



KILDARE COUNTY COUNCIL

Comhairle Chontae Chill Dara

DERRINTURN WASTEWATER AGGLOMERATION

ANNUAL ENVIRONMENTAL REPORT

2012-2013

LICENCE D0244-01

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Section 1. Executive Summary and Introduction to the 2012 AER

1.1 Summary report on 2012

The wastewater discharge license for the Derrinturn agglomeration was granted on 24th March 2011 under the Wastewater Discharge (Authorisation) Regulations of 2007. This is the second AER presented to the EPA for this agglomeration. This report has been prepared in accordance with the EPA's guidance document and also as per the requirements set out in schedule D of the license.

Derrinturn village is located in the northwest of County Kildare along the R403 regional road. The design capacity of Derrinturn is 1,600 population equivalent (PE). The current agglomeration was found to be 1147 in September, 2012. There are two recorded discharge points; primary discharge from the WWTP to the Cushaling River and a storm water overflow located at the inlet storm water tank.

Under license D0244-01 the following limits have been set for the primary discharge.

PARAMETER	EMISSION LIMIT VALUE
pH	6.0 – 9.0
cBOD	5
COD	125
Suspended Solids	8
Ammonia (as N)	0.4
Total Phosphorous (as P)	0.5
Orthophosphate (as P)	0.25

There was one ELV exceedance during the year which was reported to the EPA via EDEN.

There were no complaints received in relation to the agglomeration for 2012.

River quality AA-EQS was not maintained due to elevated concentrations of BOD, total ammonia and orthophosphate downstream. However, it should be noted that upstream the AA-EQS was also exceeded.

Section 2. Monitoring Reports Summary

2.1 Summary report on monthly influent monitoring

Influent monitoring is carried out on a monthly basis in accordance with the license. Table 2.1.1 below shows the annual maximum and annual mean results for BOD, COD, SS, Ammonia, Total N, Total P and Ortho P.

	BOD (mg/l)	COD (mg/l)	SS (mg/l)	Ammonia (mg/l)	Total N (mg/l)	Total P (mg/l)	Ortho P (mg/l)	Hydraulic Loading (m3/day)	Organic Loading (PE/day)
Number of Samples	12	12	12	12	12	12	12		
Annual Max.	265	530	410	48.6	128	6.8	5.95	805	3555
Annual Mean	156	394	190	27	60	4	3.5	559	1453

Table 2.1.1

Influent monitoring results are typical of Derrinturn WWTP.

2.2 Discharges from the agglomeration

Table 2.2.1 below presents a summary of the effluent monitoring data. There was full compliance in 2012 with regard to monitoring frequency set out in Schedule B.1. All samples are 24 hour composite samples.

	BOD (mg/l)	COD (mg/l)	TSS (mg/l)	Amm onia (mg/l)	Total P (mg/l)	Ortho P (mg/l)	Comment
WWDL ELV (Schedule A)	5	125	8	0.4	0.5	0.25	
ELV with Condition 2 Interpretation included	10	250	20	0.48	0.6	0.3	
Number of sample results	12	12	12	12	12	12	Monthly composite sample
Number of sample results above WWDL ELV	0	0	0	0	0	1	
Number of sample results above ELV with Condition 2 Interpretation included	0	0	0	0	0	1	
Annual Mean (for parameters where a mean ELV applies)	2	24	3	0.23	0.43	0.23	
Overall Compliance (Pass/Fail)	PASS	PASS	PASS	PASS	PASS	PASS	

The Derrinturn treatment plant is operating having 100% compliance in all parameters.

2.3 Treatment Efficiency Report

Table 2.3.1 depicted below outlines the treatment efficiency for each parameter. Overall, the percentage reduction of the influent load is satisfactory with efficiencies ranging from 85.21% to 99.13%

	cBOD (kg/day)	COD (kg/day)	SS (kg/day)	Ammonia (kg/d)	Total N (kg/day)	Total P (kg/day)	Ortho P (kg/d)	Comment
Influent mass loading (kg/day)	87	220	106	15	34	2.24	1.96	
Effluent mass emission (kg/day)	1.12	13.42	1.68	0.13	5.03	0.24	0.13	
% Efficiency (% reduction of influent load)	98.66	93.90	98.42	99.13	85.21	89.29	93.37	

2.4 Treatment Capacity Report

2.4.1 Hydraulic Treatment Capacity

There is currently no remaining hydraulic treatment capacity.

2.4.2 Organic Treatment Capacity

The design P.E. of the plant is 1500. A survey carried out in 2012 yielded a P.E of 1147.

Hydraulic Capacity – Design / As Constructed (m3/day)	360
Hydraulic Capacity – Current loading (m3/day)	559
Hydraulic Capacity – Remaining (m3/day)	0
Organic Capacity - Design / As Constructed (PE)	1500
Organic Capacity - Current loading (PE)	1147
Organic Capacity – Remaining (PE)	353
Will the capacity be exceeded in the next three years? (Yes / No)	No

Table 2.4.1

2.5 Ambient monitoring summary

The Cushaling River is monitored according to Schedule B of the licence. Analytical results for 2012 will be submitted electronically as part of the UWWR returns to the EPA.

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	EPA Feature Coding Tool code	Does assessment of the ambient monitoring results indicate that the discharge is impacting on water quality
ASW1-PU	269171.87E, 229653.43N	RS14F010051	No
ASW1-PD	269183.18E, 229660.87N	RS14F010061	No

Table 2.5.1

Table 2.5.2 is a comparison of the annual mean ambient results and the EQS as sated in the European Communities Environmental Objectives (Surface Water) Regulations, SI 272 of 2009.

Parameter	Annual Mean ASW1-PU	Annual Mean ASW1-PD	AA-EQS (mean)
BOD (mg/l)	1.25	1.38	High ≤ 1.3 Good ≤ 1.5
Total Ammonia (mg/l N)	0.11	0.25	High ≤ 0.04 Good ≤ 0.065
Ortho P (mg/l P)	0.07	0.08	High ≤ 0.025 Good ≤ 0.035

Table 2.5.2

River quality AA-EQS for BOD was achieved. River quality for total ammonia and orthophosphate failed to be achieved. However, it should be noted that river quality for these two parameters was also exceeded upstream. Achieving good status for these two parameters will require a reduction in upstream concentrations before it can be achieved downstream.

The average dissolved oxygen concentration was 9.22mg/l upstream of the agglomeration and 9.24mg/l downstream. The frequency of D.O. monitoring was carried out in accordance with Schedule B.4 of the licence.

2.6 Data collection and reporting requirements under the Urban Waste Water Treatment Directive

The annual urban wastewater discharge for the Derrinturn agglomeration will be submitted electronically on or before February 26th 2013.

2.7 Pollutant Release and Transfer Register (PRTR) - report for previous year

See Appendix B attached for PRTR report 2012.

Section 3 Operational Reports Summary

3.1 Complaints Summary

Kildare County Council has a documented complaints procedure in place. There were no complaints received in relation to this agglomeration for 2012.

Number	Date & Time	Nature of Complaint	Cause of Complaint	Actions taken to resolve issue	Closed (Y/N)
n/a	n/a	n/a	n/a	n/a	n/a

3.2 Reported Incidents Summary

In 2012 there was full compliance with regards to monitoring frequency. However, there was one ELV exceedance.

Orthophosphate was non compliant on one occasion. This exceedance was due to an insufficient level of ferric chloride dosing. It was reported to the EPA via EDEN.

The notification has since been closed.

Number of Incidents in 2012	1
Number of Incidents reported to the EPA via EDEN in 2012	1
Explanation of any discrepancies between the two numbers above	n/a

Section 4. Infrastructural Assessments and Programme of Improvements

4.1 Storm water overflow identification and inspection report

Please refer to Appendix A for detailed SWO Assessment report.

WWDL Name / Code for Storm Water Overflow	Irish Grid Reference	Included in Schedule A4 of the WWDL	Compliance with DoEHLG Criteria	No. of times activated in 2012 (No. of events)	Estimated /Measured data	Total volume discharged in 2012 (m3)	Estimated /Measured data
SW-2	270595E 232156N	Yes	Unknown	Unknown	Unknown	Unknown	Unknown

Is each SWO identified as non-compliant with DoEHLG Guidance included in the Programme of Improvements?	N/A
The SWO assessment includes the requirements of Schedule A3 & C3	N/A
Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7?	N/A

4.2 Report on progress made and proposals being developed to meet the improvement programme requirements.

There is no specified improvement programme listed in Schedule C.1, C.2, or C.3 of the licence, however Kildare County Council do propose a variety of improvement works for all our Discharge Licensed agglomerations.

Due to resourcing and funding problems, it was not possible to develop a plan of Infrastructural Improvements for Derrinturn WWTP in time for the submission of the 2012 AER. However, in November of 2012 Kildare County Council went through a procurement process to employ the services of a competent Consulting Engineering company to carry out detailed studies at a number of WWTP's throughout the county, with the aim of the following:

1. Recommendations regarding infrastructural improvement works required within each plant in order to improve efficiency and treatment standards, and
2. Recommendations on efficient operation and maintenance of each plant pending the delivery of upgrade works as defined in (1) above.

The project includes for the Derrinturn WWTP and the completion date is May 2013. Kildare County Council hopes to roll out the recommendations of the report as quickly as possible thereafter, subject to funding and resources. A copy of this report will be included in the 2013 AER, and the report will be synopsized as per the guidance templates published by the EPA.

In addition, it is proposed through the reallocate of internal resources in 2013, to fulfill our obligations regarding the carrying out of Sewer Integrity Assessments on all agglomerations. This will be submitted as part of our 2013 AER's for all agglomerations.

Section 5. Environmental Liability and Financial Provisions

5.1 Statement of Measures

An ELRA report has not yet been commissioned for the Derrinturn agglomeration for 2012 due to resourcing and funding issues in Kildare County Council. Consequently, a detailed “Statement of Measures” cannot be provided as part of this report. It is hoped however that by redeploying resources within the Authority in the coming months, a detailed report can be compiled and available as part of the 2013 AER.

This report will contain measures taken or adopted to prevent environmental damage anticipated following events with discharges or overflows from the wwtp. The report will follow the guidance document published by the EPA.

Kildare County Council wishes however to advise of the following minor measures taken or adopted during 2012 to help prevent environmental damage by the Derrinturn WWTP:

1. Installation of a new flow meter on the SWO at the inlet works.
2. Installation of a new flow meter on the emergency overflow located at the discharge pumping station.
3. Upgrade of existing SCADA system to accommodate the two new flow meters.

With regards to environmental liability funding provisions, Kildare County Council and the CCMA are still in discussions with insurance companies with regards to procuring Environmental Liability Insurance cover premiums for all relevant agglomerations. At present these discussions are still ongoing. For the time being, Kildare County Council will ensure that there is adequate funding through revenue budgets to cover costs associated with discharges from the agglomeration of Derrinturn.

5.2 Environmental Liabilities Risk Assessment

As outlined in Section 5.1 above, an ELRA will not be submitted in this AER, but should be submitted in the 2013 AER.

Section 6. Licence Specific Reports

Licence Specific Report	Required in 2012 AER or outstanding from previous AER	Included in 2012 AER	Reference to relevant section of AER (e.g. Appendix 2 Section4.
Priority Substances Assessment	No	No	N/A
Drinking Water Abstraction Point Risk Assessment	No	No	N/A
Habitats Impact Assessment	No	No	N/A
Shellfish Impact Assessment	No	No	N/A
Pearl Mussel Report	No	No	N/A
Toxicity/Leachate Management	No	No	N/A
Toxicity of Final Effluent Report	No	No	N/A

6.1 Priority Substances Assessment

Non applicable.

6.2 Drinking Water Abstraction Point Risk Assessment.

Non applicable.

6.3 Shellfish Impact Assessment Report.

Non applicable.

6.4 Toxicity / Leachate Management

Non applicable.

6.5 Toxicity of the Final Effluent Report

Non applicable.

6.6 Pearl Mussel Measures Report

Non applicable.

6.7 Habitats Impact Assessment Report

Non applicable.

Section 7.

Appendices

Appendix A
Storm Water Overflow Assessment Report

Derrinturn Waste Water Agglomeration



WWDA License No. D0244-01



Storm Water Overflow Assessment 2013

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Ambient Monitoring Results

1. Introduction

Kildare County Council are required under Condition 4.11.1 of the discharge license to undertake an investigation for the identification and assessment of Storm Water Overflows (SWO) in the sewerage network within the Derrinturn agglomeration, in accordance with the '*Urban Waste Water Treatment Directive (91/271/EEC) – Procedures and Criteria in Relation to Storm Water Overflows, DoEHLG 1995*'. The exact wording of the license condition is as follows:

'....the licensee shall carry out an investigation for the identification and assessment of storm water overflows....the assessment shall include a determination of compliance with the criteria for storm water overflows, as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows, 1995 and any other guidance as may be specified by the Agency...'

This report provides an investigation and audit of the existing SWO's within the Derrinturn agglomeration in accordance with Section 4 of the Directive.

2. Derrinturn Agglomeration SWO's – General

There is only the one recorded SWO in the Derrinturn agglomeration as identified in the original discharge license application and noted in the EPA Inspector's report. The SWO has been identified as SW-2 and is located within the actual wwtp at the storm tank. Please refer to Appendix A for details of the wwtp location, and Appendix B for details of the precise location of SW-2. A photograph of the location of the SWO is shown below.



SWO Ref	Location	Grid Reference	Receiving Water
SW-2	Derrinturn wwtp	270595E 232156N	River Slate

This SWO has been assessed under the criteria as set out in Condition 4 of the 'Urban Waste Water Treatment Directive (91/271/EEC) – Procedures and Criteria in Relation to Storm Water Overflows, DoEHLG 1995' as follows:-

- Does the SWO cause significant visual or aesthetic impact and public complaints?
- Does the SWO cause deterioration in water quality in the receiving water?
- Does the SWO give rise to failure in meeting the requirement of National Regulation on foot of EU Directives (Bathing Waters, etc)?
- Does the SWO operate in dry weather?

The subsequent sections of this audit detail the identification and assessment of the storm water overflow within the Derrinturn agglomeration.

3 Storm Water Overflow – SW-2

3.1 Location & General Description

SW-2 is the sole SWO within the agglomeration and is located at the inlet works of the wwtp at the storm tank. The design DWF is 4.17l/s and the plant has been designed to cater for up to 3DWF (12.5l/s). Flows above 3DWF are diverted to the Storm Tank. The Storm Tank provides a minimum storage of 2 hrs retention at 6DWF. In order to provide this, a minimum capacity of 90m³ is required. The constructed tank actually provides a capacity of 140m³ including the storm tank and inlet pumping station. Flows in excess of 6DWF are discharged to the adjacent Ballyshannon River at SW-2.

3.2 Integrity Assessment

A general visual integrity assessment of the storm water holding tanks and associated infrastructure was undertaken as part of this report. The reinforced concrete tanks and overflow pipe appear structurally sound and show no evidence of deterioration and show no evidence of leakage, failure or distress.

It was not possible to visually assess the integrity of the 450mm Ø SWO pipe; however our operators have reported of no ongoing problems with this outfall pipe such as flow restrictions, surcharging or backflow conditions. There appears to be ample enough storage within the storm tanks to accommodate any storm events up until now.

3.3 Visual or Aesthetic Impact & Public Complaints

The storm water holding tanks, overflow channel and associated infrastructure are all located within the boundary of the wwtp. The 450mm SWO pipe is also within the wwtp prior to its discharge to the main plant discharge pipe.

The storm water holding tanks, overflow pipe and outfall pipe are not accessible to the public and do not cause a visual or aesthetic impact on the surrounding environment in our view.

No public complaints have been received in 2012 in relation to SW-2.

3.4 Deterioration in Water Quality in the Receiving Water

The receiving environment of SW-2 is initially to the Ballyshannon river via a 450mm Ø main discharge pipe from the wwtp, and ultimately to the River Cushaling which is a tributary of the River Barrow. Because the SWO very rarely comes into use, Kildare County Council has not been carrying out ambient monitoring the Ballyshannon River up until now and has been concentrating our monitoring on the Cushaling River instead. We will however amend our plans to include the Ballyshannon River going forward, if required by the EPA.

3.5 Failure in Meeting the Requirements of National Regulations on Foot of EU Directives

There are no public drinking water abstraction points on the river Cushaling downstream of Derrinturn, therefore contamination of surface drinking water should not be an issue in the case of an environmental accident.

In relation to recreational, tourism and economic activities; the river Slate is not a designated Salmonid watercourse under the EU Freshwater Fish Directive (78/659/EEC) nor is it designated bathing water.

Our assessment therefore is that SW-2 does not contribute to a failure in this regard.

3.6 Operate in Dry Weather

For the monitoring period 2012, there was no flow monitoring on the SWO from Derrinturn WWTP. However, from our investigations it has been found that SW-2 does not normally operate during dry weather.

Kildare County Council did however invest in a major flow monitoring upgrade project in 2012 in a number of WWTP's throughout the County. This project included the SWO and the emergency overflow at the final discharge of Derrinturn WWTP. The project included for the fitting of magnetic flow meters and upgraded SCADA systems and is expected to be fully completed and commissioned by the end of Feb 2013.

3.7 SWO Discharges – 2012

Due to the lack of SCADA surveillance on the SWO line in Derrinturn, it is not possible to ascertain for certain the number of times that SW-2 operated during 2012. We should advise however that as per 3.6 above, it is expected to be able to provide relevant information in this regard for future AER's pertaining to Derrinturn agglomeration through the new SCADA system.

4 **Formula ‘A’ Requirement**

The ‘Urban Waste Water Treatment Directive (91/271/EEC) – Procedures and Criteria in Relation to Storm Water Overflows, DoEHLG 1995’ stipulates that the minimum setting for a storm water overflow should comply with formula A as follows:

$$\text{Minimum setting} = \text{DWF} + 1.36\text{P} + 2\text{E}$$

Where: DWF = Dry Weather Flow of the catchment
 P = The population served
 E = The non-domestic effluent flow.

In the absence of a detailed hydraulic analysis and data of the Derrinturn agglomeration, it is not possible at this stage to assess the current overflow settings of the SWO SW-2.

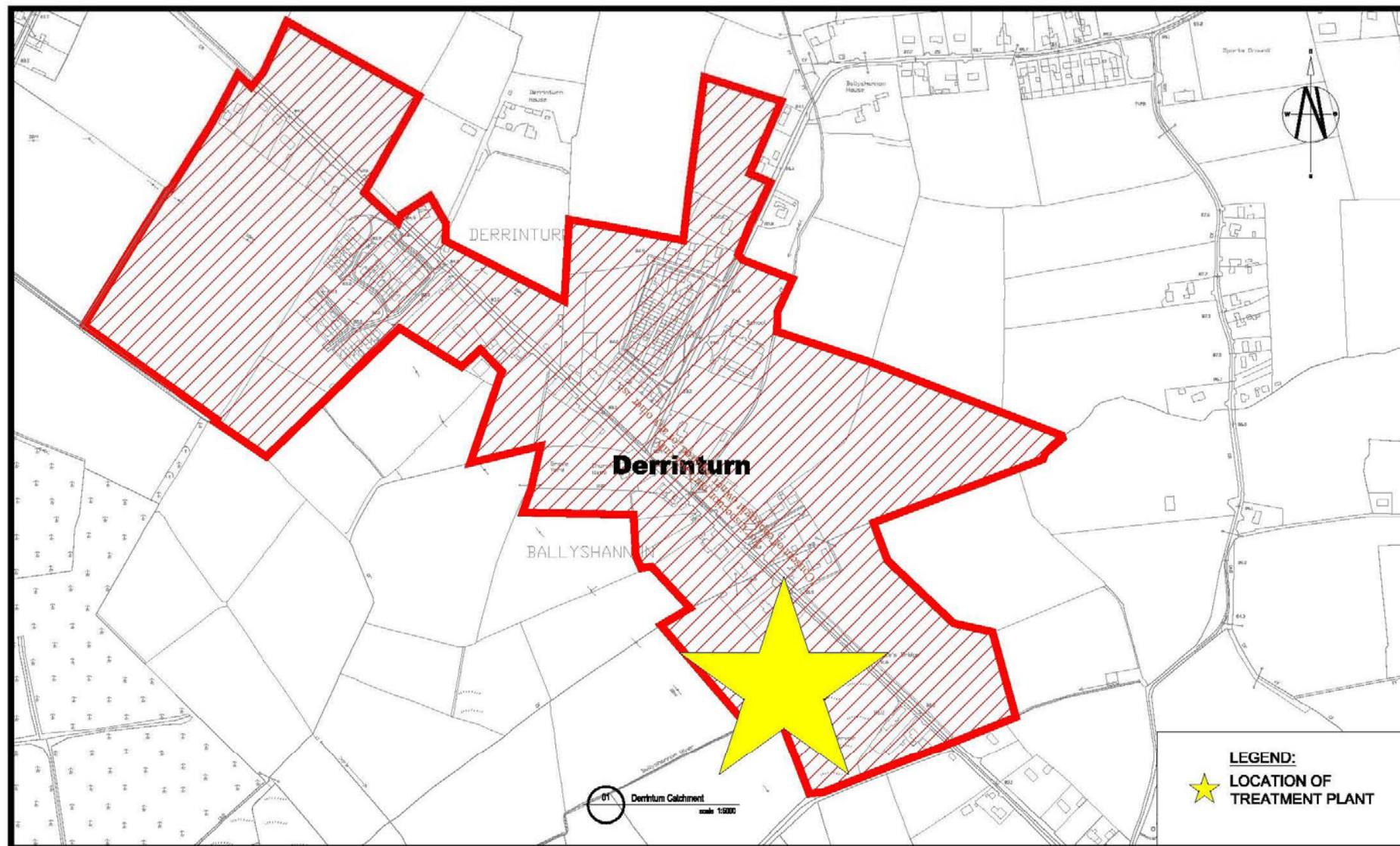
5. Conclusion

Storm Water Overflow SW-2 was assessed under the criteria as set out in Section 4 of the '*Urban Waste Water Treatment Directive (91/271/EEC) – Procedures and Criteria in Relation to Storm Water Overflows, DoEHLG 1995*'.

In general, the SWO complies with the requirements of the Directive in terms of visual, aesthetic, public complaints, water quality and DWF operations. It is not possible at this stage to assess for compliance with 'Formula A' due to the lack of adequate flow monitoring systems on the SWO. However, Kildare County Council hope to carry out flow monitoring improvement works at Derrinturn WWTP during 2013 should sufficient budget come available.

APPENDIX A

SITE LOCATION MAP



PROJECT: 2009 E.P.A Licensing

DRAWING: Derrinturn Agglomeration

FILE NAME: EPA_Licensing\Derrinturn\Site Master\Feb 09

DRAWING NO: Derrinturn B.1

SUFFIX	INITIALS	DATE	DESCRIPTION

REVISIONS



Kildare County Council
Water Services Section

Aras Chill Dara, Devoy Park, Naas, Co. Kildare, Ireland.
Tel: 045-980362, Fax: 045-980359

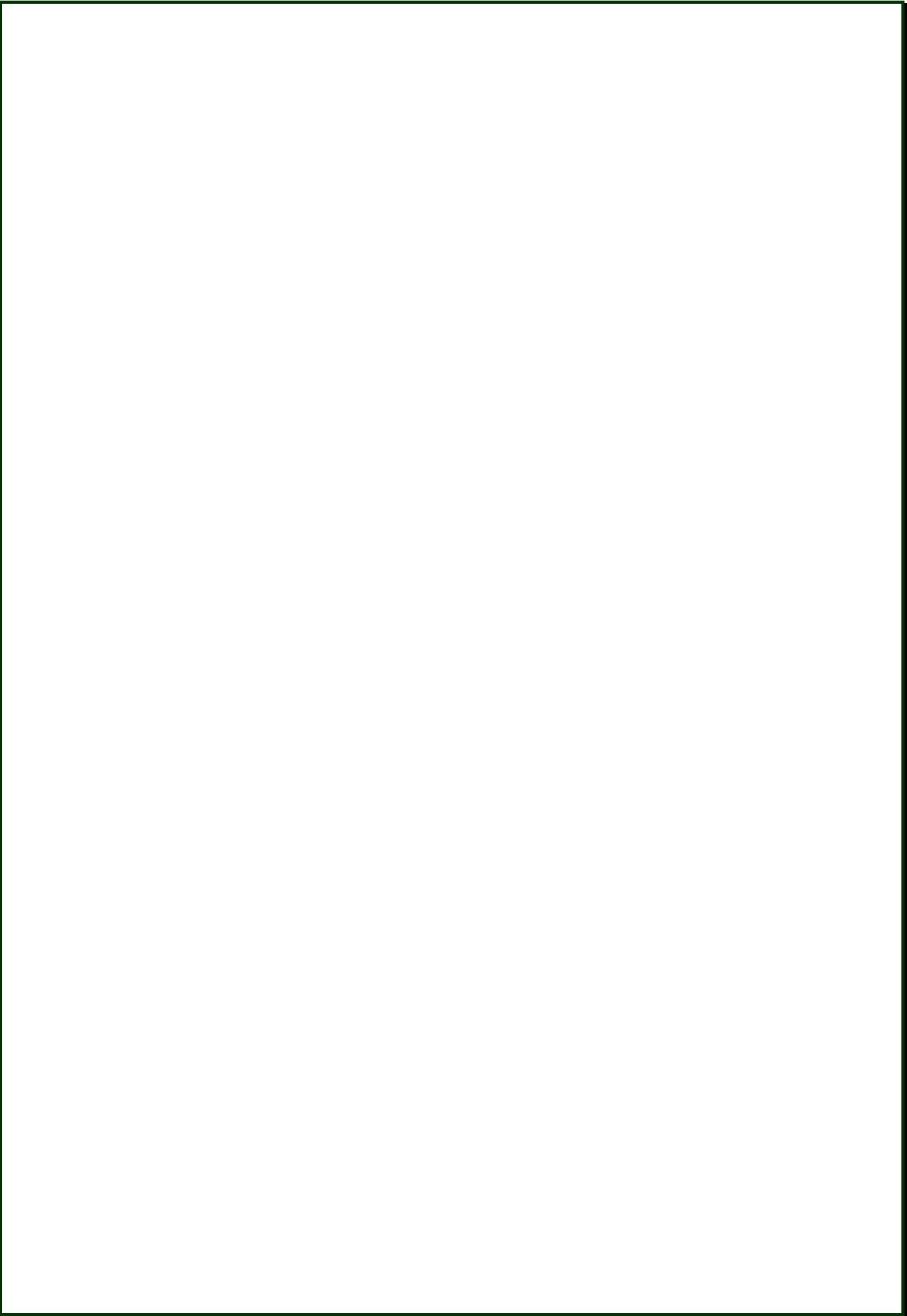
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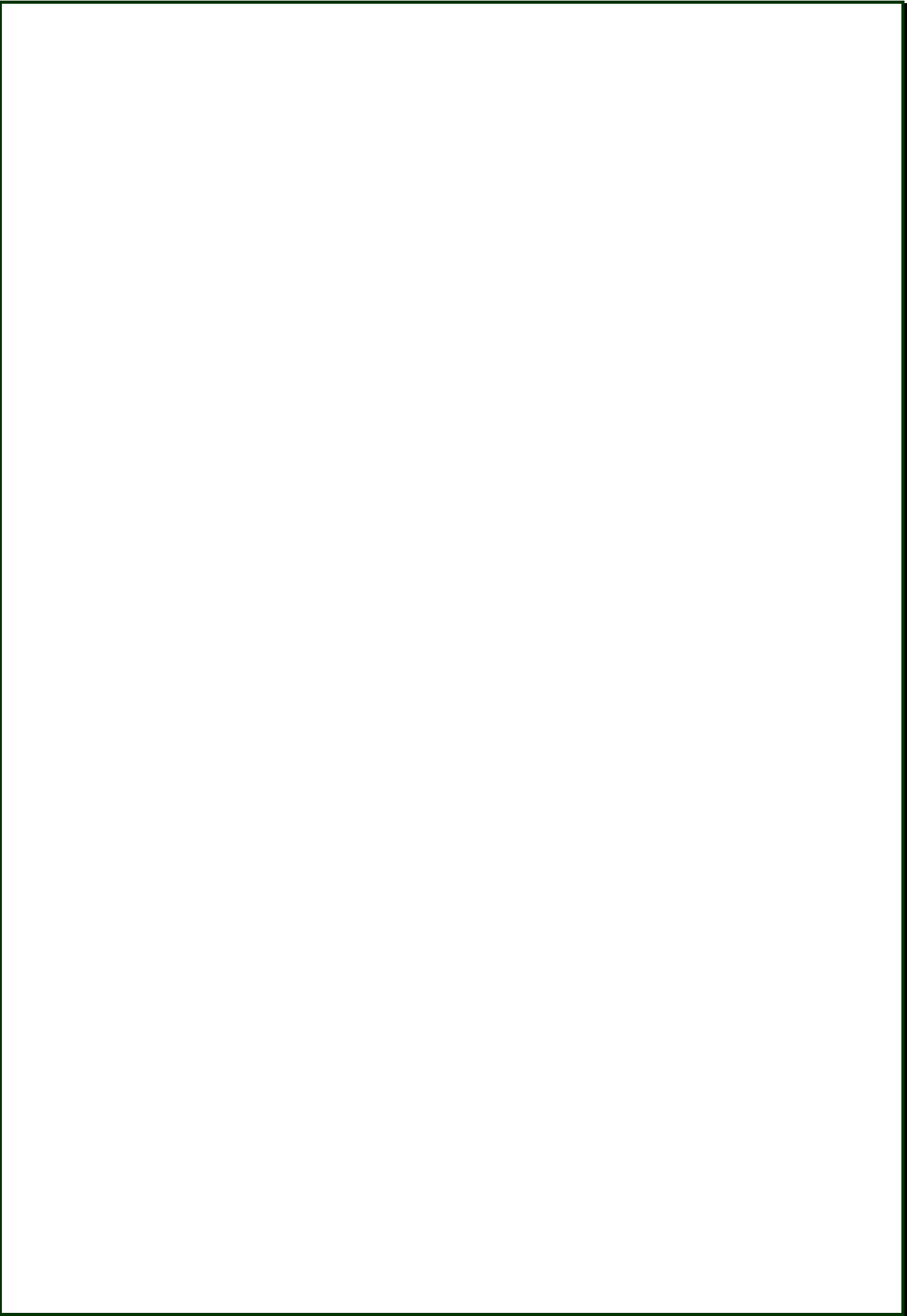
Checked: P.H.

Revision: -



APPENDIX B

SITE LAYOUT MAP



DO NOT SCALE FROM THIS DRAWING. Use given dimensions. Contractor to check all dimensions and levels on site prior to commencement of works. Any discrepancies are to be referred to Kildare County Council

Tender Issue	4.JULY12	A
Description	Date	Revision



Project: DERRINTURN WWTP
FLOW METERING PROJECT

Drawing Title: PLANT LAYOUT

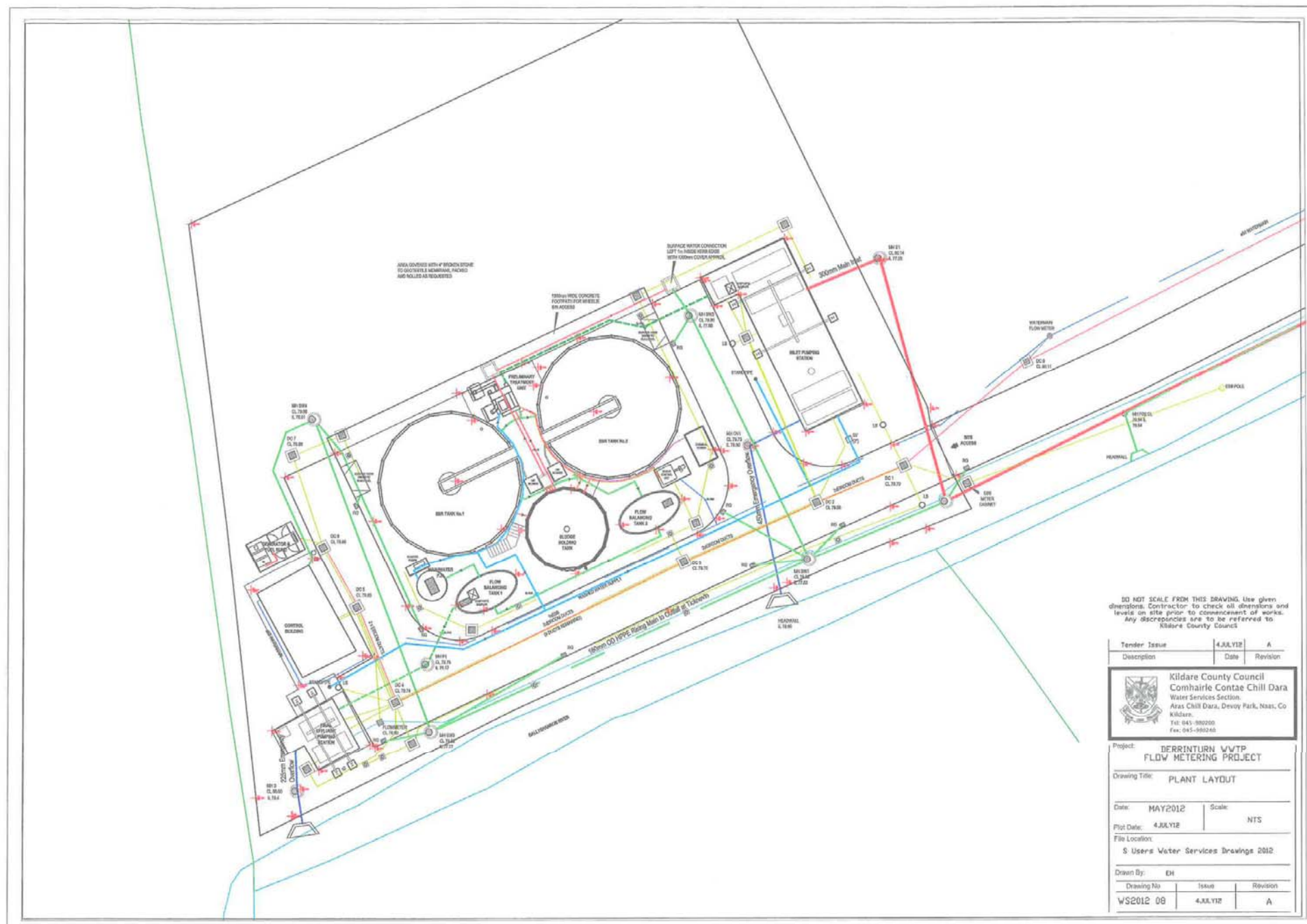
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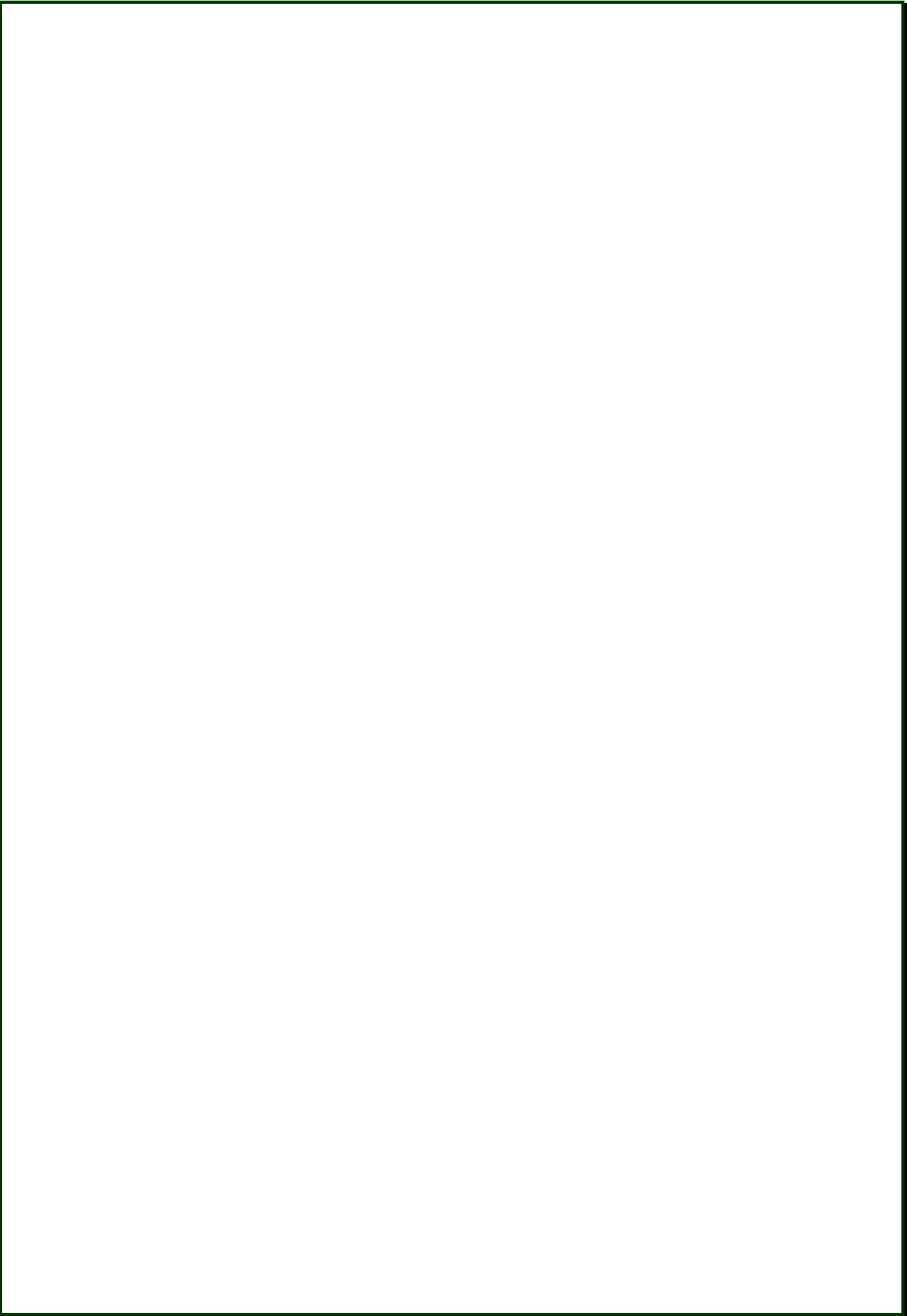
Plot Date: 4.JULY12

File Location: S Users Water Services Drawings 2012

Drawn By: EH

Drawing No	Issue	Revision
WS2012 08	4.JULY12	A





Appendix B

PRTR Report

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.15

REFERENCE YEAR	2012
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1. FACILITY IDENTIFICATION

Parent Company Name	Kildare County Council
Facility Name	Derrinturn Waste Water Treatment Plant
PRTR Identification Number	D0244
Licence Number	D0244-01

Waste or IPPC Classes of Activity

No.	class_name
30.4	General

Address 1	Aras Cill Dara
Address 2	Devoy Park
Address 3	Naas
Address 4	County Kildare
	Kildare
Country	Ireland
Coordinates of Location	-6.93735328 53.336
River Basin District	IESE
NACE Code	3700
Main Economic Activity	Sewerage
AER Returns Contact Name	Colm Flynn
AER Returns Contact Email Address	cflynn@kildarecoco.ie
AER Returns Contact Position	Senior Executive Engineer
AER Returns Contact Telephone Number	045880712
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	045880722
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(f)	Urban waste-water treatment plants

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# : D0244 | Facility Name : Derrintum Waste Water Treatment Plant | Filename : DerrintumPRTR.xls | Return Year : 2012 |

27/02/2013 10:34

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
02	Carbon monoxide (CO)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
03	Carbon dioxide (CO2)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	-54024.0	0.0	-54024.0
05	Nitrous oxide (N2O)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
07	Non-methane volatile organic compounds (NMVOC)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
11	Sulphur oxides (SOx/SO2)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

Additional Data Requested from Landfill operators

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

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

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR#: D0244 | Facility Name : Derrinturn Waste Water Treatment Plant | Filename : DerrinturnPRTR.xls | Return Year : 2012 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
34	1,2-dichloroethane (EDC)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
25	Alachlor	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
26	Aldrin	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
61	Anthracene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.001	0.001	0.0	0.0
17	Arsenic and compounds (as As)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.116	0.116	0.0	0.0
27	Atrazine	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.002	0.002	0.0	0.0
62	Benzene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.003	0.003	0.0	0.0
91	Benzo(g,h,i)perylene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
63	Brominated diphenylethers (PBDE)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
18	Cadmium and compounds (as Cd)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.054	0.054	0.0	0.0
28	Chlordane	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
29	Chlordecone	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
30	Chlorfenvinphos	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
79	Chlorides (as Cl)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	11042.374	11042.374	0.0	0.0
31	Chloro-alkanes, C10-C13	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.043	0.043	0.0	0.0
32	Chlorpyrifos	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
19	Chromium and compounds (as Cr)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.163	0.163	0.0	0.0
20	Copper and compounds (as Cu)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.612	0.612	0.0	0.0
82	Cyanides (as total CN)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.598	0.598	0.0	0.0
33	DDT	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
70	Di-(2-ethyl hexyl) phthalate (DEHP)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.187	0.187	0.0	0.0
35	Dichloromethane (DCM)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.009	0.009	0.0	0.0
36	Dieldrin	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
37	Diuron	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.005	0.005	0.0	0.0
38	Endosulphan	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
39	Endrin	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
65	Ethyl benzene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.003	0.003	0.0	0.0
88	Fluoranthene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
83	Fluorides (as total F)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	47.948	47.948	0.0	0.0
40	Halogenated organic compounds (as AOX)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.487	0.487	0.0	0.0

41	Heptachlor	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
90	Hexabromobiphenyl	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
42	Hexachlorobenzene (HCB)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
43	Hexachlorobutadiene (HCBD)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
89	Isodrin	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
67	Isoproturon	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.002	0.002	0.0	0.0
23	Lead and compounds (as Pb)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.62	0.62	0.0	0.0
45	Lindane	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
21	Mercury and compounds (as Hg)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
46	Mirex	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
68	Naphthalene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.001	0.001	0.0	0.0
22	Nickel and compounds (as Ni)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.869	0.869	0.0	0.0
64	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.017	0.017	0.0	0.0
87	Octylphenols and Octylphenol ethoxylates	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
69	Organotin compounds (as total Sn)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
48	Pentachlorobenzene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
49	Pentachlorophenol (PCP)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
71	Phenols (as total C)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.186	0.186	0.0	0.0
50	Polychlorinated biphenyls (PCBs)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
72	Polycyclic aromatic hydrocarbons (PAHs)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.002	0.002	0.0	0.0
51	Simazine	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.003	0.003	0.0	0.0
52	Tetrachloroethylene (PER)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.012	0.012	0.0	0.0
53	Tetrachloromethane (TCM)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
73	Toluene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.101	0.101	0.0	0.0
12	Total nitrogen	M	OTH	HACH	1836.315	1836.315	0.0	0.0
76	Total organic carbon (TOC) (as total C or COD/3)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	1881.156	1881.156	0.0	0.0
13	Total phosphorus	M	OTH	HACH	87.735	87.735	0.0	0.0
59	Toxaphene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
74	Tributyltin and compounds	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
54	Trichlorobenzenes (TCBs)(all isomers)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
57	Trichloroethylene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
77	Trifluralin	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
75	Triphenyltin and compounds	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
60	Vinyl chloride	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0

78	Xylenes	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.024	0.024	0.0	0.0
24	Zinc and compounds (as Zn)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	10.072	10.072	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
Pollutant No.	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
370	Selenium	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
205	Antimony (as Sb)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.032	0.032	0.0	0.0
368	Molybdenum	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
358	Tin	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.029	0.029	0.0	0.0
373	Barium	E	ESTIMATE	EPA UWWTP Tool Version 5.0	2.702	2.702	0.0	0.0
374	Boron	E	ESTIMATE	EPA UWWTP Tool Version 5.0	12.469	12.469	0.0	0.0
356	Cobalt	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.036	0.036	0.0	0.0
386	Vanadium	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.556	0.556	0.0	0.0
388	Dichlobenil	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.001	0.001	0.0	0.0
383	Linuron	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
385	Mecoprop Total	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.022	0.022	0.0	0.0
380	2,4 Dichlorophenol (2,4 D)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.01	0.01	0.0	0.0
384	MCPA	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.018	0.018	0.0	0.0
382	Glyphosate	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.313	0.313	0.0	0.0
389	Benzo[a]pyrene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
390	Benzo[b]fluoranthene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
391	Benzo[k]fluoranthene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
392	Indeno[1,2,3-c,d]pyrene	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
393	Carbon tetrachloride	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
394	2,6-Dichlorobenzamide	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.016	0.016	0.0	0.0
395	Dicofol	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
396	Hexabromocyclodecane (HBCD)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
397	PFOS	E	ESTIMATE	5.0	0.0	0.0	0.0	0.0
238	Ammonia (as N)	M	OTH	HACH	46.928	46.928	0.0	0.0
303	BOD	M	OTH	Standard method	408.07	408.07	0.0	0.0

306	COD	M	OTH	HACH	4896.84	4896.84	0.0	0.0
362	Kjeldahl Nitrogen	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
327	Nitrate (as N)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
372	Nitrite (as N)	E	ESTIMATE	EPA UWWTP Tool Version 5.0	0.0	0.0	0.0	0.0
332	Ortho-phosphate (as PO4)	M	OTH	HACH	46.928	46.928	0.0	0.0
240	Suspended Solids	M	OTH	Standard method	612.105	612.105	0.0	0.0

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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : D0244 | Facility Name : Derrinturn Waste Water Treatment Plant | Filename : DerrinturnPRTI

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SECTION A : PRTR POLLUTANTS

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

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

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

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

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

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : D0244 | Facility Name : Derrinturn Waste Water Treatment Plant | Filename : DerrinturnPRTR.xls | Return Year : 2012 |

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SECTION A : PRTR POLLUTANTS

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

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

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

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

[PRTR# : D0244 | Facility Name : Derrintum Waste Water Treatment Plant | Filename : DerrintumPRTR.xls | Return Year : 2012]

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Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Non	Haz Waste : 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		Haz Waste: Name and Licence/Permit No of Recover/Disposer		Non Haz Waste: Address of Recover/Disposer		
Within the Country	19 08 05	No	184.45	sludges from treatment of urban waste water	R10	M	Weighed	Offsite in 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](#)

Section 8. Certification and Sign Off

Does the AER include an executive summary?	Yes
Does the AER include an assessment of the performance of the Waste Water Works (i.e. have the results of assessments been interpreted against WWDL requirements and or Environmental Quality Standards)?	Yes
Is there a need to advise the EPA for consideration of a technical amendment / review of the licence?	No
List reason e.g. additional SWO identified	N/A
Is there a need to request/advise the EPA of any modifications to the existing WWDL? Refer to Condition 1.7 (changes to works/discharges) & Condition 4 (changes to monitoring location, frequency etc.)	No
List reason e.g. failure to complete specified works within dates specified in the licence, changes to monitoring requirements	N/A
Have these processes commenced? (i.e. Request for Technical Amendment / Licence Review / Change Request)	N/A
Are all outstanding reports and assessments from previous AERs included as an appendix to this AER?	No
List outstanding reports	N/A

I certify that the information given in this AER is truthful, accurate and complete.

Signed by: _____

(On behalf of the organization)

Print signature name: _____

Position in organization: _____

Date: _____