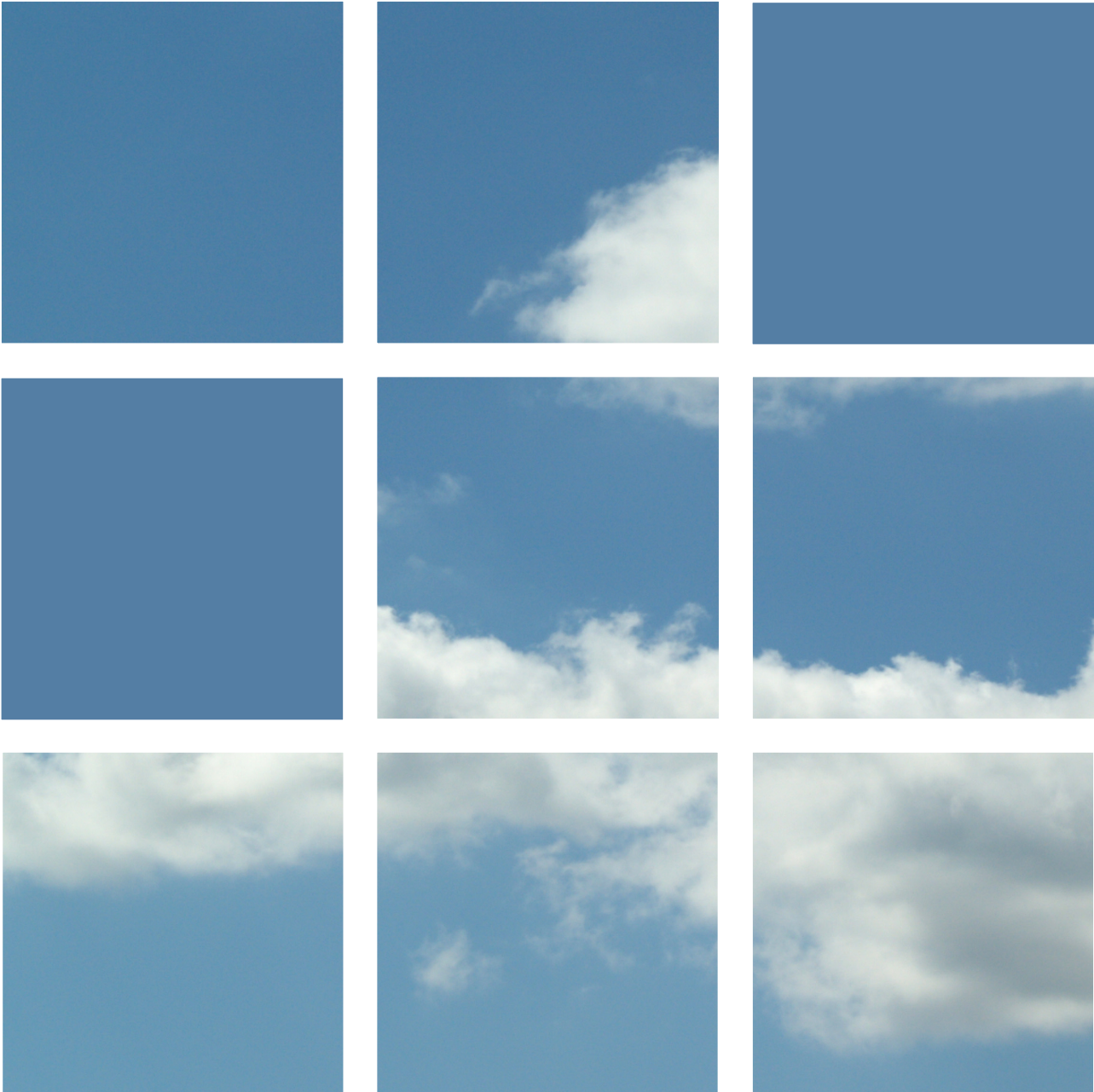




Donegal County Council

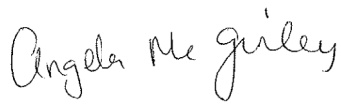

Annual Environmental Report 2015 Muckish Landfill Site

IBR0859 / April 2016



Document Control Sheet

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Document Title	Muckish Landfill Site (W0126-01)					
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1 Introduction

This Annual Environmental Report (AER) has been prepared to meet the requirements of Condition 2.3 of Waste Licence W0126-1 for Muckish Landfill and includes the information listed in Schedule A of the Waste Licence.

Muckish Landfill Site is located in a rural setting on the lower slopes of Muckish Mountain, approximately 5km south east of the village of Falcarragh. The site is within the upper catchment of the Ray River and is situated on an extensive area of blanket bog.

Donegal County Council submitted an application to the Environmental Protection Agency for the continued operation of the landfill site, as required by the Waste Management (Licensing) Regulations 1997. On the 29th of May 2001 the Environmental Protection Agency granted the Council a Waste Licence (registration number W0126-1) for the facility, in accordance with the Third Schedule of the Waste Management Act, 1996.

The Licence granted was for the orderly closure, capping and restoration of the landfill and allows only for the acceptance of inert material to be used for the purpose of site restoration. The facility ceased to accept waste on the 6th of November 2001 and the site was closed.

The facility had been developed and operated on the 'dilute and disperse' principle, whereby rainfall infiltrated the landfill and generated leachate; the leachate was in turn allowed to disperse into the surrounding environment.

The site was fully restored during 2005/6 in accordance with the approved Restoration and Aftercare Plan.

A summary of Facility Information is provided in Table 1.1 below.

Table 1.1 Facility Information Summary

AER Reporting Year	2015
Licence Register Number	W00126-01
Name of site	Muckish Landfill Site
Site Location	Muckish, Falcarragh, County Donegal
NACE Code	3821
Class/Classes of Activity	Landfill

2 Reporting Period

This report refers to the period from 1st January, 2015 to 31st December 2015.

3 Waste Activities Carried Out at the Facility

3.1 Type of Waste

The licensed disposal activities, in accordance with the Third Schedule of the Waste Management Act, 1996 are restricted to those listed as follows:

- **Class 1 Deposit on, in or under land (including landfill):** This activity is limited to the disposal of inert waste only and leachate treatment at the facility.
- **Class 13 Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced:** This activity is limited to leachate collection and storage prior to treatment.

4 Quantities of Waste

In accordance with Condition 1 of the waste licence only inert material shall be accepted for the purposes of remediation, rehabilitation, enhancement and restoration of the facility. The maximum amount of inert waste to be disposed of at the site is 40,000 tonnes. The quantities of waste received during each year at the facility are presented in Table 4.1. 2,500 tonnes of inert material; (for use in restoration works) was accepted onto the site during 2004. The balance of restoration materials were imported during 2005 as shown in the table. No material has been imported since this time.

Table 4.1 Waste Quantities Accepted (Tonnes)

Waste Types	1998	1999	2000	2001	2002	2003	2004	2005
Municipal Waste ¹ (20 03 01)	4,418	5,639	7,008	5,729	0	0	0	0
Inert Waste	0	0	0	0	0	0	2,500	34,667

¹ Figures based on estimates.

5 Summary Report on Emissions

5.1 Environmental Monitoring Requirements

There is no continuous air, groundwater, surface water or wastewater (sewer) monitoring at Muckish Landfill site. Periodic / non-continuous monitoring of groundwater, surface water, leachate and landfill gas is carried out at the site as per the Schedule, and as agreed with the EPA, as set out in Tables A1, A2, A3 and A4 of Appendix B. It should be noted that annual parameters are in abeyance as agreed with the Agency, and in addition it was agreed that the frequency of regular monitoring would reduce from quarterly to bi-annual. Details of the monitoring locations are shown on Drawing IBR0859/009.

5.2 Monitoring Results

Results of monitoring for the period for groundwater, surface water, leachate and gas are contained in tabular and graphical format in Appendix C.

5.3 Groundwater

The groundwater results contained in this report were assessed against the following:

- EPA Interim Guideline Values² (IGV);
- SI No 278 of 2007 EC (Drinking Water) Regulations (DWR); and
- SI No 9 of 2010 European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended (GTV).

Groundwater monitoring is carried out at three locations (GW1, GW2 and GW3) as shown on Drawing IBR0859/009. These groundwater monitoring boreholes were installed at the landfill early in 2000 as per licence requirements. Monitoring location GW1 is representative of water quality up-gradient conditions and monitoring locations GW2 and GW3 are down gradient but close to the waste body in the space between the waste and the river. The results are highlighted in Table 5.1 below and in graph format in Appendix C.

²EPA (2003) Towards setting guideline values for the protection of groundwater in Ireland. Interim Report

Groundwater flow is interpreted to flow in a northeastern direction towards the Ray Duvowen River and is consistent with the local topography of the area. Groundwater flow is shown on Figure 6 in Appendix A.

Table 5.1 Groundwater Concentrations 2015

	Date	Ammonia (as N)	Chloride	Conduct'y @ 20 °C	DO (Measure't)	Faecal Coliforms (E. coli)	Iron	pH	Phenols	Potassium	Sodium	Total Coliforms	TOC	TON
GW 1	Jun-15	<0.04	22.83	150.5	9.3	<1	77	6.6	<0.15	1.5	11.7	<1	12.66	<0.1
GW 2	Jun-15	<0.04	25.81	83.4	8.2	<1	1161	5.7	0.15	1.2	10.8	<1	20.02	<0.1
GW 3	Jun-15	10.2	35.73	481	5.1	<1	888	6.8	<0.15	7.2	20.3	<1	11.25	<0.1
GW 1	Oct-15	0.166	11.91	132	4	5	<20	6.46	0.15	1.6	9.1	250	8	0.57
GW 2	Oct-15	0.038	17.87	98	8.2	1	0.71	5.47	150	0.9	10.9	144	10.34	0.339
GW 3	Oct-15	3.39	24.82	440	3.9	5	160	6.34	<150	10.2	25	135	10.76	0.997

The EQS 2009 guideline value for ammonia is 0.175 mg/l. Elevated concentrations of ammonia relative to the screening value were recorded in GW3 during the monitoring period when values of 10.2 mg/l and 3.39 mg/l were recorded.

The SWQS 1989 value for iron is 200 µg/l. Elevated concentrations of iron relative to the screening value were recorded in GW2 and GW3 in June with values ranging from 888 µg/l to 1161 µg/l. It should be noted that iron occurs naturally in Donegal groundwater as they are associated with naturally occurring conditions such as iron rich bedrock or the presence of reducing conditions, that is, anaerobic environment such as peat.

Elevated concentrations of potassium above the IGTV guideline value of 5 mg/l were recorded in GW3 throughout the monitoring period with values ranging from 7.2 mg/l to 10.2 mg/l.

No elevated concentrations, relative to the appropriate screening values, of the remaining parameters measured were recorded up gradient or down gradient of the site during the monitoring period.

A hydrogeological risk assessment was undertaken in 2015 and submitted to the EPA. The report found that overall there appears to be a clear decreasing trend in contaminant levels in downgradient monitoring wells with GW3 and a steady trend within GW2. The reducing trends over time confirm the success of the capping and leachate management operations at the site. Assuming a continuation of existing trends within GW3, it is anticipated that Ammoniacal Nitrogen levels within GW3 will reduce to the GTV threshold or lower by approximately 2017. It remains unclear when the levels of Ammoniacal Nitrogen within GW2 will reduce to this threshold level given the static levels currently being recorded. However they are anticipated to reduce into the future.

5.4 Surface Water

The surface water results contained in this report were assessed against the following:

- SI No 294 of 1989 European Communities (Quality of Surface Water Intended for the Abstraction of Drinking Water) Regulations (SWQS); and
- SI No 272 of 2009 European Communities Environmental Objectives (Surface Water) Regulations 2009 (EQS).

Muckish landfill site is situated in the upper catchment of the Ray (Duvowen) River. The landfill site is based on an area of extensive blanket bog. This river forms the north-eastern

boundary of the landfill. Surface water monitoring is carried out at four monitoring locations as shown on Drawing IBR0859/009 Monitoring Locations. Monitoring points SW1 and SW2 are upstream of the waste body. Monitoring points SW3 and SW4 are mid / downstream locations. The results of monitoring are highlighted in Table 5.2 below and presented in graphical format in Appendix C.

The EQS 2009 guideline value for ammonia for good status is 0.140 mg/l N. An elevated concentration of ammonia was recorded downstream of the site at surface water monitoring point SW4 (within the River Ray) in June with a concentration of 0.442 mg/l N.

No elevated concentrations, relative to the appropriate screening values, of the remaining parameters measured were recorded upstream or downstream of the site during the monitoring period.

The hydrogeological risk assessment in 2015 found that the site is currently impacting the surface water quality within the Ray River by saturated peat entrained with leachate between the waste body and the River Ray. Runoff from this area appears to discharge into the river in the northern region of the site during periods of prolonged rainfall only. Based on downstream surface water quality over time, the extent of the impact has notably reduced over time, particularly since capping was completed in 2006.

Table 5.2 Surface Water Concentrations 2015

Location	Sample Date	Ammonia (as N)	BOD	COD	Chloride	Conductivity @ 20 °C	Dissolved Oxygen (Measurement)	pH	Suspended Solids	Temperature
SW 1	Jun-15	<0.04	<1	4	26.8	81.9	11.3	6.6	<6	10.7
SW 2	Jun-15	<0.04	<1	16	25.81	78.8	10.3	5.7	<6	9.5
SW 3	Jun-15	<0.04	<1	4	24.82	82	11.3	6.4	<6	10.7
SW 4	Jun-15	0.442	<1	3	28.79	87.6	11.2	6.46	<6	10.5
SW 1	Oct-15	0.005	0.92	8	15.88	71	10.9	6.51	<6	10.2
SW 2	Oct-15	0.017	1.2	22	18.86	69	9.4	5.66	<6	10.2
SW 3	Oct-15	0.016	0.82	11	16.87	71	10.8	6.47	<6	10.2
SW 4	Oct-15	0.069	0.9	6	17.87	73	10.8	6.49	<6	10.2

5.5 Leachate Composition

Leachate monitoring was previously carried out at one monitoring location on the site (L1) as shown on Drawing IBR0859/009 Monitoring Locations. This well became inaccessible during 2011 and leachate is now sampled from the leachate collection sump. Results from this are presented in Appendix C. Some characteristic parameters have been compared with those of 'typical' raw leachate in Table 5.3 below.

Table 5.3 Raw Leachate Concentrations 2015

PARAMETER	Muckish Landfill Site		From 30 samples from UK/Irish landfills accepting domestic waste Results in mg/l		
	Min Conc	Max Conc	Min Conc	Max Conc	Mean
Ammonia (mg/N)	36.3	114	<0.2	1700	491
BOD	<1	1.89	4.5	>4800	>834
COD	44	116	<10	33,700	3078
Chloride (mg/l)	51.62	122.09	27	3410	1256
TON (mg/l N)	-	0.12	/	/	/
Conductivity (µS/cm)	793	2085	503	19,200	7789
pH (pH units)			6.4	8.0	7.2

Table 5.3 compares raw leachate concentrations detected at Muckish with 'typical leachate composition from 30 samples from UK / Irish Landfills accepting mainly domestic waste' (taken from EPA Manual for Landfill Operational Practices). Parameters measured are all consistent with typical leachate ranges shown and with the results issued last period. The leachate is very weak.

5.6 Landfill Gas

Landfill gas monitoring is undertaken at three locations P1, P2 & P3 (as shown on Drawing IBR0859/009 Monitoring Locations), all of which are within the site boundary in waste.

Monitoring of the landfill gas was undertaken during June and September of the monitoring period and results are shown in Table 5.4 below. These wells generally show similar production levels of carbon dioxide and methane gas throughout the monitoring period. These results are consistent with levels detected in previous periods. All results are contained in Appendix C.

Table 5.4 Landfill Gas Results 2015

Location	Sample Date	Atmospheric Pressure	Carbon Dioxide %v/v	Methane %v/v	Oxygen %v/v
P1	Jun-15	1021	25.2	51.7	0.2
P2	Jun-15	1021	25.3	45.1	11.2
P3	Jun-15	1021	30.1	53	2.2
P1	Oct-15	987	28.3	59.7	1.6
P2	Oct-15	987	23.5	61	0.6
P3	Oct-15	987	19	57	0.7

6 Volume of Leachate Produced and Volume of Leachate Discharged

Leachate is being tankered on a weekly basis from the collection sump on site. Records show that during this period 1,810.18 m³ of leachate was removed from the site and tankered off site to the Letterkenny Sludge Treatment Centre. Table 6.1 below shows the monthly breakdown of tankering volumes.

A water balance calculation has been produced for this period and is shown in Appendix D. This indicates that the estimated volume of leachate being produced at the site for the reporting period is 2,786 m³.

Table 6.1 Breakdown of Leachate Volumes by Month in 2015

Month	Leachate Volume (m3)
January	264.18
February	262.76
March	193.38
April	132.28
May	65.82
June	126.02
July	114.66
August	155.88
September	119.76
October	125.48
November	124.84
December	125.12
Total:	1,810.18

7 Capping and Restoration of Completed Cells / Phases

The site is fully restored.

8 Reported Incidents and Complaints Summaries

Other than the reporting of on-going emissions exceedances detected in the routine monitoring programme (4 in total), no other incidents occurred during the monitoring period and no complaints were received.

A non compliance was noted on 05/08/15 during a site inspection in relation to non-submission of groundwater risk screening report.

The groundwater risk screening report was submitted on 09/11/15.

9 Review of Nuisance Controls

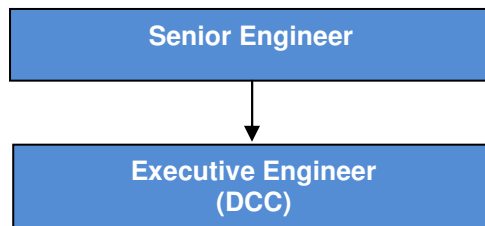
The site is inspected regularly for all types of nuisances (flies, pests, dust, litter and illegal dumping, birds and odours) and where any action is deemed necessary the appropriate steps are taken in accordance with the EMS.

10 Management Structure of the Site

10.1 Organisation

The Management Structure of Muckish Landfill site is set out in Figure 11.1 below.

Figure 11.1 Management Structure



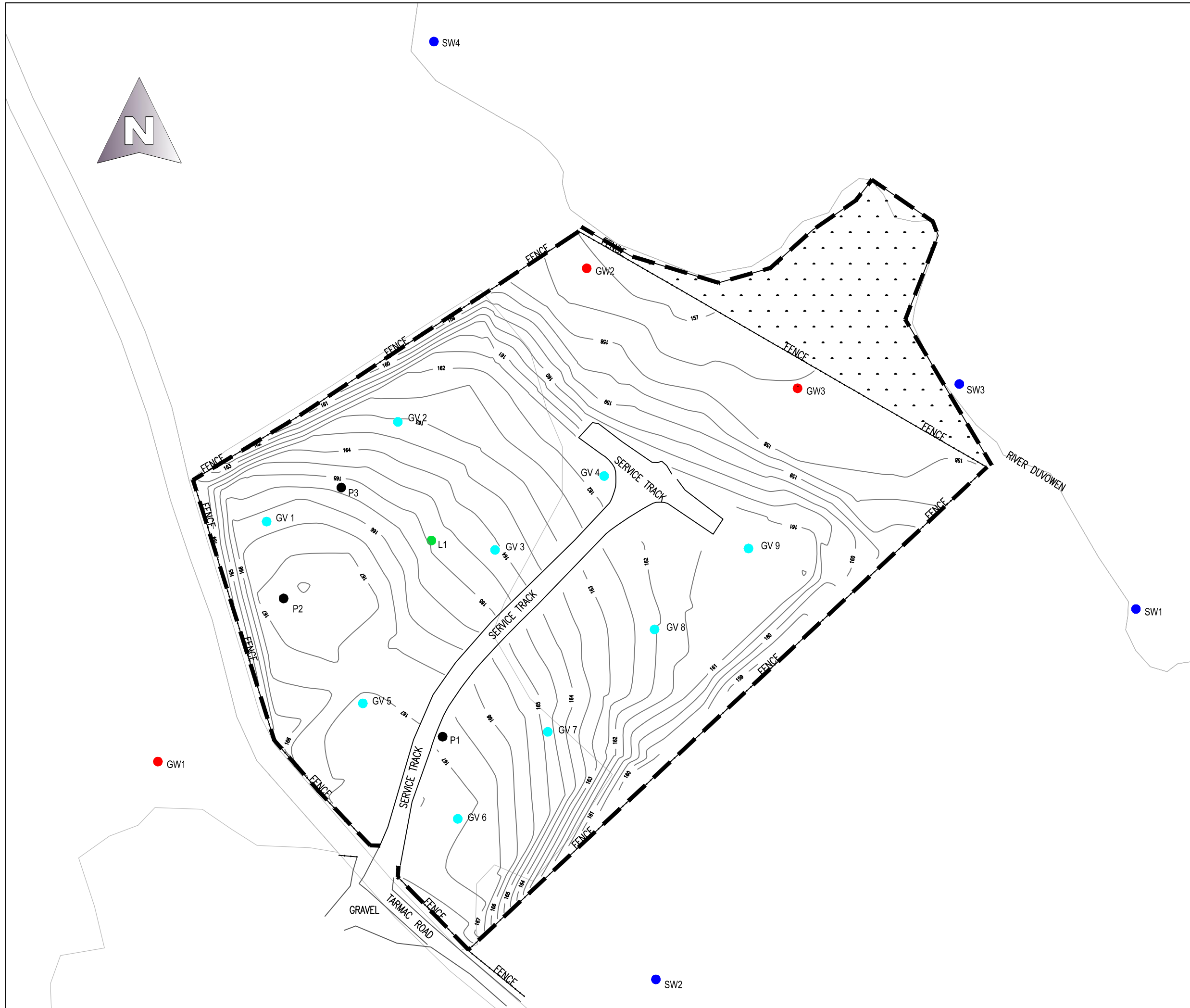
An Environmental Liability Risk Assessment has not been carried out at this facility as the landfill site is closed it is not a requirement of the licence.

10.2 Management Responsibility

Senior Engineer: Overall responsibility for the management of the site and ensuring compliance with the Waste Licence. Delegation of authority and responsibility to ensure the effective management of the facility and licence compliance.

Executive Engineer: Responsible for overall compliance with EPA Licence.

Appendix A - Drawings



NOTES

1. Verifying Dimensions.
The contractor shall verify dimensions against such other drawings or site conditions as pertain to this part of the work.
2. Existing Services.
Any information concerning the location of existing services indicated on this drawing is intended for general guidance only. It shall be the responsibility of the contractor to determine and verify the exact horizontal and vertical alignment of all cables, pipes, etc. (both underground and overhead) before work commences.
3. Issue of Drawings.
Hard copies, dwf and pdf will form a controlled issue of the drawing. All other formats (dwg, dxf etc.) are deemed to be an uncontrolled issue and any work carried out based on these files is at the recipients own risk. RPS will not accept any responsibility for any errors arising from the use of these files, either by human error by the recipient, listing of un-dimensioned measurements, compatibility issues with the recipient's software, and any errors arising when these files are used to aid the recipients drawing production, or setting out on site.

4. Keys:

- GV Gas Vents Locations
- GW Groundwater Monitoring Boreholes
- L Leachate Monitoring Location
- SW Surfacewater monitoring Locations
- P Gas Monitoring Locations

rev	amendments	drawn	date

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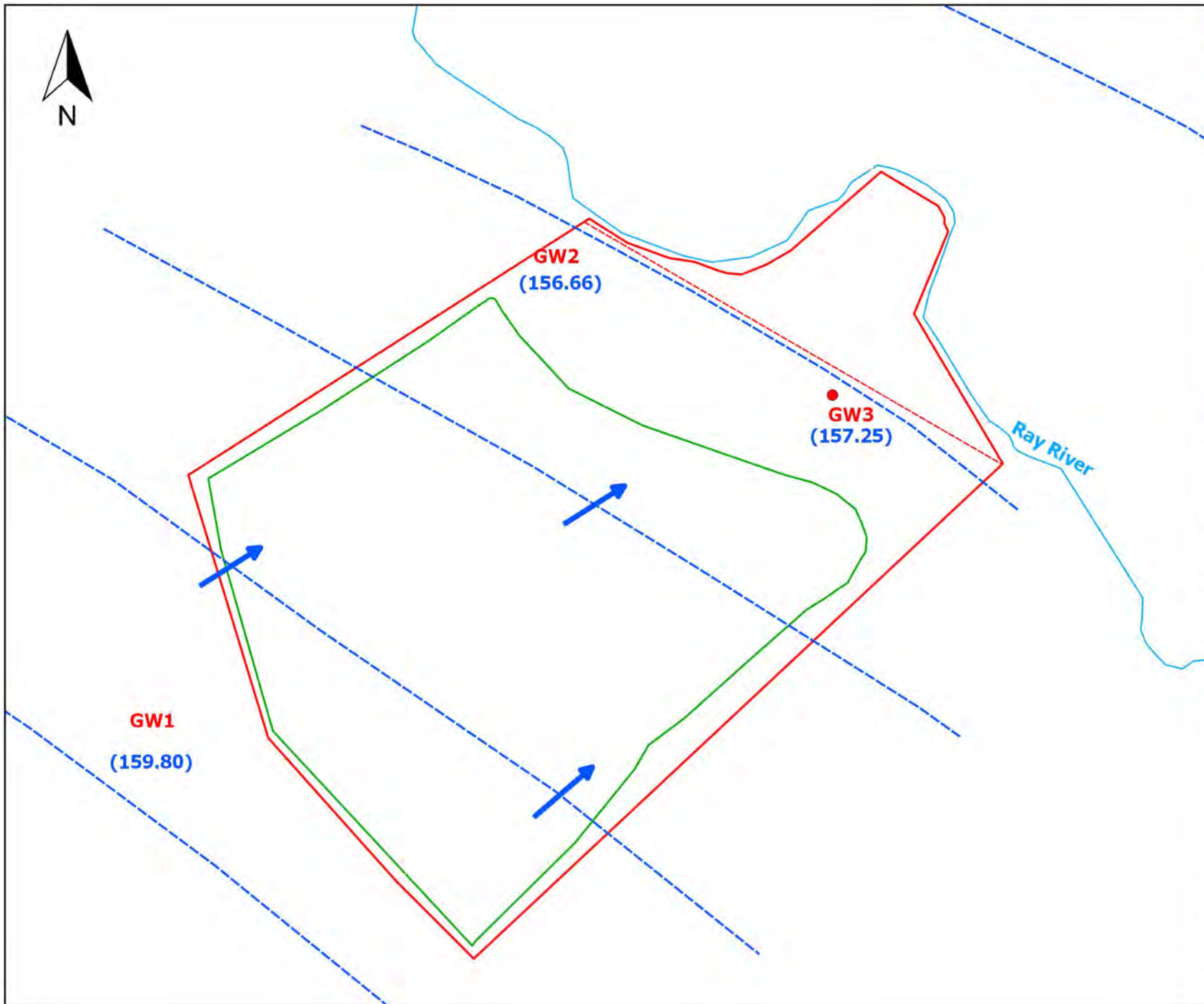
Project
Donegal Landfill Site Reporting 2015

Title
Muckish LFS - Monitoring Points

Drawing Status Preliminary	Sheet Size A3	Drawing Scale 1:1000
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Drawing Number IBR0859 /009	Rev 0
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Project Leader AMcG	Drawn By AMB	Date May '15	Initial Review CG
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Legend	
	Site boundary
	waste outline
	Site fence
	Groundwater Contours May 2012
	Groundwater Monitoring Wells
	Groundwater Flow Direction
	Groundwater Level (mOD)

Project	
Muckish Landfill Hydrogeological Risk Assessment	
Client	Donegal County Council
Drawing	Figure 6
Title	Groundwater Contours Dec 2012

The Hydrogeological and Contaminated Land Consultancy	
T 00353 863856884 E admin@bluerockenv.ie W www.bluerockenvironmental.ie	
File Ref :	BRE14022
Drawing Ref :	BRE14022DG06
Revision :	V01
Date :	11/05/2015
Scale :	NTS
Drawn by :	SH
Copyright :	BlueRock Env Ltd

Appendix B - Monitoring Information

Appendix A - Monitoring Information

Table A1 Groundwater Parameters and Monitoring Frequencies

Bi-Annually
Visual Inspection
Temperature
Groundwater Level
pH
Electrical Conductivity
Ammoniacal Nitrogen
Dissolved Oxygen
Chloride
Iron
Potassium
TOC
TON
Phenols
Sodium

Table A2 Surface Water Parameters and Monitoring Frequencies

Bi-Annually
Visual Inspection
Temperature
Total Suspended Solids
pH
Electrical Conductivity
Ammoniacal Nitrogen
Dissolved Oxygen
Chloride
BOD
COD

Table A3 Leachate Parameters and Monitoring Frequencies

Bi-Annually
Visual Inspection
Leachate Level
Temperature

pH
Electrical Conductivity
Ammoniacal Nitrogen
COD
BOD
Chloride
Dissolved Oxygen
TON
Iron

Table A4 Landfill Gas Parameters and Monitoring Frequencies

Bi-Annually
Atmospheric Pressure
Carbon Dioxide
Methane
Oxygen
Temperature

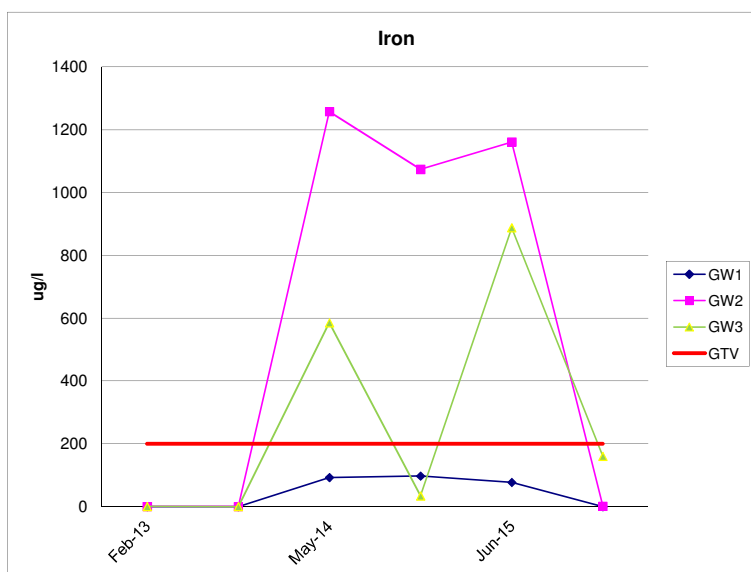
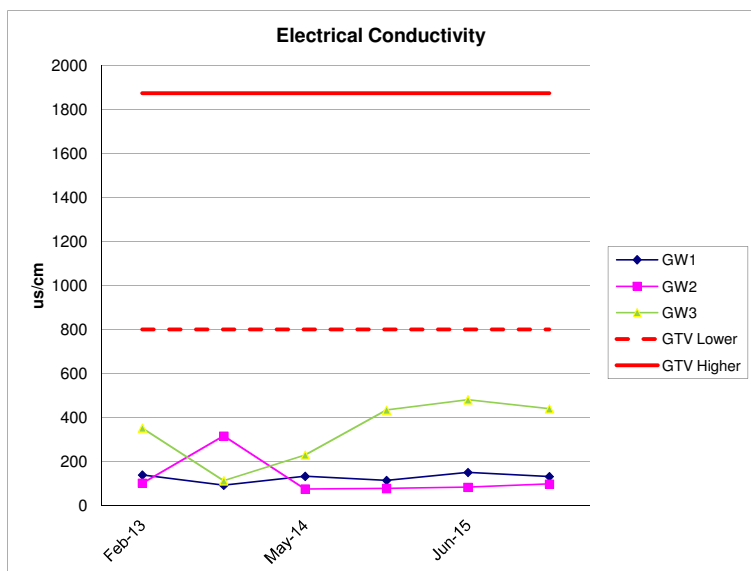
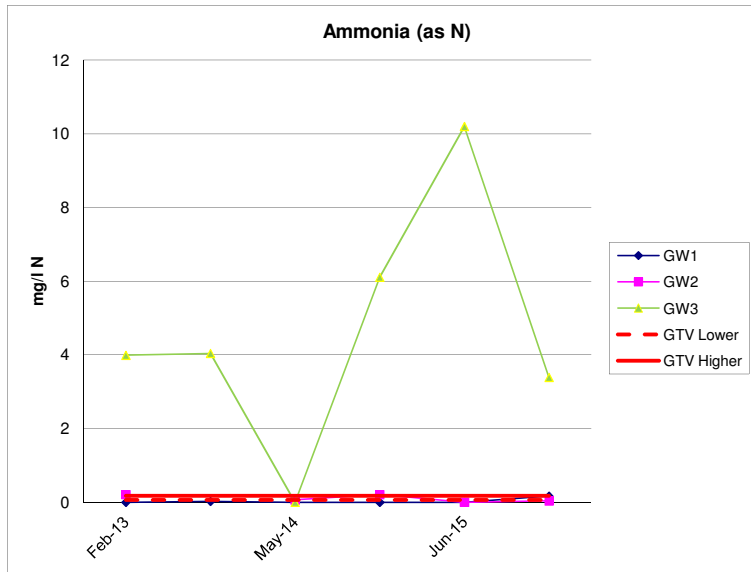
Appendix C - Results of Monitoring

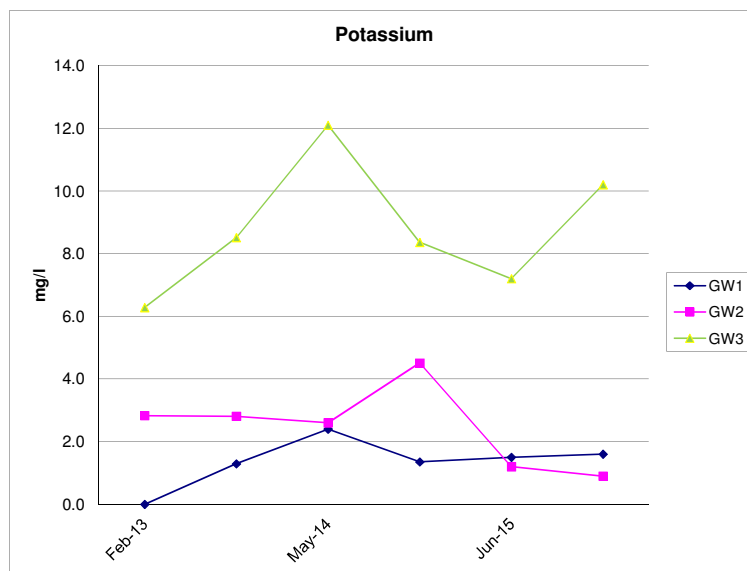
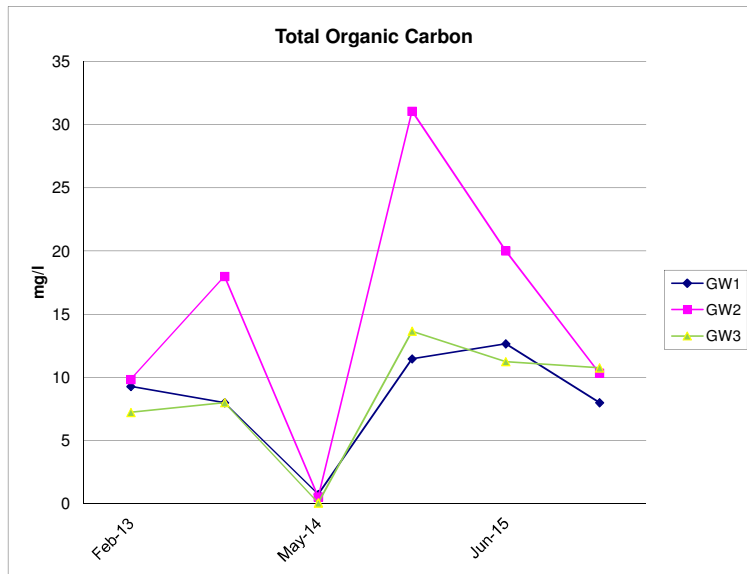
	Date	Ammonia (as N)	Chloride	Conduct'y @ 20°C	DO (Measure't)	Faecal Coliforms (E. coli)	Iron	pH	Phenols	Potassium	Sodium	Total Coliforms	TOC	TON
GW 1	Jun-15	<0.04	22.83	150.5	9.3	<1	77	6.6	<0.15	1.5	11.7	<1	12.66	<0.1
GW 2	Jun-15	<0.04	25.81	83.4	8.2	<1	1161	5.7	0.15	1.2	10.8	<1	20.02	<0.1
GW 3	Jun-15	10.2	35.73	481	5.1	<1	888	6.8	<0.15	7.2	20.3	<1	11.25	<0.1
GW 1	Oct-15	0.166	11.91	132	4	5	<20	6.46	0.15	1.6	9.1	250	8	0.57
GW 2	Oct-15	0.038	17.87	98	8.2	1	0.71	5.47	150	0.9	10.9	144	10.34	0.339
GW 3	Oct-15	3.39	24.82	440	3.9	5	160	6.34	<150	10.2	25	135	10.76	0.997

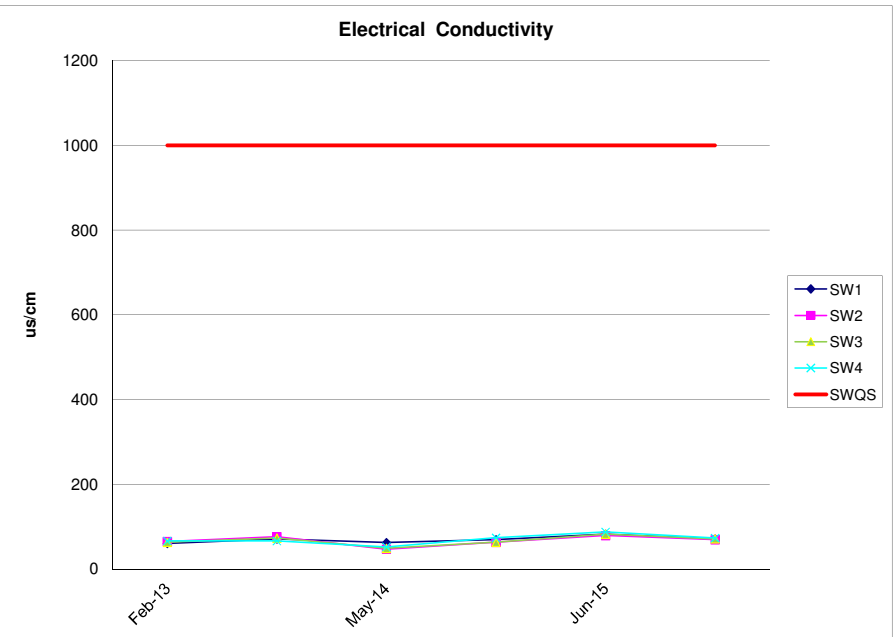
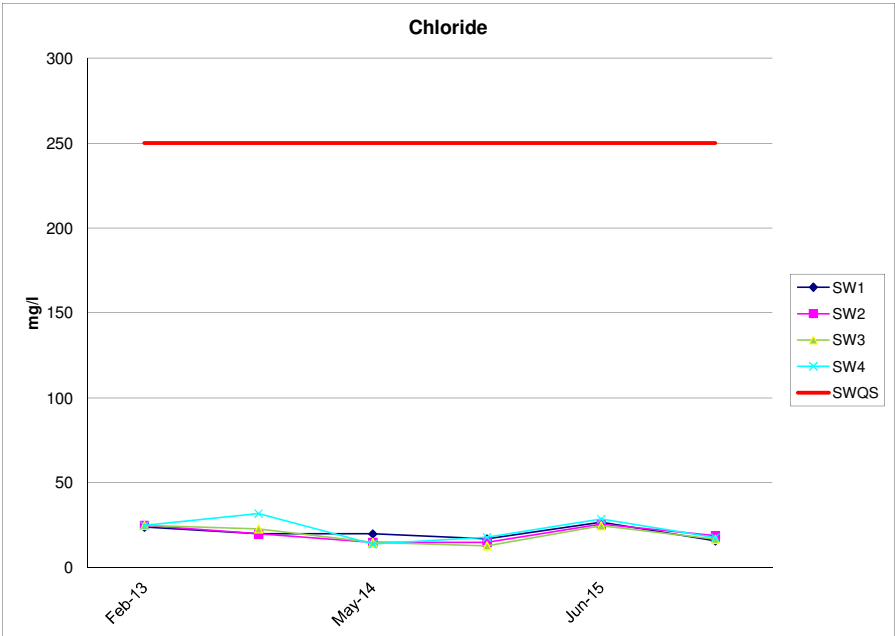
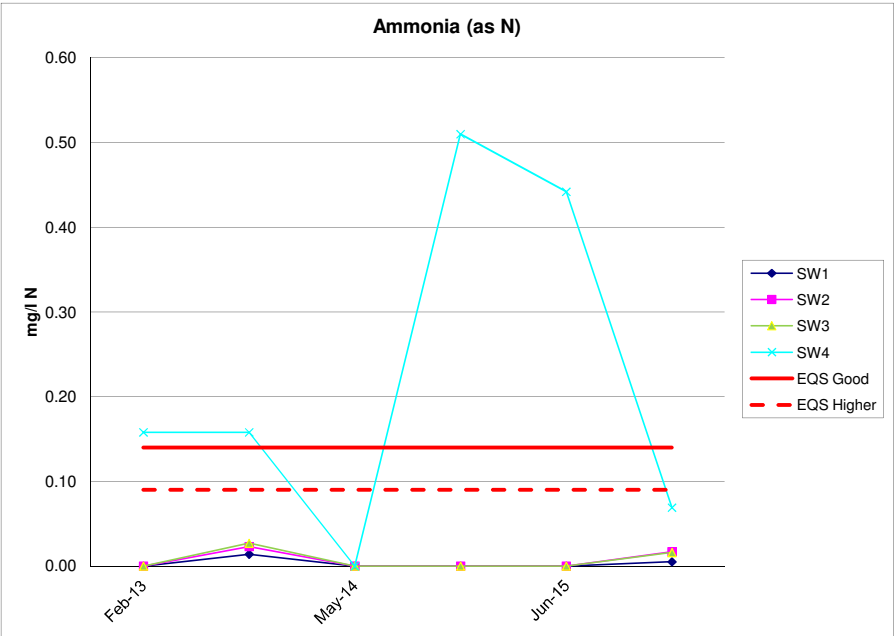
Location	Sample Date	Ammonia (as N)	BOD	COD	Chloride	Conductivity @ 20°C	Dissolved Oxygen (Measurement)	pH	Suspended Solids	Temperature
SW 1	Jun-15	<0.04	<1	4	26.8	81.9	11.3	6.6	<6	10.7
SW 2	Jun-15	<0.04	<1	16	25.81	78.8	10.3	5.7	<6	9.5
SW 3	Jun-15	<0.04	<1	4	24.82	82	11.3	6.4	<6	10.7
SW 4	Jun-15	0.442	<1	3	28.79	87.6	11.2	6.46	<6	10.5
SW 1	Oct-15	0.005	0.92	8	15.88	71	10.9	6.51	<6	10.2
SW 2	Oct-15	0.017	1.2	22	18.86	69	9.4	5.66	<6	10.2
SW 3	Oct-15	0.016	0.82	11	16.87	71	10.8	6.47	<6	10.2
SW 4	Oct-15	0.069	0.9	6	17.87	73	10.8	6.49	<6	10.2

Location	Date	Ammonia (as N)	BOD	COD	Chloride	Conduct'y @ 20°C	Depth	Flow	pH	Temp	TON
Leachate Holdi	Jun-15	36.3	<1	44	51.62	793	1.7	AR	6.6	17.2	0.12
Leachate Holdi	Oct-15	114	1.89	116	122.09	2085	1.3	6.99	11.2	0.991	

Location	Sample Date	Atmospheric Pressure	Carbon Dioxide	Methane	Oxygen
P1	Jun-15	1021	25.2	51.7	0.2
P2	Jun-15	1021	25.3	45.1	11.2
P3	Jun-15	1021	30.1	53	2.2
P1	Oct-15	987	28.3	59.7	1.6
P2	Oct-15	987	23.5	61	0.6
P3	Oct-15	987	19	57	0.7







Appendix D - Water Balance Calculation

MUCKISH WATER BALANCE CALCULATION

Year	Status	Rainfall (mm)	Temp Area	Temp infiltration IRCA(m3)	Restored area Area	Restored area infiltration IRCA(m3)	Total Water	Leachate produced Lo(m3)	Leachate Volume tankered Lo(m3)
2015	Closed	1,484			20,500	3,042	3,042	3,042	2,786
Total		1,484						3,042	2,786

Assumptions

IRCA=	Fully Capped/Restored area infiltration of rainfall estimated (2-10%),EPA Manual	10%	%
Restored area	Area capped is 20,500.	20,500	m ²
Rainfall Data	Data taken from Met Eireann Station Malin Head, Total Rainfall used.	1483.8	mm

Total rainfall in millimetres for Malin_head	Year	2015	2014	2013	2012
	Jan	176	162.2	140.9	134.7
	Feb	85.8	189.9	74.1	68.1
	Mar	123.1	71.6	61.7	29.8
	Apr	64.7	33.4	61.6	46.3
	May	137	86.8	102.5	50.7
	Jun	56.1	48.6	85.5	141.1
	Jul	132.7	86	56.5	91.4
	Aug	111	95.3	92.6	87.3
	Sep	29.7	23	69.7	139.2
	Oct	71.9	131.4	103.8	123.5
	Nov	222.9	134.4	116	87.4
	Dec	272.9	150.5	178.6	149.3
	Annual	1483.8	1213.1	1143.5	1148.8

Appendix E - E-PRTR (AER Electronic Reporting System)



| PRTR# : W0126 | Facility Name : Muckish Landfill Site | Filename : W0126_2015.xls
| Return Year : 2015 |

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[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2015
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1. FACILITY IDENTIFICATION

Parent Company Name	Donegal County Council
Facility Name	Muckish Landfill Site
PRTR Identification Number	W0126
Licence Number	W0126-01

Classes of Activity

No.	class name
-	Refer to PRTR class activities below

Address 1	Muckish
Address 2	Falcarragh
Address 3	
Address 4	
Country	Donegal
Country	Ireland
Coordinates of Location	-8.03537 55.0931
River Basin District	GBNIIENW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Julie McMahon
AER Returns Contact Email Address	julie.mcmahon@donegalcoco.ie
AER Returns Contact Position	Executive Engineer
AER Returns Contact Telephone Number	0749122787
AER Returns Contact Mobile Phone Number	0872861096
AER Returns Contact Fax Number	0749161304
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	1
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
50.1	General

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

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

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) ?	
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This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

[PRTR# : W0126 | Facility Name : Muckish Landfill Site | Filename : W0126_2015.xls | Return Year : 2015]

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) 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 PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	Landgem	0.0	61230.0	0.0	61230.0
03	Carbon dioxide (CO2)	C	OTH	Landgem	0.0	168000.0	0.0	168000.0
02	Carbon monoxide (CO)	C	OTH	Landgem	0.0	29.84	0.0	29.84
07	Non-methane volatile organic compounds (NMVOC)	C	OTH	Landgem	0.0	394.8	0.0	394.8
55	1,1,1-trichloroethane	C	OTH	Landgem	0.0	0.49	0.0	0.49
56	1,1,2,2-tetrachloroethane	C	OTH	Landgem	0.0	1.41	0.0	1.41
34	1,2-dichloroethane (EDC)	C	OTH	Landgem	0.0	0.31	0.0	0.31
62	Benzene	C	OTH	Landgem	0.0	1.13	0.0	1.13
58	Trichloromethane	C	OTH	Landgem	0.0	0.03	0.0	0.03
35	Dichloromethane (DCM)	C	OTH	Landgem	0.0	9.08	0.0	9.08
65	Ethyl benzene	C	OTH	Landgem	0.0	3.73	0.0	3.73
73	Toluene	C	OTH	Landgem	0.0	27.43	0.0	27.43
60	Vinyl chloride	C	OTH	Landgem	0.0	3.48	0.0	3.48
78	Xylenes	C	OTH	Landgem	0.0	9.73	0.0	9.73
57	Trichloroethylene	C	OTH	Landgem	0.0	2.81	0.0	2.81

* 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)

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
247	Acetone	C	OTH	Landgem	0.0	3.1	0.0	3.1
					0.0	0.0	0.0	0.0

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

Additional Data Requested from Landfill operators

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

Landfill:	Muckish Landfill Site				
Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
	Total estimated methane generation (as per site model)	0.0			N/A
	Methane flared	0.0			0.0 (Total Flaring Capacity)
	Methane utilised in engine/s	0.0			0.0 (Total Utilising Capacity)
	Net methane emission (as reported in Section A above)	0.0			N/A

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0126 | Facility Name : Muckish Landfill Site | Filename : W0126_2015.xls | Return Year : 2015 |

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Please enter all quantities on this sheet in Tonnes

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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	Haz Waste : Address of Next Destination Facility	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)
						M/C/E	Method Used		Non	Non Haz Waste: Address of Recover/Disposer		
Within the Country	19 07 03	No	1810.0 in 19 07 02	landfill leachate other than those mentioned	D8	M	Weighed	Offsite in Ireland	Donegal County Council,D0009-01	Thorn rd, Magheranan, Letterkenny, Co. Donegal, Ireland		

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

[Link to previous years waste data](#)

[Link to previous years waste summary data & percentage change](#)

[Link to Waste Guidance](#)