



Annual Environmental Report 2010
P0501-01

March 2011

Bord na Móna today operates 5 main subsidiary companies in more than 20 locations throughout Ireland, the UK and USA. The principal businesses are in the Energy, Resource Recovery, Horticulture, Home Heating and Wastewater Treatment and Air Pollution Abatement markets. The company also engages in an extensive rehabilitation program to develop its peat lands in an environmentally sustainable manner.

A NEW CONTRACT WITH NATURE

Bord na Móna has long recognised the need to diversify its activities in order to secure a sustainable future. In this context we identified the energy and resource recovery sectors as appropriate areas of growth and development, given our assets, strengths and skills. Significant challenges face Ireland in meeting the country's needs to provide secure sustainable energy and manage waste while minimising the impact on the environment.

Bord na Móna is in a strong position to contribute to dealing with these challenges. We have a unique mixture of assets, experience and innovation which will enable us to cross-link our activities in energy, water and resource recovery to provide products and services which will meet Ireland's needs. We also have the capacity to become an exemplar for others to follow in these fields.

With this background we have scoped out a new vision for the future sustainable development of Bord na Móna.

Following on from our vision, we have developed a new mission for Bord na Móna which the Company is committed to achieving.

In 1934 the Turf Development Board was formed to 'develop and improve the turf industry.' The experience of fuel shortages during the war re-enforced the Irish State's commitment to developing the country's bogs. In 1944 the TDB was asked to devise and submit a comprehensive programme, the outcome was the transformation in 1946 of the TDB into Bord na Móna. The Board was given a mandate to increase the use of peat as a fuel and in energy production. Markets for the use of moss peat in horticulture were also developed.

In 1990 Bord na Móna implemented a divisionalised and decentralised structure, designed to delegate responsibility downwards ensuring a sharper focus on each profit centre and a greater spirit of enterprise.

Group

Vision



The vision statement defines the Company's purpose, in terms of its values.

Values are guiding beliefs about how things should be done.

The vision statement communicates both the purpose and values of Bord na Móna.

For employees, it gives direction about how they are expected to behave and inspires them to give their best. Shared with customers, it shapes the customers' understanding of why they should work with Bord na Móna.

Bord na Móna will seek solutions that optimise the creative energy and potential of the organisation, driven by long term goals and the organisation's vision and mission.

In this context our devolved business units will align their vision and strategic planning with the global direction provided.

Consistent with our vision, innovation will once again return to the core of everything we do. We will capitalise on opportunities to cross fertilise our unique range of skills and technologies that add value and are socially and environmentally sustainable.

Greater focus will be placed on managing and developing our land assets in a responsible and sustainable manner. Our award winning initiatives at Lough Boora (Co. Offaly) and Oweninny (Co Mayo), provide shining examples of what can be achieved

Group

Mission

We conduct our affairs with openness, honesty and integrity.

We are Ireland's leading environmentally responsible integrated utility service provider encompassing electricity, heating solutions, resource recovery, water, horticulture and related services.

We capitalise on international opportunities where we have a competitive advantage.

We achieve continuing growth through superior customer service, outstanding quality and innovation delivered through the excellence and commitment of our people.

We engage in sustainable profitable business in the communities we serve, which is rewarding and challenging for employees and other stakeholders.

Contents

1.0 Introduction

- 1.1 IPPC Licence Register No
- 1.2 Name & Location of Site
- 1.3 Brief Description of Activities
- 1.4 Environmental Management of the Company
- 1.5 Environmental Policy Statement

2.0 Summary Information

- 2.1 Emissions to Water Summary
 - 2.1.1 Silt Pond Emissions
 - 2.1.2 Yard Discharges
 - 2.1.3 Composite Sampler Report
 - 2.1.4 Emissions to Water Non-compliance's

2.2 Emissions to Air Summary

- 2.2.1 Dust Monitoring
- 2.2.2 Emissions to Air Non-compliance's

2.3 Waste Arising

- 2.3.1 Non-Hazardous Waste
- 2.3.2 Hazardous Waste

2.4 Energy and Water Consumption

- 2.4.1 Energy Consumption

2.5 Environmental Incidents and Complaints

- 2.5.1 Incidents
- 2.5.2 Complaints

3.0 Management of the Activity

3.1 Environmental Management Programme Report

3.2 Environmental Management Programme Proposal

3.3 Environmental Expenditure

4.0 Licence Specific Reports

4.1 Surface Water Discharge Monitoring Location Programme Review

4.2 Bunding Programme

4.3 Boiler Combustion Efficiency

4.4 Resource Consumption Summary

4.5 Report on de-silting Programme

4.6 Bog Development and Operational Programme

4.7 Bog Rehabilitation Report

4.8 Archaeological Report

5.0 Summary

Appendix 1: Emissions to Water Monitoring Results. (Bogs)

Appendix 2: Emissions to Water Monitoring Results. (Yards)

Appendix 3: Emissions to Water Monitoring Results. (Composite)

Appendix 4: Emissions to Air Monitoring Results.

Appendix 5: De-silting Programme Review

1.0 Introduction

1.1 IPPC Licence No 501-01

1.2 Name & Location of Site

Name:	Bord na Mona Energy Limited.
Address:	Derrygreenagh Works, Rochfortbridge, Mullingar, Co. Westmeath
Telephone No:	044 9222181
Contact Name:	Eamonn Mulhall
Position:	Resource Manager
National Grid Reference:	E249450 N 238140

1.3 Description of Activities

Peat Milling Operations.

For milled peat production the bog is laid out in a series of rectangular fields of varying length and 15m wide with drains located between. There are essentially four operations involved in milled peat production:

Milling.

Harrowing.

Ridging.

Harvesting.

Milling.

Special milling machines work there way along the fields, milling approximately 15mm of peat of the top of the bog in a pass.

Harrowing

In the course of drying, the milled peat is turned a number of times to avail of the drying conditions. This is achieved with a machine called a harrow. The milled peat is harrowed until its moisture content is down to approximately 40-50%, which can take up to two to three days, weather depending.

Ridging

The dry peat is then scraped into long ridges running down the centre of each field. This is done with a ridger, a machine consisting of a series of blades in the shape of a v that opens the full width of the field.

Harvesting

During harvesting every eleventh field is used to stockpile the peat, with this field receiving the milled peat from the five fields either side.

The milled peat is then transported via the existing network of peatland railways or via road to one of the following locations.

Power station

Horticultural Factory.

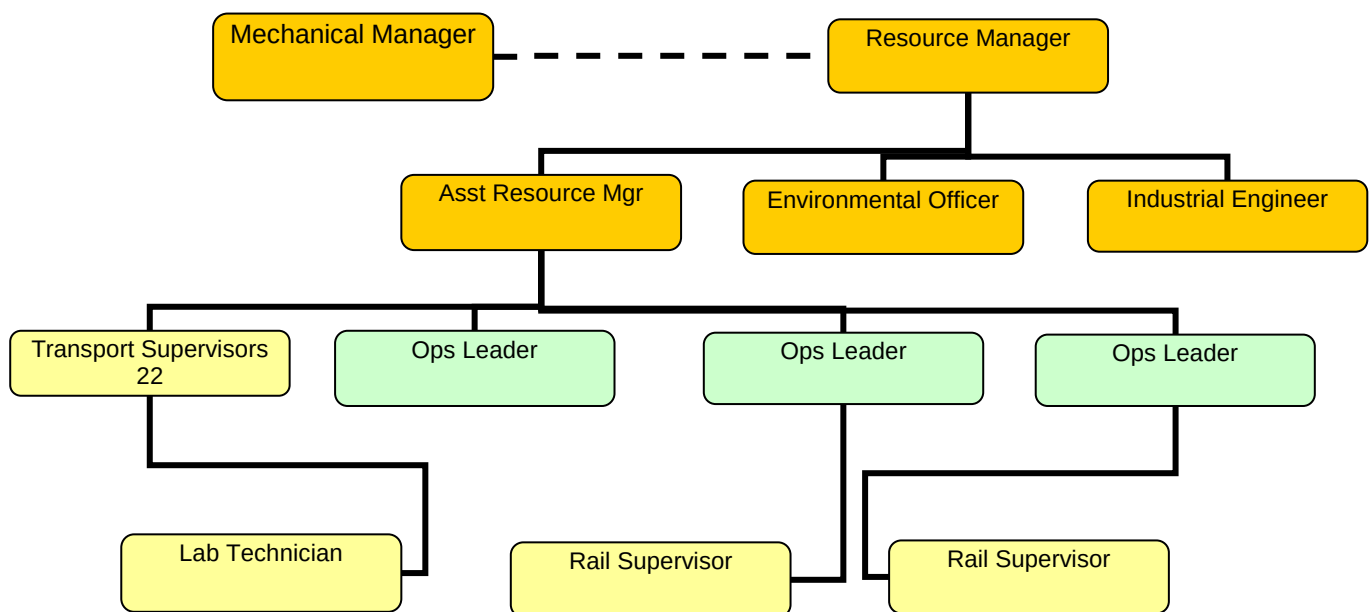
Briquette Factory.

1.4 Environmental Management of the Company

The organisational structure within the Derrygreenagh Group is presented in the flow chart below.

Group

Environmental Responsibilities



1.5 Environmental Policy



Bord na Mona Energy Limited is a commercial semi-state body with responsibility to develop Ireland's peat resources in the national interest.

Bord na Mona Energy Limited is committed to gather and make available information on all aspects of its environmental impact and to help improve understanding among the public generally of its role and the importance of Irish peatlands.

Bord na Mona Energy Limited recognises the importance of peatland conservation.

Bord na Mona Energy Limited will leave behind all areas it owns as either an economically or socially integrated resource of a high environmental value.

Bord na Mona Energy Limited seeks to conduct all aspects of its business in an environmentally sensitive value.

Bord na Mona Energy Limited operates an environmental management system specifically addressing the following impacts.

- Discharge to water.
- Emissions to atmosphere.
- Waste disposal.
- Use of natural resources.
- Noise, vibration, odour, dust and visual effects.
- Natural environment and eco-system.

The environmental management system will be monitored, maintained and continually improved.

A system of regular environmental audits will be put in place.

Bord na Mona Energy Limited will continue research and development into all aspects of its environmental impact.

This statement is published and is available at all locations within the division and its Contents are brought to the attention of all employees.

2.0 Summary Information

2.1 Emissions to Water Summary

2.1.1 Silt Pond Emissions

Surface Waters

Comment

Surface water monitoring was carried out four times during the reporting period. In total analysis was carried out at six different locations. The locations are as follows, Derryhinch @ SW4, Ballybeg @ SW15, Bracklin @ SW26, Carranstown @ SW31, Rossan @ SW46 and Carrick @ SWA. As the latter is a comparatively new pond it was given a letter as opposed to a number for identification purposes. The parameters measured during each sampling event were as follows.

Total Phosphorus, Total Solids, Suspended Solids, pH, Ammonia, Colour and COD. In general results were constant across all parameters at each monitoring location. September was the wettest month with 169.3mm of rainfall recorded and April the driest with 37.3 mm recorded. Flow rates appear to have had no adverse effect on suspended solids results.

The quarterly grab sampling programme was 96% compliant for the year, which is down on previous years which were fully compliant. This was due to one non-compliance discussed below.

pH values were between 6.5 and 8.1, with emission limit values being of the range 6 and 9. pH values of waters emanating from production peatlands appear to remain constant and in line with background levels. On average pH values were 0.1 pH units below 2009 levels.

Suspended solids varied from 5mg/l to 115mg/l and would depend on activities (piping, ditching) etc in the catchments at the time of sampling. As mentioned above the 115 mg/l result did constitute a non-compliance and was reported to the Agency. Investigations showed that drainage works were being carried out upstream of the sample point at the time of sampling. Although there was one non-compliance in 2010 in relation to suspended solids, the average figure was down on 2009.

Ammonia values ranged from 0.07 mg/l and 2.4 mg/l. The I/PV for A3 waters is of the range 4mg/l. It is however not unusual for surface waters emanating from production peatlands to be slightly elevated. Overall ammonia levels are slightly up on 2009 figures. With the average being 1.6 mg/l in 2010 as opposed to 0.93 mg/l in 2009.

COD values ranged from 37 mg/l to 135 mg/l. Results at SW15 indicate an overall reduction, with the average COD level below 2009 levels. Overall COD results were below 2009 levels also. The I/PV for A3 waters is of the range 40mg/l. Four results were above the Bord na Mona set trigger level of 100 mg/l, however investigations should no evidence of any contributory factors causing such results. Reduced flow and increased temperature most definitely impinge on COD results.

Flow rates were well down on 2009 sampling events. This in part is dependent on the climatic conditions on the chosen day of sampling. Also 2010 was a dryer year overall with 875 mm of rainfall recorded as opposed to 1052 mm in 2009. April was the driest month with 37.3mm and September the wettest with 169.3mm of rainfall recorded.

Total Phosphorus results were consistently low and ranged from 0.05 mg/l to 0.16 mg/l. On average the total phosphorus result was higher than 2009, the difference being minute (0.014 mg/l).

The sampling locations will remain the same during 2011.

At the request of the Agency, analysis results are now demonstrated in both tabular and graphical format.

Surface Water Results are attached in Appendix 1.

2.1.2 Yard Discharges

Yard Runoff

Comment

Yard runoff monitoring took place at two locations during the reporting period. Derrygreenagh @ SWE 2 and Rossan @ SWE 1. Sampling frequency was monthly and COD was the parameter requiring analysis. Results were very satisfactory for the period at both locations; with results consistently well below trigger levels with the exception of the September result at Derrygreenagh which exceeded trigger levels. Investigations found machinery had been washed down immediately prior to sampling, subsequent results were very satisfactory. Overall the average result at each location was well below those of 2009.

Although not having a specific licence emission limit value, a trigger level of 100 mg/l has been set in relation to COD results, along with the weekly visual inspections.

Sampling will continue at the same locations during 2011.

Yard Emission Results are attached in Appendix 2.

2.1.3 Composite Sampler Report

Composite Sampling

Comment

The composite sampler has been operating at Toar Bog SW15 during the reporting period. The parameters measured were Total Phosphorus, Total Solids, Suspended Solids, pH, Ammonia, Colour and COD, with Suspended solids being the only parameter with an emission limit value of (35mg/l). The sampler worked well during the reporting period. At the direction of the Agency the sampler was calibrated by an independent contractor. Due to extremely low temperatures the sampler and indeed the outfall on which the sampler is situated became frozen during parts of November

and December. In general results were satisfactory with no non-compliance's being recorded for the period. Analysis of the 2009 results compared with the 2010 results indicate no great difference in results in relation to pH, Ammonia and Phosphorus, with slightly lower COD and higher Suspended Solids in 2010. The composite sampler will remain at this location for the foreseeable future.

Composite Sampler Results are contained in Appendix 3.

2.1.4 Emissions to Water Non-compliance's

Emissions to Water Non-Compliances 2010		
Licence: P0501-01		
Works: Derrygreenagh		
Type	Non-Compliances	Location / SW Nr
Composite	0	
Quarterly Grab	1	Ballybeg SW 15
Monthly Yard	0	
Totals	1	

There was one non-compliance's in relation to elevated suspended solids as a result of quarterly grab sampling. A corrective action was submitted and was to the satisfaction of the Agency.

2.2 Emissions to Air

2.2.1 Dust Monitoring

Comment

Dust monitoring was carried out on five occasions between April and September. Each monitoring event lasted between 28 and 32 days and the Bergerhoff method of collection was used.

The monitoring locations were as follows, Toar DM01, Derryhinch DM02 and Ballivor DM03.

All monitoring results were within the emission limit value of 350mg/m²/day. Sampling will continue at the same locations during 2011.

Dust monitoring results are contained in appendix 4.

2.2.2 Emissions to Air Non-compliance's

Dust Non-Compliances 2010	
Licence:P0501-01	
Works: Derrygreenagh	
Location / DM Nr	Non-Compliances
N/A	
Total	0

Dust results for 2010 were fully compliant.

2.3 Waste Arisings

2.3.1 Non-Hazardous Waste

Non Hazardous Waste Data 2010				
Licence: P0501-01				
Works: Derrygreenagh				
Type	Tonnes	EWC Code	Contractor	Licence Nr
Skips	17.46	20 03 01	AES	053/OY/39/02
Wheelie Bins	6.27	20 03 01	AES	053/OY/39/02
Polyethylene	122.78	02 01 04	Eco Plastics	WFP-CE-08-0005-01
Polyethylene	60.00	02 01 04	Leinster Environmentals	205/2005
Scrap Steel	28.02	17 04 07	AES	053/OY/39/02
Timber Pallets	7.12	15 01 03	AES	053/OY/39/02
Silt Pond Cleanings	222.46	01 01 02	Bord na Mona	IPPC P0501-01
Peat Screenings	0.00	01 01 02	Bord na Mona	IPPC P0501-01
Totals	464.11			

Note: Polyethylene and Steel are recycled. Skips go to an AES Mixed Recycling Facility.

2.3.2 Hazardous Waste

Hazardous Waste Data 2010					
Licence: P0501-01					
Works: Derrygreenagh					
Type	Tonnes	EWC Code	Contractor	Licence Nr	Destination
Waste Oil	11.60	13 02 05	Enva Ireland Ltd Portlaoise	184-1	Portlaoise
Oil Filters	0.91	16 01 07	Enva Ireland Ltd Portlaoise	184-1	Portlaoise
Oily Rags	0.39	15 02 02	Enva Ireland Ltd Portlaoise	184-1	Portlaoise
Waste Grease	0.40	13 08 99	Enva Ireland Ltd Portlaoise	184-1	Portlaoise
Lead Acid Batt	2.97	16 06 01	Enva Ireland Ltd Portlaoise	184-1	Portlaoise
Parts Wash	1.51	11 01 13	Safety Kleen, Tallaght, Dublin	99-1	Dublin
Waste Paint	1.56	15 01 10	Enva Ireland Ltd Portlaoise	184-1	Portlaoise
Total	19.34				

2.4 Energy and Water Consumption

2.4.1 Energy

The table below shows energy consumption for the year. It does not include water as it is only used in offices, canteens and workshops on a domestic basis. It is not used as part of the production process.

Energy Consumption 2010				
Licence: P0501-01				
Works: Derrygreenagh				
Units	Diesel (Litres)	Petrol (Litres)	Electricity (Units)	Peat Briquettes (Tonnes)
Totals	827357.03	0	421733	20
MW Hours	8142.5	0	421.733	100
Total MW Hours	8664.2			

Note: Bord na Mona have in the reporting period, established an Energy Management Team. The goal of the team is to reduce overall energy consumption by implementing an array of energy saving initiatives. Bord na Mona Mountdillon, P0504-01 has been selected as a location where the energy standard EN 16001 is to be implemented. Should this prove successful, the standard will be introduced at all Bord na Mona facilities.

2.5 Environmental Incidents and Complaints

2.5.1 Incidents

Environmental Incidents 2010	
Licence: P0501-01	
Works: Derrygreenagh	
	Number
Incidents	1
Requiring corrective action	1
Category	
Water	1
Air	
Procedural	0
Miscellaneous	0
Total	1

There was one environmental incident. This related to a bog fire at Derryarkin bog, the Agency was informed.

2.5.2 Complaints

Environmental Complaints 2010		
Licence:P0501-01		
Works: Derrygreenagh		
		Number
Complaints		0
Requiring corrective action		0
Category		
Water		0
Air		0
Procedural		0
Miscellaneous		
	Total	0

No complaints of an environmental nature were received during the reporting period.

3.0 Management of the Activity

3.1 Achievement of Objectives & Targets 2010

Project	Description & Status
Project 1: Reduction of fugitive dust emissions.	Training. Train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation. Status In total 82 employees received environmental training. Hydraulic Harrows. One Hydraulic harrow will be deployed at Derryhinch bog during the 2010 production season. Status No new Hydraulic Harrows were deployed during the 2010 production season. Headland Peat Collection. Continue with the collection of headland peat, particularly at dust sensitive locations. Status Headland peat was collected as part of the peat lifting process and included in general peat return figures.

Project 2: Waste Management	Waste Streamlining. Following the purchase by Bord na Mona of AES Ltd, meetings with that company's management will be ongoing to see how best Bord na Mona's needs can be catered for. Key account managers dedicated to Bord na Mona have been requested and are due to be in place in 2010. Status Ongoing The service included the co-ordination of all waste streams ensuring the correct waste stream was dealt with by the appropriate waste provider. The service also included the issuing of quarterly reports.
Project 3: Minimisation of Suspended Solids.	On Site Inspections. Train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation. Status In total 82 employees received environmental training.
Project 4: Effective spill leak management of mobile fuelling units.	Research and Development. Increased bund provisions where required, will be provided, in 2010. Status A new bunded lockup oil store was provided at Derryhinch Bog. An oil spill kit was provided at Ballivor Bog. In addition to this additional containment booms were purchased and are held in storage as backup to existing stocks.
Project 5: Collection storage and reuse of polyethylene.	Identify Recyclers. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing. Status In total 182.78 tonnes of polyethylene was sent for recycling in 2010.
Project 6: Mini Sod Project	Carry out Trial. On a trial basis switch from milled peat to mini sod production at a portion of Drumman bog. Part of this project is to mitigate against dust nuisance, as the area is potentially dust sensitive. Status This project didn't take place as the location proved to be unsuitable.

3.2 Environmental Management Programme Proposal 2011

Project	Description & Status
Project 1: Reduction of fugitive dust emissions.	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation. The training programme will be revised in 2011. Hydraulic Harrows. Hydraulic harrows will be deployed at Derryhinch, Ballivor and Rossan bog during the 2011 production season. Headland Peat Collection. Continue with the collection of headland peat, particularly at dust sensitive locations.
Project 2: Waste Management	Waste Streamlining. Waste streamlining is a project we are particularly interested in pursuing and hope to reduce wastes in the future and be more efficient in dealing with all aspects of waste management
Project 3: Minimisation of Suspended Solids.	Training. Continue to train all employees in environmental matters. Training will be by means of the screening of an environmental DVD, followed by a power point presentation. The training programme will be revised in 2011.
Project 4: Effective spill leak management of mobile fuelling units.	Research and Development. Increased bund provisions where required, will be provided, in 2011.
Project 5: Collection storage and reuse of polyethylene.	Identify Recyclers. Continue with the recycling of polyethylene. The sourcing of more recycling contractors will be ongoing.
Project 6: Energy Management	Review of Energy Aspects As part of an energy management process, a review of energy aspects will take place identifying the significant energy users of the licensee.

3.3 Environmental Expenditure

Environmental Expenditure 2010	
Licence:P0501-01	
Works: Derrygreenagh	
Description	Cost €
Capital Costs	26,720.00
Silt Control	91,420.00
Analytical & Consultancy Costs	9,553.00
EPA Fees	12,584.00
Bog Rehabilitation	84,528.00
Waste Management	36,353.00
Total	261,158.00

4.0 Licence Specific Reports

4.1 Surface Water Discharge Monitoring Location Programme Review

It is proposed to continue monitoring at the same locations in 2011 as were monitored in 2010. Should it be deemed necessary for any reason during the coming year additional monitoring will be initiated. Safe access to all monitoring locations will be maintained. Currently Bord na Mona are reviewing all silt ponds for upgrade, installation of weirs, flap valves etc in line with the requirements of the South Eastern & Eastern River Basin Management Plans.

4.2 Bunding Programme

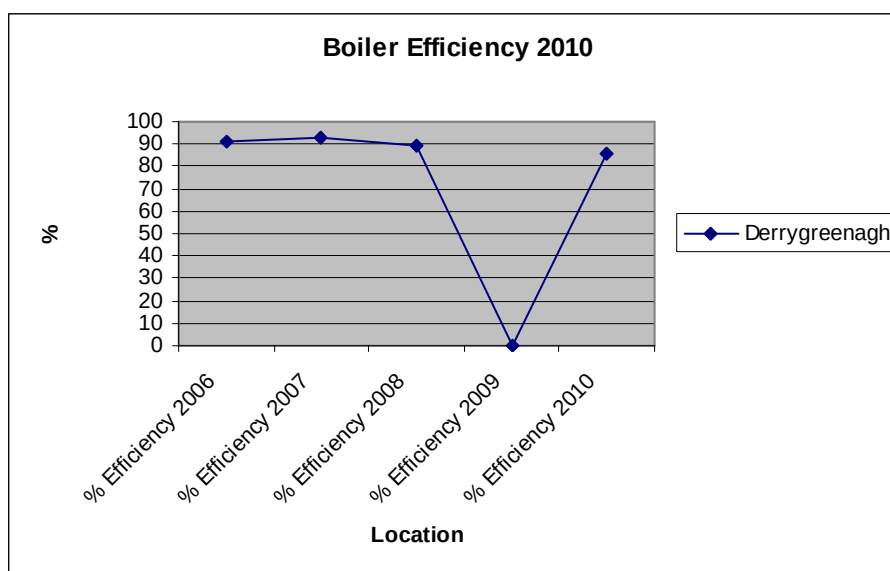
Bund Locations & Numbers Derrygreenagh Works					
IPPC Licence: P0501-01					
Location	Bund Number	Last Tested	Status Pass/Fail	Repair Date	Next Test Due
Derrygreenagh Main Bund	501-37-01	Jan-11	Pass	N/A	Jan-13
Derrygreenagh Waste Oil Bund	501-37-02	Jan-11	Pass	N/A	Jan-13
Ballivor Factory Bund	501-08-03	Nov-09	Pass	N/A	Nov-11
Rossan Tippler Bund	501-07-04	Feb-10	Pass	N/A	Feb-12

As is evident from the table, no bunds in the licence area required testing during 2010. The next due date for testing is November 2011 at Balivor Factory Bund.

4.3 Boiler Combustion Efficiency

As mentioned in the 2009 AER a new boiler had been fitted at Derrygreenagh which was not tested. A test was carried out in 2010 the results of which are included in the table below along with results from the boiler that was previously at the site.

Boiler Efficiency Test 2010					
Licence: P0501-01					
Works: Derrygreenagh					
Boiler Location	% Efficiency 2006	% Efficiency 2007	% Efficiency 2008	% Efficiency 2009	% Efficiency 2010
Derrygreenagh	90.71	93.3	88.9	New Boiler fitted	86



4.4 Resource consumption summary

Resource Consumption 2010			
Licence: P0501-01			
Works: Derrygreenagh			
Product	Tonnes Produced	Tonnes Sold	Customer
Milled Peat	190,896	124,718	ESB
Moss	84,853	65,634	Horticulture
Turf	5000	1000	Fuels
Turf	66	66	Private
Totals	280,815	191,418	N/A

Proposed Production 2011	
Licence: P0501-01	
Works: Derrygreenagh	
Product	Proposed Target
Milled Peat	128,246
Moss	70,000
Turf Private	66
Turf Fuels	0
Totals	198,312

4.5 De-Silting Report

Silt pond cleaning went well during the reporting period with all ponds being cleaned twice with the exception of Lisclogher where the ponds were cleaned once. This was due to the fact that there is no activity at the location and fortnightly inspections demonstrated the ponds there to be continuously empty. The inspections would also have dictated which ponds required additional cleanings.

A table and graph of the cleaning schedule is attached in appendix 5.

4.6 Bog Development and Operational Programme

There was some small scale development in Carranstown Bog (Ballivor Group). Works included the reinstatement of production bog which had been out of production for 15 years. Existing silt ponds are servicing the area which extends to approximately 35 hectares. This work will continue during 2011 with production planned for the back end of the 2011 season.

4.7 Bog Rehabilitation Report

2010: Sites surveyed in the Derrygreenagh Group include Derryhinch, Drumman, Derryarkin and Ballybeg. Habitat maps and reports have been outlined for all sites and draft rehabilitation plans will be developed in 2011 for all bog areas surveyed to date. Rehabilitation trials to determine the effectiveness of seeding and fertilisers were established on Drumman Bog. These will be monitored over the coming years. The ecology survey will continue for Derrygreenagh in 2011. Consultation with local community groups, NPWS and Offaly Heritage Forum is ongoing. The clearance of historical polyethylene continued at Rossan bog. A total of 50.6 tonnes was removed for recycling. Clearance works will continue during summer 2011. It is estimated that the site will be cleared of historic polyethylene by the years end.

4.8 Archaeological Report

There was no archaeology work carried during the reporting period.

5.0 Summary

The Derrygreenagh Group of Bogs endeavour to comply with all environmental issues. In 2010 we had no non-compliance regarding suspended solids at our composite sampler at Toar bog. Although we had a non compliance during a quarterly grab sampling event in Ballybeg, silt pond cleaning went reasonable well this year. All areas were cleaned at least twice except for Lisclogher which is not in production so silt runoff was minimal. Every effort will be made to continue this trend into 2011. Dust sampling was conducted on five occasions again this year, two more than our licence requires, with no sample over the limit. This along with the provision of specialist machinery in the coming year should further aid us in our endeavours to minimise dust emissions. Staff training in Environmental Management took place this year with 82 people trained. This will continue in the coming year, with the current training programme being revised.

There were no complaints received during 2010. Waste streamlining is a project we are particularly interested in pursuing and hope to reduce wastes in the future and be more efficient in dealing with all aspects of waste management. Bord na Mona Energy Ltd are represented on the Management Group of both the Shannon River and Eastern River Basin District Management Systems, set up under the Water Framework Directive, and on the Steering Group of the Catchment Management of the River Barrow.

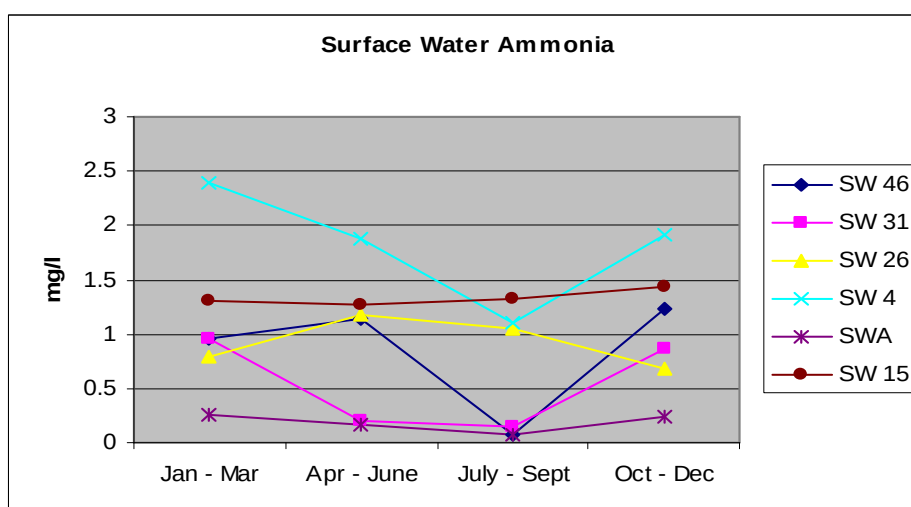
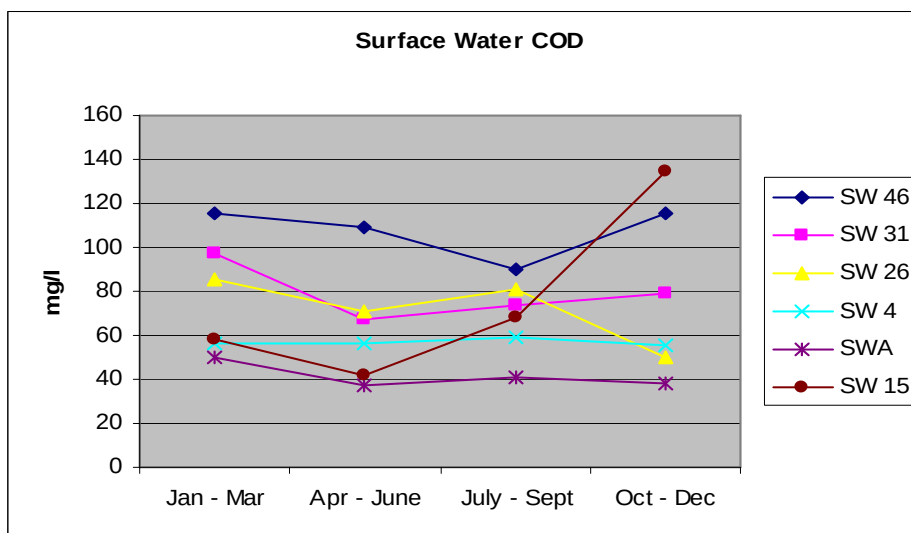
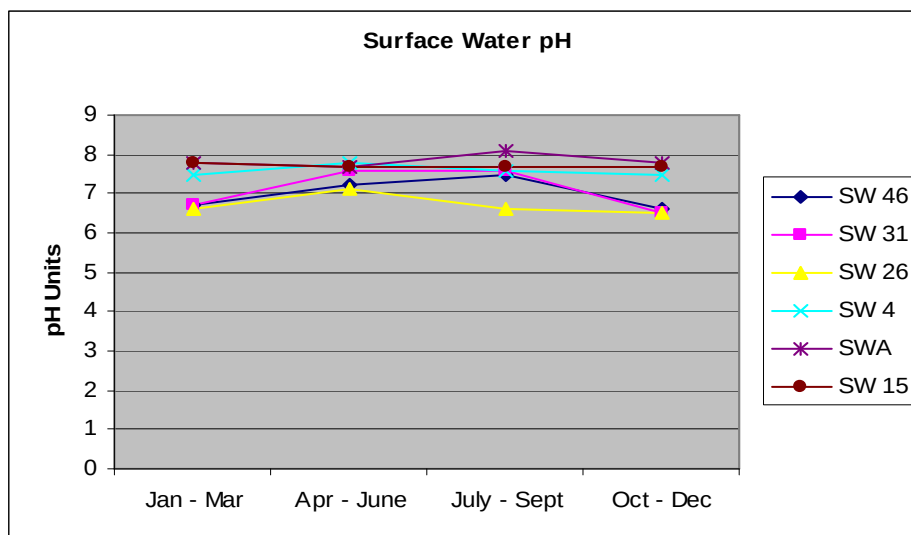
Bord na Mona would like to take this opportunity to advise the Environmental Protection Agency of its continued commitment to improving its environmental performance by adopting cleaner production methods and improving its environmental protection methods.

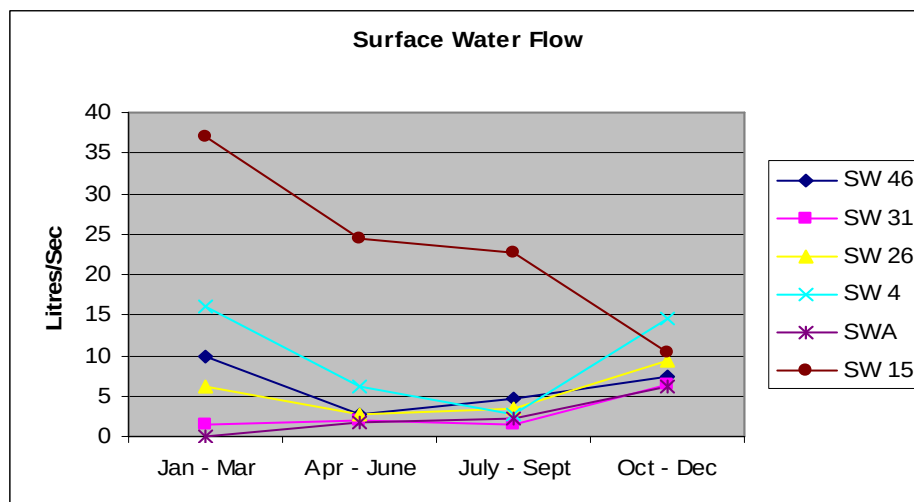
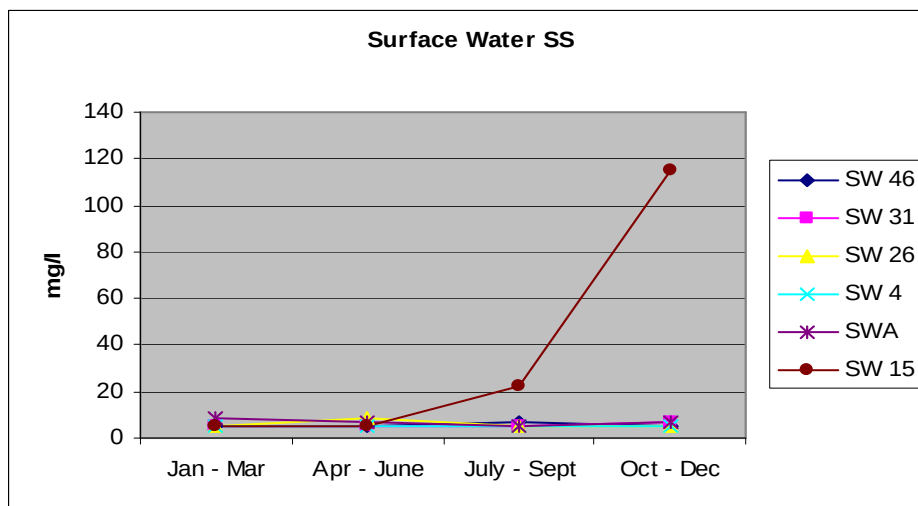
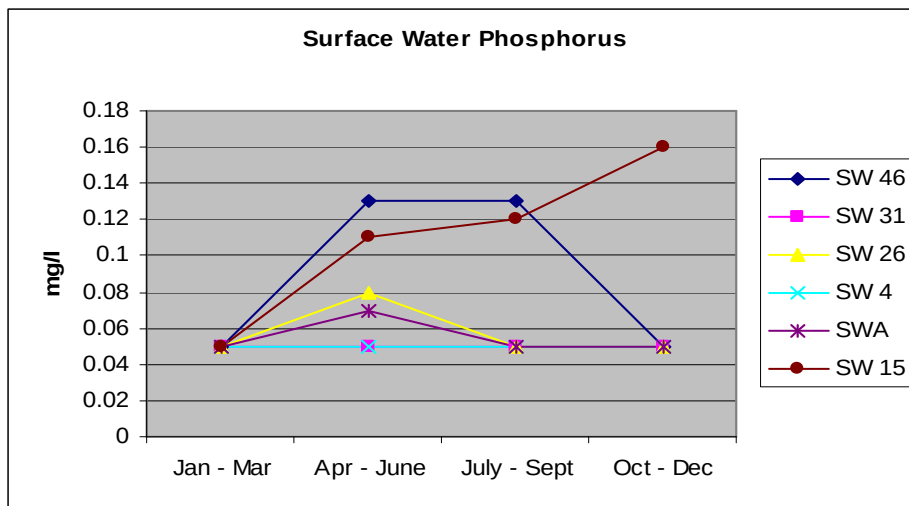
APPENDIX 1

Surface Water Discharge Monitoring Results Bogs

BNM Group:	Derrygreenagh		2010	
IPC Licence No.	501			
pH (units)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	6.7	7.2	7.5	6.6
SW 31	6.7	7.6	7.6	6.5
SW 26	6.6	7.1	6.6	6.5
SW 4	7.5	7.8	7.6	7.5
SWA	7.8	7.7	8.1	7.8
SW 15	7.8	7.7	7.7	7.7
COD (mg/l)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	115	109	90	115
SW 31	97	67	74	79
SW 26	85	71	81	50
SW 4	56	56	59	55
SWA	50	37	41	38
SW 15	58	42	68	135
Ammonia as N (mg/l)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	0.96	1.14	0.07	1.24
SW 31	0.95	0.21	0.14	0.87
SW 26	0.8	1.17	1.05	0.69
SW 4	2.4	1.87	1.11	1.91
SWA	0.26	0.16	0.08	0.24
SW 15	1.31	1.27	1.32	1.44
Total Phosphorus (mg/l)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	0.05	0.13	0.13	0.05
SW 31	0.05	0.05	0.05	0.05
SW 26	0.05	0.08	0.05	0.05
SW 4	0.05	0.05	0.05	0.05
SWA	0.05	0.07	0.05	0.05
SW 15	0.05	0.11	0.12	0.16

Suspended Solids (mg/l)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	5	5	7	5
SW 31	5	5	5	7
SW 26	5	9	5	5
SW 4	5	5	5	5
SWA	9	7	5	7
SW 15	5	5	22	115
Total Solids (mg/l)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	192	290	328	162
SW 31	220	202	154	68
SW 26	115	332	214	96
SW 4	398	274	374	350
SWA	470	544	420	418
SW 15	436	514	492	500
Colour (pt Co Units)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	337	338	212	415
SW 31	367	165	207	330
SW 26	241	158	325	199
SW 4	160	113	140	143
SWA	95	66	56	80
SW 15	85	72	89	71
Flow (l/s)				
	Jan - Mar	Apr - June	July - Sept	Oct - Dec
SW 46	10	2.6	4.6	7.5
SW 31	1.5	1.9	1.5	6.3
SW 26	6.2	2.6	3.4	9.5
SW 4	16.1	6.1	2.6	14.5
SWA	0	1.7	2.2	6.2
SW 15	37	24.4	22.6	10.3



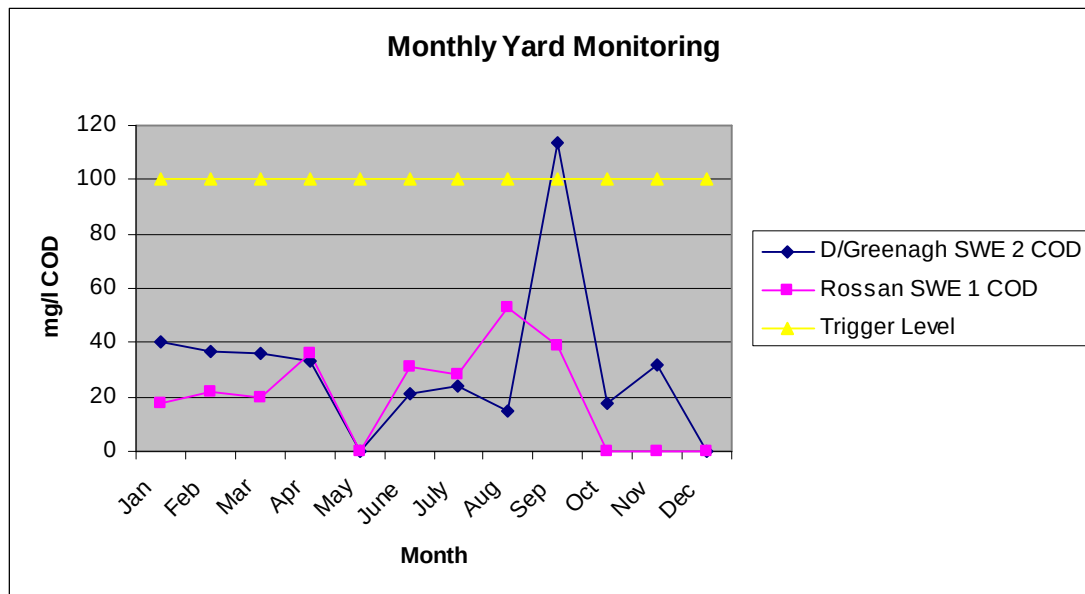


APPENDIX 2

Surface Water Discharge Monitoring Results Yards

Yard Discharge Results 2010		
Licence: P0501-01		
Works: Derrygreenagh		
Month	D/Greenagh SWE 2 COD	Rossan SWE 1 COD
Jan	40	18
Feb	37	22
Mar	36	20
Apr	33	36
May	0	0
June	21	31
July	24	28
Aug	15	53
Sep	114	39
Oct	18	0
Nov	32	0
Dec	0	0

Note: 0 denotes no flow at emission point on day of sampling



APPENDIX 3

Surface Water Discharge Monitoring Results Composite

Month				Parameters							Daily Totals		
January	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					0	0		3072211				0.00	0.00
2					0	0		1883434				0.00	0.00
3					0	0		1427846				0.00	0.00
4					0	0		1292717				0.00	0.00
5					0	0		1190851				0.00	0.00
6	7.6	73	0.78	0.05	5	463	71	1180742	86.19	0.92	0.06	5.90	546.68
7					0	0		1128816				0.00	0.00
8					0	0		1042675				0.00	0.00
9					0	0		993341				0.00	0.00
10					0	0		968285				0.00	0.00
11					0	0		902794				0.00	0.00
12					0	0		798103				0.00	0.00
13	7.3	44	0.56	0.06	5	212	108	867110	38.15	0.49	0.05	4.34	183.83
14					19	206		1688170				32.08	347.76
15					5	188		3035232				15.18	570.62
16					12	192		4706554				56.48	903.66
17					5	154		7739366				38.70	1191.86
18					5	170		1796256				8.98	305.36
19					5	174		1671840				8.36	290.90
20	7.8	55	1.82	0.05	5	196	130	1442794	79.35	2.63	0.07	7.21	282.79
21					24	194		1520640				36.50	295.00
22					5	176		3463085				17.32	609.50
23					5	316		10881220				54.41	3438.47
24					5	356		8046346				40.23	2864.50
25					14	322		7047821				98.67	2269.40
26					5	368		6588259				32.94	2424.48
27	7.8	52	0.69	0.05	5	276	89	6201273	322.47	4.28	0.31	31.01	1711.55
28					5	368		5983459				29.92	2201.91
29					5	358		5950541				29.75	2130.29
30					6	410		5771779				34.63	2366.43
31					10	320		5286125				52.86	1691.56

Month				Parameters							Daily Totals		
Feb	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					24	404		4960483				119.05	2004.04
2					22	414		4914000				108.11	2034.40
3	7.5	57	0.65	0.05	5	338	153	5378832	306.59	3.50	0.27	26.89	1818.05
4					5	328		6936969				34.68	2275.33
5					12	181		7537363				90.45	1364.26
6					18	378		12522820				225.41	4733.63
7					18	442		7610544				136.99	3363.86
8					16	426		6567264				105.08	2797.65
9					5	424		6219158				31.10	2636.92
10	7.4	41	0.72	0.05	6	428	77	6087312	249.58	4.38	0.30	36.52	2605.37
11					11	468		5337533				58.71	2497.97
12					7	400		5087491				35.61	2035.00
13					6	400		5012928				30.08	2005.17
14					7	454		4893523				34.25	2221.66
15					5	442		4706813				23.53	2080.41
16					7	414		4756406				33.29	1969.15
17	7.6	37	0.75	0.05	6	458	71	4669834	172.78	3.50	0.23	28.02	2138.78
18					6	434		4519238				27.12	1961.35
19					17	468		5850317				99.46	2737.95
20					18	412		7057498				127.03	2907.69
21					11	452		6229008				68.52	2815.51
22					34	440		6349018				215.87	2793.57
23					10	442		6096557				60.97	2694.68
24	7.5	51	0.76	0.05	8	353	106	6028474	307.45	4.58	0.30	48.23	2128.05
25					8	414		6713367				53.71	2779.33
26					10	380		7066656				70.67	2685.33
27					11	396		7119619				78.32	2819.37
28					9	440		6810480				61.29	2996.61

Month				Parameters							Daily Totals		
March	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					9	416		6506957				58.56	2706.89
2					8	396		6040311				48.32	2391.96
3	7.6	47	0.8	0.05	8	406	77	5247936	246.65	4.20	0.26	41.98	2130.66
4					12	106		5190999				62.29	550.25
5					10	94		3606163				36.06	338.98
6					10	92		4808247				48.08	442.36
7					9	456		3561322				32.05	1623.96
8					23	460		4427309				101.83	2036.56
9					13	430		3826656				49.75	1645.46
10	7.8	48	0.78	0.05	12	430	73	3337286	160.19	2.60	0.17	40.05	1435.03
11					8	216		2819923				22.56	609.10
12					7	451		3992544				27.95	1800.64
13					7	448		4841424				33.89	2168.96
14					8	484		4899830				39.20	2371.52
15					7	426		4744137				33.21	2021.00
16					6	454		5473267				32.84	2484.86
17	7.5	27	0.79	0.05	9	440	60	4841078	130.71	3.82	0.24	43.57	2130.07
18					7	448		5467910				38.28	2449.62
19					8	448		5438448				43.51	2436.42
20					11	460		5194886				57.14	2389.65
21					11	451		6386429				70.25	2880.28
22					9	464		5281459				47.53	2450.60
23					8	474		5101315				40.81	2418.02
24	7.4	55	0.7	0.05	10	442	86	4601319	253.07	3.22	0.23	46.01	2033.78
25					8	244		5588093				44.70	1363.49
26					11	50		5579280				61.37	278.96
27					8	304		6741274				53.93	2049.35
28					10	98		6500563				65.01	637.06
29					8	346		6574090				52.59	2274.64
30					6	50		7700400				46.20	385.02
31	7.2	60	0.57	0.06	6	68	155	10964320	657.86	6.25	0.66	65.79	745.57

Month				Parameters							Daily Totals		
April	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					8	244		8590061				68.72	2095.97
2					11	50		8698752				95.69	434.94
3					8	304		9655200				77.24	2935.18
4					10	98		8973504				89.74	879.40
5					8	346		7971264				63.77	2758.06
6					6	50		7479821				44.88	373.99
7	7.2	60	0.57	0.06	6	68	155	8503747	510.22	4.85	0.51	51.02	578.25
8					7	446		4274986				29.92	1906.64
9					5	460		6481210				32.41	2981.36
10					5	468		7791379				38.96	3646.37
11					5	460		7266499				36.33	3342.59
12					5	498		6659971				33.30	3316.67
13	7.5	32	0.68	0.05	5	500	67	6386083	204.35	4.34	0.32	31.93	3193.04
14					7	466		6411225				44.88	2987.63
15					6	462		6082819				36.50	2810.26
16					8	462		5815411				46.52	2686.72
17					6	458		5459098				32.75	2500.27
18					5	462		5361639				26.81	2477.08
19					6	478		5175619				31.05	2473.95
20					7	454		5030467				35.21	2283.83
21	8.1	40	0.08	0.05	5	460	63	4872787	194.91	0.39	0.24	24.36	2241.48
22					8	490		4610909				36.89	2259.35
23					8	375		4511808				36.09	1691.93
24					7	478		4835808				33.85	2311.52
25					6	468		5255712				31.53	2459.67
26					5	474		4911667				24.56	2328.13
27					7	482		4568918				31.98	2202.22
28	7.9	39	0.47	0.05	8	456	67	4344883	169.45	2.04	0.22	34.76	1981.27
29					7	456		4460746				31.23	2034.10
30					6	466		4350931				26.11	2027.53

Month				Parameters							Daily Totals		
May	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					6	462		4458240				26.75	2059.71
2					7	449		4487443				31.41	2014.86
3					7	436		4373914				30.62	1907.03
4					7	464		4157050				29.10	1928.87
5	7.8	43	0.65	0.06	7	460	62	3992458	171.68	2.60	0.24	27.95	1836.53
6					6	454		4035312				24.21	1832.03
7					5	464		4276368				21.38	1984.23
8					6	466		4203273				25.22	1958.73
9					5	456		3935520				19.68	1794.60
10					7	456		3995568				27.97	1821.98
11					5	444		3906663				19.53	1734.56
12	7.8	35	0.5	0.05	6	462	69	3991853	139.71	2.00	0.20	23.95	1844.24
13					6	462		3973277				23.84	1835.65
14					7	457		3748982				26.24	1713.28
15					0	0		2103926				0.00	0.00
16					6	472		536466				3.22	253.21
17					7	480		815970				5.71	391.67
18					7	462		1655078				11.59	764.65
19	7.9	39	0.33	0.06	5	454	66	2643926	103.11	0.87	0.16	13.22	1200.34
20					5	398		2117923				10.59	842.93
21					6	396		1929917				11.58	764.25
22					5	408		2107469				10.54	859.85
23					9	420		3206045				28.85	1346.54
24					6	444		3114893				18.69	1383.01
25					7	450		2869344				20.09	1291.20
26	7.6	41	0.74	0.05	8	470	61	2910125	119.32	2.15	0.15	23.28	1367.76
27					9	418		2838758				25.55	1186.60
28					15	452		3715114				55.73	1679.23
29					8	434		3002314				24.02	1303.00
30					5	434		1467418				7.34	636.86
31					8	444		2765750				22.13	1227.99

Month				Parameters							Daily Totals		
June	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					10	348		2313187				23.13	804.99
2	7.5	42	0.61	0.05	10	468	67	3894480	163.57	2.38	0.19	38.94	1822.62
3					11	408		3318192				36.50	1353.82
4					12	390		3221165				38.65	1256.25
5					16	258		2731968				43.71	704.85
6					14	466		3358455				47.02	1565.04
7					14	466		3291494				46.08	1533.84
8					16	162		2365286				37.84	383.18
9	7.5	46	0.22	0.12	15	454	80	1080173	49.69	0.24	0.13	16.20	490.40
10					13	430		2000160				26.00	860.07
11					16	428		4040842				64.65	1729.48
12					16	420		3961958				63.39	1664.02
13					12	420		3348778				40.19	1406.49
14					12	416		3462393				41.55	1440.36
15					8	441		3265920				26.13	1440.27
16	7.5	38	0.56	0.05	5	470	76	3197664	121.51	1.79	0.16	15.99	1502.90
17					16	426		3412800				54.60	1453.85
18					14	440		4103222				57.45	1805.42
19					15	430		4451155				66.77	1914.00
20					13	422		3968266				51.59	1674.61
21					11	430		3710621				40.82	1595.57
22	8.1	44	0.15	0.05	15	430	69	3634762	159.93	0.55	0.18	54.52	1562.95
23					10	416		3399322				33.99	1414.12
24					15	428		3054845				45.82	1307.47
25					16	441		3147466				50.36	1388.03
26					12	440		3234298				38.81	1423.09
27					8	438		3167597				25.34	1387.41
28					7	462		2543184				17.80	1174.95
29					13	468		2281478				29.66	1067.73
30	8.2	44	0.55	0.05	7	390	54	2626549	115.57	1.44	0.13	18.39	1024.35

Month				Parameters							Daily Totals		
July	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					15	383		2114381				31.72	809.81
2					0	0		-348399				0.00	0.00
3					0	0		-1084406				0.00	0.00
4					0	0		-604083				0.00	0.00
5					0	0		-610986				0.00	0.00
6					0	0		-1053043				0.00	0.00
7	7.6	29	0.49	0.05	5	494	67	-765573	-22.20	-0.38	-0.04	-3.83	-378.19
8					12	406		1702685				20.43	691.29
9					10	402		3183235				31.83	1279.66
10					5	257		3230237				16.15	830.17
11					6	288		6631373				39.79	1909.84
12					5	380		-16967230				-84.84	-6447.5
13					7	420		5030899				35.22	2112.98
14	8.1	50	0.68	0.05	5	442	81	4573670	228.68	3.11	0.23	22.87	2021.56
15					10	415		3065040				30.65	1271.99
16					8	252		6737299				53.90	1697.80
17					11	350		16458340				181.04	5760.42
18					5	342		6092237				30.46	2083.55
19					8	254		7724419				61.80	1962.00
20					0	0		8428147				0.00	0.00
21	7.2	60	0.5	0.05	13	246	168	3539376	212.36	1.77	0.18	46.01	870.69
22					5	276		5096909				25.48	1406.75
23					9	386		7327843				65.95	2828.55
24					11	422		7350221				80.85	3101.79
25					14	442		6579619				92.11	2908.19
26					13	462		5022864				65.30	2320.56
27					12	166		4217011				50.60	700.02
28	7.3	44	0.76	0.05	7	480	71	4680202	205.93	3.56	0.23	32.76	2246.50
29					22	428		3943987				86.77	1688.03
30					20	440		4808247				96.16	2115.63
31					8	434		4408906				35.27	1913.47

Month				Parameters							Daily Totals		
August	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					24	454		4366742				104.80	1982.50
2					9	447		4352314				39.17	1945.48
3					7	466		4210618				29.47	1962.15
4	7.5	38	0.77	0.05	8	448	91	4282675	162.74	3.30	0.21	34.26	1918.64
5					9	426		5701622				51.31	2428.89
6					12	480		2292710				27.51	1100.50
7					11	474		274571				3.02	130.15
8					11	470		298927				3.29	140.50
9					9	494		290511				2.61	143.51
10					10	504		280860				2.81	141.55
11	7.5	51	0.45	0.05	9	506	66	205788	10.50	0.09	0.01	1.85	104.13
12					16	422		-2389133				-38.23	-1008.2
13					21	414		158613				3.33	65.67
14					20	414		251640				5.03	104.18
15					14	412		255891				3.58	105.43
16					8	428		275322				2.20	117.84
17					9	423		100647				0.91	42.57
18	7.5	46	0.45	0.05	8	460	66	236183	10.86	0.11	0.01	1.89	108.64
19					6	442		-235889				-1.42	-104.26
20					9	448		12882				0.12	5.77
21					6	462		2373926				14.24	1096.75
22					6	468		1528502				9.17	715.34
23					6	446		2064960				12.39	920.97
24					7	430		1594685				11.16	685.71
25	7.5	39	0.59	0.05	7	454	72	506434	19.75	0.30	0.03	3.55	229.92
26					12	444		-182174				-2.19	-80.89
27					5	460		1427069				7.14	656.45
28					6	456		2436048				14.62	1110.84
29					10	453		2444688				24.45	1107.44
30					5	462		1444867				7.22	667.53
31					7	462		2181168				15.27	1007.70

Month				Parameters							Daily Totals		
Sept	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1	8	38	0.41	0.05	5	474	72	1266883	48.14	0.52	0.06	6.33	600.50
2					8	462		1700870				13.61	785.80
3					11	130		1415837				15.57	184.06
4					5	158		1198195				5.99	189.31
5					5	269		711565				3.56	191.41
6					6	276		1419379				8.52	391.75
7					16	422		37552900				600.85	15847.32
8	8.2	30	0.41	0.05	7	436	60	33387550	1001.63	13.69	1.67	233.71	14556.97
9					5	280		18648580				93.24	5221.60
10					5	234		15991780				79.96	3742.08
11					5	314		19771780				98.86	6208.34
12					5	328		15556320				77.78	5102.47
13					5	412		13430880				67.15	5533.52
14					5	150		11521440				57.61	1728.22
15	7.6	49	0.49	0.05	5	340	154	22928830	1123.51	11.24	1.15	114.64	7795.80
16					6	452		14360540				86.16	6490.96
17					5	458		10394780				51.97	4760.81
18					6	456		8677152				52.06	3956.78
19					6	414		8817120				52.90	3650.29
20					5	392		10446620				52.23	4095.08
21					6	436		9265536				55.59	4039.77
22	7.9	50	0.06	0.05	6	346	140	8697024	434.85	0.52	0.43	52.18	3009.17
23					0	0		11979360				0.00	0.00
24					0	0		9977472				0.00	0.00
25					0	0		-558706				0.00	0.00
26					0	0		-448286				0.00	0.00
27					0	0		413925				0.00	0.00
28					0	0		399038				0.00	0.00
29	7.4	32	0.56	0.05	5	452	74	386156	12.36	0.22	0.02	1.93	174.54
30					5	436		2022256				10.11	881.70

Month				Parameters							Daily Totals		
Oct	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					5	444		7140442				35.70	3170.36
2					6	440		7127568				42.77	3136.13
3					7	428		4063910				28.45	1739.35
4					8	406		3730320				29.84	1514.51
5					11	410		-456564				-5.02	-187.19
6	7.4	34	0.31	0.05	5	442	73	-418971	-14.25	-0.13	-0.02	-2.09	-185.19
7					5	456		-443828				-2.22	-202.39
8					6	412		1457741				8.75	600.59
9					8	434		4285785				34.29	1860.03
10					6	452		5835283				35.01	2637.55
11					5	470		4584730				22.92	2154.82
12					9	460		2824935				25.42	1299.47
13	7.4	51	0.56	0.05	6	466	65	4158346	212.08	2.33	0.21	24.95	1937.79
14					11	478		5248281				57.73	2508.68
15					10	480		3395779				33.96	1629.97
16					0	0		3357763				0.00	0.00
17					0	0		674637				0.00	0.00
18					0	0		30655				0.00	0.00
19					0	0		160324				0.00	0.00
20	7.5	46	0.56	0.05	6	484	69	96310	4.43	0.05	0.00	0.58	46.61
21					5	400		-234455				-1.17	-93.78
22					7	380		550748				3.86	209.28
23					5	354		1156723				5.78	409.48
24					7	352		2747002				19.23	966.94
25					7	310		2025216				14.18	627.82
26					7	311		2068934				14.48	643.44
27	7.4	51	0.5	0.05	5	320	139	3316205	169.13	1.66	0.17	16.58	1061.19
28					22	206		3948566				86.87	813.40
29					17	210		2597443				44.16	545.46
30					28	208		15665180				438.63	3258.36
31					0	0		10242720				0.00	0.00

Month				Parameters							Daily Totals		
Nov	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1					0	0		-381335				0.00	0.00
2					0	0		973987				0.00	0.00
3	7.2	61	0.42	0.05	12	196	223	-399298	-24.36	-0.17	-0.02	-4.79	-78.26
4					0	0		-652942				0.00	0.00
5					0	0		-384100				0.00	0.00
6					0	0		-501803				0.00	0.00
7					0	0		-465627				0.00	0.00
8					0	0		-404352				0.00	0.00
9					0	0		-555276				0.00	0.00
10	7.3	62	0.54	0.05	5	320	158	-460927	-28.58	-0.25	-0.02	-2.30	-147.50
11					0	0		-379028				0.00	0.00
12					0	0		-466387				0.00	0.00
13					0	0		-449479				0.00	0.00
14					0	0		-496325				0.00	0.00
15					0	0		-382674				0.00	0.00
16					0	0		-320250				0.00	0.00
17	7.4	48	0.59	0.05	7	244	136	-302435	-14.52	-0.18	-0.02	-2.12	-73.79
18					0	0		-515506				0.00	0.00
19					0	0		-473204				0.00	0.00
20					0	0		-406391				0.00	0.00
21					0	0		-328000				0.00	0.00
22					0	0		-300059				0.00	0.00
23					0	0		-284144				0.00	0.00
24	7.5	40	0.58	0.05	5	408	80	-274026	-10.96	-0.16	-0.01	-1.37	-111.80
25					0	0		-260876				0.00	0.00
26					0	0		-245419				0.00	0.00
27					0	0		-239423				0.00	0.00
28					0	0		-230740				0.00	0.00
29					0	0		-221054				0.00	0.00
30					0	0		-209183				0.00	0.00

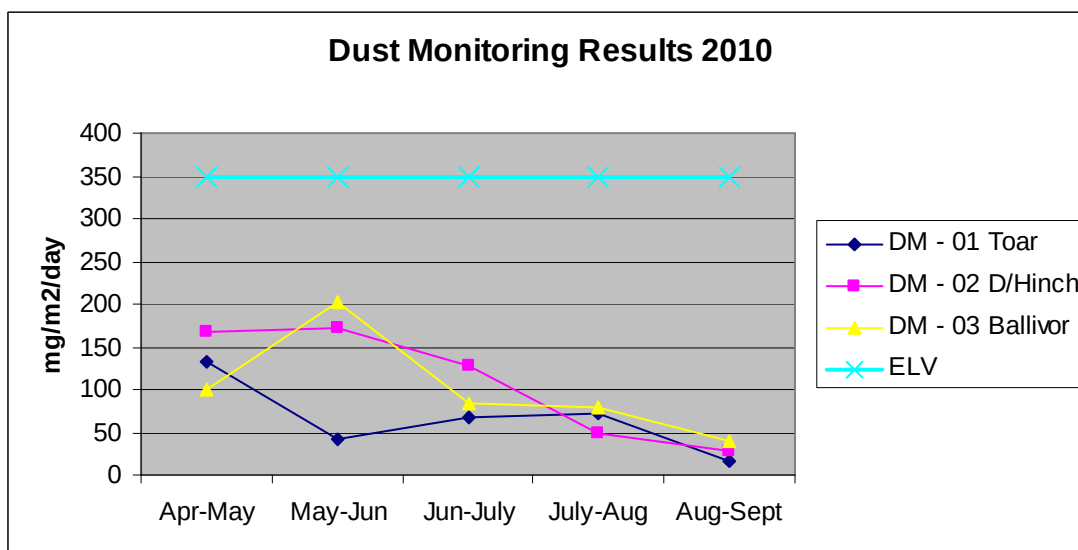
Month				Parameters							Daily Totals		
Dec	pH	COD	Ammonia as	Total	Suspended	Total	Colour	Flow	COD	Ammonia as	Total	Suspended	Total
2010		mg/l	N mg/l	Phosphorus	Solids	Solids	Pt Co	Daily	Kg/Day	Kg/Day	Phosphorus	Solids	Solids
SW15				mg/l	mg/l	mg/l	units	Total (litres)			Kg/Day	Kg/Day	Kg/Day
1	7.6	40	0.49	0.05	5	466	70	-211429	-8.46	-0.10	-0.01	-1.06	-98.53
2					0	0		-202712				0.00	0.00
3					0	0		-197052				0.00	0.00
4					0	0		-193683				0.00	0.00
5					0	0		-194530				0.00	0.00
6					0	0		-189890				0.00	0.00
7					0	0		-186244				0.00	0.00
8					0	0		-182736				0.00	0.00
9	7.4	52	0.69	0.05	5	412	75	-180317	-9.38	-0.12	-0.01	-0.90	-74.29
10					0	0		-174632				0.00	0.00
11					0	0		2428186				0.00	0.00
12					0	0		5484327				0.00	0.00
13					0	0		4083350				0.00	0.00
14					0	0		3161117				0.00	0.00
15	7.4	35	0.56	0.05	5	326	69	2871590	100.51	1.61	0.14	14.36	936.14
16					0	0		2817418				0.00	0.00
17					0	0		5963846				0.00	0.00
18					0	0		7921411				0.00	0.00
19					0	0		6719846				0.00	0.00
20					0	0		2852841				0.00	0.00
21					0	0		1303690				0.00	0.00
22					0	0		4183920				0.00	0.00
23	7.4	36	0.63	0.05	6	315	73	4125859	148.53	2.60	0.21	24.76	1299.65
24					5	390		4124995				20.62	1608.75
25					5	418		4515005				22.58	1887.27
26					5	396		5090169				25.45	2015.71
27					6	386		5104253				30.63	1970.24
28					6	402		27202180				163.21	10935.28
29	7.2	49	0.52	0.06	6	398	129	23855900	1168.94	12.41	1.43	143.14	9494.65
30					5	278		16781470				83.91	4665.25
31					5	296		13734970				68.67	4065.55

0: Insufficient amount of sample due to low flow or technical fault.

APPENDIX 4

Dust Monitoring Results.

Dust Monitoring Results 2010			
Licence:P0501-01			
Works: Derrygreenagh			
Sample Period	DM - 01 Toar	DM - 02 D/Hinch	DM - 03 Ballivor
Apr-May	133	167	100
May-Jun	42	172	202
Jun-July	67	128	83
July-Aug	72	50	78
Aug-Sept	17	28	39



APPENDIX 5

De-silting Programme Review.

Siltpond Cleaning Programme 2010				
IPPC Licence: P0501-01				
Works: Derrygreenagh				
Bog Area & Nr Ponds	1 Cleanings	2 Cleanings	3 Cleanings	4 Cleanings
Derryhinch (4)	4	4		
Toar (6)	6	6		
Ballybeg (6)	6	6		
Drumman (6)	6	6		
Ballivor (10)	10	10	9	2
Carranstown (5)	5	5	5	
Lisclogher (7)	7			
Bracklin West (6)	6	6	6	2
Rossan (8)	8	8		

