Monaghan County Council

Scotch Corner Landfill

Scotch Corner Landfill

1st January 2014 – 31st December 2014

Annual Environmental Report

May 2014 **Waste Licence W0020-02**

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1. INTRODUCTION

On 7th December 2001 the EPA granted a waste licence, W0020-01, subject to conditions to Monaghan County Council for its facility at Scotch Corner Landfill. This licence is for the operation and development of an existing non-hazardous landfill at Scotch Corner, Letterbane, Annyalla, Castleblaney, Co. Monaghan and also covers the operation of a Material Recovery Facility at the site. The Material Recovery Facility allows for the storage and processing of pre-segregated recyclable wastes.

This licence was reviewed by the Agency and a new licence, W0020-02 was issued on the 24th March 2010.

Condition 11.7 of Waste Licence W0020-02 states the following:

11.7 Annual Environmental Report

11.7.1 The licensee shall submit to the Agency, by the 31st March each year an AER covering the previous calendar year. This report, which shall to the satisfaction of the Agency, shall include as a minimum the information specified in Schedule G: Annual Environmental Report of this Licence and shall be prepared in accordance with any revelant guidelines issued by the Agency.

The AER shall include as a minimum the information specified in Schedule G: Content of the Annual Environment Report of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

This Annual Environmental Report will include the following:

- Reporting Period.
- Waste activities carried out at the facility.
- Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year.
- Calculated remaining capacity of the facility and year in which final capacity is expected to be reached.
- Methods of deposition and recovery of waste.
- Summary report on emissions.
- Summary of results and interpretation of environmental monitoring.
- Resource and energy consumption summary.
- Proposed development of the facility and timescale of such development (including plant operating capacity at the MRF, provision of adequate standby and provision of contingency, backup and spares in the case of breakdown)
- Capacity and provision of contingency, backup and spares in the case of breakdown).
- Volume of leachate produced and volume of leachate transported / discharged off-site.
- Report on development works undertaken during the reporting period, and a timescale for those proposed during the coming year.
- Report on restoration of completed cells/ phases.
- Site survey showing existing levels of the facility at the end of the reporting period.
- Estimated annual and cumulative quantities of landfill gas emitted from the facility.
- Estimated annual and cumulative quantity of indirect emissions to groundwater.
- Annual water balance calculation and interpretation.
- Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report.
- Schedule of Environmental Objectives and Targets for the forthcoming year.
- Updates to Landfill Environmental Management Plan (LEMP)
- Review of Environmental Liabilities
- Report on waste recovery
- Full title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation.
- Tank, pipeline and bund testing and inspection report.
- Reported incidents and Complaints summaries.

- Review of Nuisance Controls.
- Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information.
- Report on training of staff.
- Statement of compliance of facility with any updates of the relevant Waste Management Plan.
- Statement on the achievement of the waste acceptance and treatment obligations.
- Any other items specified by the Agency.

2. REFERENCES

Waste Licence W0020-02.
Waste Licence Application Form – Monaghan County Council 25th February 1998.
EPA Landfill Manuals – Landfill Operational Practises.
E.I.S. for Scotch Corner Landfill Site Monaghan – MCOS.
Scotch Corner Landfill 2014 Groundwater Monitoring Reports.
Scotch Corner Landfill 2014 Surface Water Monitoring Reports.
Scotch Corner Landfill 2014 Leachate Monitoring Reports.
Scotch Corner Landfill 2014 Noise Monitoring Report.
Scotch Corner Landfill 2014 Landfill Gas Monitoring Reports.
Scotch Corner Landfill 2014 Dust Monitoring Reports.
Pestproof Service Reports.
Rock Bird Control Service Reports.
Environmental Management System at Scotch Corner Landfill Rev.00.
Scotch Corner Landfill 1st January 2013– 31st December 2013 Annual Environmental Report.
Scotch Corner Landfill 2014 AER Returns Workbook.
Scotch Corner Landfill 2014 EPA Landfill Gas Survey.
Scotch Corner Landfill 2014 Biodegradable Municipal Waste Reporting Landfill Submission Report.
National Waste Report 2014 Survey.
Connacht - Ulster Region Waste Management Plan 2015 – 2021.
Focus on Landfilling in Ireland – EPA.

3. CONTENT OF ANNUAL ENVIRONMENTAL REPORT

3.1 Reporting Period

This report covers the period 1st January 2014 to 31st December 2014.

3.2 Waste activities carried out at the facility

Scotch Corner Landfill is licensed to accept household waste, commercial waste, non-hazardous industrial waste and construction and demolition waste.

Wastes that will not be accepted at the landfill facility include the following:

- Whole used tyres (other than bicycle tyres and tyres with an outside diameter greater than 1400mm) and shredded tyres.
- Liquid Wastes

- Sludges
- Hazardous Wastes as defined by the European Waste Catalogue and Hazardous Waste List
- Unsorted Waste

Scotch Corner Landfill is closed to the public and accepts the above waste types from licensed hauliers only. All other persons must present their waste for disposal at the Material Recovery Facility (MRF). The MRF accepts the following clean, dry, segregated recyclables from householders and industrial and commercial sectors: paper, newspaper, cardboard, glass, timber, rubble, aluminium and steel cans, plastic, textiles/clothes, footwear, white goods, scrap metal, electrical goods (except printers), waste oil, used cooking oil, fluorescent tubes, batteries, gas cylinders, tyres, polystyrene, plasterboard, paint cans and green waste. The MRF also accepts mixed skips of recyclables from householders and kerbside collection of recyclables from waste hauliers.

Scotch Corner Landfill is licensed to accept and deposit the following waste types in lined cells as per Schedule A of the Waste Licence:

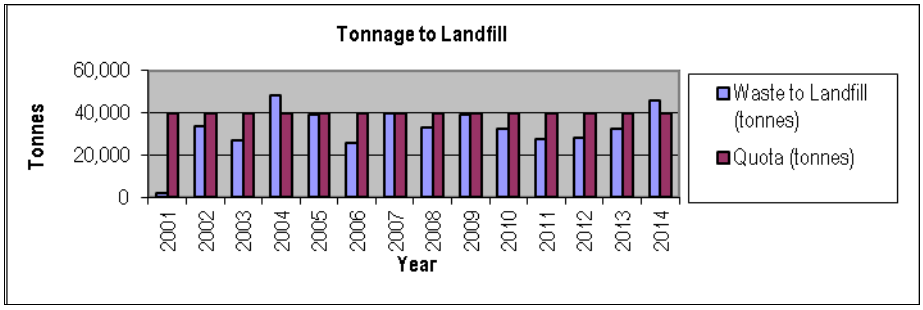
Waste Type	Maximum Tonnes Per Annum
Household	18,200
Commercial	5,700
Construction and Demolition	2,800
Industrial Non-Hazardous	12,800
TOTAL	39,500

3.3 Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year

(A) Waste Disposal

Table 1: Types and Quantities of waste disposed to landfill from 07/12/01 – 31/12/14.

Year	Household EWC 20 03 01 20 03 07	Commercial EWC 20 03 01 20 03 02 19 12 12	Industrial EWC 20 03 01 19 12 04 07 01 99 02 03 04	Mixed Municipal Waste EWC 20 03 01	Sewage Sludge EWC 19 08 05	Industrial Sludge EWC 02 05 02	Construction & Demolition EWC 17 09 04	Street Cleanings EWC 20 03 03	TOTAL (tonnes)
2001	908.52	121.89	562.75		238.72	15.90	0	13.11	1,861
2002	15,103.3	3,736.66	8,390.4		4,703.44	622.77	277.32	397.39	33,231
2003	11,895.14	2,047.01	6,833.30		4,921.88	662.85	239.29	414.65	27,014
2004	19,096.03	3,757.94	16,210.71		5,473.12	560.91	345.56	2,487.23	47,932
2005	20,111.51	2,981.29	8,085.37		5,681.26	1020.06	214.28	729.77	38,824
2006	13,770.61	1,305.71	7,280.73		1,232.70	169.60	291.48	1,693.69	25,745
2007	12,559.82	2,689.06	10,888.38	12,528.14	0	0	49.44	792.75	39,508
2008	12,976.48	1,972.74	7,121.10	10,137.14	0	0	40.9	706.38	32,955
2009	9,228.92	612.22	4,737.98	23,492.30	0	0	93.28	668.16	38,833
2010	18,689	9,140	3,717		0	0	5	671	32,222
2011	7,326.62	681.30	5,070.06	13,587.82	0	0	0	701.90	27,368
2012	4,837.86	6,911.16	1,799.00	13,755	0	0	0	771.00	28,075
2013	11,582.21	7,506.5	2,915.24	9021	0	0	0	1,429.31	32,454
2014	0.00	326.70	11,129.68	31,261.20	0	0	13.6	2,859.86	45,591
Quota	18,200	5,700	12,800		0	0	2,800		39,500



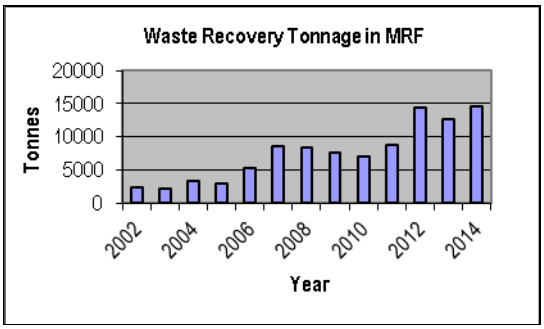
(B) Waste Recovery

Table 2: Waste Recovery Table for Scotch Corner Recycling Centre 01/01/14 – 31/12/14

Load Type	EWC Code	Tonnes
Lead Batteries	16 06 01	2.8
Household Batteries	16 06 02	2.5
C & D waste	17 09 04	1050.72
Textiles	20 01 10	9.1
Glass	15 01 07	202.54
Brown Bin Organic Waste	20 02 01	462.56
Fluorescent lights & Bulbs	20 01 21	0.654
Newspaper and Magazines	20 01 01	174.28
Scrap metal	20 01 40	197.7
Timber/Woodchip	20 01 38	343.8
Cooking Oil	20 01 25	0.62
Waste oil	13 02 08	1.039
Metallic Packaging	15 01 04	28.88
Cardboard	15 01 01	2026.28
Mixed Paper	20 01 01	44.44
CRT's	20 01 35	46.543
LDA's	20 01 36	17.398
LDA's cold	20 01 36	14.698
SDA's	20 01 36	29.632
Mixed Dry Recyclables	20 03 01	2372.965
Oil filters	16 01 07	0.24
Windscreen Glass	16 01 20	22.56
Tyres	16 01 03	11.02
Hard Plastic Packaging	17 02 03	63.2
Plastic Bottles	15 01 02	51.72
Hard Plastic Non-Packaging	17 02 03	6.8
Waste Paint	20 01 27	0.473
Aerosol cans	16 05 04	0.505
Plastic Packaging	15 01 02	90.0
Green Waste	20 02 01	219.50
Mixed Residual Waste	20 03 01	7103.16
	Total	**12581.6**

Table 3: Waste Recovery Table for Scotch Corner Recycling Centre 2001 – 2014

Year	Tonnes
Dec 2001 & 2002	2,435.88
2003	2,067.32
2004	3,382.10
2005	1749.69
2006	5280.5
2007	8531.999
2008	8460.12
2009	7683.77
2010	6999.56
2011	8674.42
2012	14380.86
2013	12581.6
2014	14598.327



3.4 Calculated Remaining Capacity of the Facility and year in which Final Capacity is expected to be reached

From calculations carried out by RPS in January 2015 using the topographical survey carried out in December 2014, there is approximately 55,000m3 of void space remaining However only approximately 30,000 – 40,000m3 capacity remains for MSW as the remainder of the void space is located on the flanks of completed cells. As much of this void space as possible will be filled with Incinerator Bottom Ash as site engineered material. Final Capacity will be reached in early 2016 at the latest.

3.5 Methods of Deposition and Recovery of Waste

From 1st January 2014 to 27th January 2014 waste was deposited to landfill into Cells 4a, 4b, 4c, 5a and 5b of Phase 3. Waste was compacted using a compactor and/or hymac and/or dozer as required.

From 25th April 2005 to date the MRF is operated by McElvaney Waste & Recycling Ltd. During this period 1/1/14 to 31/12/14, source segregated recyclable materials and mixed recyclables from their skip collection service at the MRF are sent to recycling outlets approved by the Agency. Unsorted household recyclable materials collected by kerbside is not sorted at the MRF but are sent directly to approved recycling outlets.

Waste deposited in the compactor at the MRF in 2014 was landfilled in Cell 4a, 4b, 4c, 5a and 5b or was brought off site for disposal at the Indaver Incinerator facility..

Ref. "SOP 05 Waste Acceptance and Characterisation Procedure at Scotch Corner Landfill"

3.6 Summary Report on Emissions

3.6.1 Dust

Results for all dust monitoring locations were below the Waste Licence dust deposition limit of 350mg/m^2/day except as follows:

Results for the first schedule (13/06/2014 to 30/07/2014) for dust monitoring locations D1 & D4 exceeded the dust deposition of 350mg/m^2/day limit. D1 sample contained 2 large flies, approx 12 small flies and 1 twig while D4 sample contains 3 leaves, 1 twig and a large number of small insects to a number of tiny insects.es.

D1 results for the second schedule (5/8/2014 to 27/08/2014) exceeded the dust deposition limit slightly due to approx. 40 flies in the sample. D3 results for the second schedule (5/8/2014 to 27/08/2014) exceeded the dust deposition limit of 350mg/m^2/day slightly due to green moss like material and approx. 30 flies in the sample. D4 results for the second schedule (5/8/2014 to 27/08/2014) exceeded the dust deposition limit of 350mg/m^2/day due a leaf and hundreds of flies in the sample.

D4 results for the third schedule (09/09/2014 to 21/10/2014) exceeded the dust deposition limit of 350mg/m^2/day due a large leaf in the sample.

Dust monitoring location D1 is prone to slightly elevated reading from small insects from the nearby drain and surrounding vegetation that are attracted to the preservative Metoxyethanol in the dust jars.

Likewise dust monitoring location D2 is prone to slightly elevated reading from small insects from the nearby forest and surrounding vegetation that are attracted to the preservative Metoxyethanol in the dust jars.

Dust monitoring location D3 is prone to slightly elevated reading from dust from the main road that is located approximately 5m to its south.

Dust monitoring location D4 is prone to very elevated readings from overhanging vegetation.

Data since 2002 shows significant improvements since monitoring commenced in 2002.

Ref. 'Scotch Corner Landfill 2014 Dust Monitoring Report'.

3.6.2 Noise

As per in previous years the noise survey carried out at Scotch Corner Landfill in 2014 indicated that there are no significant noise emissions at the facility.

Results for noise monitoring locations NSL1, NSL 2, D1 and D4 are below the Waste Licence noise emission limits of 45 Night dB(A) L_{AEQ}(30 minutes) and 55 Day dB(A) L_{AEQ}(30 minutes).

Ref. 'Scotch Corner Landfill 2014 Noise Monitoring Report'.

3.6.3 Landfill Gas

Permanent landfill gas extraction and flaring has operated from Area 1 and Area 2 (capped cells since 2004) since 8th December 2005 including this period 1/1/14 to 31/12/14. Landfill gas extraction and flaring has operated from Phase 2 (capped cells since 2010) from vertical extraction wells since 10th December 2007. Landfill gas extraction and flaring has operated from Cell 5a (partially capped cell and temporarily capped cell since 2010) from horizontal extraction pipework since 29th January 2008 and from vertical extraction wells 16th December 2009. Landfill gas extraction and flaring has operated from Cell 4a (temporarily capped cell since 2010) from horizontal extraction pipework since 19th January 2009 and from vertical extraction wells 16th December 2009. Landfill gas extraction and flaring has operated from cell 4b

from horizontal extraction pipework since 30th June 2010 and from vertical extraction wells since 27th October 2011. Landfill gas extraction and flaring has operated from cell 5b from horizontal extraction pipework since 3rd September 2013 and from vertical extraction wells since 9th October 2013.

Landfill gas produced by the decomposition of waste from Phase 2 (cells 2 & 3) discharged to the atmosphere since waste deposition commenced in this cell on 22/10/03 until 10/12/07 when flaring from this area commenced.

Landfill gas produced by the decomposition of waste from Cell 5a discharged to the atmosphere since waste deposition commenced in this cell on 21/6/07 until 29/1/08 when flaring from this area commenced.

Landfill gas produced by the decomposition of waste from the Cell 4a discharged to the atmosphere since waste deposition commenced in this cell on 23/6/08 until 19/1/09 when flaring from this area commenced.

Landfill gas produced by the decomposition of waste from the Cell 4b discharged to the atmosphere since waste deposition commenced in this cell on 15/3/10 until 30/6/10 when flaring from this area commenced.

Landfill gas produced by the decomposition of waste from the Cell 4c discharged to the atmosphere since waste deposition commenced in this cell on 29/6/11 until 28/1/2012 when flaring from this area commenced.

Landfill gas produced by the decomposition of waste from the Cell 5b discharged to the atmosphere since waste deposition commenced in this cell on 28/1/13 until 3/9/2013 when flaring from this area commenced.

See also 3.7 Summary of results and interpretation of environmental monitoring and 3.14 Estimated annual and cumulative quantities of landfill gas emitted from the facility.

3.6.4 Leachate

An analysis of surface water and groundwater at the Scotch Corner facility indicates that there is contamination of surface water and groundwater by leachate from the old landfill.

See also 3.7 Summary of results and interpretation of environmental monitoring and 3.10 Volume of leachate produced and volume of leachate transported / discharged off-site and 3.15 Estimated annual and cumulative quantities of indirect emissions to groundwater.

3.7 Summary of results and interpretation of environmental monitoring

3.7.1 Landfill Gas

During 2014, analysis of the inlet the landfill gas flare stack indicates active decomposition of waste since monitoring commenced on 1/3/06.

Analysis of the outlet the landfill gas flare stack was carried out by Odour Monitoring Ireland on 12th June 2014 and 20th August 2014. All parameters remained below the flare stack emission trigger levels for these dates.

During 2014, analysis of gas in boreholes at the perimeter of the facility (B1a, B2a, B3a, B4a, B5a, B6a and S3) indicate that there is no migration of gas from the current facility i.e. Area 1 (comprising of Cell 1 and the unlined cell to the north of Cell 1), Area 2 (comprising of the unlined cell behind the MRF), Phase 2 (Cells 2 and 3) and Phase 3 (Cells 5a and 4a, 4b & 4c) which the exception of S3 on various dates between 25/6/14 and 31/10/14. With reference to INCI004592 and correspondence from the Agency dated 15/4/15 "Licence Return Approval Noitice", S3 is no longer classified as a perimeter landfill gas monitoring well as it is too close and directly linked to Area 1 body of waste.

Landfill Gas readings for boreholes L7, L8 and L9, located within the body of waste, are typical for waste that is actively decomposing.

Continuous monitoring of landfill gas in the weighbridge office, MRF office and in the MRF canteen indicate that the results are below the Waste Licence trigger levels for landfill gas emission levels of less than or equal to 1.0%v/v methane and less than or equal to 1.5% Carbon Dioxide.

Ref. 'Scotch Corner January to March 2014 Landfill Gas Monitoring Report'
'Scotch Corner Landfill April to June 2014 Landfill Gas Monitoring Report'
'Scotch Corner Landfill July to September 2014 Landfill Gas Monitoring Report'
'Scotch Corner Landfill October to December 2014 Landfill Gas Monitoring Report'
"Air Emission Compliance Monitoring Emissions Report" for Scotch Corner Landfill, Letterbane, Annyalla, Castleblaney, Co. Monaghan" performed by Air Scientific on behalf of Odour Monitoring Ireland for Monaghan County Council on 12/6/14 and 20/8/14..

3.7.2 Noise Monitoring

See 3.6.2 Noise above.

3.7.3 Groundwater Monitoring

Analytical results of groundwater samples taken from private wells within 250m of the facility indicate no contamination from the landfill.

Old G1 was connected to the leachate collection system on 28/5/07. Works to install groundwater interceptor drains around the perimeter of old landfill took place in early 2007 and the discharge from this system was sampled and analysed as new G1 since April 2007.

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Further investigations at the old landfill have identified the source of contamination and further remedial works were completed in summer of 2008 to prevent this source of contamination entering this groundwater collection system.

Analysis of groundwater at new G1 represents the quality of groundwater that was discharging from upstream of the old landfill (across the road from the current facility) to a surface water drain at the western side of Cell 1. Further remedial works upstream of new G1 were completed by Irish Biotech on 19/6/2012 and therefore the discharge at new G1 ceased completely on 19/6/2012. There was no discharge from new G1 in 2013.

Groundwater from G2 (discharge of groundwater from under Phase 3 since July 2007) indicates no contamination from the landfill and its quality remains typical of background levels for a boggy area.

The leachate interceptor drain has been fully operational around unlined Cell 1 since 04/06/03 and this has eliminated leachate contamination from this unlined cell to Boreholes S3 and RC1.

Analysis of groundwater sampled from S3, RC1, B1, B1a, B2, B2a, B3, B3a, B4, B4a, B6 and B6a show no contamination from the landfill while analysis of groundwater from boreholes B5 and B5a continues to indicate leachate contamination from the old landfill. As per 2009, 2010, 2011, 2012 and 2013 a slight improvement in water quality at B5a was noted in 2014.

Groundwater levels and temperature continued to be monitored in groundwater boreholes RC1, S3, B1, B1a, B2, B2a, B3, B3a, B4, B4a, B5, B5a, B6 and B6a on a quarterly basis during 2014.

Ref. Scotch Corner Landfill January to March 2014 Groundwater Monitoring Report.
Scotch Corner Landfill April to June 2014 Groundwater Monitoring Report.
Scotch Corner Landfill July to September 2014 Groundwater Monitoring Report.
Scotch Corner Landfill October to December 2014 Groundwater Monitoring Report.

3.7.4 Leachate Monitoring

Results of analysis of leachate in all boreholes on site are typical of leachate from waste that is actively decomposing, with elevated readings of BOD, COD, Ammonia, Chloride and Minerals during this reporting period.

Leachate levels continue to be recorded on a weekly basis in leachate boreholes L5, L7, L8 and L9 from pressure transducer data on the Scada computer located in the landfill manager's office.

Leachate levels in Phase 2 and Phase 3 were also recorded on a weekly basis during 2014 from pressure transducer data on the Scada computer located in the landfill manager's office.

The leachate level in Phase 3 exceeded the 1m threshold in 2014 from 27/12/2013 to 21/1/2014 (Ref. Incident Sheet INCI003318), from 24/1/2014to 24/1/2014 (Ref. Incident Sheet INCI003330), from 16/2/14 to 17/2/2014 (Ref. INCI003554) and from 26/12/2014 to 27/12/14 (Ref. INCI006244).

The leachate level in L5 exceeded the 1m threshold in 2014 from 27/12/2013 to 2/1/2014 (Ref. Incident Sheet INCI003318)

Ref. Scotch Corner Landfill January to March 2014 Leachate Monitoring Report.
Scotch Corner Landfill April to June 2014 Leachate Monitoring Report.
Scotch Corner Landfill July to September 2014 Leachate Monitoring Report.
Scotch Corner Landfill October to December 2014 Leachate Monitoring Report.
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3.7.5 Surface Water Monitoring

Surface water samples S5, S6 and S7 continue to show contamination from the landfill. This contamination is attenuated with distance from the landfill as seen by analysis data for S7, EPA 155 and EPA 180.

However a significant improvement in water quality at S7 is noted since June 2012 as a result of the blocking of New G1 discharge on 23/5/2012 with the average ammonia level of 8.1mg/l in January to June 2012 decreasing to 3.4mg/l in July to December 2012. While the average ammonia readings varies from 3.1mg/l in July to September 2014 to 13.9mg/l in April to June 2014, the average yearly ammonia reading

at S7 has increased slightly each year. The average ammonia reading in 2014 was 7.71mg/l compared toh 6.86mg/l in 2013 and 5.73mg/l in 2012.

S8 is the surface water sampling point upstream of the landfill and is typical of background surface water quality. Oil Interceptor S9, discharging to the leachate lagoon shows elevated ammonia levels but mineral oil analysis remains below the trigger level.

Ref. Scotch Corner Landfill January to March 2014 Surface Water Monitoring Report.
Scotch Corner Landfill April to June 2014 Surface Water Monitoring Report.
Scotch Corner Landfill July to September 2014 Surface Water Monitoring Report.
Scotch Corner Landfill October to December 2014 Surface Water Monitoring Report.

3.7.6 Meteorological Monitoring

Met Eireann on behalf of Monaghan County Council recorded the meteorological parameters as per Schedule D.6 of the Waste Licence W0020-02 for its facility at Scotch Corner.

Ref. Scotch Corner Landfill Meteorological Monitoring Report 2014.

3.7.7 Topographical Survey

This survey completed by QED Engineering in December 2014.

3.7.8 Biological Assessment

This survey was completed by Conservation Services in May 2014 and indicated that water quality remained the same as 2009, 2010, 2011, 2012 and 2013 levels with S7 remaining at Q2-3 and EPA155 at Q3. Biological monitoring was carried out monitoring location S8 for the first time in 2010 and was classified as moderately polluted (Q2-3). The water quality entering Scotch Corner landfill site at S8 deteriorated in 2011 and 2012 to seriously polluted (Q2) and improved slightly in June 2013 and is now classified as moderately polluted (Q2-3) in 2013 and 2014..

3.7.9 Archaeological Assessment

No archaeological assessment was carried out at the facility in 2014.

3.7.10 Nuisance Monitoring

Nuisance monitoring was carried out at least twice weekly basis by the landfill manager or by the deputy landfill manager or by the acting landfill manager. These site inspections recorded the presence or absence of nuisances caused by litter, vermin, birds, flies, mud, dust and odours at the facility and at its immediate surrounds and the corrective actions to be carried out. Completed 'Site Inspection Forms at Scotch Corner Landfill' are maintained at the Landfill Office.

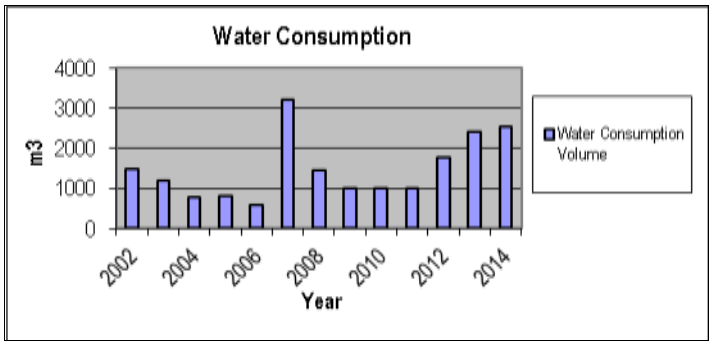
Ref. "SOP 11 Site Inspection Procedure in Environmental Management System at Scotch Corner Landfill

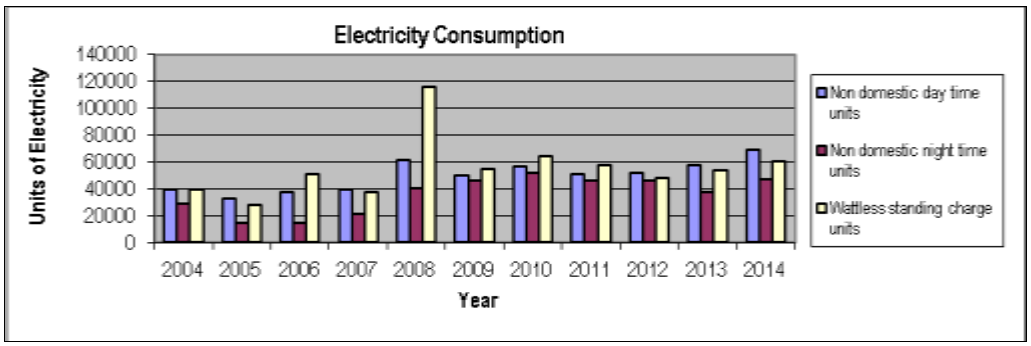
3.8 Resource and energy consumption summary

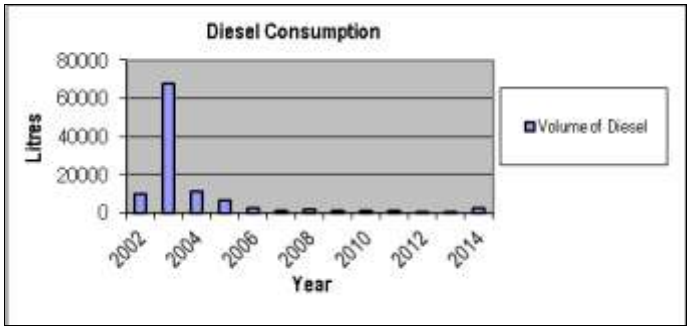
The following table summaries the consumption on site of water, electricity, diesel, and gravel. Water consumption consisted of usage by the wheel wash facility and domestic purposes. Electricity consumption consisted of usage by the landfill office, leachate pumps, groundwater pumps and the landfill gas flare. Diesel consumption includes the diesel supplied for the jeep and other hired in plant and equipment (e.g. dumper, generator etc). Gravel was required for maintenance of site roads, installation of horizontal gas extraction pipework and vertical gas extraction boreholes and other works on site as they arose (e.g. placement of ducting).

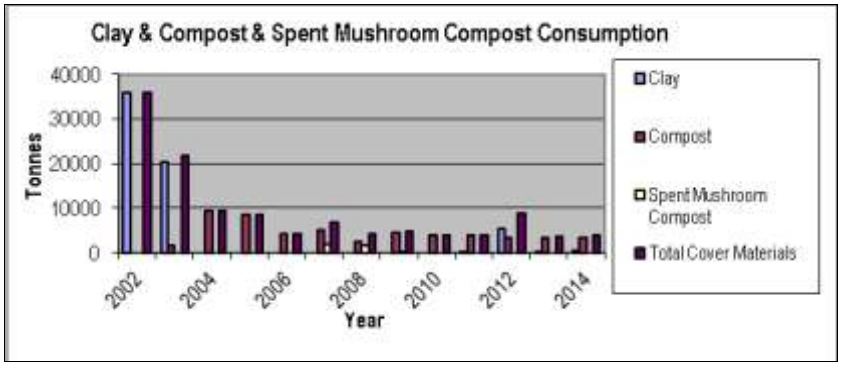
Table 8: Resource and Energy Consumption Table

Resource/Energy Source	Units consumed
Water	2, 37m3
Electricity	Non-domestic day time units 69,300 Non-domestic night time units 47,208 Wattless standing charge units 60,600
Diesel	~2,400L
Stones/Gravel	1,500.09 tonnes
C&D	3,849.52 tonnes
Compost	3,295.12 tonnes
Imported Soil	554.94 tonnes
Incinerator Bottom Ash	7,497.24 tonnes
Spent Mushroom Compost	0 tonnes









3.9 Proposed development of the facility and timescale of such development (including plant operating capacity at the MRF, provision of adequate standby and provision of contingency, backup and spares in the case of breakdown)

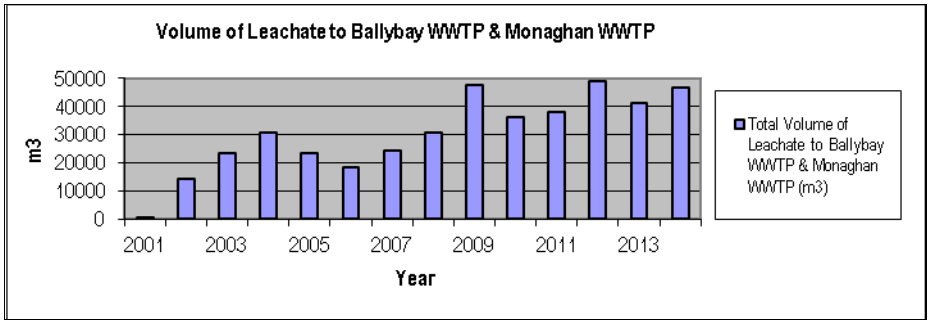
The following are the proposed development works for the year 2015/2016 subject to approval from the Agency, planning permission and/or funding from the Department of the Environment as appropriate:

- Gas infrastructure in Phase 3.
- Installation of additional groundwater monitoring boreholes and completion of the Risk Screening and where necessary a technical assessment in accordance with the "Guidance on the Authorisation of Discharges to Groundwater" published by the EPA.
- Installation of flow meters at Phase 2 leachate pump, Phase 3 leachate pump, Area1 leachate interceptor pump, Area 2 leachate interceptor pump, S9 surface water discharge to the leachate lagoon and Condensate KOP 2.
- Completion of Scotch Corner Landfill future options report and decision made on opening new cells and decision made on viability of utilization of landfill gas.
- Tender documents for procurement of consultant for preparation and supervision of Specified Engineering works to be carried out in 2015/2016.
- Procurement for EIS, Final Capping of Phase 3, Landfill gas utilization and leachate treatment.
- EIS for construction of facility for leachate treatment.
- Final capping of Phase 3.
- Installation of landfill gas utilization plant (if viable)
- Installation of leachate treatment facility.

3.10 Volume of leachate produced and volume of leachate transported / discharged off-site

Table 9: Disposal of Leachate from 07/12/01 – 31/12/14

Year	Total Volume to Monaghan WWTP
07/12/01 – 31/12/01	81.97 m^3
2002	14,484.68 m^3
2003	23,411.11 m^3
2004	30,841.64 m^3
2005	23,490.46 m^3
2006	18,344.17 m^3
2007	24,313.93 m^3
2008	30,631.02 m^3
2009	47,498.06 m^3
2010	36,149.02 m^3
2011	38,020.37 m^3
2012	49,124.87 m^3
2013	41,243.31 m^3
2014	46,635.58 m^3



3.11 Report on development works undertaken during the reporting period, and a timescale for those proposed during the coming year

The following development works were undertaken during the reporting period 01/01/14 to 31/12/14:

- Installation of third lift of horizontal gas extraction infrastructure in Cell 5b.
- Connection of vertical gas extraction well GE65 to gas collection system and flare.
- Installation of a new gas analyzer on the landfill gas flare.
- Remedial works to KOP1 which was sucking in air.
- Extension of gas wells and relocation of gas carrier pipes to facilitate waste deposition.

See also 3.9 Proposed development of the facility and timescale of such development (including plant operating capacity at the MRF, provision of adequate standby and provision of contingency, backup and spares in the case of breakdown) above.

3.12 Report on restoration of completed cells/ phases

No restoration works were carried out in 2014.

3.13 Site survey showing existing levels of the facility at the end of the reporting period

A topographical survey was carried out by QED Engineering in December 2014.

3.14 Estimated annual and cumulative quantities of landfill gas emitted from the facility

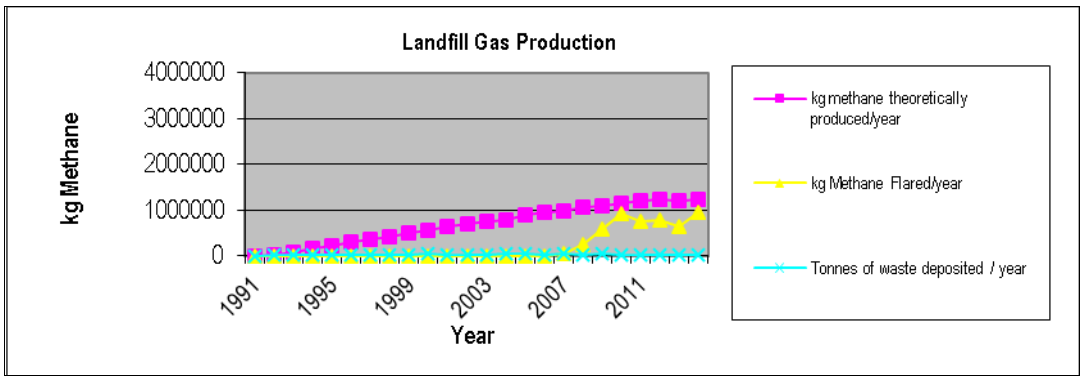
The volume of landfill gas has been estimated as 200m^3 of gas per tonne of waste over its life in the Waste Licence Application. This figure assumes that the waste comprises of a 50/50 mix of slowly decomposable and rapidly decomposable material. The rapidly decomposable material is assumed to generate gas for 5 years after placement with peak gas generation for each tonne of waste being 1 year after placement. Gas generation for the slowly decomposable material is assumed to be on going for 15 years after placement with a peak at 5 years after placement.

Using the Landgem program 3.650 x 10^6 m^3 of landfill gas (assumed 50% methane by volume) was theoretically produced in 2014 by waste deposited at Scotch Corner. This is equivalent to 1,218,000kg Methane in 2014. The figure below for waste deposition excludes 15,376T of repatriated waste from Northern Ireland and 7,227T of incinerator bottom ash which is classified by the Agency as 0% BMW.

Landfill gas extracted and flared from Area 1, Area 2, Phase 2 and Phase 3 in 2014 was calculated to be 1,424,619m^3 CH_4 which is equivalent to 938,182kg.

The follows summaries landfill gas production since the site opened in 1991 using the Landgem Program and EPA Landfill Survey Data for 2008, 2009, 2011, 2012, 2013 and 2014:

Year	Tonnes of waste deposited / year	Theoretical kg methane produced /year	Actual kg methane flared /year
1991	6750 (estimated)	0	0
1992	28000 (estimated)	17,690	0
1993	28000 (estimated)	90,390	0
1994	28000 (estimated)	160,200	0
1995	28000 (estimated)	227,300	0
1996	28000 (estimated)	291,800	0
1997	32237 (estimated)	353,800	0
1998	30,120.87	424,400	0
1999	33,882.46	486,700	0
2000	36,762.53	556,400	0
2001	33,256.37	631,000	0
2002	33,231.28	693,400	0
2003	27,014.12	753,300	0
2004	47,931.5	794,600	0
2005	38,823.53	889,100	0
2006	25,744.52	956,000	0
2007	39,507.59	986,000	~59,614
2008	32,954.74	1,051,000	258,086
2009	38,832.86	1,096,000	588,747
2010	32,222	1,155,000	921,191
2011	27,367.7	1,194,000	762,589
2012	14,320	1,219,000	780,475
2013	21,444	1,209,000	651,322
2014	22,988	1,218,000	938,182



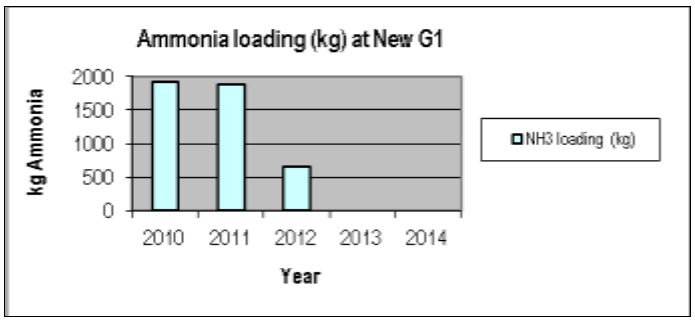
3.15 Estimated annual and cumulative quantities of indirect emissions to groundwater

Waste for disposal at Scotch Corner landfill is placed in lined cells to prevent potential discharge to groundwater. Leachate is pumped from the lined cell to the leachate lagoon and tankered off-site for treatment at Monaghan WWTP.

However, prior to the construction of lined cells on site, the landfill operated on a dilute and disperse principle with leachate collection by gravity in the old leachate lagoon. Consequently leachate from the unlined cells also migrated to groundwater. Leachate interceptor drains have been put in place around unlined cells at the facility to mitigate the risk of leachate contamination of groundwater and capping of unlined cells was completed on 28/7/05.

Despite remediation works that were undertaken at the old landfill, leachate contamination from the old landfill continues to discharge to surface water at new G1. In 2010 46,610m3 discharged from New G1 with an average ammonia concentration of 41mg/L. This equates to ammonia loading of approx. 1911kg of ammonia to this surface water in 2010. In 2011 58,840m3 discharged from New G1 with an average ammonia concentration of 31mg/L. This equates to reduced ammonia loading of approx. 1882kg of ammonia to this surface water in 2011. Before the ceasing of the discharge at New G1 19/6/2012 17,975m3 discharged to surface water with an average ammonia concentration of 37mg/L. This equates to reduced ammonia loading of approx. 665kg of ammonia to this surface water body in 2012. There was no discharge from New G1 to surface water in 2013 and 2014.

Date	Volumetric Loading (m^3)	Average NH_3 (mg/l)	NH_3 loading (kg)
2010	46610	41	1911
2011	58840	32	1882
2012	17975	37	665
2013	0	n/a	0
2014	0	n/a	0



See also 3.7.3 Groundwater Monitoring.

3.16 Annual water balance calculation and interpretation

The calculation for annual water balance is as follows:

Lo = [ER(A) + LW + IRCA + ER(1)] – [aW]

Where Lo = leachate produced (m^3)
ER = effective rainfall (use actual rainfall (R) for active cells)(m)
A = area of cell (m^2)
LW = liquid waste (also includes excess water from sludges) (m^3)
IRCA = infiltration through restored and capped areas (m)
1 = surface area of lagoons (m^2)
a = absorptive capacity of waste (m^3/t)
W = weight of waste deposited (t/a)

ER = 1.1047m (Total rainfall for 2014 from Met Eireann Data)

A = 17,700m^2) (~Area of unlined cell 1 & Area of unlined cell behind MRF)
+ 7,800m^2 (~Area of Cell 1)
+ 20,000m^2 (~Area of Cell 2 & 3)
+ 8,100m^2 (~Area of Cell 5a)
+ 4,500m^2 (~Area of Cell 4a)
+ 4,500m^2 (~Area of Cell 4b)
+ 4,000m^2 (~Area of Cell 4c)
+ 5,100m^2 (~Area of Cell 5b)

LW = $0m^3$

IRCA = 30% of ER x Area of capped cells
= (30% of 1.1047) x ($7800m^2$ + $17700m^2$ + $14240m^2$ + $8048m^2$)
= 0.3314m x 47788 m^2 = $15837m^3$

1 = $350m^2$ (~ area of new leachate lagoon)

a = $0.025m^3/t$

W = 45591 (total weight deposited in landfill in 2014)

ER(A) = 1.1047m x ($20000m^2$ + $8100m^2$ + $4500m^2$ + $4500m^2$ + $4000m^2$ + 5100 m^2 - $14240m^2$ - $8048m^2$)
= 1.1047m x $23912m^2$
= $26416m^3$

Lo = [ER(A) + LW + IRCA + ER(1)] – [aW]
= $26416m^3$ + $0m^3$ + $15837m^3$+(1.1047 x $350m^2$)]–[$0.025m^3/t$ x 45591t]
= [$26416m^3$ + $0m^3$ + $15837m^3$ + $387m^3$] – $1140m^3$
= $41500m^3$

Theoretical volume of leachate produced in 20143 = 41,500m^3.
Actual volume of leachate tankered off site to Monaghan WWTP = 46,636m^3.

The figure of 46,6363m^3 of leachate tankered to Monaghan WWTP also includes approximately 6,917m^3 of contaminated water from the old landfill (old G1), approximately 5000m3 from S9 (which has been discharging to the leachate lagoon since 20/4/2010) and condensate from the gas collection system (estimated at ~250m^3 for 2014). Therefore the actual volume of leachate produced and tankered off site in 2014 was ~34,469m^3.

There are a number of unknowns in the calculations of both the theoretical and actual volume of leachate generated on site. These are:

- The water balance formula does not take into account the fact that 17,700m2 of the capped area on site are actually unlined cells and that leachate generation is as a result of ingress of groundwater at the base of the cells.
- The volume of condensate generated on site and discharged to the leachate lagoon via 5 knockout pots on site is estimated with the exception of KOP1 which has a flow meter installed. KOP1 discharged 1.85 m^3 of condensate to the leachate lagoon in 2014.
- The volume of surface water discharge S9 from the oil interceptor which discharges to the leachate lagoon is estimated.

There it is not possible to compare the theoretical and actual volume of leachate generated on site.

3.17 Report on the progress towards achievement of the Environmental Objectives and Targets contained in previous year's report

The following progress toward achieving the Environment Objectives and targets listed in the 2013 AER was achieved in 2014:

- Implementation of EMS.
- Commenced Risk Screening and Technical Assessment in accordance with the "Guidance on the Authorisation of Discharges to Groundwater" published by the EPA.
- Submission of Scotch Corner Landfill 1st January 2013 – 31st December 2013 Annual Environmental Report in June 2014.
- Provision of Staff training as per training plans in 2014.

- Intermediate capping of Cells 4a, 4b, 4c, 5a and 5b using IBA and soil.
- Installation of horizontal gas collection pipework for the active collection & flaring of landfill gas from Cell 4c and connection to flare of same and gas extraction well GE65.
- On-going Implementation of Restoration and Aftercare Plan.
- On-going implementations of "Scotch Corner Landfill Resource Use and Energy Efficiency Report" dated December 2006 and subsequent Energy Audits.

3.18 Schedule of Environmental Objectives and Targets for the forthcoming year

Table 12: Schedule of Environmental Objectives and Targets for 2014

Objective	Target	Completion Date
Maintain EMS	Update EMS as required	December 2015
Implement new requirements of W002-02	Complete the Risk Screening and where necessary a technical assessment in accordance with the "Guidance on the Authorisation of Discharges to Groundwater" published by the EPA	June 2015
Prepare AER	Submit Annual Environmental Report 2015 to the Agency	31st March 2015
Provision of Training	Provide training as per training plans for 2015.	December 2015
Provision of MRF Infrastructure / Reduce waste to landfill	Apply to the Agency for change of opening hours at Scotch Corner Recycling Centre and change of use to Transfer Station.	December 2015
Provision of Landfill Infrastructure	Final capping of Phase 3	December 2015
	Installation of additional vertical gas extraction boreholes and for the active collection & flaring of landfill gas from Phase 3 as required	December 2015 or until cell is full.
	Installation of additional groundwater monitoring boreholes.	March 2015
	Installation of flow meters at Phase 2 leachate pump, Phase 3 leachate pump, Area1 leachate interceptor pump, Area 2 leachate interceptor pump, S9 surface water discharge to the leachate lagoon and Condensate KOP 2.	March 2015
	Completion of Scotch Corner Landfill future options report and decision made on opening new cells and decision made on viability of utilization of landfill gas.	June 2015
	Tender documents for procurement of consultant for preparation and supervision of Specified Engineering works to be carried out in 2015/2016.	September 2015
	Procurement for EIS, Final Capping of Phase 3, Landfill gas utilization and leachate treatment.	March 2016
	EIS for construction of facility for leachate treatment.	2016
	Final capping of Phase 3.	2016
	Installation of landfill gas utilization plant (if viable)	2016
	Installation of leachate treatment facility.	2016
Provision of Restoration & Aftercare	On-going implementation of Restoration and Aftercare Plan.	December 2015
Improve Energy Efficiency & Reduce Resource Use	On-going implementation of "Scotch Corner Landfill Resource Use and Energy Efficiency Report" dated December 2006 and subsequent Energy Audits and "Energy Map" recommendations by SEI.	December 2015

3.19 Updates to Landfill Environmental Management Plan (LEMP)

No updates to Landfill Environmental Management Plan (LEMP) were carried out in 2014

3.20 Review of Environmental Liabilities

No review of the Environmental Liabilities Risk Assessment which was completed by Fehily, Timoney & Company Ltd. in May 2012 was carried out in 2014.

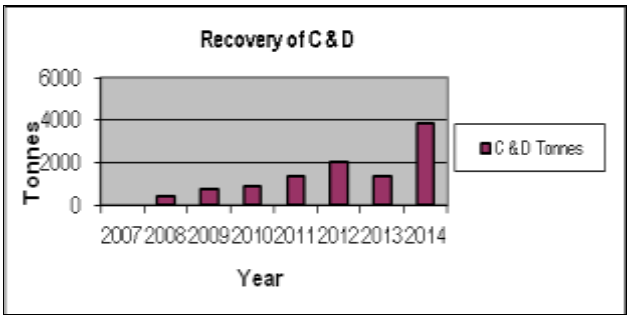
3.21 Report on Waste Recovery

See also 3.3 Quantity and Composition of waste received, disposed of and recovered during the reporting period and each previous year

3.21.1 The recovery of Construction and Demolition Waste

In 2014 Scotch Corner Landfill reused 3849.52tonnes of C & D waste for maintenance of entrance pad and tipping area in its active Cell.

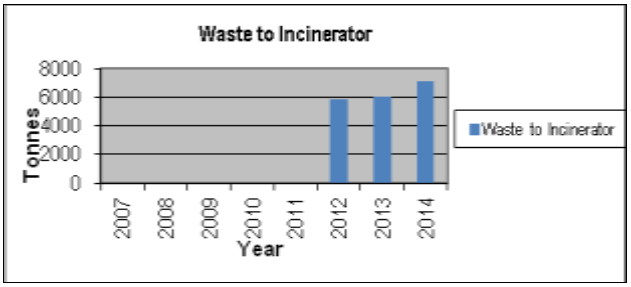
Year	C & D Tonnes
2007	0
2008	399.62
2009	760.7
2010	877.8
2011	1340.18
2012	2014.45
2013	1355.12
2014	3849.52



3.21.2 The recovery of energy from other waste at Scotch Corner MRF, by incineration

In 2014 Scotch Corner MRF sent 2537.16T of Commercial mixed residual waste (EWC Code 20 03 01) and 4566.0T of Household mixed residual waste (EWC Code 20 03 01) to Indaver's incinerator at Duleek, Co. Meath for energy recovery.

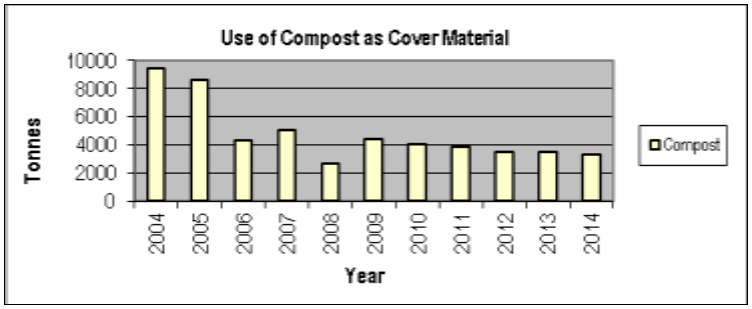
Year	Waste to Incinerator (tonnes)
2007	0
2008	0
2009	0
2010	0
2011	0
2012	5816.18
2013	6003.4
2014	7103.16



3.21.3 The recovery of other waste in landfill operation, including restoration

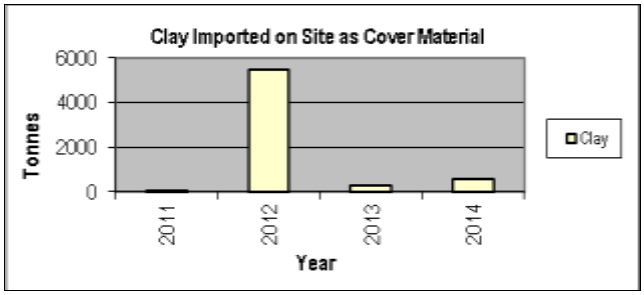
In 2014 Scotch Corner Landfill used 3295.12tonnes of compost from Milltown Composting for daily cover material.

Year	Compost
2004	9413.32
2005	8624.64
2006	4292.1
2007	5014
2008	2632.18
2009	4422.98
2010	3990.38
2011	3824.22
2012	3514.66
2013	3451.5
2014	3295.12



In 2014 Scotch Corner Landfill imported 554.94tonnes of soil to be used as daily/intermediate cover material as well as using on site clay and peat as intermediate cover material.

Year	Soil
2011	18.46
2012	5456.34
2013	268.74
2014	554.94



3.21.4 The recovery of energy through landfill gas combustion

There is no recovery of energy through landfill gas combustion on site at present. However a decision will be made in 2015 regarding the viability of a landfill gas utilization plant at Scotch Corner Landfill

3.22 Full Title and a written summary of any procedures developed by the licensee in the year which relates to the facility operation

No procedures were created in 2014.

SOP 17 Procedure for Landfill Gas Management at Scotch Corner Landfill was revised in 2014 as follows:

- 30/1/2014 - To comply with CI Action "Amend LFG Procedures/Records" Ref. CI000556 for Waste Licence W0020-02.
- 7/2/2014 - To comply with CI Action "Amend LFG Procedures/Records" Ref. CI000556 for Waste Licence W0020-02 and further request for gas sampling protocol by telephone 7/2/14 (Ref CI000556).
- 10/2/2014 - To comply with CI Action "Amend LFG Procedures/Records" Ref. CI000556 for Waste Licence W0020-02 and further request for gas sampling protocol by CI Action A007403 10/2/14.

- 10/10/2014 - To comply with Action 3 as requested by email dated 7 August 2014 and email dated 25 September 2014 Ref INCI004592 "Develop a control procedure for ensuring sufficient gas extraction from nearby wells, to intercept and mitigate the gas pathway to S3 by 10/10/2014".

The following SOPs are in operation on site:

Title: SOP 01 Document Control and Records
Revision No: Rev.00
Issue Date: 22/10/02
Summary: This procedure outlines how documentation and data relating to the operation of the landfill at Scotch Corner is controlled and how records are maintained to demonstrate compliance with the Waste Licence 20-1. This procedure covers the control of the following documents and the records associated with them:
Waste Licence 20-1; Environmental Management Plan; SOPs; Master Forms.

Title: SOP 02 Procedure for Leachate Management at Scotch Corner Landfill
Revision No: Rev.02
Issue Date: 07/03/02, Revised 29/04/02, Revised 12/04/07
Summary: This procedure details the leachate collection and removal system in operation at Scotch Corner landfill.

Title: SOP 03 Procedure for Operation of Weighbridge at Scotch Corner Landfill
Revision No: Rev.01,
Issue Date: 12/04/07, Revised 22/11/11
Summary: This procedure details the protocol for the weighbridge using Riteweigh software at Scotch Corner landfill.

Title: SOP 04 Emergency Response Procedure
Revision No: Rev.01
Issue Date: 28/08/02, Revised 05/12/02
Summary: This procedure details the Emergency Response Procedure that will be implemented at the facility at Scotch Corner to comply with Condition 9.2 of Waste Licence 20-1. This procedure and SOP 07 Corrective Action Procedure will be followed in the event of an emergency situation arising on site. The Emergency Response Procedure applies, but is not limited to the following incidents: Major Fire / Explosion; Migration of Landfill Gas; Spillage; Serious injury/accident to persons; Equipment Breakdown greater than 24 hours; Any other incident that may pose a significant threat to persons or to the environment.

Title: SOP 05 Waste Acceptance and Characterisation Procedure at Scotch Corner Landfill
Revision No: Rev.04
Issue Date: 29/05/02, Revised 18/10/04, 22/11/11, 26/3/2013 & 8/4/2013
Summary: This procedure details the waste acceptance and characterisation operations in place at Scotch Corner landfill to comply with Condition 5.2 of Waste Licence W0020-02. The procedure is summarized under the following headings:
Waste Acceptance; Waste Rejection; Waste Handling (mixed municipal waste); Waste Handling (Incinerator bottom ash); Waste Covering; Waste Characterisation; Biodegradable Municipal Waste Content Determination.

Title: SOP 06 Communications Programme
Revision No: Rev.00
Issue Date: 20/08/02
Summary: This procedure details the Communications Programme that will be implemented at the facility at Scotch Corner to comply with Condition 2.4.1 of

Waste Licence 20-1. The Communications Programme includes newspaper advertisements, web site advertisements, and letters to the elected members and information requests to the Landfill Manager.

Title: SOP 07 Corrective Action Procedure
Revision No: Rev.00
Issue Date: 28/08/02
Summary: This procedure details the Corrective Action Procedure that will be implemented at the facility at Scotch Corner to comply with Condition 2.3.2.3 of Waste Licence 20-1. This procedure will be followed in the event of any non-compliance of the Waste Licence that occurs in relation to the operation of the site. This includes incidents, complaints from the public, non-conforming waste loads, etc.

Title: SOP 08 Procedure for Operation of Scotch Corner Landfill in Adverse Wind Conditions
Revision No: Rev.00
Issue Date: 04/10/02
Summary: This procedure details the programme that operates at Scotch Corner landfill in adverse wind condition resulting in either complete closure, limited closure or complete closure.

Title: SOP 09 Procedure for Acceptance and Handling of Sludge at Scotch Corner Landfill
Revision No: Rev.01
Issue Date: 09/10/02, Revised 18/10/04
Summary: This procedure details the operations for accepting and handling sludges (sewage sludge and industrial non-hazardous sludges) at Scotch Corner landfill including restricted acceptance hours and deep burial of sludge on site to minimize nuisance by odours from sludges on site.

Title: SOP 10 Awareness and Training Programme
Revision No: Rev.00
Issue Date: 22/10/02
Summary: This procedure details the Awareness and Training Programme that has implemented at the facility at Scotch Corner to comply with Condition 2.3.2.4 of Waste Licence 20-1. The purpose of this programme is to outline how training needs are identified, carried out and documented for all staff whose work is related to the operation of Scotch Corner Landfill by means of training plans and training records.

Title: SOP 11 Site Inspection Procedure
Revision No: Rev.00
Issue Date: 03/12/02
Summary: This procedure details the protocol for performing a site inspection at Scotch Corner to comply with Condition 8.14 of Waste Licence W0020-01 and completion of Site Inspection Forms at Scotch Corner Landfill.

Title: SOP 12 Sampling Procedure
Revision No: Rev.00
Issue Date: 04/12/02
Summary: This procedure details the frequency and protocol for sampling and analysis of groundwater, well water, surface water, leachate, and dust and landfill gas at Scotch Corner to comply with Condition 8.1 of Waste Licence W0020-01.

Title: SOP 16 Wheel Wash Facility Procedure
Revision No: Rev.00
Issue Date: 05/12/02
Summary: This procedure details the protocol for operation and maintenance of the wheel wash facility in operation at Scotch Corner since 21/10/2002.

Title: SOP 17 Procedure for Landfill Gas Management at Scotch Corner Landfill
Revision No: Rev.01
Issue Date: 13/06/2007, Revised 21/09/2009
Summary: This procedure details the landfill gas analysis and balancing protocol for efficient landfill gas flare operation at Scotch Corner landfill.

3.23 Tank, pipeline and bund testing and inspection report

A Waste Inspection & Quarantine Area Integrity Testing was carried out on the concrete lined Waste Inspection and Quarantine Area at Scotch Corner Landfill by Metlab in March 2014.

An Electrical leak location survey was carried out on the leachate lagoon at Scotch Corner Landfill by Metlab in September 2014.

Integrity surveys were carried out on the Waste Inspection Tank and the Waste Quarantine Tank at Scotch Corner Landfill and the 3 bunds located at the Civic Amenity Site and MRF by Metlab in September 2014.

All passed the survey requirements and reports are available for inspection by the Agency.

3.24 Reported Incidents and Complaints Summaries

3.24.1 Incidents

Incident INCI003318 records an exceedance in the waste license W0020-02 trigger levels for leachate in Phase 3 and L5 at Scotch Corner Landfill.

Incidents INCI003330, INCI003554 and INCI006244 record an exceedance in the waste license W0020-02 trigger levels for leachate in Phase 3 at Scotch Corner Landfill.

Incidents INCI003249, INCI003250, INCI004464, INCI004690, INCI004861, INCI005058, INCI005124, INCI005199, INCI005233, INCI005252, INCI005281, INCI005299, INCI005351, INCI005407, INCI005681, INCI005818 and INCI005918 record shutdowns of the landfill gas flare.

Incident INCI007673 records exceedance of the trigger level for Dust for Scotch Corner Landfill Dust Monitoring 2014.

Incidents INCI003557, INCI003558, INCI003606, INCI003607, INCI003637, INCI003637 and 39/12 record deliveries of diesel washings to Scotch Corner landfill.

Incidents INCI004592, INCI004921, INCI004942, INCI004951, INCI005123, INCI005476, INCI005544 and INCI005679 record exceedance of the ELV of Landfill Gas in perimeter groundwater monitoring borehole S3.

Incidents INCI003741, INCI003946, INCI004435, INCI004574, INCI005557, INCI005676, INCI005677, INCI006034, INCI006035 and INCI007750 record exceedance of MAC (Salmonid Regulations for Surface Water 1988) for 2014 Surface Water monitoring at Scotch Corner Landfill.

Incidents INCI003745, INCI002464, INCI004575, INCI005562 and INCI007755 record exceedance of MAC (Drinking Water Regulations 2000) for 2014 Groundwater monitoring at Scotch Corner Landfill.

3.24.2 Complaints

Complaint COM002577: Relates to an anonymous complaint about litter blowing onto the road caused by a compactor seen not working for 2 months..

3.25 Review of Nuisance Controls

3.25.1 Litter

The erection and maintenance of 5m high anti-litter netting has been very successfully in controlling wind blown litter within the active face. Holes in netting are repaired and landfill operatives collect any litter that escapes from the tipping area. Compaction, daily cover with compost or clay and intermediate covering of the waste with IBA or clay will continue as to prevent nuisance by litter at the facility.

3.25.2 Vermin

During 2014 rodent control duties were carried out by Pestproof. From inspection of the bait boxes on site, Pestproof has noted sporadic low levels of infestation from mice and to a lesser extent rat infestation at varying times of the year. Satisfactory rodent control was provided by Pestproof during the reporting period.

3.25.3 Birds

Bird control at Scotch Corner landfill is an integrated approach of keeping the tipping face as small as possible, compacting the waste, daily covering with compost or clay and intermediate covering of the waste with IBA or clay and deployment of visual deterrents and use of acoustic deterrents. To compliment bird control management by landfill operatives, Monaghan County Council also contract the services of Rock Bird Control on site. Satisfactory bird control was provided by Rock Bird Control during the reporting period.

3.25.4 Flies

Fly control at Scotch Corner landfill is also an integrated approach of keeping the tipping face as small as possible, compaction of the waste, and covering the tip head daily with compost or clay and intermediate covering of the waste with IBA or clay. The above measures proved to be very successful in preventing nuisance by flies in 2014. The spraying of insecticide was not required in 2014.

3.25.5 Mud

The installation of the wheel wash facility at Scotch Corner Landfill has been successful as it has virtually eliminated mud as a nuisance at the facility. Additional measures in place to prevent nuisance by mud are the regular maintenance of site roads and regular cleaning of the site entrance and the weighbridge.

3.25.6 Dust

Nuisance by dust was not a problem at the facility during the reporting period due to compaction of the waste and spraying of site roads with water when necessary.

3.25.7 Odour

Nuisance by odour was addressed during the reporting period by an integrated approach that involved keeping the tipping face as small as possible, compacting the waste, daily covering with compost and or clay, intermediate covering with IBA and clay, installation of both horizontal gas extraction pipework and vertical gas extraction boreholes in the active cell from commencement of waste deposition and operation of permanent flare on a continuous basis.

3.26 Reports on financial provision made under this licence, management and staffing structure of the facility, and a programme for public information

3.26.1 Report on financial provision made under this licence

From the period January to December 2014, Monaghan County Council paid €23,638 to the Agency in Wexford for Waste Licence monitoring for this reporting period.

The operating cost of the landfill was €920,086 for 2014. This included a loan repayment of €250,000.

Income from the deposition of waste at Scotch Corner was €1,831,150 for 2014 of which €1,185,385 was transferred to a capital account for restoration and aftercare costs.

Monaghan County Council will complete and submit the workbook as required by the Agency to comply with the reporting obligations under Section 53A of the Waste management Act, 1996 (as amended) in June 2015 for this reporting period.

3.26.2 Report on management and staffing structure

The management and staffing structure at Scotch Corner Landfill consisted of Executive Senior Engineer, Landfill Manager, Deputy Landfill Manager/Weighbridge Operative, Part-time Weighbridge Operative, Landfill Operative and subcontracted Machine Operatives for this reporting period.

The management and staffing structure at Scotch Corner Recycling Centre at the end of 2014 was employed by McElvaney Waste and Recycling and consisted of Director, General Manager, 2 Operations Managers, 1 Transport manager, 1 Environmental and Quality Manager, 5 Civic Amenity Attendants, 2 Office staff, 2 sales reps and 18 Drivers.

3.26.3 Report on programme for public information

Environmental information relating to the landfill and to the Recycling Centre is on display at the landfill offices and available in the Environment Section of Monaghan County Council. A notice to this effect is on the Monaghan County Council Web site.

3.27 Report on training of staff

Training plans and records were compiled for all staff at the facility including the subcontracted machine operators. Training was been completed as per training plans during the reporting period.

Training completed for this period included the following:

01/14 "Manual Handling Training" by National Training Solutions Ltd.
02/14 "Safe-Pass" by Stranorler Regional Training Centre.
03/14 "Waste Licence W0020-02" by Landfill Manager.
04/14 "Working at Heights Training" by SQT Ltd.
05/14 "Landfill Compactor Operation" by Stephen Byrne Plant Hire Ltd.
06/14 "Waste Licence W0020-02" by Landfill Manager.
07/14 "MEWP Training" by Safety First Consultancy.
08/14 "Scotch Corner Filling Plan and Waste Licence W0020-02 Conditions 5.4, 5.5, 5.7.2, 5.7.3 & 6.2" by Landfill Manager.
09/14 "Risk Mamagement Training" by Aidan Horan.
10/14 "Health and Safety Management System Training" by Monaghan County Council Health and Safety Officer.
11/14 "Safe Systems at Working Training" by Monaghan County Council Health and Safety Officer.
12/14 "Waste Licence W0020-02" by Landfill Manager.
13/14 "Waste Licence W0020-02" by Landfill Manager.
14/14 "Managing Hazardous Waste at Civic Amenity Sites Training" by Fehily Timoney & Co.

3.28 Statement of Compliance of facility with any updates of the relevant Waste Management Plan

The facility at Scotch Corner is operated under the conditions of Waste Licence W0020-02 and is in compliance with the "Connacht – Ulster Region Waste Management Plan 2015 – 2021".

3.29 Statement of the achievement of the waste acceptance and treatment obligations

Scotch Corner Landfill has achieved their waste acceptance and treatment obligation of less than 40% BMW in each quarter of 2014:

Date	% BMW	% BMW (Target)
January – March 2014	35.99%	40%
April – June 2014	39.23%	40%
July – September 2014	35.21%	47%
October – December 2014	37.52%	40%

Ref. EPA correspondence W0020-02/gc14rc(bmw limit).docx

3.30 Any Other Items Specified by the Agency.

3.30.1 AER / PRTR Electronic Reporting Workbook 2014

A copy of the 2014 AER / PRTR Electronic Reporting Workbook is contained in Appendix 1.

3.30.2 EPA Landfill Gas Survey 2014

A copy of the Scotch Corner Landfill EPA Landfill Gas Survey 2014is contained in Appendix 2.

3.30.3 Biodegradable Municipal Waste Reporting 2014

A copy of the Scotch Corner Landfill EPA Biodegradable Municipal Waste Reporting Landfill Submission Reports for 2014 is contained in Appendix 3.

Report Prepared By:	Report Approved By:	Date:
_____	_____	_____
Irene Williamson	**Declan McKernan**	
Landfill Manager	***Senior Executive Engineer***	

APPENDIX 1

AER / PRTR Electronic Reporting Workbook for 2014

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2014

1. FACILITY IDENTIFICATION

Parent Company Name	Monaghan County Council
Facility Name	Scotch Corner Landfill
PRTR Identification Number	W0020
Licence Number	W0020-02

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Letterbane
Address 2	Annyalla
Address 3	Castleblaney
Address 4	
	Monaghan
Country	Ireland
Coordinates of Location	-7.32431 54.0181
River Basin District	GBNIIENB
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Irene Williamson
AER Returns Contact Email Address	iwilliam@monaghancoco.ie
AER Returns Contact Position	Landfill Manager
AER Returns Contact Telephone Number	04780930
AER Returns Contact Mobile Phone Number	0876991844
AER Returns Contact Fax Number	04780930
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	4
User Feedback/Comments	Variance of +50% increase in CO and SOx emissions in 2014 when compared to 2013 is due to an increase in landfill gas extraction from the gas field from 1,919,546m3 (at 28.0mg/m3 SOX and 2.2mg/m3 CO) in 2013 to 3,936,584m3 (at 96.5mg/m3 Sox and 1.7mg/m3 CO) in 2014.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(d)	Landfills
5(c) 5(d) 50.1	Installations for the disposal of non-hazardous waste Landfills 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 ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

Guidance on waste imported/accepted onto site

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	

4.1 RELEASES TO AIR

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
		Method Used			Outlet Stack of Flare			
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
01	Methane (CH4)	C	OTH	Calculated using "landgem"theoretical landfill gas production model and actual flow data from flare	0.0	279818.0	0.0	279818.0
03	Carbon dioxide (CO2)	E	OTH	Calculated using "landgem"theoretical landfill gas production model and actual flow data from flare	0.0	3124401.0	0.0	3124401.0
02	Carbon monoxide (CO)	M	OTH	Calculated using "Odour Monitoring Ireland" flare stack analysis and actual flow data from flare	6.7	6.7	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	M	OTH	Calculated using "Odour Monitoring Ireland" flare stack analysis and actual flow data from flare	164.2	164.2	0.0	0.0
11	Sulphur oxides (SOx/SO2)	M	OTH	Calculated using "Odour Monitoring Ireland" flare stack analysis and actual flow data from flare	379.9	379.9	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					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 C : REMAINING POLLUTANT EMISSIONS (As required in your License)

RELEASES TO AIR					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

Additional Data Requested from Landfill operators

For the purpose 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 T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Scotch Corner 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)	1218000.0	C	OTH	Calculated using "landgem"theoretical landfill gas production model and actual tonnage to landfill	N/A	
Methane flared	938182.0	M	OTH	From Landfill Gas Survey 2	1000.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)

Net methane emission (as reported in Section A above)	279818.0	C	OTH	Calculated using 'landgem'theoretical landfill gas production model and actual flow data from flare and data from Landfill Gas Survey 2014	N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

[PRTR# : W0020 | Facility Name : Scotch Corner Landfill | Filename : Blank PRTR W0020_2014.xls | Return Year : 2014] 05/05/2015 15:59

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of river/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting at this stage

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT						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 PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT						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 C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT						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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

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

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

5. 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	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz 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	13 02 08	Yes	1.039	Engine oil	R9	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,WO-184-01	Portlaoise,Co. Laois,,,,Ireland	Enva Ireland Ltd.,WO-184-01,Portlaoise,Co. Laois,,,,Ireland	Portlaoise,Co. Laois,,,,Ireland
To Other Countries	15 01 01	No	1308.18	Cardboard	R12	M	Weighed	Abroad	Irish Packaging Recycling,W0283-01	Ballymount Road,,,Dublin 12,,,Ireland		
To Other Countries	15 01 01	No	718.1	Cardboard	R3	M	Weighed	Abroad	Agnati Ltd. T/A ROC Recycling Solutions,WFP-LS-11-0001-01	Ballymacken Industrial Estate,,,Ballymacken,Co. Laois,Ireland		
Within the Country	15 01 02	No	51.72	Plastic bottles	R3	M	Weighed	Offsite in Ireland	Shabra Recycling Ltd.,WFP-MH-08-0022-01	Killycard Industrial Estate,Bree,Castleblaney,Co. Monaghan,Ireland		
Within the Country	15 01 02	No	90.0	Plastic Packaging (Film)	R3	M	Weighed	Offsite in Ireland	Leinster Environmental,WFP-LH-11-0002-01	Clermont Business Park,Haggardstown,Dundalk,Co. Louth,Ireland		
To Other Countries	17 02 03	No	24.0	Hard Plastic Packaging	R3	M	Weighed	Abroad	GFSL Ltd.,IRE/G219/15	96 Toft Hill,Bishop Auckland,County Durham,DL14 6JA,United Kingdom		
Within the Country	15 01 07	No	170.22	Commercial glass bottles	R5	M	Weighed	Offsite in Ireland	Glasco Recycling Limited (Reheb Recycling),WFP-KE-09-0357-01	Unit 4 Osberstown Business Park,Carragh Road,Naas,Co. Kildare,Ireland		
Within the Country	15 01 07	No	32.32	Household glass bottles	R5	M	Weighed	Offsite in Ireland	Glasco Recycling Limited (Reheb Recycling),WFP-KE-09-0357-01	Unit 4 Osberstown Business Park,Carragh Road,Naas,Co. Kildare,Ireland		
Within the Country	16 01 07	Yes	0.24	oil filters	R4	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,WO-184-01	Portlaoise,Co. Laois,,,,Ireland	RD Recycling,51727/1/KD,Centrum Zuid 3017,B-3530 Houthalein,,,,Belgium	Centrum Zuid 3017,B-3530 Houthalein,,,,Belgium
Within the Country	16 01 03	No	11.02	end-of-life tyres	R3	M	Weighed	Offsite in Ireland	Green Leaf Tyre Recycling,WFP-MH-12-0003-01	Dundonegh,,,Emyvale,Co. Monaghan,Ireland		
Within the Country	16 01 20	No	22.56	Windscreen glass	R5	M	Weighed	Offsite in Ireland	John Gannon Concrete Limited T/A Gannon Eco,WFP-WM-2014-05	Spit Hill Quarry,Hazelwood,Kilbeggan,Co. Westmeath,Ireland		
To Other Countries	16 05 04	Yes	0.503	Aerosol Cans	R12	M	Weighed	Abroad	Enva Ireland Ltd.,WO-184-01	Portlaoise,Co. Laois,,,,Ireland	Remondis Industrie Service GmbH,14HRO00307,,,Am Kanal 9,49565 Bramsche,,,Germany	Niederlassung Bramsche,Am Kanal 9,49565 Bramsche,,,Germany
To Other Countries	16 06 01	Yes	0.84	Lead acid batteries	R4	M	Weighed	Abroad	Wilton Waste Recycling,WFP-CN-15-0003-01	Kiffa,,,Ballyjamesduff,Co. Cavan,Ireland	H.J. Enthoven & Sons,TP3434GB,Darley Dale,Smelter,South Darley,Matlock,DE4 2LP,United Kingdom	Darley Dale,Smelter,South Darley,Matlock,DE4 2LP,United Kingdom
Within the Country	16 06 02	Yes	2.5	Household batteries	R4	M	Weighed	Offsite in Ireland	ERP Ireland,Compliance Scheme	Unit 9D Nutgrove Office Park,Nutgrove Avenue,Rathfarnham,Dublin 14,Ireland	IR Recyplas S.A. ,EU2/037/97/02-B,Carretera de la Cantera 11,,,E-48950 ASUA-ERANDIO (Bizkaia),Spain	IR Recyplas S.A. ,Carretera de la Cantera 11,,,E-48950 ASUA-ERANDIO (Bizkaia),Spain
Within the Country	17 02 03	No	33.0	Hard Plastic (Packaging)	R3	M	Weighed	Offsite in Ireland	Leinster Environmental,WFP-LH-11-0002-01	Clermont Business Park,Haggardstown,Dundalk,Co. Louth,Ireland		
Within the Country	17 02 03	No	6.8	Hard Plastic (Non- Packaging)	R3	M	Weighed	Offsite in Ireland	Leinster Environmental,WFP-LH-11-0002-01	Clermont Business Park,Haggardstown,Dundalk,Co. Louth,Ireland		
To Other Countries	20 01 01	No	24.78	paper and cardboard	R12	M	Weighed	Abroad	Agnati Ltd. T/A ROC Recycling Solutions,WFP-LS-11-0001-01	Ballymacken Industrial Estate,,,Ballymacken,Co. Laois,Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz 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)
						M/C/E	Method Used					
To Other Countries	16 06 01	Yes	1.0	lead batteries	R4	M	Weighed	Abroad	Rilta Environmental,W0192-03	Block 402 Grants Drive,Greenogue Business Park,Rathcoole,Co. Dublin,Ireland	H.J. Enthoven & Sons,BL5598IR,Darley Dale Smelters,South Darley,Derbyshire,DE4 2LP,United Kingdom	Darley Dale Smelter,South Darley,Derbyshire,DE4 2LP,United Kingdom
Within the Country	19 07 03	No	48636.0	landfill leachate other than those mentioned in 19 07 02	D8	M	Weighed	Offsite in Ireland	Irish Water,D0061-01	Monaghan Waste Water Treatment Plant,Tirkennan, ,Monaghan ,Ireland		
To Other Countries	20 01 01	No	196.8	Mixed paper (Non-Packaging)	R12	M	Weighed	Abroad	Irish Packaging Recycling,W0263-01	Ballymount Road, ,Dublin 12, ,Ireland		
To Other Countries	20 01 01	No	174.28	Newspapers	R12	M	Weighed	Abroad	Irish Packaging Recycling,W0263-01	Ballymount Road, ,Dublin 12, ,Ireland		
Within the Country	20 01 10	No	9.1	clothes	R12	M	Weighed	Offsite in Ireland	Textile Recycling Ltd.,WCP-DC-1225-01	Belgard Road,Tallaght,Co. Dublin, ,Ireland		
Within the Country	20 01 21	Yes	0.654	Fluorescent tubes	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Ltd. ,W0113-04	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	KMK Metals Recycling Ltd. ,W0113-04,Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co. Offaly,Ireland
Within the Country	20 01 25	No	0.0	Cooking oil	R9	M	Weighed	Offsite in Ireland	Agri Pure,LN/11/63	Swords,Co. Dublin,, ,Ireland		
To Other Countries	20 01 25	No	0.62	edible oil and fat	R9	M	Weighed	Abroad	Fryite Ltd.,LN/11/63	Head Office,Orchard Road Industrial Estate,Strabane Co. Tyrone,BT82 9FR,United Kingdom		
Within the Country	20 01 27	Yes	0.473	Paints	R2	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,WO-194-01	Portlaoise,Co. Laois,, ,Ireland	Hehlsen GmbH & Co. KG,166718-2014-OTH-GER-MURL,Hutenstraße 5,28237 Bremen,, ,Germany	Hutenstraße 5,28237 Bremen,, ,Germany
Within the Country	20 01 35	Yes	46.543	CRT's	R12	M	Weighed	Offsite in Ireland	ERP Ireland,Compliance Scheme	Unit 9D Nutgrove Office Park,Nutgrove Avenue,Rathfarnham,Dublin 14,Ireland	The Recycling Village,WFPMH/11/0005/01 ,Unit 21 Duleek Business Park,Commons,Duleek,Co. Meath,Ireland	Unit 21 Duleek Business Park,Commons,Duleek,Co. Meath,Ireland
To Other Countries	20 01 36	No	17.398	LDA's	R4	M	Weighed	Abroad	ERP Ireland,Compliance Scheme	Unit 9D Nutgrove Office Park,Nutgrove Avenue,Rathfarnham,Dublin 14,Ireland		
To Other Countries	20 01 36	No	14.698	LDA's cold	R4	M	Weighed	Abroad	ERP Ireland,Compliance Scheme	Unit 9D Nutgrove Office Park,Nutgrove Avenue,Rathfarnham,Dublin 14,Ireland		
To Other Countries	20 01 36	No	29.632	BDA's	R4	M	Weighed	Abroad	ERP Ireland,Compliance Scheme	Unit 9D Nutgrove Office Park,Nutgrove Avenue,Rathfarnham,Dublin 14,Ireland		
Within the Country	20 01 38	No	29.34	Woodchip	R10	M	Weighed	Offsite in Ireland	Local Farmers and School,,	,,,,,,Ireland		
Within the Country	20 01 38	No	343.8	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd.,WFP-TS-11-0001-01	Cashel Road Recycling Centre,Lawlesstown,Clonmel,Co. Tipperary,Ireland		
Within the Country	20 02 01	No	61.12	Green Waste	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd.,WFP-TS-11-0001-01	Cashel Road Recycling Centre,Lawlesstown,Clonmel,Co. Tipperary,Ireland		
To Other Countries	20 01 40	No	196.46	Metals	R4	M	Weighed	Abroad	T-Mel,LN/11/04	84 Armagh Road,Moy Dungannon,Co. Tyrone,BT71 7JA,Ireland		
Within the Country	20 02 01	No	462.56	Brown Bin Organic Waste	R3	M	Weighed	Offsite in Ireland	Kilmainhamwood Compost,W0195-02	Ballynaturgan,Kilmainham Wood,Kells,Co. Meath,Ireland		
Within the Country	20 02 01	No	138.38	Green waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental Limited,WFP/MH/08/0004/02	Larch Hill,Kilcock, ,Co. Meath,Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used M/C/E	Method Used	Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / 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	20 03 01	No	2537.16	Mixed residual waste (Commercial)	D10	M	Weighed	Offsite in Ireland	Indaver Ireland Ltd.,W0167-03	Carranstown,Duleek,Co. Meath,.,Ireland		
Within the Country	20 03 01	No	4566.0	Mixed residual waste (Household)	D10	M	Weighed	Offsite in Ireland	Indaver Ireland Ltd.,W0167-03	Carranstown,Duleek,Co. Meath,.,Ireland		
To Other Countries	20 03 01	No	1637.63	Mixed Dry Recyclables (Household)	R12	M	Weighed	Abroad	RECYCO Limited,LN/11/15	102 Barony Road,Mountfield,Omagh Co. Tyrone,BT79 7QG,United Kingdom		
Within the Country	15 01 04	No	2.86	Aluminium Cans	R4	M	Weighed	Offsite in Ireland	Wilton Waste Recycling,WFP-CN-15-0003-01	Kilfa,.,Ballyjamesduff,Co. Cavan,Ireland		
Within the Country	15 01 04	No	8.96	Steel cans	R4	M	Weighed	Offsite in Ireland	Wilton Waste Recycling,WFP-CN-15-0003-01	Kilfa,.,Ballyjamesduff,Co. Cavan,Ireland		
Within the Country	20 01 40	No	1.24	metals	R4	M	Weighed	Offsite in Ireland	Charlie Byrne,WFP-MN-10-0004-01	Knocknacran East,Magheracloone,Carrickmacross,Co. Monaghan,Ireland		
To Other Countries	16 06 01	Yes	0.96	lead batteries	R4	M	Weighed	Abroad	Hi-Volt Ireland Ltd.,W0267-01	Ballyduff,Thurles,Co. Tipperary,.,Ireland	Enviro Wales Ltd.,EP3230BW,Plateaux 1+2,Rassan Industrial Estate Ebbw Vale,Blaenan Gwent,NP23 5SD,United Kingdom	Plateaux 1+2,Rassan Industrial Estate Ebbw Vale,Blaenan Gwent,NP23 5SD,United Kingdom
To Other Countries	20 03 01	No	735.335	Mixed Dry Recyclables (Commercial)	R12	M	Weighed	Abroad	RECYCO Limited,LN/11/15	102 Barony Road,Mountfield,Omagh Co. Tyrone,BT79 7QG,United Kingdom		
To Other Countries	15 01 04	No	2.7	Aluminium Cans	R4	M	Weighed	Abroad	RECYCO Limited,LN/11/15	102 Barony Road,Mountfield,Omagh Co. Tyrone,BT79 7QG,United Kingdom		
To Other Countries	15 01 04	No	14.36	metallic packaging	R4	M	Weighed	Abroad	RECYCO Limited,LN/11/15	102 Barony Road,Mountfield,Omagh Co. Tyrone,BT79 7QG,United Kingdom		
To Other Countries	17 02 03	No	6.2	Hard Plastic Packaging	R3	M	Weighed	Abroad	Phoenix Plastics Limited,IRE/G412/16	3 Andersonstown Drive,.,Belfast,BT11 8FW,United Kingdom		

Appendix 2

EPA Landfill Gas Survey 2014

Environmental Protection Agency

A survey of landfill sites to determine the quantity of methane flared and or recovered in utilisation plants for 2014

Please choose from the drop down menu the license number for your site	W0020
Please choose from the drop down menu the name of the landfill site	Scotch Corner Landfill
Please enter the number of flares operational at your site in 2014	1
Please enter the number of engines operational at your site in 2014	0
Total methane flared	938,182 kg/year
Total methane utilised in engines	0 kg/year

Please note that the closing date for reciept of completed surveys is 31/03/2015

Introduction

The Office of Climate Licensing and Resource Use (OCLR) of the Environmental Protection Agency acts as the inventory agency in Ireland with responsibility for compiling and reporting national greenhouse gas inventories to the European Commission and the United Nations Framework Convention on Climate Change. In addition to meeting international commitments Ireland's national greenhouse gas inventory informs national agencies and Government departments as they face the challenge to curb emissions and meet Ireland's targets under the Kyoto Protocol. The national inventory also informs data suppliers, making them aware of the importance of their contributions to the inventory process and a means of identifying areas where input data may be improved.

It is on this basis that the Environmental Protection Agency is asking landfill operators to partake in this survey so that the most uptodate information on methane flaring and recovery in utilisation plants at landfills sites is used in calculating the contribution of the waste sector to national greenhouse gas emissions

The Environmental Protection Agency wishes to thank you for partaking in this survey. If you have any questions about the survey and how to complete it please view the "Help sheet" worksheet. If however, your query is not answered by viewing the "Help sheet" worksheet please contact:
LFGProject@epa.ie

Once completed please send the completed file as an attachment clearly stating the name and or license number of the landfill site (e.g. W000 Xanadu landfill_2014) to:
LFGProject@epa.ie

to be filled in by licensee | calculated by spreadsheet

Flare No. 1

Flare type ? Biogas BQ468

Is the flare an open or enclosed flare ? Enclosed

Month /year comissioned ? March 2005

Month decomissioned if decomissioned in 2014 ? Select

What is the function of the flare ? Extraction from capped and uncapped areas

If "other" enter flare description here

Rated flare capacity ? 1000 m3/hr

If "other" enter flare function here

Monthly	Method	Runtime	Runtime	Downtime	Total runtime	Average Inlet	Average Flow	Average CH_4	Average CO_2	Average O_2	Combustion	Total CH_4	Total CH_4
	M/C/E	days/month	hrs/day	hrs	hrs/month	Pressure (mbg)	Rate (m^3/hr)	%v/v	%v/v	%v/v	efficiency (%)	m^3	kgs
January	MCE	31	24.0	18.0	726	-35	452	35.60	29.90	1.30	98.0	114,486	76,316
February	MCE	28	24.0	0.0	672	-39	454	38.10	30.40	1.40	98.0	113,914	75,624
March	MCE	31	24.0	0.8	743	-46	513	33.50	27.50	1.90	98.0	125,168	82,499
April	MCE	30	24.0	0.0	720	-43	500	32.50	27.80	1.90	98.0	114,660	75,807
May	MCE	31	24.0	0.0	744	-47	513	32.50	27.70	2.10	98.0	121,563	80,040
June	MCE	30	24.0	6.8	713	-45	545	31.20	26.80	2.80	98.0	118,847	78,414
July	MCE	31	24.0	42.2	702	-35	539	30.90	25.60	3.90	98.0	114,548	76,358
August	MCE	31	24.0	19.2	725	-49	489	35.60	29.40	1.40	98.0	123,653	81,247
September	MCE	30	24.0	51.0	669	-49	526	33.80	26.20	1.50	98.0	117,005	76,879
October	MCE	31	24.0	11.7	732	-54	463	36.50	28.90	1.30	98.0	121,280	79,275
November	MCE	30	24.0	2.5	718	-58	409	39.50	30.10	1.30	98.0	113,597	73,944
December	MCE	31	24.0	7.5	737	-60	474	36.80	29.80	1.50	98.0	125,900	81,780
Total					8,600							1,424,619	938,182

Please note: Only fill the "Yearly" table if data is not available or cannot be calculated nor estimated on a monthly basis

Yearly	Method	Runtime	Runtime	Downtime	Total runtime	Average Inlet	Average Flow	Average CH_4	Average CO_2	Average O_2	Combustion	Total CH_4	Total CH_4
	M/C/E	days/year	hrs/day	hrs	hrs/year	Pressure (mbg)	Rate m^3/hr	%v/v	%v/v	%v/v	efficiency (%)	m^3	kgs
2014					0						98.0	0	0

Appendix 3

Biodegradable Municipal Waste Reporting 2014

Biodegradable Municipal Waste Reporting
Landfill Submission Report

Waste licence number: W0020-02 Scotch Corner Landfill

Report created on: 07/04/2014 15:53

Submission details

Year: 2014 Quarter: 1

Reporting period: January - March

Reference number: R-W0020-2014-1

Site details

License number: W0020-02

Parent company name: Monaghan County Council

Facility name: Scotch Corner Landfill

Facility address: Letterbane, Annyalla, Castleblaney, Co. Monaghan

Contact details of person who made the return

Contact name: Jim MacEntee Contact position:

Email address: landfill@monaghancoco.ie Telephone number: 047 80930

Mobile number: Fax number:

BMW details

Summary for Q1 2014

Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
2-bin residual household waste	1228.98	EPA Approved factor	0.63	774.26		63.00
3-bin residual household waste	350.74	EPA Approved factor	0.47	164.85		47.00
3-bin residual commercial waste	379.6	EPA Approved factor	0.68	258.13		68.00
Bulky waste from sorting of MSW skips	173.18	EPA Approved factor	0.50	86.59		50
Oversize residues from MSW skips	2428.56	EPA Approved factor	0.43	1044.28		43.00
Oversize residues from MSW bin collections ("wet waste")	1250.38	EPA Approved factor	0.41	512.66		41.00
Residues from source separated recyclable waste ("clean MRF")	107.36	EPA Approved factor	0.47	50.46		47.00
Residual MSW from civic amenity facility	92.4	EPA Approved factor	0.63	58.21		63.00
Ash residue from MSW incineration	2190.64	EPA Approved factor	0.00	0.00		0
Other	3.68	Site Specific factor	1.0	3.68	International food waste from ships at killybegs port	100
	8205.52			2953.12		35.99

Cumulative report for year

Quarter	Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
Q1	2-bin residual household waste	1228.98	EPA Approved factor	0.63	774.26		63.00
Q1	3-bin residual household waste	350.74	EPA Approved factor	0.47	164.85		47.00
Q1	3-bin residual commercial waste	379.60	EPA Approved factor	0.68	258.13		68.00
Q1	Bulky waste from sorting of MSW skips	173.18	EPA Approved factor	0.50	86.59		50.00
Q1	Oversize residues from MSW skips	2428.56	EPA Approved factor	0.43	1044.28		43.00
Q1	Oversize residues from MSW bin collections ("wet waste")	1250.38	EPA Approved factor	0.41	512.66		41.00
Q1	Residues from source separated recyclable waste ("clean MRF")	107.36	EPA Approved factor	0.47	50.46		47.00
Q1	Residual MSW from civic amenity facility	92.40	EPA Approved factor	0.63	58.21		63.00
Q1	Ash residue from MSW incineration	2190.64	EPA Approved factor	0.00	0.00		0.00
Q1	Other	3.68	Site Specific factor	1.00	3.68	International food waste from ships at killybegs port	100.00
		8205.52			2953.12		35.99

These figures are as reported by the licensee to the Agency and have not been validated by the EPA

Biodegradable Municipal Waste Reporting
Landfill Submission Report

Waste licence number: W0020-02 Scotch Corner Landfill

Report created on: 07/07/2014 14:35

Submission details

Year: 2014 Quarter: 2

Reporting period: April - June

Reference number: R-W0020-2014-2

Site details

License number: W0020-02

Parent company name: Monaghan County Council

Facility name: Scotch Corner Landfill

Facility address: Letterbane, Annyalla, Castleblaney,

Contact details of person who made the return

Contact name: Mark T. Johnston Contact position:

Email address: mjohnston2@monaghancoco.ie Telephone number: 047 30500

Mobile number: Fax number:

BMW details

Summary for Q2 2014

Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
2-bin residual household waste	1151.69	EPA Approved factor	0.63	725.56		63.00
3-bin residual household waste	73.9	EPA Approved factor	0.47	34.73		47.00
2-bin residual commercial waste	172.39	EPA Approved factor	0.75	129.29		75.00
3-bin residual commercial waste	362.46	EPA Approved factor	0.68	246.49		68.00
Bulky waste from sorting of MSW skips	138.9	EPA Approved factor	0.50	69.45		50
Oversize residues from MSW skips	2753.5	EPA Approved factor	0.43	1184.00		43.00
Oversize residues from MSW bin collections ("wet waste")	877.88	EPA Approved factor	0.41	359.93		41.00
Residues from source separated recyclable waste ("clean MRF")	63.26	EPA Approved factor	0.47	29.73		47.00
Residual MSW from civic amenity facility	41.26	EPA Approved factor	0.63	25.99		62.99
Ash residue from MSW incineration	1515.46	EPA Approved factor	0.00	0.00		0
	7150.72			2805.17		39.23

Cumulative report for year

Quarter	Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
Q1	2-bin residual household waste	1228.98	EPA Approved factor	0.63	774.26		63.00
Q1	3-bin residual household waste	350.74	EPA Approved factor	0.47	164.85		47.00
Q1	3-bin residual commercial waste	379.60	EPA Approved factor	0.68	258.13		68.00
Q1	Bulky waste from sorting of MSW skips	173.18	EPA Approved factor	0.50	86.59		50.00
Q1	Oversize residues from MSW skips	2428.56	EPA Approved factor	0.43	1044.28		43.00
Q1	Oversize residues from MSW bin collections ("wet waste")	1250.38	EPA Approved factor	0.41	512.66		41.00
Q1	Residues from source separated recyclable waste ("clean MRF")	107.36	EPA Approved factor	0.47	50.46		47.00
Q1	Residual MSW from civic amenity facility	92.40	EPA Approved factor	0.63	58.21		63.00
Q1	Ash residue from MSW incineration	2193.64	EPA Approved factor	0.00	0.00		0.00
Q1	Other	3.68	Site Specific factor	1.00	3.68	International food waste from ships at killybegs port	100.00
Q2	2-bin residual household waste	1151.69	EPA Approved factor	0.63	725.56		63.00
Q2	3-bin residual household waste	73.90	EPA Approved factor	0.47	34.73		47.00
Q2	2-bin residual commercial waste	172.39	EPA Approved factor	0.75	129.29		75.00
Q2	3-bin residual commercial waste	362.48	EPA Approved factor	0.68	246.49		68.00
Q2	Bulky waste from sorting of MSW skips	138.90	EPA Approved factor	0.50	69.45		50.00
Q2	Oversize residues from MSW skips	2753.50	EPA Approved factor	0.43	1184.00		43.00
Q2	Oversize residues from MSW bin collections ("wet waste")	877.88	EPA Approved factor	0.41	359.93		41.00
Q2	Residues from source separated recyclable waste ("clean MRF")	63.26	EPA Approved factor	0.47	29.73		47.00
Q2	Residual MSW from civic amenity facility	41.26	EPA Approved factor	0.63	25.99		62.99
Q2	Ash residue from MSW incineration	1515.46	EPA Approved factor	0.00	0.00		0.00
		15356.24			5758.29		37.50

These figures are as reported by the licensee to the Agency and have not been validated by the EPA

Biodegradable Municipal Waste Reporting
Landfill Submission Report

Waste licence number: W0020-02 Scotch Corner Landfill

Report created on: 09/10/2014 11:03

Submission details

Year: 2014 Quarter: 3

Reporting period: July - September

Reference number: R-W0020-2014-3

Site details

License number: W0020-02

Parent company name: Monaghan County Council

Facility name: Scotch Corner Landfill

Facility address: Letterbane, Annyalla, Castleblaney,

Contact details of person who made the return

Contact name: Jim MacEntee Contact position:

Email address: landfill@monaghancoco.ie Telephone number: 047 30500

Mobile number: Fax number:

BMW details

Summary for Q3 2014

Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
2-bin residual household waste	946.78	EPA Approved factor	0.63	596.47		63.00
3-bin residual household waste	40.82	EPA Approved factor	0.47	19.19		47.01
2-bin residual commercial waste	134.37	EPA Approved factor	0.75	100.78		75.00
3-bin residual commercial waste	236	EPA Approved factor	0.68	160.48		68
Oversize residues from MSW skips	2977.37	EPA Approved factor	0.43	1280.27		43.00
Oversize residues from MSW bin collections ("wet waste")	828.62	EPA Approved factor	0.41	339.73		41.00
Residues from source separated recyclable waste ("clean MRF")	81.36	EPA Approved factor	0.47	38.24		47.00
Residual MSW from civic amenity facility	58.5	EPA Approved factor	0.63	36.86		63.01
Ash residue from MSW incineration	2020.48	EPA Approved factor	0.00	0.00		0
Other	10.64	Site Specific factor	1.0	10.64	international food waste from ships at killybegs port	100
	7334.94			2582.66		35.21

Cumulative report for year

Quarter	Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
Q1	2-bin residual household waste	1228.98	EPA Approved factor	0.63	774.26		63.00
Q1	3-bin residual household waste	350.74	EPA Approved factor	0.47	164.85		47.00
Q1	3-bin residual commercial waste	379.60	EPA Approved factor	0.68	258.13		68.00
Q1	Bulky waste from sorting of MSW skips	173.18	EPA Approved factor	0.50	86.59		50.00
Q1	Oversize residues from MSW skips	2428.56	EPA Approved factor	0.43	1044.28		43.00
Q1	Oversize residues from MSW bin collections ("wet waste")	1250.38	EPA Approved factor	0.41	512.66		41.00
Q1	Residues from source separated recyclable waste ("clean MRF")	107.36	EPA Approved factor	0.47	50.46		47.00
Q1	Residual MSW from civic amenity facility	92.40	EPA Approved factor	0.63	58.21		63.00
Q1	Ash residue from MSW incineration	2190.64	EPA Approved factor	0.00	0.00		0.00
Q1	Other	3.68	Site Specific factor	1.00	3.68	International food waste from ships at killybegs port	100.00
Q2	2-bin residual household waste	1151.69	EPA Approved factor	0.63	725.56		63.00
Q2	3-bin residual household waste	73.90	EPA Approved factor	0.47	34.73		47.00
Q2	2-bin residual commercial waste	172.39	EPA Approved factor	0.75	129.29		75.00
Q2	3-bin residual commercial waste	362.48	EPA Approved factor	0.68	246.49		68.00
Q2	Bulky waste from sorting of MSW skips	138.90	EPA Approved factor	0.50	69.45		50.00
Q2	Oversize residues from MSW skips	2753.50	EPA Approved factor	0.43	1184.00		43.00
Q2	Oversize residues from MSW bin collections ("wet waste")	877.88	EPA Approved factor	0.41	359.93		41.00
Q2	Residues from source separated recyclable waste ("clean MRF")	63.26	EPA Approved factor	0.47	29.73		47.00
Q2	Residual MSW from civic amenity facility	41.26	EPA Approved factor	0.63	25.99		62.99
Q2	Ash residue from MSW incineration	1515.46	EPA Approved factor	0.00	0.00		0.00
Q3	2-bin residual household waste	946.78	EPA Approved factor	0.63	596.47		63.00
Q3	3-bin residual household waste	40.82	EPA Approved factor	0.47	19.19		47.01
Q3	2-bin residual commercial waste	134.37	EPA Approved factor	0.75	100.78		75.00
Q3	3-bin residual commercial waste	236.00	EPA Approved factor	0.68	160.49		68.00
Q3	Oversize residues from MSW skips	2977.37	EPA Approved factor	0.43	1280.27		43.00
Q3	Oversize residues from MSW bin collections ("wet waste")	828.62	EPA Approved factor	0.41	339.73		41.00
Q3	Residues from source separated recyclable waste ("clean MRF")	81.36	EPA Approved factor	0.47	38.24		47.00
Q3	Residual MSW from civic amenity facility	58.50	EPA Approved factor	0.63	36.86		63.01
Q3	Ash residue from MSW incineration	2020.48	EPA Approved factor	0.00	0.00		0.00
Q3	Other	10.64	Site Specific factor	1.00	10.64	International food waste from ships at killybegs port	100.00
		22691.18			8340.95		36.76

These figures are as reported by the licensee to the Agency and have not been validated by the EPA

Biodegradable Municipal Waste Reporting
Landfill Submission Report

Waste licence number: W0020-02 Scotch Corner Landfill

Report created on: 16/01/2015 12:14

Submission details

Year: 2014 Quarter: 4

Reporting period: October - December

Reference number: R-W0020-2014-4

Site details

License number: W0020-02

Parent company name: Monaghan County Council

Facility name: Scotch Corner Landfill

Facility address: Letterbane, Annyalla, Castleblaney,

Contact details of person who made the return

Contact name: Mark T. Johnston Contact position:

Email address: mjohnston2@monaghancoco.ie Telephone number: 047 30500

Mobile number: Fax number:

BMW details

Summary for Q4 2014

Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
2-bin residual household waste	769.56	EPA Approved factor	0.63	484.82		63.00
3-bin residual household waste	52.66	EPA Approved factor	0.47	24.75		47.00
2-bin residual commercial waste	85.32	EPA Approved factor	0.75	63.99		75
3-bin residual commercial waste	270.33	EPA Approved factor	0.68	183.82		68.00
Oversize residues from MSW skips	3113.59	EPA Approved factor	0.43	1338.84		43.00
Oversize residues from MSW bin collections ("wet waste")	897.4	EPA Approved factor	0.41	367.93		41.00
Residues from source separated recyclable waste ("clean MRF")	119.38	EPA Approved factor	0.47	56.11		47.00
Residual MSW from civic amenity facility	123.78	EPA Approved factor	0.63	77.98		63.00
Ash residue from MSW incineration	1500.98	EPA Approved factor	0.00	0.00		0
Other	5.08	Site Specific factor	1.0	5.08	International food waste from ships at killybegs port	100
	6938.08			2603.32		37.52

Cumulative report for year

Quarter	Type of MSW	Total Qty MSW	Factor Type	Factor Value	Total Qty BMW	Comment	% BMW
Q1	2-bin residual household waste	1228.98	EPA Approved factor	0.63	774.26		63.00
Q1	3-bin residual household waste	350.74	EPA Approved factor	0.47	164.85		47.00
Q1	3-bin residual commercial waste	379.60	EPA Approved factor	0.68	258.13		68.00
Q1	Bulky waste from sorting of MSW skips	173.18	EPA Approved factor	0.50	86.59		50.00
Q1	Oversize residues from MSW skips	2428.56	EPA Approved factor	0.43	1044.28		43.00
Q1	Oversize residues from MSW bin collections ("wet waste")	1250.38	EPA Approved factor	0.41	512.66		41.00
Q1	Residues from source separated recyclable waste ("clean MRF")	107.36	EPA Approved factor	0.47	50.46		47.00
Q1	Residual MSW from civic amenity facility	92.40	EPA Approved factor	0.63	58.21		63.00
Q1	Ash residue from MSW incineration	2190.64	EPA Approved factor	0.00	0.00		0.00
Q1	Other	3.68	Site Specific factor	1.00	3.68	International food waste from ships at killybegs port	100.00
Q2	2-bin residual household waste	1151.69	EPA Approved factor	0.63	725.56		63.00
Q2	3-bin residual household waste	73.90	EPA Approved factor	0.47	34.73		47.00
Q2	2-bin residual commercial waste	172.39	EPA Approved factor	0.75	129.29		75.00
Q2	3-bin residual commercial waste	362.48	EPA Approved factor	0.68	246.49		68.00
Q2	Bulky waste from sorting of MSW skips	138.90	EPA Approved factor	0.50	69.45		50.00
Q2	Oversize residues from MSW skips	2753.50	EPA Approved factor	0.43	1184.00		43.00
Q2	Oversize residues from MSW bin collections ("wet waste")	877.88	EPA Approved factor	0.41	359.93		41.00
Q2	Residues from source separated recyclable waste ("clean MRF")	63.26	EPA Approved factor	0.47	29.73		47.00
Q2	Residual MSW from civic amenity facility	41.26	EPA Approved factor	0.63	25.99		62.99
Q2	Ash residue from MSW incineration	1515.46	EPA Approved factor	0.00	0.00		0.00
Q3	2-bin residual household waste	946.78	EPA Approved factor	0.63	596.47		63.00
Q3	3-bin residual household waste	40.82	EPA Approved factor	0.47	19.19		47.01
Q3	2-bin residual commercial waste	134.37	EPA Approved factor	0.75	100.78		75.00
Q3	3-bin residual commercial waste	236.00	EPA Approved factor	0.68	160.48		68.00
Q3	Oversize residues from MSW skips	2977.37	EPA Approved factor	0.43	1280.27		43.00
Q3	Oversize residues from MSW bin collections ("wet waste")	828.62	EPA Approved factor	0.41	339.73		41.00
Q3	Residues from source separated recyclable waste ("clean MRF")	81.36	EPA Approved factor	0.47	38.24		47.00
Q3	Residual MSW from civic amenity facility	58.50	EPA Approved factor	0.63	36.86		63.01
Q3	Ash residue from MSW incineration	2020.48	EPA Approved factor	0.00	0.00		0.00
Q3	Other	10.64	Site Specific factor	1.00	10.64	International food waste from ships at killybegs port	100.00
Q4	2-bin residual household waste	769.56	EPA Approved factor	0.63	484.82		63.00
Q4	3-bin residual household waste	52.66	EPA Approved factor	0.47	24.75		47.00
Q4	2-bin residual commercial waste	85.32	EPA Approved factor	0.75	63.99		75.00
Q4	3-bin residual commercial waste	270.33	EPA Approved factor	0.68	183.82		68.00
Q4	Oversize residues from MSW skips	3113.59	EPA Approved factor	0.43	1338.84		43.00
Q4	Oversize residues from MSW bin collections ("wet waste")	897.40	EPA Approved factor	0.41	367.93		41.00
Q4	Residues from source separated recyclable waste ("clean MRF")	119.38	EPA Approved factor	0.47	56.11		47.00

Q4	Residual MSW from civic amenity facility	123.78	EPA Approved factor	0.63	77.98		63.00
Q4	Ash residue from MSW incineration	1500.98	EPA Approved factor	0.00	0.00		0.00
Q4	Other	5.08	Site Specific factor	1.00	5.08	International food waste from ships at Killybegs port	100.00
		29629.26			10944.27		36.94

These figures are as reported by the licensee to the Agency and have not been validated by the EPA