Apr-08	11:40	0.52	7	1.4	396	43	8	10	3.4	ND
Caherciveen	Se1	2008/3927	28-Jul-08	12:56	1.59	7.1	10.2	667	107	16	88	5.3	Slight/Sewage
Caherciveen	Se1	2008/6411	02-Dec-08	12:00	0.06	6.8	2.4	457	47	19	9.5	< 2	ND
Caherciveen	Se1	2009/0506	27-Jan-09	15:20	< 0.02	7	1.4	346	49	17	7.5	< 2	ND
Caherciveen	Se1	2009/2098	20-Apr-09	11:00	0.57	7.1	2	522	37	7	10.5	< 2	ND
Caherciveen	Se1	2009/3927	27-Jul-09	12:30	0.75	7.2	13.4	381	225	***90***	15.5	4.9	ND
Caherciveen	Se1	2009/6129	01-Dec-09	11:15	0.76	6.5	9.5	295	518	***349***	10.5	4.1	ND
Caherciveen	Se1	2010/0207	20-Jan-10	12:50	0.08	6.7	1.9	584	35	7	7.1	< 2	None
Caherciveen	Se1	2010/0350	27-Jan-10	10:00	< 0.02	6.7	1.4	457	39	12		3	None
Caherciveen	Se1	2010/1733	22-Apr-10	12:22	0.26	7.7	1.3	267	36	5	8.5	< 2	None

Table 1 Foul Water Monitoring Results

Landfill	Location	Sample Reference	Sample Date	Sample Time	Ammonium (NH4)	pH	BOD (O2)	Conductivity @ 20 oC	Chemical Oxygen Demand (O2)	Suspended Solids	Temperature	Oils/Fats & Grease	Odour
					mg/l	*pH units*	*mg/l*	*µS/cm*	*mg/l*	*mg/l*	*Degrees C*	*mg/l*	*Descriptive*
Caherciveen	Se1	2003/0389	23-Jan-03	11:50	0.26	7.5	1	318	64	1.5		8	Not Detected
Caherciveen	Se1	2003/2067	23-Apr-03	14:00	0.91	7.2	3	296	69	8		2	Not Detected
Caherciveen	Se1	2003/3931	22-Jul-03	13:33	1.14	7	4.7	366	137	*70*	15.7	3	Not Detected
Caherciveen	Se1	2003/5505	03-Oct-03	12:00	0.92	6.6	5.8	527	145	*28*	18.7	4.5	Earthy Odour
Caherciveen	Se1	2004/0979	20-Feb-04	16:20			5		113	*70*		2	Not Detected
Caherciveen	Se1	2004/1909	22-Apr-04	10:40	0.03	6.8	1.7	273	75	*32*		7.6	Not Detected
Caherciveen	Se1	2004/3706	21-Jul-04	11:44	0.14	6.6	9.2	408	108	19	16.6	2.4	Earthy Odour
Caherciveen	Se1	2004/5215	06-Oct-04	13:30	0.09	6.8	1.9	342	59	2	12.5	2	Not Detected
Caherciveen	Se1	2005/0377	19-Jan-05	12:25	< 0.02	7	1.1	329	36	2	9.2	1	Not Detected
Caherciveen	Se1	2005/1932	19-Apr-05	12:15	0.59	6.7	5.4	394	77		10	7.5	Not Detected
Caherciveen	Se1	2005/5579	26-Oct-05	12:00	0.04	7.3	1.7	356	113	12		10	Not Detected
Caherciveen	Se1	2006/0523	31-Jan-06	14:05	1.33	6.4	2.3	353	67	5	7.5	3.6	Not Detected
Caherciveen	Se1	2006/1665	20-Apr-	11:36	0.61	6.3	3.3	264	61	8	10.7	1	Not Detected

Appendix II - Results of Foul and Surface Water Monitoring

Attn: Brian Lennon EE Waste Management Friday, 28 January 2011
Re: LABORATORY Results for CaherciveenTransfer stations : 2010

Enclosed are results (2003 – date) of monitoring of designated Surface water points and Foul emission point sampled as set out in EPA licence conditions for ***CAHERCIVEEN Transfer station.*** The latest results are for July – Dec 2010.

Significant deterioration in status at SW5 was noted in recent years by high level of Ammonia. This is unacceptable for a site so close to watercourse. Further investigations were conducted by KCC laboratory staff in spring of 2010 to try to ascertain source of contamination. Enclosed with this report is a sub report on Biological monitoring of environs of transfer station i.e. **carhan catchment**.

The report shows that biological quality ***upstream*** on ***Carhan*** of transfer station is actually lower than that downstream ***Q value 4*** downstream vs ***3.5*** upstream.
Indeed the point on stream which is a tributary of Carhan stream , just downstream of transfer station scores quiet highly on SSRS investigation.
See enclosed report.
This points to other activities besides landfill activity as having an impact on quality of the Carhan.

An examination of discharge from transfer station since 2003 i.e. ***Se1*** shows ***an effluent of acceptable quality.*** This would seem to indicate that elevated levels at ***SW5*** are due to legacy or old landfill activities

However the impact from transfer station or old legacy landfill activities while they may not yet be evident on surface water quality does not eliminate possibility of a future impact.

An investigation on impacts to groundwater may have to be considered.
Further investigation and monitoring of boreholes and wells in vicinity is therefore recommended.

David Lenihan MSc
Senior Executive Chemist

Ni-Cd batteries and Accumulators	*16 06 02**	
waste mineral oils (lubrication, vehicle, machine etc.)	*13 xx xx*	
oil filters (vehicles)		
oil containers (mineral oil) - plastic + metal		
waste cooking or vegetable oils	*20 01 25*	
aerosols	*20 03 99*	
waste paint and varnish (including containers)		
WEEE (Total)	various	76.32
if segregated, provide the breakdown of WEEE in the next five rows		
fridges and freezers	*20 01 35*; 20 01 36; 16 02 11*; 16 02 14*	*12.08*
white goods (electrical and electronic)	*20 01 36; 16 02 14*	*42.17*
televisions and PC monitors	*20 01 35*; 16 02 13*;*	*10.88*
ICT- Information and Communications Technology Equipment, e.g. Includes Computer Equipment	*16 02 14*	-
other electrical and electronic equipment, e.g. White Goods incl. Washing Machines, Dryersetc, TVs, PCs, Small Items incl. toasters Radios	*20 01 36; 20 01 35**	*11.19*
Gas Cylinders		
C& D Rubble		
fluorescent tubes and lighting	*20 01 21**	
Tyres	*16 01 03*	
bulky waste (provide summary below of waste types) e.g. Furniture, Mattresses, Mixed Bulky Waste	20 03 07	

of metals in the next four rows		
aluminium cans (packaging)	*15 01 04*	*0.82*
steel cans (packaging)	*15 01 04*	*2.20*
other metal packaging	*15 01 04*	-
other metals (non-packaging)(scrap)	*20 01 40*	*41.58*
plastic (Total)	15 01 02; 20 01 39	5.40
if segregated, provide the breakdown of plastic waste in the next two rows		
plastic packaging(bottles)	*15 01 02*	*5.40*
plastic non-packaging	*20 01 39*	-
textiles (Total)	15 01 09; 20 01 11	2.14
if segregated, provide the breakdown of textiles in the next two rows		
textiles, packaging	15 01 09	-
textiles, non-packaging	20 01 11	2.14
wood (Total)	15 01 03; 20 01 38; 20 01 37*	-
if segregated, provide the breakdown of wood waste in the next four rows		
wood packaging	15 01 03	
wood non-packaging	20 01 38	
mixed, uncontaminated wood packaging and non-packaging	15 01 03; 20 01 38	
wood, treated, hazardous	20 01 37*	
miscellaneous hazardous waste (Total)		1.61
small batteries	*20 01 34; 20 01 33**	*0.51*
lead acid batteries (Car Batteries)	*16 06 01**	*1.10*

Appendix I - Waste Collected at Caherciveen Transfer Station and Recovered/Recycled offsite during reporting period

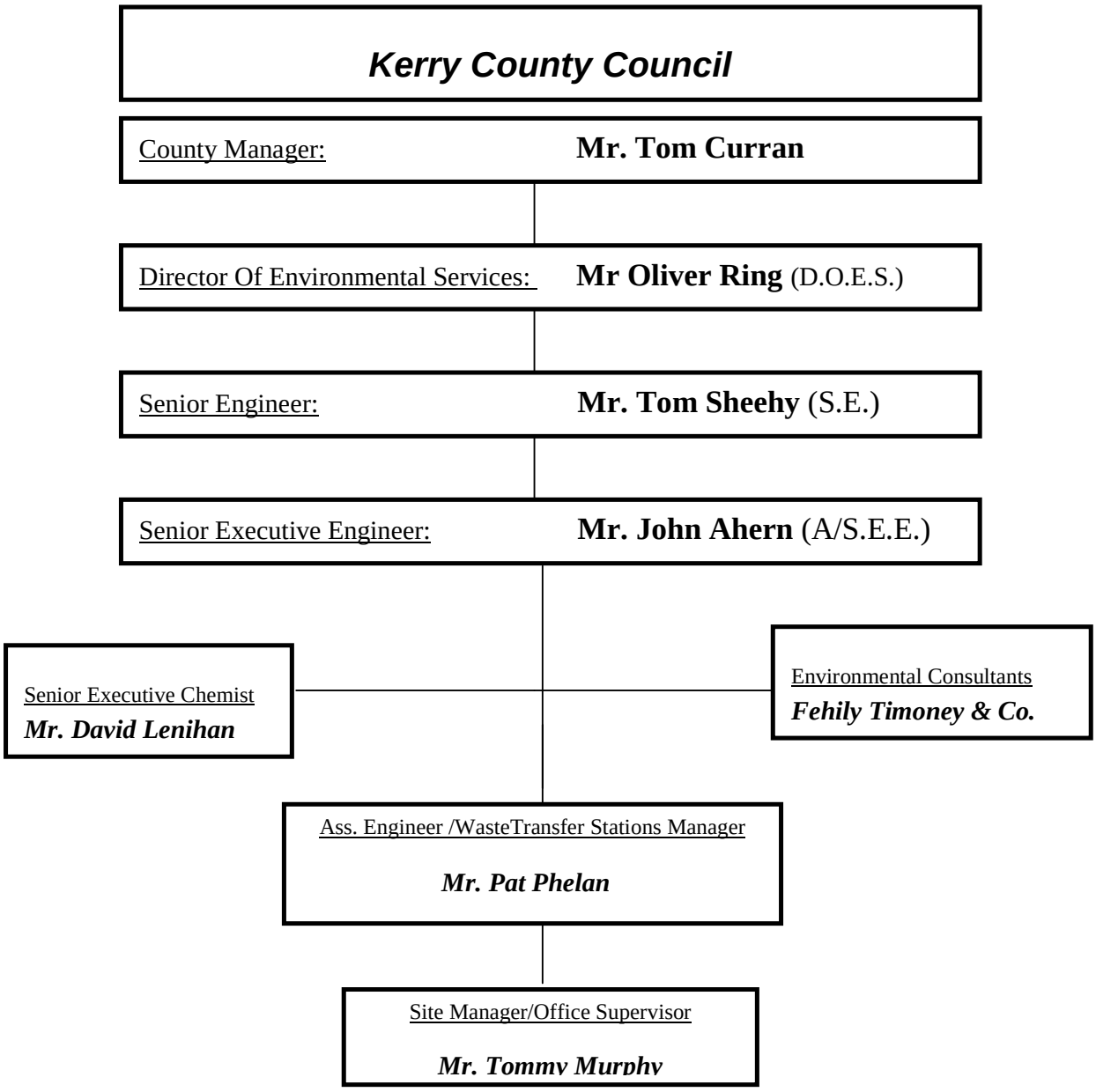
Material type	Suggested EWC Codes	Household Waste
organic waste (food and garden) Total	20 01 08; 20 02 01	-
if segregated, provide specific information on food and garden waste		
food	*20 01 08*	
garden	*20 02 01*	
mixed dry recyclables (KCC Trucks)	20 03 01	148.28
mixed dry recyclables (eco-bags)	15 01 06; 20 03 01	13.40
cardboard, newspaper and other paper (Total)	15 01 01; 20 01 01	61.58
if segregated, provide the breakdown of cardboard and paper in the rows below		
**cardboard packaging*	*15 01 01*	*7.42*
cardboard non-packaging	*20 01 01*	
paper packaging	*15 01 01*	
paper non-packaging	*20 01 01*	*54.16*
**newspaper and magazines*	*20 01 01*	
glass (Total)	15 01 07; 20 01 02	19.57
if segregated, provide the breakdown of glass in the next two rows		
glass packaging(bottles)	*15 01 07*	*19.57*
glass non-packaging(sheet)	*20 01 02*	*-*
metals (Total)	15 01 04; 20 01 40	44.60
if segregated, provide the breakdown		

17 Programme of Public Information

The following files are available for inspection on site by members of the public:

- AER of previous reporting years
- All correspondence with the Agency
- Surface Water Monitoring Results
- Incident/Complaints Register
- Tonnage of waste accepted on site
- Characterisation of waste accepted on site
- Operational Procedure Manual
- Waste Acceptance Procedure
- Information on Recycling Initiatives e.g. leaflets.
- Environmental Management System.

16 Management and Staffing Structure at Facility 2010



b) Statement of Costs for Recycling Operations at Facility

Recycling 2010		
Accelem	**Accelem(T)**	**Total Charge €**
60030	Wages	1,307.96
60040	Salaries	2,883.02
60100	ER PRSI	461.29
60200	Overtime	729.48
60300	Arrears	-7.41
60600	Travel/Subsistence	137.10
61990	Other Allowances	89.64
65500	Minor Contracts- Trade Services & other works	0.00
67500	Non-Capital Equip Purchase - Computers	0.00
68500	Non-Capital Equip Purchase - Other	0.00
69250	Repairs & Maint -Computer Equip	0.00
70000	Materials	0.00
73400	Staff Travelling & Subsistence Expenses	0.00
76000	Communication Expenses	95.47
77200	Security - Property	0.00
78000	Training	0.00
79900	Consultancy/Professional Fees and Expenses	0.00
80000	Advertising	83.20
81000	Printing & Office Consumables	0.00
82100	Statutory Contributions to Other Bodies	0.00
85100	Rates & Other LA Charges	0.00
86000	Energy	0.00
99000	Miscellaneous Expenses	0.00
	Total	5,779.75

15 Report on Financial Provision

a) Statement of Costs for Waste Operations at Facility

Waste 2010		
Accelem	**Accelem(T)**	**Total Charge €**
60030	Wages	31,417.74
60040	Salaries	8,649.30
60100	ER PRSI	5,418.05
60200	Overtime	12,720.41
60300	Arrears	-22.24
60400	Sick Pay	268.30
60500	Annual Leave	3,939.28
60510	Bank Holiday Leave	1,194.99
60600	Travel/Subsistence	3,317.82
61990	Other Allowances	1,897.38
65500	Minor Contracts- Trade Services & other works	50,213.94
67500	Non-Capital Equip Purchase - Computers	0.00
68500	Non-Capital Equip Purchase - Other	717.73
69200	Repairs & Maint - Plant	161.87
69250	Repairs & Maint -Computer Equip	0.00
69260	Repairs & Maint - Other Equip	557.75
69400	Transfers from Machinery Yard	2,392.50
69600	Other Vehicle Expenses	88.00
70000	Materials	605.45
70970	Issues From Stores No Markup	302.52
70990	Issues from Stores	2,769.02
70991	Returns to Stores	-333.81
71000	Insurance	139.70
73400	Staff Travelling & Subsistence Expenses	2,604.84
76000	Communication Expenses	1,062.11
77100	Courier	91.64
77200	Security - Property	765.00
78000	Training	50.00
79900	Consultancy/Professional Fees and Expenses	0.00
80000	Advertising	251.47
81000	Printing & Office Consumables	1,402.08
82100	Statutory Contributions to Other Bodies	7,612.72
85100	Rates & Other LA Charges	0.00
86000	Energy	3,016.18
99000	Miscellaneous Expenses	0.00
	Total	143,271.74

12 Report on Progress towards achievement of the 2009 Environmental Objectives and Targets

Objective	***Target***	***Progress***
Continue to promote recycling in all forms	Ongoing	Recycling levels decreased overall due to weak economic environment
Promote new scrap metal collection	10% increase by December 2010	53% increase achieved
Promote new cardboard collection	10% increase by December 2010	32% increase achieved
Improve access to facility	Purchase lands and widen access road to site by December 2010	Not achieved due to issues with land ownership – lands subject to probate process

13 Summary of Procedures Developed by the Licensee

The following procedures were developed during the reporting period:

- Revised Waste Acceptance Procedures – Weight of waste leaving Facility compared to weight of waste arriving in Landfill
- Revised Operational Procedures for Facility Manager
- Revised Health & Safety Procedures

14 Reported Incidents and Complaints

No incidences or complaints were reported in relation to the operation of the facility during the reporting period.

11 Schedule of Environmental Objectives and Targets for the Forthcoming Year

Target Area	***Objective***	***Works Required***
Surface Water Emissions	Keep Surface Water Emissions within agreed limits	Regular inspection of surface water drains. Regular monitoring of results from Surface Water Monitoring Points.
Litter – On public roads to facility	Reduction in the number of bags of waste/litter lost from trailers on the way to the facility	Regular inspections and clean up of approach roads. Quick response to clean up any reported waste on the approach roads to the facility
Energy Resources	Reduce the quantity of diesel and electricity used on site	
Cardboard and Textiles	Promote & increase collection of cardboard and textiles	Increased promotion and marketing of service
Access to Facility	Purchase lands to facilitate widening of access road to site	Reach agreement with landowners to purchase lands for road widening by December 2011

8.0 Resource and Energy Consumption Summary

The following is the energy consumption for Caherciveen Transfer Station for the reporting period.

8.1 Diesel

The diesel usage for Caherciveen Transfer Station for the reporting period 2010 was 2,007 litres. The primary usage of diesel is for the rubber tyred excavator on site, waste compactor and the oil burner in the steam washer.

8.2 Electricity

The electricity usage for the facility during the reporting period was 15,618 kilowatt hours.

Power is required for the office computer and lighting, weighbridge, waste compactor, storage heating, water pumping, cardboard baler and public lighting on the site.

8.3 Water

Water supply is from a groundwater borehole on site. Water usage for the facility during the reporting period was 150,000 litres, some of which was accounted for by a leak detected and repaired in late 2010. Water is mainly used on site for power washing yards, transfer station apron and hopper and washing of trucks where required.

9 Report on Development Works Undertaken during the Reporting Period

No development works were undertaken at the facility during the reporting period.

10 Timescale for Proposed Development Works For Forthcoming Year

No development works are proposed at the facility for 2011.

no complaints were received in relation to dust at the facility. The results over the years have shown no significant nuisance from dust at the facility.
Kerry County Council will carry out dust monitoring in 2011.

b) Noise monitoring.

No noise monitoring was carried out during 2010 due to a misunderstanding between Kerry County Council and the EPA. There were no issues with noise during 2010 and no complaints were received in relation to noise at the facility. The results over the years have shown that the facility caused no significant noise nuisance to neighbours.
Kerry County Council will carry out noise monitoring in 2011.

c) Monitoring of surface water.

The surface water monitoring results are attached in Appendix II. Visual inspections indicated no issues except for some discolouration noted at SW5. While high levels of ammonium were noted at SW5 in the past there has been a significant improvement noted in the water quality during 2010 relative to earlier results. Enclosed in Appendix II is a summary report of biological monitoring of the carharn catchment carried out in 2010 which found that the biological quality of the carharn upstream of the transfer station is of lower quality than that downstream.
The high levels of suspended solids would appear to be from sediment disturbed whilst taking samples due to the low flow levels in the drains.

d) Foul Water

The foul water emissions results are attached in Appendix II. The results of samples from the foul water emissions show an effluent of acceptable quality during the reporting period.

e) Landfill gas

The levels of methane gas and carbon dioxide recorded have reduced significantly (**CH_4** - 1.0 % v/v, **CO_2** - 0.3% v/v) compared to 2008 and 2009. The landfill gas monitoring results are attached in Appendix III.

5.0 Projections of the quantities to be accepted and percentages disposed and recycled/recovered for the coming year

It is expected that waste disposal rates and recycling/recovery rates at Caherciveen Transfer Station will continue to decrease in the next reporting period mainly due to the weak economic environment and the increasingly competitive waste industry.

6.0 Summary Report on Emissions for the Reporting Period

a) Foul Water Emissions

The foul water discharge is monitored quarterly. The results are sent to the EPA and are also available at the Caherciveen facility. No significant exceedances of limits were noted during this reporting period.

A Puraflow Wastewater Treatment Unit is installed at the facility to treat all foul waters from the site. The Puraflow unit was serviced by Bord na Mona during 2010.

b) Surface Water Emissions

Surface water runoff from site roads and uncontaminated surfaces discharges via silt traps to the surface water drains.

c) Waste from Silt Traps and Interceptors

A total of 30 Tonnes of silt/sludge and wastewater were removed from the silt trap and the foul water treatment unit during the reporting period and disposed of at Tralee Wastewater Treatment Plant.

7.0 Summary of Results and Interpretations of Environmental Monitoring

a) Dust monitoring.

No dust monitoring was carried out during 2010 due to a misunderstanding between Kerry County Council and the EPA. There were no issues with dust during 2010 and

Overall the quantities of waste sent for recycling decreased in comparison to last year, particularly for dry recyclables, glass, newspapers and batteries. Increases were noted for metals, aluminium, cardboard and WEEE. Waste sent for recycling during the reporting period compared with previous years is outlined in Table 2 below.

Waste for Recycling & Recovery	***Tonnages 2008***	***Tonnages 2009***	***Tonnages 2010***
Metals	0	28.70	43.78
Glass	17.8.	20.55	19.57
Aluminium	0.66	0.77	0.82
Batteries	1.7	5.46	1.61
Newspapers	67.0	66.9	54.16
Cardboard	0	4.82	7.42
Fluorescent Tubes	0	0	0
Domestic Hazardous Waste	0.13	0.6est	0
Plastic Bottles	4.57	4.81	5.4
Waste Engine Oil	0	1.88	0
WEEE	95.71	72.39	76.32
Dry Recyclables	4.8	243.2	161.68[1]
Organics	0	0	0
Textiles	2.84	2.78	2.14
Total for Recycling/Recovery	**195.21**	**453.09**	**224.62**

[1] Dry recyclables collected in eco sense bags and from KCC kerbside collection trucks

Table 2 Waste collected on site and recovered/recycled off site during the reporting period.

Appendix I contains a breakdown of waste by classification collected on site and recovered/recycled off site during the reporting period.

4.0 Quantity and Composition of Waste Received, Disposed and Recovered: 1st Jan – 31st Dec 2010

Waste tonnage disposed of at Caherciveen Transfer Station during the reporting year (2010) decreased on the previous year (2009). This is primarily due to the downturn in the economy resulting in a significant change in the disposal habits of members of the public. The quantity of construction and demolition waste delivered directly to the facility has significantly reduced.

The weight of the waste accepted into Caherciveen Transfer Station Facility for disposal for the reporting period was 1,279.50 Tonnes. This comprises of the following breakdown:

Waste for Disposal	***Tonnes***	
	2009	***2010***
Municipal waste collected by Local Authority & Private Contractors	664.98	459.70
Commercial & Industrial	102.72	195.85
Road Sweepings & Graveyard Waste	44.74	38.36
Flytipping	28.06	27.14
Public Domestic	714.08	558.45
Total for Disposal	**1554.58**	**1,279.50**

Table 1 Waste Stream Break down for reporting Period.

activities licensed in accordance with the Third Schedule of the Waste Management Act 1996. Licensed activities include:

Class 12 Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 13 Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Waste recovery activities carried out at Caherciveen Transfer Station are in accordance with Part 1 of Waste Licence W0087-01 which outlines the waste recovery activities licensed in accordance with the Fourth Schedule of the Waste Management Act 1996. Licensed activities include:

Class 1 Solvent reclamation or regeneration.

Class 2 Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).

Class 3 Recycling or reclamation of metals and metal compounds.

Class 4 Recycling or reclamation of other inorganic materials.

Class 13 Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

1.0 Introduction

Kerry County Council operates a waste transfer and recycling facility located in the townland of Inchamacteige, approximately 3 km south east of the town of Caherciveen, Co. Kerry. The site is accessed via a small access road branching off the county road L7006 which intersects with the N70 approximately 2 km to the north of the site.

The principal activity of the Transfer Station is the compaction of solid waste into 30 cubic metre closed containers for subsequent transfer and disposal at North Kerry Landfill in Muingnaminane, Tralee.

Other activities include the recycling or reclamation of inorganic materials including metals, glass, steel and aluminium cans, car batteries, dry cell batteries, fluorescent tubes, domestic hazardous waste, cardboard, plastic bottles and newspapers. Small quantities of organic waste are also collected for transfer to North Kerry Landfill for composting.

This Annual Environment Report is prepared in accordance with Condition 2.8 and Schedule B of Waste Licence W0087-01 issued by the Environmental Protection Agency (EPA).

2.0 Reporting Period

The reporting period for this Annual Environmental Report is 1st January 2010 – 31st December 2010.

3.0 Waste Activities Carried out at the Facility

Waste disposal activities carried out at Caherciveen Transfer Station are in accordance with Part 1 of Waste Licence W0087-01 which outlines the waste disposal

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Kerry County Council

Waste Licence Ref No. W0087-01

REPORT TITLE

Caherciveen Transfer Station
Annual Environmental Report

Reporting Period:

January 2010 – December 2010

Prepared By:
Environmental Service Section,
Kerry County Council,
Maine Street,
Tralee
Co. Kerry.

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