

Art 16 Info
(a).



REVIEW OF WASTE LICENCE

Article 16

By

Donegal County Council

to

Environmental Protection Agency

for

Waste Licence Reference: 215-1

Meenaboll Landfill Site

Co Donegal

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INTRODUCTION

The following information is in response to letter dated 2nd August Reg.No 215-1/Art16 (1)01PH from the EPA with regards to Article 16 compliance for the proposed Waste Licence at Meenaboll Landfill Site.

ARTICLE 16(1) FUTURE INFORMATION, PARTICULARS AND EVIDENCE.

c.3 HOURS OF OPERATION

1. The hours of operation for the Civic Amenity Site will be as for the proposed landfill, which will be between 08.30 to 17.00 Monday to Friday inclusive and 09.00 to 13.00 on Saturdays with the exclusion of Bank Holidays unless otherwise agreed in advance with the Agency.

H.3 WASTE HANDLING

1. The facility will accept white goods WEEE. These goods will be stored in a concrete surfaced area within the Civic Amenity Site Area. Drainage from this area will be to the leachate collection system. These goods will be stored in water proof containers provided by a licensed waste collector.

Retailers will be required to contact the facility in advance, prior to bringing any material to the Civic Amenity Site. No contaminated WEEE will be accepted on the site.

Records of the number and/or total weight of units of each category of WEEE will be maintained on site.

SECTION 5 SITE DESCRIPTION

Please refer to Figure 5.4 Buffer Zone.

SECTION 12 SURFACE WATER

1. The following surface water management improvements will be undertaken.
 - 1.1 In order to engineer the site it will be necessary to culvert the Sruhanpollandoo stream which runs along the north eastern boundary of the proposed site. This culvert will terminate at the point marked SW2 on Figure 6.2A Surface Water and Groundwater Management (i.e. culverted water will not pass through the constructed wetlands). The level of the culvert will generally follow the level of the existing stream with the gradient and manhole spacing of the culvert being agreed with the Office of Public Works by way of a Section 50 application under the Arterial Drainage Act, 1945 prior to any construction work commencing on site.
 - 1.2 A surface water collection pipeline will be installed around the perimeter of the proposed landfill to collect surface water falling towards the landfill area. The surface water pipelines will join to the north of the proposed site and pass through a constructed wetland prior to discharging to the Sruhanpollandoo stream. After restoration works have been undertaken, this pipeline will also be utilised to collect surface water run off from the capped areas.
2. The NHA's in the vicinity of the site are shown in Figure 10.3 Designated Conservation Areas (see Appendix A). The Sruhanpollandoo runs adjacent to the Cloghernagore Bog and Glenveagh National Park NHA and SAC and joins the River Finn SAC. The potential adverse impacts are as stated in the EIS in 12.36 of an impact of the quality and quantity of the water. Mitigation measures are as stated in 10.155 and 12.39 – 12.48 of the EIS.
3. Refer to Figure 6.2A Surface Water and Groundwater Management. The discharge point for the constructed wetlands will be at location SW2 as shown.
4. The settlement lagoons are to be utilised primarily during the construction and operations of the landfill site to ensure suspended solids, which may arise as a result of activity at the facility, do not enter the Sruhanpollandoo stream. Post-operation of the site the activity on site will be limited to general maintenance and monitoring. It would not be envisaged that suspended solids would be generated during the post operation period and the run-off characteristics will be similar to the existing regime.

The need for the settlement lagoons will be reviewed prior to the closure of the facility and the post operation surface water management system will be agreed with the Statutory Authorities.

5. The proposed location for the constructed wetlands is as shown in Figure 6.2A Surface Water and Groundwater Management. The design of the wetlands will be undertaken at the detailed design stage of the project in consultation with a specialist in this field. General design criteria for shallow wetland guidance states that the surface area of a stormwater shallow wetland should be 1.5% of the total drainage area. The total estimated catchment for the surface water system is 160,000m². Based on this figure the maximum area required for the constructed wetlands will be 2,400m². As such the constructed wetlands can be accommodated within the boundaries of the proposed facility boundary. Should a need for an extension to the constructed wetlands beyond the boundary of the facility arise, these works would be subject to additional statutory approvals.

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ADDITIONAL MONITORING

Surface water and groundwater monitoring has been undertaken at the proposed site since the waste licence application has been submitted. These results are included in Appendix B.

Groundwater

Chemical test results of sampling undertaken in May 2005 indicate that the groundwater of the study area are calcium bi-carbonate type, being weakly mineralised and slightly acidic.

The concentration of the majority of ions analysed was found to be below the Interim Guidelines Value as set out in EPA's Towards Setting Guideline Values for the Protection of Groundwater in Ireland. Chloride levels were slightly elevated in BH8 (42.79mg/l). Ammonia level at BH7 and BH8 are slightly elevated. Potassium is slightly elevated above IGV at BH5.

Concentrations of manganese, iron and zinc were recorded at levels exceeding the Interim Guidelines Value. These elevated readings are attributed to the mineralogy of the bedrock.

Surface Water

Monitoring was undertaken at locations SW2 and SW3 as shown on Figure 12.5 Surface Water Monitoring Points. Analyses show that the surface water was found to be generally of acidic conditions which are characteristic of bog and surface water arising from plantations. Iron levels are also elevated which is characteristic in bogwater. COD and ammonia levels were elevated at SW3.

APPENDIX A

DRAWINGS

Figure 5.4 Buffer Zone.

Figure 6.2 A Surface Water and Groundwater Management.

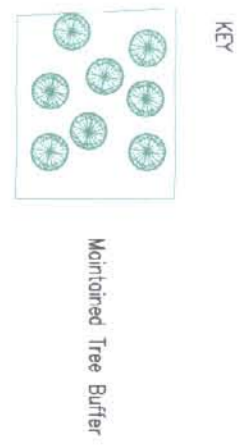
Figure 10.3 Designated Conservation Areas.

Figure 12.5 Surface Water Monitoring Points.

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SCALE: 1:2000

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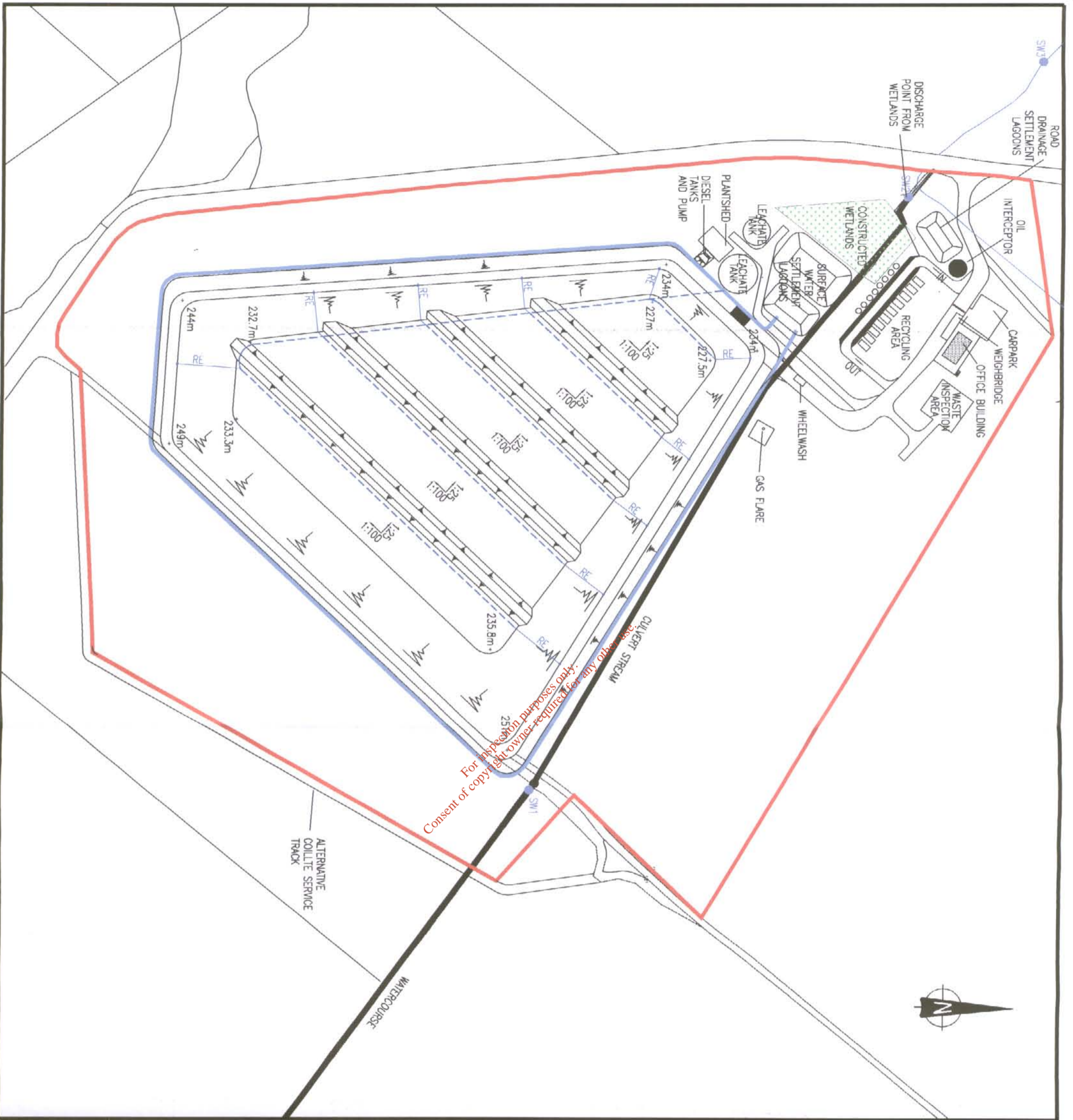


Comhairle Chiontae Dhúha na n-Gall
Donegal County Council

PROJECT
MEENABOLL LANDFILL PROJECT

TITLE
TREE BUFFER ZONE

FIGURE
5.4



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- KEY**
- ◆ GENERATOR
 - GROUNDWATER
 - SURFACE WATER
 - SW1 PROPOSED SURFACE WATER TESTING POINT
 - RE RODDING EYE

SCALE: 1:2000

RPS Kirk McClure Morton

Comhairle Chontae Dhún na nGall
Donegal County Council

PROJECT
MEENABOLL LANDFILL PROJECT

TITLE
SURFACE WATER AND
GROUNDWATER MANAGEMENT

FIGURE
6.2A

LOUGH BARRA BOG SPA

CLOGHERNAGORE BOG &
GLEWEAGH NATIONAL PARK NHA & SAC





RIVER FINN SAC

MEENTYGRANNAGH NHA & SAC

RIVER FINN SAC

TULLYTRESNA BOG NHA

Legend

-  NHA
-  SAC
-  SPA
-  5km Site Buffer



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KEY

-  PROPOSED SITE DEVELOPMENT
-  5km RADIUS FROM SITE BOUNDARY

SCALE: 1:50,000

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Comhairle Chontae Dhúla na nGall
Down County Council

PROJECT

MEENABOLL LANDFILL PROJECT

TITLE

DESIGNATED
CONSERVATION AREAS

FIGURE

10.3



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KEY	SITE AREA WATERCOURSES SURFACE WATER MONITORING POINTS
PROJECT	RPS Kirk McClure Morton Comhairle Chomairle Dhúin na nGall District Council
TITLE	MEENABOLL LANDFILL PROJECT
FIGURE	12.5
ORDNANCE SURVEY LICENCE NO. EN 0029304 © ORDNANCE SURVEY IRELAND / GOVERNMENT OF IRELAND SCALE: 1:25,000	
FIGURE SURFACE MONITORING POINTS	

APPENDIX B

RESULTS

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MEENABOLL SURAFACE WATER JANAUARY 05

Sample Identity	Lab Ref	Date	pH	Conductivity	emperaturc °C	Dissolved Oxygen mg/l	Chemical Oxygen Demand mg/l	Chloride mg/l	Ammonia NU3 mg/l	Nitrite NO, mg/l	Nitrate NO, mg/l	Total Oxidised Nitrogen mg/l	Phosphate mg/l
SW2	281	24/01/05	6.35	119.1	5.90	12.69	0	36	0.011	0.004	1.105	1.109	0.043
SW3	280	24/01/05	6.01	120.4	5.97	12.45	25	32	0.036	0.003	0.517	0.520	0.043

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MEENABOLL LANDFILL BOREHOLE ANALYSIS MAY 05

Sample Identity	Lab Ref	Date	pH	Conductivity	Temperature (°C)	Dissolved Oxygen	Chloride	Ammonia NH3	Nitrite NO ₂	Nitrate NO ₃	Total Oxidized Nitrogen	Phosphate	Dissolved Nickel Low Level	Dissolved Zinc Low Level	Total Organic Carbon	Fluoride	Sulphate	Total Cyanide
BH1	2836	30/05/05	7.52	118	11.56	3.48	13.99	0.061	0.161	0.434	0.0226	0.048	4	2531	1.23065	0.2	9	<0.05
BH5	2837	30/05/05	8.01	392	13.31	8.32	20.39	0.0131	0.0203	0.048	0.0170	3	100	3.20335	0.5	13	<0.05	
BH10	2838	30/05/05	7.48	183	13.32	1.06	20.79	0.0565	0.000	0.000	0.000	2	20	11.64	0.3	3	<0.05	
BH9	2839	30/05/05	8.68	306	12.10	1.79	29.19	~	~	~	~	3	253	9.69115	0.2	3	<0.05	
BH6	2840	30/05/05	7.82	427	13.90	5.40	26.39	~	~	~	~	6	2371	3.94155	0.4	3	<0.05	
BH7	3124	16/06/05	6.39	233	13.17	2.63	22.79	0.212	0.021639	0.035	0.056511	2	63	3.59885	0.3	9	<0.05	
BH8	2841	30/05/05	7.82	238	11.24	2.07	42.79	0.404	0.000	0.000	0.000	2	45	10.3749	0.2	3	<0.05	
SW2	2842	30/05/05	6.75	70.4	13.87	10.12	20.39	~	~	~	~	1	20	---	---	---	---	
SW3	3123	16/06/05	6.72	51.9	13.21	10.32	12.40	0.188	0.0429	0.000	0.000	0.1666	1	17.54795	---	---	---	

Sample Identity	Lab Ref	Date	Dissolved Arsenic Low Level	Dissolved Mercury Low Level	Potassium	Sodium	Total Dissolved Solids	Dissolved Boron	Dissolved Calcium	Dissolved Magnesium	Dissolved Cadmium Low Level	Dissolved Chromium Low Level	Dissolved Copper Low Level	Dissolved Iron Low Level	Dissolved Lead Low Level	Dissolved Manganese Low Level
BH1	2836	30/05/05	<1	<0.05	4.0	7.0	20	14310	1570	1333	<0.4	4	<1	<5	<1	8
BH5	2837	30/05/05	<1	<0.05	8.2	19.0	10	76310	12790	3249	<0.4	4	<1	<5	<1	3
BH10	2838	30/05/05	<1	<0.05	1.0	10.0	<10	25700	4619	4881	<0.4	4	<1	<5	<1	3
BH9	2839	30/05/05	<1	<0.05	2.4	18.0	<10	49780	6296	3249	<0.4	4	<1	<5	<1	3
BH6	2840	30/05/05	<1	<0.05	3.8	12.0	10	74980	10570	3249	<0.4	4	<1	<5	<1	3
BH7	3124	16/06/05	<1	<0.05	2.6	11.0	<10	98670	10570	3249	<0.4	4	<1	<5	<1	3
BH8	2841	30/05/05	<1	<0.05	0.8	15.0	<10	16120	3022	3249	<0.4	4	<1	<5	<1	3
SW2	2842	30/05/05	<1	<0.05	<0.2	7.0	<10	4881	1622	1333	<0.4	4	<1	<5	<1	3
SW3	3123	16/06/05	---	---	0.05	6.0	---	---	---	---	<0.4	3	<1	<5	<1	8

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