



KILDARE COUNTY COUNCIL
Comhairle Chontae Chill Dara

CASTLEDERMOT WASTEWATER AGGLOMORATION

**ANNUAL ENVIRONMENTAL REPORT
2012**

February 2013



**Water Services Section
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**CASTLEDERMOT WASTEWATER DISCHARGE LICENSE GRANTED
ON 24TH NOVEMBER 2010
(EPA Ref: D0236-01)**

| | |
|------------------------|--|
| Local Authority | Kildare County Council |
| Project Title | Castledermot Wastewater Discharge License |
| Document Title | Annual Environmental Report 2012 |
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| Revision | Date | Prepared By | Checked By | Approved By |
|----------|----------------------|----------------|-----------------|----------------|
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| 1 | Jan 21 st | | | |
| 2 | Feb 20 th | | | |

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1. Executive Summary and Introduction to the 2012 AER

A Wastewater Discharge Licence was granted for the Castledermot agglomeration on the 24th of November 2010 under the Waste Water Discharge (Authorisation) Regulations 2007.

The existing WWTP at Castledermot has a maximum treatment capacity of 2,400 p.e. The primary discharge (SW1-P) is to the River Lerr. There are no secondary discharges in the agglomeration.

The treatment works comprises of inlet works, screening, grit removal, anoxic tank, ferric dosing, two aeration tanks, two clarifiers, odour control unit, sludge holding tank with picket fence thickener, dewatering facilities and a storm tank. The WWTP also has a sludge import station to handle sludge from external sites.

There are two pumping stations in operation within the agglomeration, at Mageney (Levittstown Road), and Skenagun. There is also a vacuum pod pumping system in operation at Skenagun.

This Annual Environmental Report (AER) is being submitted in compliance with the requirements of Condition 6.10 of the Waste Water Discharge Licence.

The purpose of this AER is to provide the information requested in Schedule D of Licence number D0236-01 and concerns the period from 1st January to the 31st December 2012.

1.1 Summary report on 2012

In 2012 Castledermot Waste Water Treatment Plant performed to a very high standard with removal efficiencies of greater than 90% for BOD, COD, SS and Total Phosphorus and a removal efficiency of 64% for Total Nitrogen.

It was found that all licensed parameters had an acceptable level of impact on the receiving water.

There were no complaints received and no incidents or ELC exceedances reported for the year.

2. Monitoring Reports Summary

2.1 Summary report on monthly influent monitoring

Table 1 – Influent Monitoring Summary Table

| | BOD (mg/l) | COD (mg/l) | SS (mg/l) | TP (mg/l) | TN (mg/l) | Hydraulic Loading (m3/d) | Organic Loading (PE/day) |
|------------------------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|---|---|
| Number of Samples | 12 | 12 | 12 | 12 | 12 | | |
| Annual Max. | 249 | 616 | 343 | 7.35 | 58 | 1,580.7 | 3,957 |
| Annual Mean | 166 | 439 | 171 | 5.47 | 38.3 | 451.2 | 1,498* |

*This value is calculated using the average monthly loading. The value in the Sewer Integrity Tool (1,248 p.e.) is calculated using the average BOD and the average yearly influent flow.

The influent monitoring summary for Castledermot WWTP is provided in Table 1 above. The results are typical for Castledermot WWTP. While there are some high influent concentrations, these high concentrations did not result in any disruption of the treatment process, reduction in removal efficiencies of the plant or ELV exceedances.

2.1 Discharges from the agglomeration

Table 2 – Effluent Monitoring Summary Table

| | pH | BOD (mg/l) | COD (mg/l) | SS (mg/l) | NH3 (mg/l) | Total P (mg/l) | PO4 P (mg/l) |
|--|--------------|-----------------------|-----------------------|----------------------|-----------------------|---------------------------|-------------------------|
| WWDL ELV (Schedule A) | 6 - 9 | 10 | 125 | 30 | 1.0 | 0.7 | 0.5 |
| ELV with Condition 2 Interpretation included | 6 - 9 | 20 | 250 | 75 | 1.2 | 0.84 | 0.6 |
| Number of sample results | 365 | 12 | 12 | 12 | 12 | 12 | 12 |
| Number of sample results above WWDL ELV | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number of sample results above ELV with Condition 2 Interpretation included | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Annual Mean (for parameters where a mean ELV applies) | | | | | | | |
| Overall Compliance (Pass/Fail) | Pass | Pass | Pass | Pass | Pass | Pass | Pass |

The Castledermot WWTP has for 2012 consistently produced effluent quality significantly below the required ELV's.

In 2012 there was full compliance with regard to monitoring frequency and compliance to ELV limits (Table 2) as set out in licence D0236-01.

A screening for metals and organics was carried out as per Schedule B of the licence. Results are found in Appendix 5 of the 2011 AER. There was no concern caused by levels in the discharge and therefore, did not warrant further monitoring.

Daily visual inspections were also carried out on the effluent as part of the licence requirements (Schedule B1 of D0236-01). All daily results were 'clear' for the year and no coloration was evident.

2.3 Treatment Efficiency Report

Table 3 – Treatment Efficiency Report Summary Table

| | cBOD (kg/day) | COD (kg/day) | SS (kg/day) | Total P (kg/day) | Total N (kg/day) |
|--|--------------------------|-------------------------|------------------------|-----------------------------|-----------------------------|
| Influent mass loading (kg/day) | 89.87 | 244.78 | 99.89 | 2.96 | 19.91 |
| Effluent mass emission (kg/day) | 1.33 | 17.67 | 2.10 | 0.29 | 7.08 |
| % Efficiency | 99 | 93 | 98 | 90 | 64 |

Condition 4.14 of the licence requires that cBOD, COD, SS, Total Nitrogen, and Total Phosphorous are monitored on a monthly basis so as to assess the Mass Loading and Removal Efficiencies.

Table 3 depicts the removal efficiencies from Castledermot WWTP. As can be seen the plant performed to a very high standard with removal efficiencies of greater than 90% for BOD, COD, SS and Total Phosphorus and a removal efficiency of 64% for Total Nitrogen.

2.4 Treatment Capacity Report

Table 4 – Treatment Capacity Report Summary Table

| | |
|---|---------------|
| Hydraulic Capacity – Design / As Constructed (m³/day) | 1,350 |
| Hydraulic Capacity – Current loading (m³/day) | 451.15 |
| Hydraulic Capacity – Remaining (m³/day) | 898.85 |
| Organic Capacity - Design / As Constructed (PE) | 2,400 |
| Organic Capacity– Current loading (PE) | 1,498 |
| Organic Capacity– Remaining (PE) | 902 |
| Will the capacity be exceeded in the next three years (Yes / No) | No |

Hydraulic treatment capacity

The design hydraulic capacity of the WWTP is 1350 m³ per day. The average hydraulic load in 2012 was found to be 451.15 m³ per day or 33% of design.

The remaining hydraulic capacity of the plant is 898.85 m³ per day (or 67% of design capacity).

Organic treatment capacity

The organic treatment capacity of the existing WWTP is 2,400p.e (144 Kg BOD/day). The population equivalent loading at the WWTP in 2012 was approximately 1,498 (89.87 Kg BOD/day) or 62% of design.

The remaining organic capacity of the WWTP is 902p.e. (or 38% of design capacity).

2.5 Ambient monitoring summary

Table 5 – Ambient Monitoring Report Summary Table

| Ambient Monitoring Point from WWDL | Irish Grid Reference | EPA Feature Coding Tool code | Does assessment of the ambient monitoring results indicate that the discharge is impacting on water quality |
|---|-----------------------------|-------------------------------------|--|
| aSW-1u | 277669E, 184624N | RS14B190020 | No |
| aSW-1d | 277507E, 184609N | RS14B190040 | No |

The ambient monitoring of the receiving water was carried for the parameters as per Schedule B.3 of the Wastewater Discharge Licence D0236-01. A summary of the results are presented in Appendix 1 (Table 14).

The arithmetic mean for Ammonia and orthophosphate indicate that, for Ammonia and Orthophosphate, the receiving waters upstream and downstream of the primary discharge point are not in compliance with the good water quality status of the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. No 272 of 2009). The receiving waters are in compliance with the ‘Good status’ category of the Surface Water Regulations, 2009 (S.I. No 272 of 2009) for river bodies in respect to BOD.

Oxygenation Conditions (Biochemical Oxygen Demand)

There is an increase between the upstream annual mean BOD of 1.08 mg/l to the downstream annual mean BOD of 1.25 mg/l (Appendix 1, Table 14) indicating that the WWTP is having a slight impact on the receiving waters. As per the regulations, the River Lerr is complying with the ‘Good status’ category of the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. No 272 of 2009) for river bodies.

Nutrient Conditions

The Ammonia (mg/l N) results show a slight increase in annual mean from 0.136 mg/l to 0.146 mg/l (Appendix 1, Table 14), which indicates that the WWTP is having only a slight impact on the River Lerr. However, the background concentrations for both upstream and downstream exceeds the EQS standard (0.065 mg/l) and thus classifies the River Less outside the ‘Good status’ classification.

In relation to the ortho-phosphate (Molybdate Reactive Phosphorus (MRP)) (mg/l P) the River Lerr shows a very slight increase in annual mean from 0.075 mg/l to 0.078 mg/l (Appendix 1, Table 14), indicating that the WWTP is having little effect on the receiving waters in respect to Phosphorus discharges. Both upstream and downstream exceeds the EQS standard (0.035 mg/l) and thus classifies the River Less outside the ‘Good status’ classification.

While the levels for ortho-phosphate and ammonia exceed the EQS standards both upstream and downstream, the discharge from the Castledermot WWTP does not seem to be contributing to the high levels. Sources further upstream of the WWTP seem to be causing the high nutrient levels.

Although the Barrow and Lerr are not designated as salmonid waters they do support salmon.

The European Communities (Quality of Salmonid) Regulations S.I. 293 of 1988 gives a limit of 5 mg/l for BOD, 25 mg/l for Suspended Solids and 0.02 mg/l for Ammonia. Results from monitoring both the upstream and downstream sampling locations indicate that the levels of ammonia frequently exceed this limit. However, BOD and Suspended Solids levels are well below the Salmonid waters limit.

Metals and Organic Compounds

Representative samples for the upstream and downstream were submitted for analysis to an external, INAB Accredited laboratory. A list of the parameters analyzed and the results were detailed in Appendix 5 of the 2011 AER.

The data was compared against the relevant Annual Average (AA) - or Maximum Allowable Concentration (MAC)-EQS for an Inland Surface Water as detailed in the Environmental Objectives (Surface Water) Regulations, 2009 (S.I. No. 272 of 2009). All parameters were either below the relevant EQS value or the limit of detection for the method used by the sub-contracted laboratory was sometimes greater than the specified AA-EQS or MAC limit. Consequently, it is not possible to definitively state whether these parameters exceeded the regulatory standards.

Visual Inspections

Weekly visual inspections were carried out on the receiving waters as part of the licence requirements (Schedule B3 of D0236-01). All results were 'clear' and no coloration was evident.

pH and DO conditions

pH and the DO levels were recorded in the receiving waters (as per Schedule B3 of D0236-01). The pH of all individual samples analyzed from both the upstream and downstream were within the pH range (pH 6-9) for Hard Water (ie. > 100 mg/l CaCO₃) as per the Surface Waters Regulations.

The DO levels were within the normal range for the River Lerr.

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

The report for the Urban Wastewater Treatment Directive data collection and report submission shall be submitted electronically as requested via EDEN to the EPA as part of the above Directive requirements.

2.7 Pollutant Release and Transfer Register (PRTR)

This information was submitted electronically via the EPA website. The AER / PRTR Emissions Data information is printed out and included at the end of this AER in Appendix 2.

3. Operational Reports Summary

3.1 Complaints Summary

Table 6 – Complaints Summary Table

| Number | Date & Time | Nature of Complaint | Cause of Complaint | Actions taken to resolve issue | Closed (Y/N) |
|---------------|------------------------|----------------------------|---------------------------|---------------------------------------|---------------------|
| None | | | | | |
| | | | | | |

There were no complaints received in 2012.

3.2 Reported Incidents Summary

Table 7 – Summary of Incidents Table

| Date & Time | Incident Description | Cause | Corrective Action | Authorities Contacted | Reported to EPA (Yes/No) | Closed (Y/N) |
|------------------------|-----------------------------|--------------|--------------------------|------------------------------|---------------------------------|---------------------|
| None | | | | | | |

There were no reported incidents in 2012.

Table 8 – Incident Report Summary

| | |
|---|------------|
| Number of Incidents in 2012 | 0 |
| Number of Incidents reported to the EPA via EDEN in 2012 | 0 |
| Explanation of any discrepancies between the two numbers above | N/A |

4. Infrastructural Assessments and Prog of Improvements

4.1 Storm water overflow identification and inspection report

A detailed storm water overflow identification and inspection report is included in Appendix 3.

Table 9 – SWO Identification and Inspection Summary Report Table A

| 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 | 2776640E, 184625N | Yes | Unknown | Unknown | Unknown | Unknown | Unknown |
| SW-3 | 277632E, 184624N | Yes | Compliant | 0 | Measured | 0 | Measured |

Table 10 – SWO Identification and Inspection Summary Report Table B

| | |
|--|------------|
| Is each 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 | Yes |
| 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

a) Programme of Infrastructural Improvements

There is no specified improvement programme listed in Schedule C.1 and C.2 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 Castledermot 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 Castledermot 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.

5. Environmental Liability and Financial Provisions

5.1 Statement of Measures

An ELRA report has not been commissioned yet for the Castledermot 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 will 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 advice of the following minor measures taken or adopted during 2012 to help prevent environmental damage by the Castledermot WWTP:

1. Installation of new flow monitoring system on the three Inlets and 2 SWO’s, and upgrading of the existing SCADA monitoring system.
2. Upgrading of the existing operational alarm system to notify operatives of major problems within the plant during out-of-hours periods.

With regards to 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 Castledermot.

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.

6. Licence Specific Reports

There are no licence (D0236-01) specific reports requested for Castledermot WWTP (see Table 13).

Table 13 – Licence Specific Reports Summary

| Licence Specific Reports | Required in 2012 AER or outstanding from previous AER | Included in 2012 AER | Reference to relevant section of AER |
|---|--|-----------------------------|---|
| 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

Not required by licence D0236-01.

6.2 Drinking Water Abstraction Point Risk Assessment

Not required by licence D0236-01.

6.3 Shellfish Impact Assessment Report

Not required by licence D0236-01.

6.4 Toxicity / Leachate Management

Not required by licence D0236-01.

6.5 Toxicity of the Final Effluent Report

Not required by licence D0236-01.

6.6 Pearl Mussel Measures Report

Not required by licence D0236-01.



7.

APPENDICES



APPENDIX 1

AMBIENT MONITORING DATA



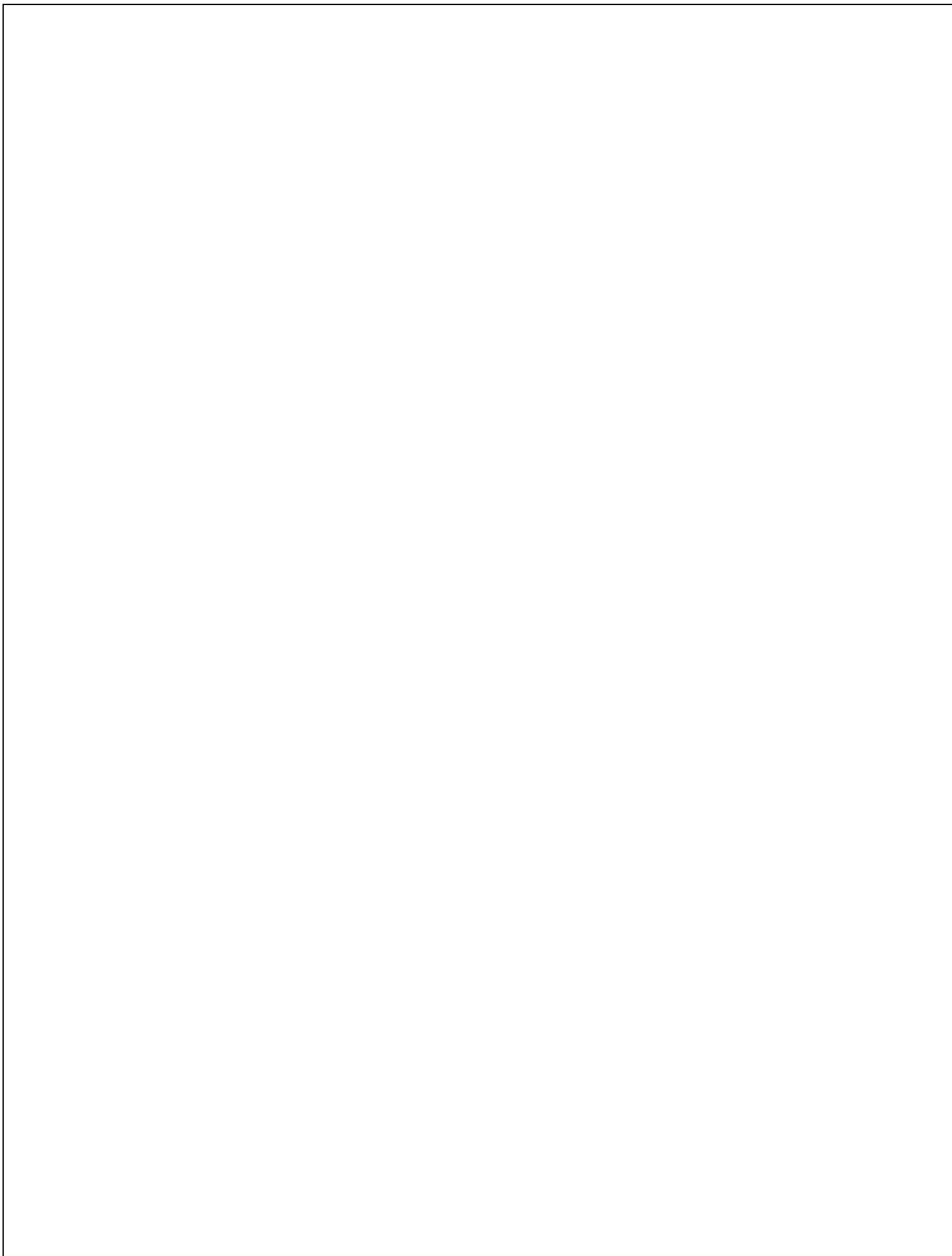
The arithmetic mean for the parameters BOD, SS, ammonia and orthophosphate are recorded in the following table along with the corresponding EQS values.

Table 14 – Ambient Monitoring Summary Report Table

| Parameter | Annual Mean aSW-1u (Upstream) | Annual Mean aSW-1d (Downstream) | EQS (Mean)* |
|--------------------------------|--|--|--------------------|
| BOD (mg/l) | 1.08 | 1.25 | 1.5 |
| SS (mg/l) | 2 | 3 | ** |
| Ammonia (mg/l N) | 0.136 | 0.146 | 0.065 |
| Orthophosphate (mg/l P) | 0.075 | 0.078 | 0.035 |

*European Communities Environmental Objectives (Surface Waters) Regulations 2009

**There is no EQS value for SS in the Surface Water Regulations, the limit in the Salmonid Waters Regulations is 25 mg/l.



APPENDIX 2

PRTR DATA





| PRTR# : D0236 | Facility Name : Castledermot Waste Water Treatment Plant |
 Filename : PRTR 2012 Castledermot.xls | Return Year : 2012 |

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.15

| | |
|-----------------------|------|
| REFERENCE YEAR | 2012 |
|-----------------------|------|

1. FACILITY IDENTIFICATION

| | |
|----------------------------|--|
| Parent Company Name | Kildare County Council |
| Facility Name | Castledermot Waste Water Treatment Plant |
| PRTR Identification Number | D0236 |
| Licence Number | D0236-01 |

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 | -6.84663 52.9064 |
| 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 | 045 880712 |
| AER Returns Contact Mobile Phone Number | |
| AER Returns Contact Fax Number | 045 880722 |
| Production Volume | 0.0 |
| Production Volume Units | |
| Number of Installations | 0 |
| Number of Operating Hours in Year | 0 |
| Number of Employees | 2 |
| 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) ? | |
|--|--|

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# : D0236 | Facility Name : Castledermot Waste Water Treatment Plant | Filename : PRTR 2012 Castledermot.xls | Return Year : 2012 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

| RELEASES TO AIR | | | | | 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 |
| 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 | 6.0 | 0.0 | 6.0 |
| 03 | Carbon dioxide (CO2) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.0 | 17733.0 | 0.0 | 17733.0 |
| 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 | 2.0 | 0.0 | 2.0 |
| 08 | Nitrogen oxides (NOx/NO2) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.0 | 20.0 | 0.0 | 20.0 |
| 11 | Sulphur oxides (SOx/SO2) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.0 | 2.0 | 0.0 | 2.0 |

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

SECTION B : REMAINING PRTR POLLUTANTS

| RELEASES TO AIR | | | | | Please enter all quantities in this section in KGs | | | |
|-----------------|------|--------|-------------|---|--|-------------------|------------------------|----------------------|
| POLLUTANT | | METHOD | | | QUANTITY | | | |
| 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 AIR | | | | | 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

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:

Castledermot Waste Water Treatment Plant

Please enter summary data on the quantities of methane flared and / or utilised

| | | Method Used | | | Facility Total Capacity m3 per hour |
|--|-----|-------------|-------------|----------------------------|-------------------------------------|
| T (Total) kg/Year | | M/C/E | Method Code | Designation or Description | |
| 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 |

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : D0236 | Facility Name : Castledermot Waste Water Treatment Plant | Filename : PRTR 2012 Castledermot.xls | Return Year : 2012 |

27/02/2013 08:55

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

| RELEASES TO AIR | | | | | 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 |
| 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 | 6.0 | 0.0 | 6.0 |
| 03 | Carbon dioxide (CO2) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.0 | 17733.0 | 0.0 | 17733.0 |
| 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 | 2.0 | 0.0 | 2.0 |
| 08 | Nitrogen oxides (NOx/NO2) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.0 | 20.0 | 0.0 | 20.0 |
| 11 | Sulphur oxides (SOx/SO2) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.0 | 2.0 | 0.0 | 2.0 |

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

SECTION B : REMAINING PRTR POLLUTANTS

| RELEASES TO AIR | | | | | Please enter all quantities in this section in KGs | | | |
|-----------------|------|--------|-------------|---|--|-------------------|------------------------|----------------------|
| POLLUTANT | | METHOD | | | QUANTITY | | | |
| 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 AIR | | | | | 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

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:

Castledermot Waste Water Treatment Plant

Please enter summary data on the quantities of methane flared and / or utilised

| | | Method Used | | | Facility Total Capacity m3 per hour |
|--|-----|-------------|-------------|----------------------------|-------------------------------------|
| T (Total) kg/Year | | M/C/E | Method Code | Designation or Description | |
| 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# : D0236 | Facility Name : Castledermot Waste Water Treatment Plant | Filename : PRTR 2012 Castledermot.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 co

| 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 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | Arsenic and compounds (as As) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.101 | 0.101 | 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 | 0.047 | 0.047 | 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 | 9606.138 | 9606.138 | 0.0 | 0.0 |
| 31 | Chloro-alkanes, C10-C13 | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.037 | 0.037 | 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 | 0.142 | 0.142 | 0.0 | 0.0 |
| 20 | Copper and compounds (as Cu) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.532 | 0.532 | 0.0 | 0.0 |
| 82 | Cyanides (as total CN) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.52 | 0.52 | 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 | 0.163 | 0.163 | 0.0 | 0.0 |
| 35 | Dichloromethane (DCM) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.008 | 0.008 | 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 | 41.712 | 41.712 | 0.0 | 0.0 |
| 40 | Halogenated organic compounds (as AOX) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.424 | 0.424 | 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 | 0.001 | 0.001 | 0.0 | 0.0 |
| 23 | Lead and compounds (as Pb) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.539 | 0.539 | 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 | 0.756 | 0.756 | 0.0 | 0.0 |
| 64 | Nonylphenol and Nonylphenol ethoxylates (NP/NPEs) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.015 | 0.015 | 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 | 0.161 | 0.161 | 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 | 0.01 | 0.01 | 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 | 0.088 | 0.088 | 0.0 | 0.0 |
| 12 | Total nitrogen | M | OTH | HACH | 2193.863 | 2193.863 | 0.0 | 0.0 |
| 76 | Total organic carbon (TOC) (as total C or COD/3) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 1636.482 | 1636.482 | 0.0 | 0.0 |
| 13 | Total phosphorus | M | OTH | HACH | 86.974 | 86.974 | 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 | 0.021 | 0.021 | 0.0 | 0.0 |
| 24 | Zinc and compounds (as Zn) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 8.762 | 8.762 | 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 | | Method Used | | | 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)

| RELEASES TO WATERS | | | | | Please enter all quantities in this section in KGs | | | |
|--------------------|----------------------------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT | | Method Used | | | 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 |
| 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 | 0.027 | 0.027 | 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 | 0.026 | 0.026 | 0.0 | 0.0 |
| 373 | Barium | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 2.351 | 2.351 | 0.0 | 0.0 |
| 374 | Boron | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 10.847 | 10.847 | 0.0 | 0.0 |
| 356 | Cobalt | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.031 | 0.031 | 0.0 | 0.0 |
| 386 | Vanadium | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.484 | 0.484 | 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 | 0.019 | 0.019 | 0.0 | 0.0 |
| 380 | 2,4 Dichlorophenol (2,4 D) | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.009 | 0.009 | 0.0 | 0.0 |
| 384 | MCPA | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.016 | 0.016 | 0.0 | 0.0 |
| 382 | Glyphosate | E | ESTIMATE | EPA UWWTP Tool Version 5.0 | 0.272 | 0.272 | 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 | 0.014 | 0.014 | 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 | EPA UWWTP Tool Version 5.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 238 | Ammonia (as N) | M | OTH | HACH | 90.523 | 90.523 | 0.0 | 0.0 |
| 303 | BOD | M | OTH | Standard Methods | 532.491 | 532.491 | 0.0 | 0.0 |
| 306 | COD | M | OTH | HACH | 5679.904 | 5679.904 | 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 | 141.998 | 141.998 | 0.0 | 0.0 |
| 240 | Suspended Solids | M | OTH | Standard Methods | 887.485 | 887.485 | 0.0 | 0.0 |

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

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 Used | | Emission Point 1 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | |
| | | | | | 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 Used | | Emission Point 1 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | |
| | | | | | 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# : D0236 | Facility Name : Castledermot Waste Water Treatment Plant | Filename : PRTR 2012 Castledermot.xls | Return Year : 2012 |

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SECTION A : 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 |
| | | | | | | 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)

| 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 |
| | | | | | | 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# : D0236 | Facility Name : Castledermot Waste Water Treatment Plant | Filename : PRTR 2012 Castledermot.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 : Name and Licence/Permit No of Recover/Disposer | Haz Waste : Address of Next Destination Facility Non Haz Waste : Address of Recover/Disposer | Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY) | Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY) |
|----------------------|---------------------|-----------|--|----------------------|---------------------------|-------------|--------------------|-----------------------|---|---|--|--|
| | | | | | | M/C/E | Method Used | | | | | |
| Within the Country | 19 08 01 | No | 38.4 screenings | | D1 | E | Volume Calculation | Offsite in Ireland | Drehid Waste Management Facility,W0201-03 | Carbury,Co. Kildare,....Ireland | | |
| Within the Country | 19 08 05 | No | 264.82 sludges from treatment of urban waste water | R10 | | M | Weighed | Offsite in Ireland | SEDE Ireland,Awaiting Approval | Carran ,Dunbell ,..Co. Kilkenny,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](#)

APPENDIX 3

STORM WATER IDENTIFICATION AND INSPECTION REPORT



Castledermot Waste Water Agglomeration



WWDA License No. D0236-01



Storm Water Overflow Assessment 2013

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 - 3.2 Integrity Assessment
 - 3.3 Visual or Aesthetic Impact and Public Complaints
 - 3.4 Deterioration in Water Quality in the receiving waters
 - 3.5 Failure in meeting the requirements of National Regulations on Foot of EU Directives
 - 3.6 Operate during Dry Weather
 - 3.7 SWO Discharges 2012
4. Formula 'A' Requirements
5. Conclusions

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Appendix B
Appendix C

Site Location Map
Site Layout Map
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 Castledermot 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 Castledermot agglomeration in accordance with Section 4 of the Directive.

2. Castledermot Agglomeration SWO's – General

There are two SWO's (labeled SW2 and SW3) in the agglomeration, and both are within the WWTP.

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 |
|---------|-------------------|-----------------|-----------------|
| SW2 | Castledermot wwtp | 277640E 184625N | River Lerr |
| SW3 | Castledermot wwtp | 277632E 184624N | River Lerr |

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 Castledermot agglomeration.

3 Storm Water Overflows – SW2 and SW3

3.1 Location & General Description

An overflow to the river Lerr occurs through SW2 if flows into the wwtp are in excess of 92.15l/sec (approx 15DWF), the storm water pump breaks down, or a blockage occurs. This is a 450mm dia concrete ogee pipe. Currently this SWO is unmonitored.

In the event that the capacity of the storm tank is exceeded, it overflows to the River Lerr via SW3, which is a 300mm dia concrete ogee pipe. Currently, flows through SW3 are measured and monitored through an open flume, which links back to the plant SCADA system.

3.2 Integrity Assessment

A general visual integrity assessment of the inlet pumping station and storm water holding tank and associated infrastructure was undertaken as part of this report. The reinforced concrete tanks and overflow pipes 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 either SWO pipe; however our operators have reported of no ongoing problems with these outfall pipes such as flow restrictions, surcharging or backflow conditions. There appears to be ample enough storage within the storm tank and inlet works to accommodate most storm events up until now.

3.3 Visual or Aesthetic Impact & Public Complaints

The inlet works and storm water holding tank, overflow channels and associated infrastructure are all located within the boundary of the wwtp. Both SWO pipes are also within the wwtp site prior to discharge to the Lerr River.

The inlet sump, 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 SW2 or SW3.

3.4 Deterioration in Water Quality in the Receiving Water

The receiving environment of SW2 and SW3 is initially to the Lerr river, and ultimately to the River Barrow. Kildare County Council have been monitoring the ambient impact on the Lerr as part of the normal environmental monitoring plans for the Castledermot agglomeration, and a synopsis of these results is shown in Appendix C to this document.

These results show that the plant as a whole is not causing negative impact on the receiving waters, although these results are reflective not only of the SWO's, but also relate to the main discharge from the wwtp.

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 Lerr downstream of Castledermot, 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 Lerr 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 SW2 or SW3 do not contribute to a failure in this regard.

3.6 Operate in Dry Weather

For the monitoring period 2012, there was flow monitoring on SW3, but not on SW2. Our records show zero discharges from SW3 throughout the whole year, but we have no actual records regarding SW2. However, our Caretaker's observations are that SW2 did not operate at all during 2012.

Kildare County Council have invested in a major flow monitoring upgrade project in 2012 in a number of WWTP's throughout the County. This project included SW2 of Castledermot WWTP. The project included for the fitting of a magnetic flow meter and the link-up to an upgraded SCADA system in the plant. It is expected that this project will be fully completed and commissioned by the end of Feb 2013.

3.7 SWO Discharges – 2012

Our SCADA system advises that there were zero discharges through SW3 in 2012. Due to the lack of SCADA surveillance on SW2 however, it is not possible to ascertain for certain the number of times that SW2 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 Castledermot agglomeration through the new upgraded CADA 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 Castledermot agglomeration, it is not possible at this stage to assess the current overflow settings of the SW2 and SW3.

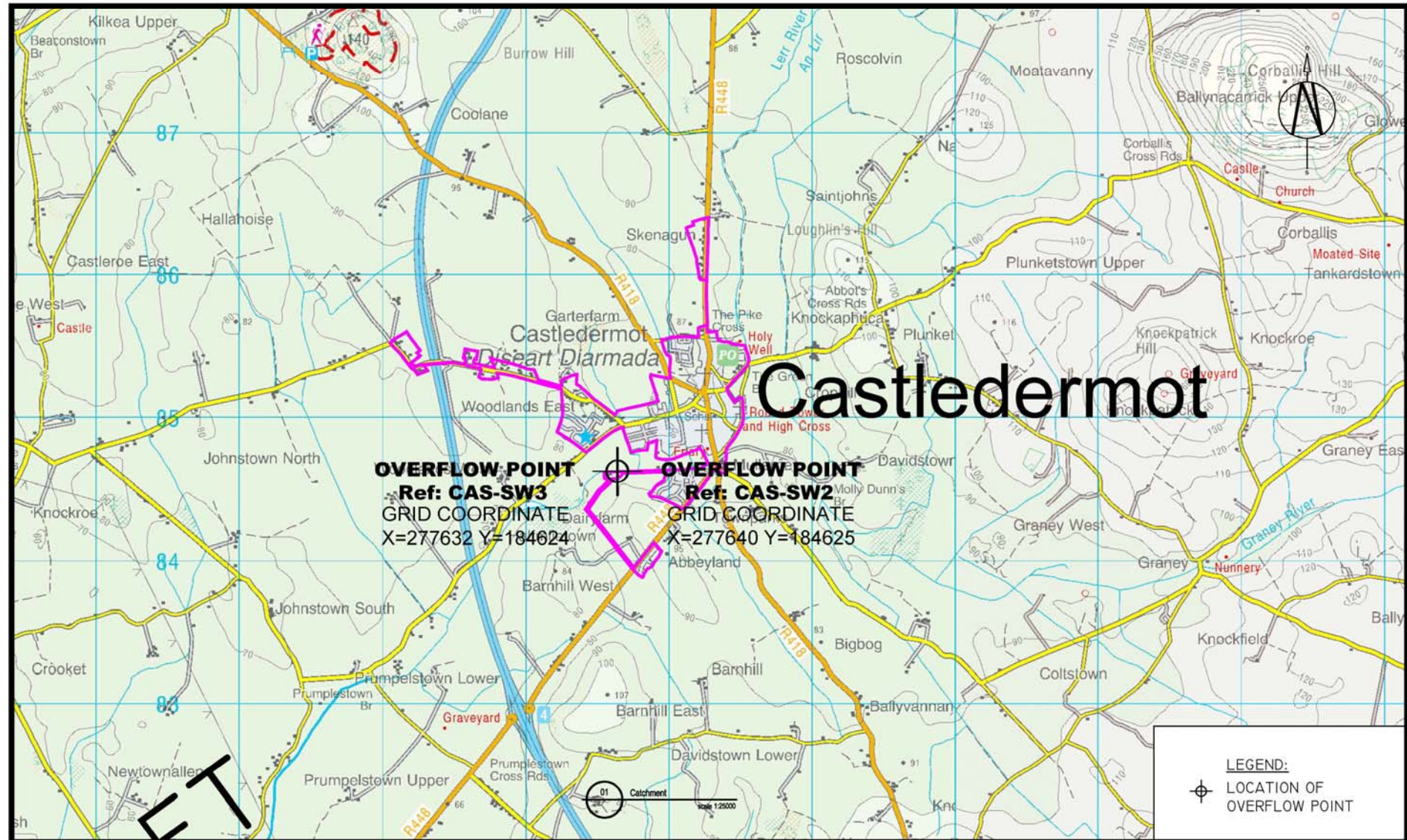
5. Conclusion

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, SW2 and SW3 comply 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's. However, Kildare County Council hope to carry out flow monitoring improvement works at Castledermot WWTP during 2013 should sufficient budget come available.

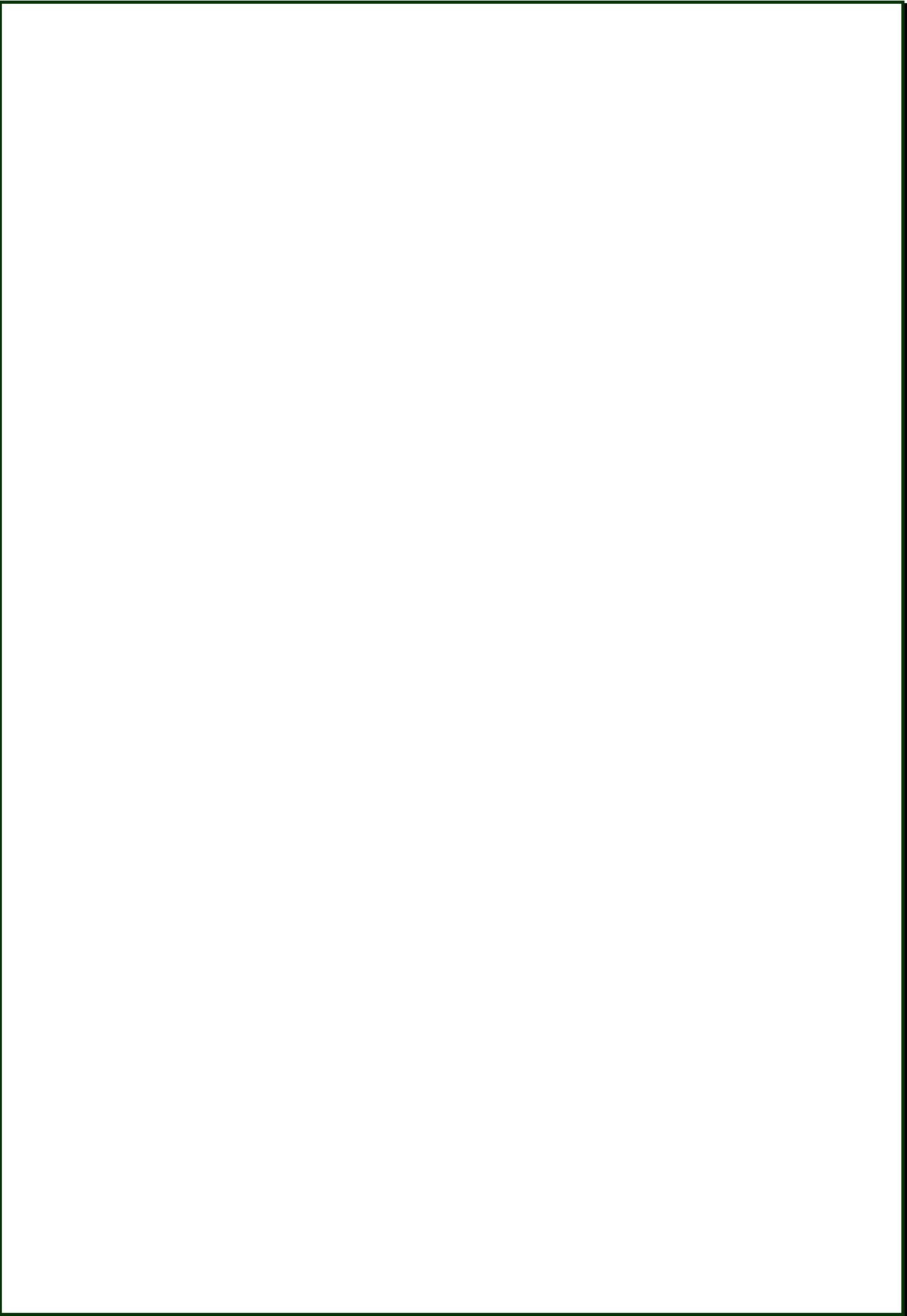
APPENDIX A

SITE LOCATION MAP



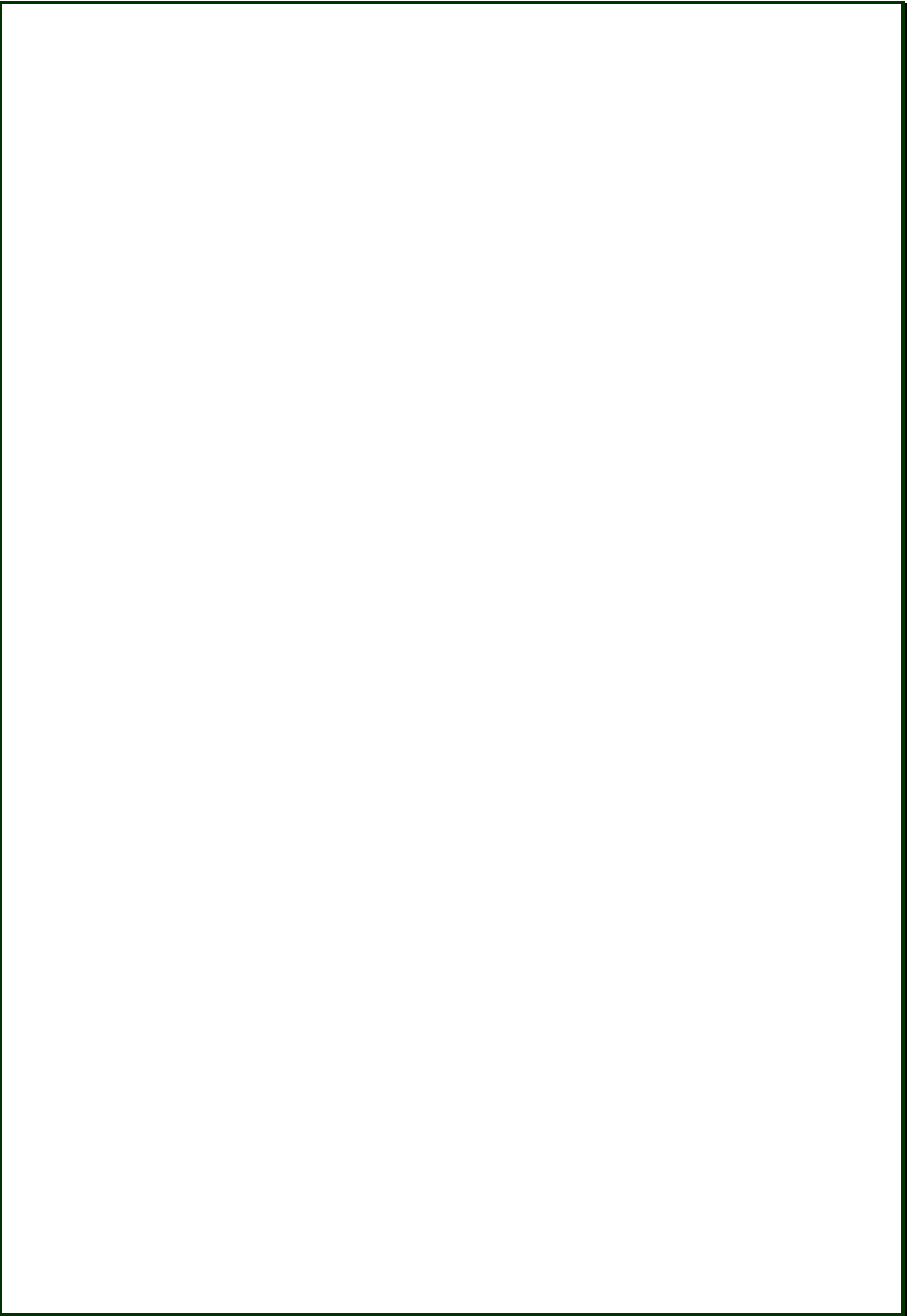
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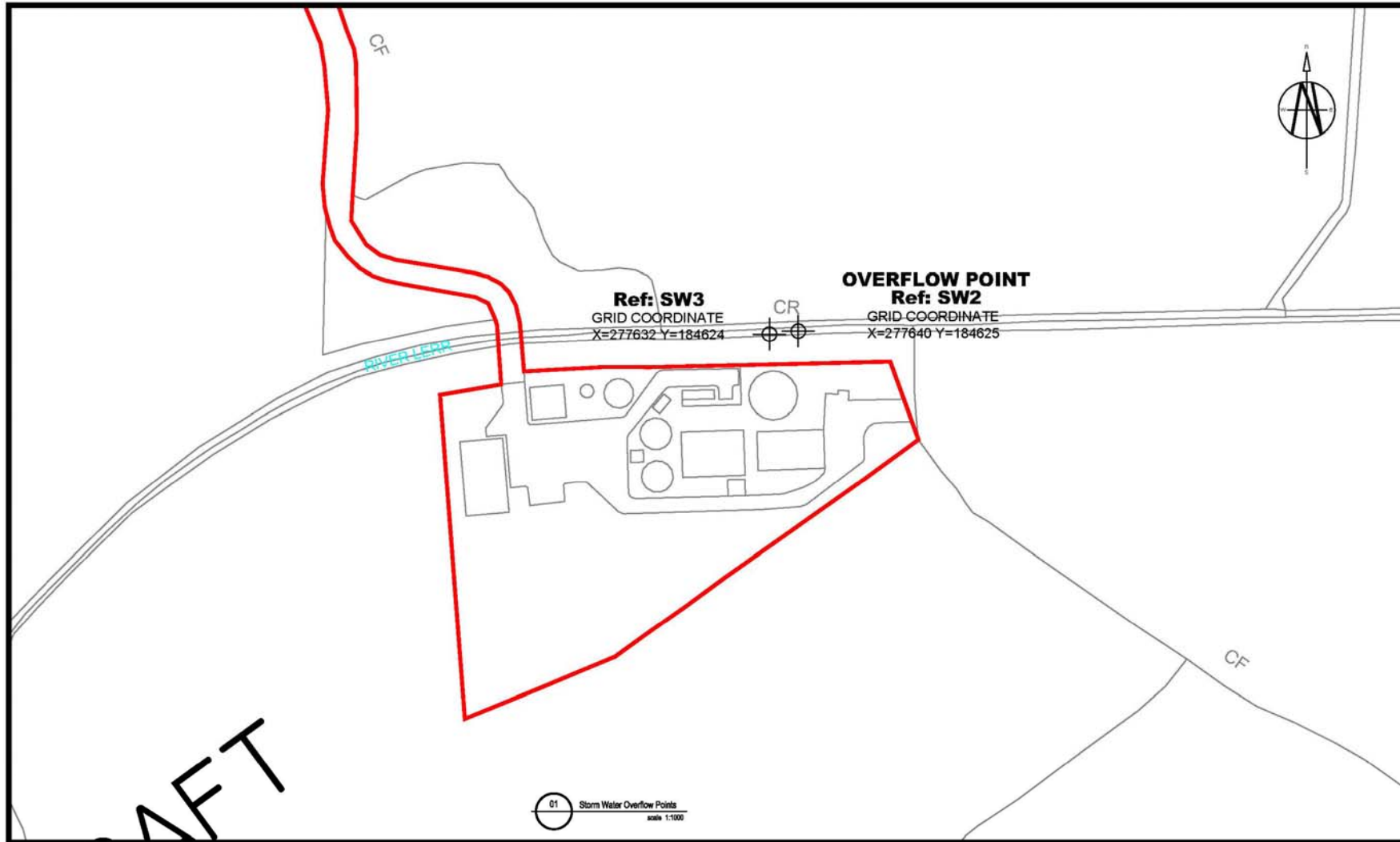
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|---------------------------|--|--------|--|----------|------|-------------|---|--|--|-------------------|
| PROJECT: 009 LP Licensing | | SUFFIX | | INITIALS | DATE | DESCRIPTION |  | Kildare County Council Water Services Section | | Scale: 1:25000 |
| DWG NO: Castledermot A.1. | | | | | | | | Aras Chill Dara, Devoy Park, Naas, Co. Kildare, Ireland. | | Date: August 2012 |
| | | | | | | | | Tel: 045-980362, Fax: 045-980359 | | Drawn by: J.O.D. |
| | | | | | | | | | | Checked: C.F. |
| | | | | | | | | | | Revision: - |
| REVISIONS | | | | | | | | | | |



APPENDIX B

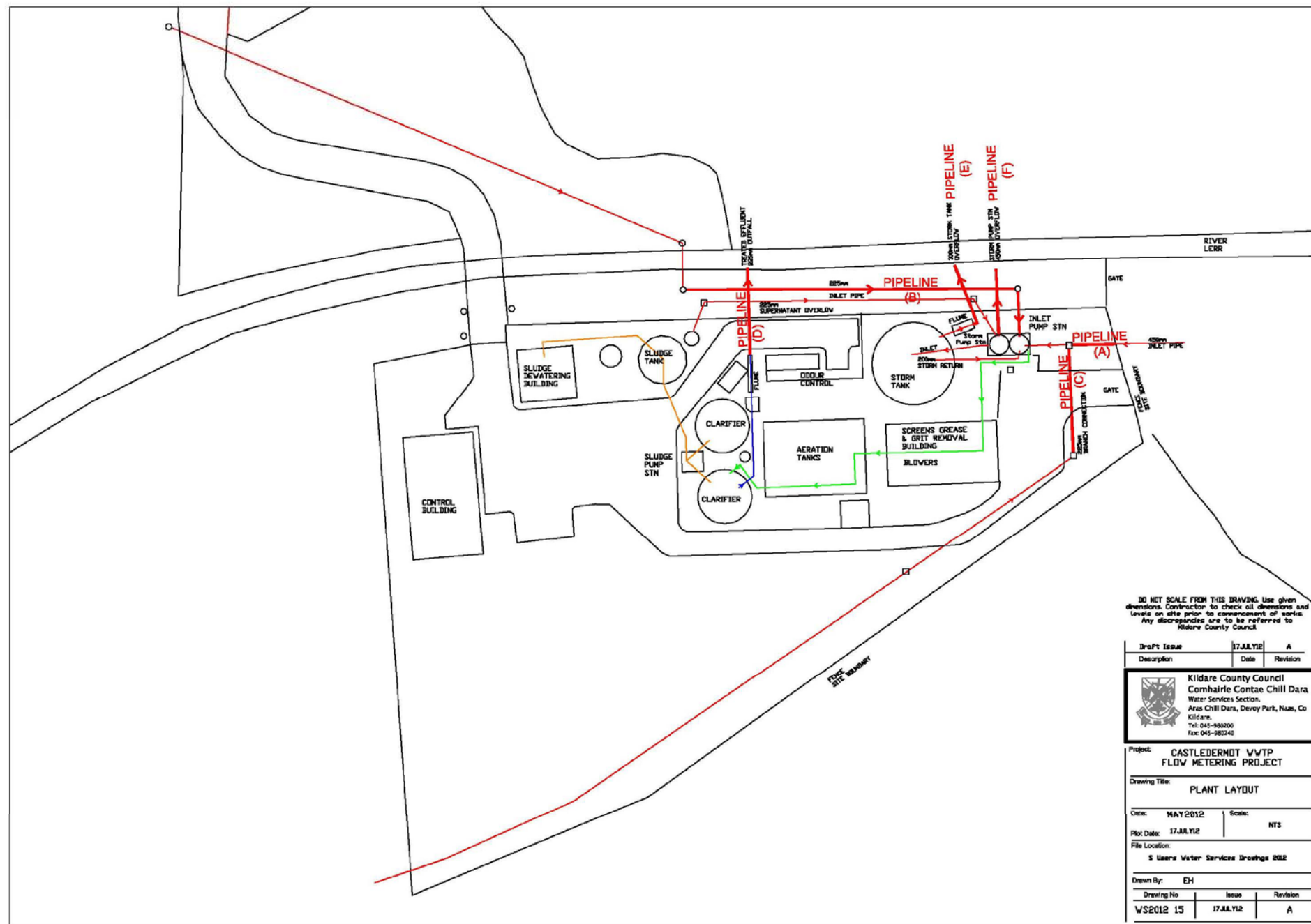
SITE LAYOUT MAP





DRAFT

| PROJECT: 2009 EPA Licensing | | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">SUFFIX</th> <th style="width: 10%;">INITIALS</th> <th style="width: 10%;">DATE</th> <th style="width: 70%;">DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> | | | | SUFFIX | INITIALS | DATE | DESCRIPTION | | | | | | | | | | | | | | | | | | | Kildare County Council Water Services Section Aras Chill Dara, Devoy Park, Naas, Co. Kildare, Ireland. Tel: 045-980362, Fax: 045-980359 | | Scale: 1:1000 Date: August 2012 Drawn by: J.O'D. Checked: C.F. Revision: - |
|---|----------|---|-------------|--|--|-----------|----------|------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|
| SUFFIX | INITIALS | DATE | DESCRIPTION | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| DRAWING: Storm Water Overflow Points - Castledermot | | FILE NAME: EPA Licensing\Castledermot\Site Master\Feb 08 DRAWING NO: Castledermot B.1. | | | | REVISIONS | | | | | | | | | | | | | | | | | | | | | | | | |



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.

| Draft Issue | 17.JUL.12 | A |
|-------------|-----------|----------|
| Description | Date | Revision |



Kildare County Council
Comhairle Contae Chill Dara
Water Services Section
Area Chill Dara, Devoy Park, Naas, Co
Kildare.
Tel: 045-980200
Fax: 045-980240

Project: CASTLEDERMOT WWTP
FLOW METERING PROJECT

Drawing Title: PLANT LAYOUT

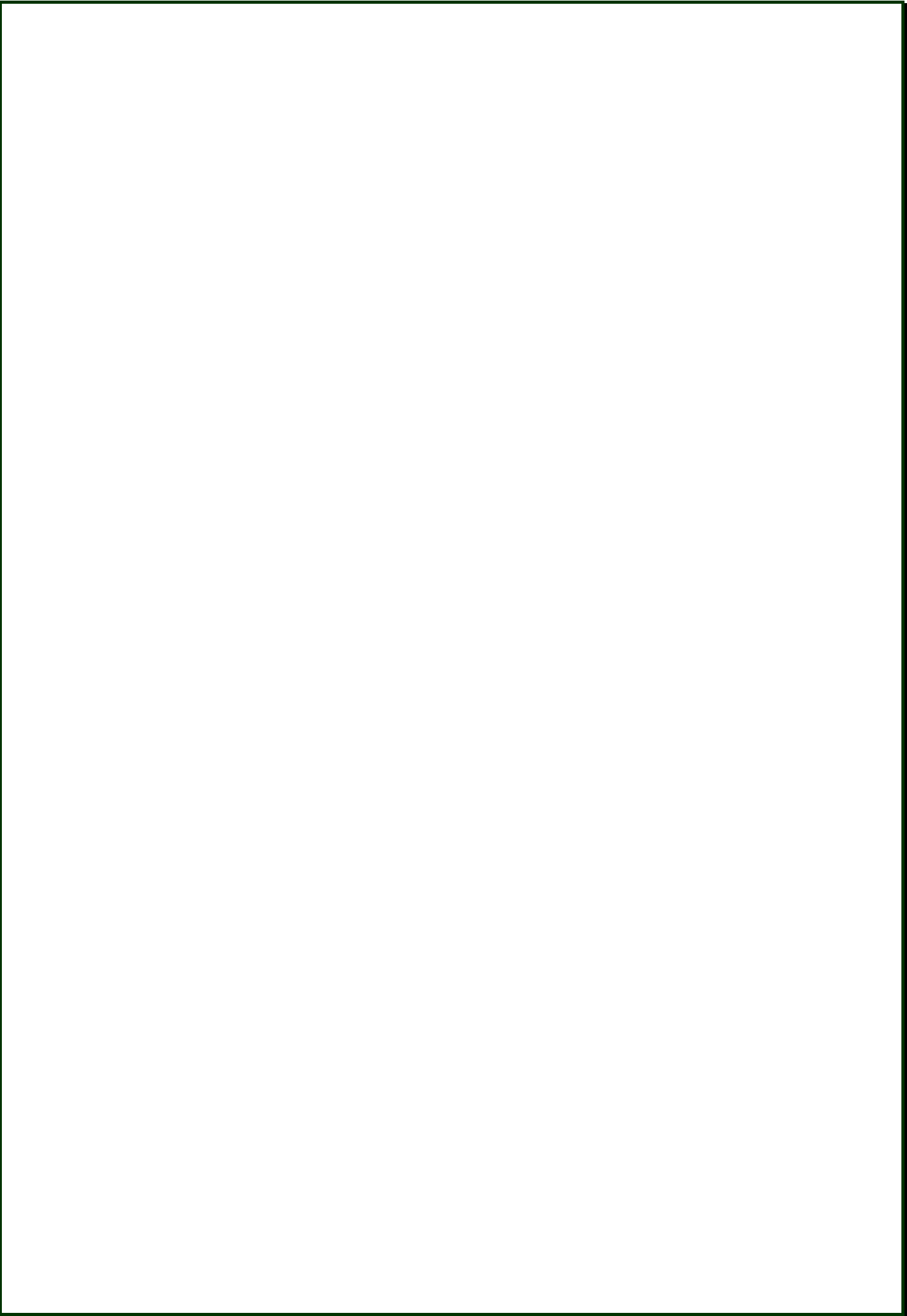
Date: MAY2012 Scale: NTS

Plot Date: 17.JUL.12

File Location: S Users Water Services Drawings R02

Drawn By: EH

| Drawing No | Issue | Revision |
|------------|-----------|----------|
| WS2012 15 | 17.JUL.12 | A |



APPENDIX C

AMBIENT MONITORING DATA 2012

Ambient Monitoring Results 2012 Castledermot WWTP

U/S

| Date | B.O.D. | C.O.D. | S.S. | pH | NH ₃ -N | TON-N | PO ₄ ³⁻ -P | Total P | Total N | Sample Type |
|------------|--------|--------|------|------|--------------------|-------|----------------------------------|---------|---------|-------------|
| 27/01/2012 | 1 | 37 | 1 | 7.65 | 0.04 | | 0.05 | 0.11 | 6.5 | Grab |
| 27/02/2012 | 1 | 10 | 2 | 7.47 | 0.02 | | 0.05 | 0.11 | 6.2 | Grab |
| 23/03/2012 | 2 | 14 | 2 | 7.84 | 0.1 | | 0.06 | 0.3 | 6 | Grab |
| 26/04/2012 | 1 | 18 | 1 | 7.73 | 0.04 | | 0.04 | 0.09 | 5.7 | Grab |
| 17/05/2012 | 1 | 10 | 1 | 7.3 | 0.08 | | 0.06 | 0.37 | 6.1 | Grab |
| 22/06/2012 | 1 | 42 | 11 | 6.98 | 0.2 | | 0.16 | 0.23 | 4 | Grab |
| 12/07/2012 | 1 | 10 | 2 | 7.49 | 0.05 | | 0.08 | 0.2 | 3.7 | Grab |
| 23/08/2012 | 1 | 10 | 1 | 7.36 | 0.2 | | 0.1 | 0.12 | 5.4 | Grab |
| 04/09/2012 | 1 | 30 | 1 | 7.73 | 0.2 | | 0.07 | 0.2 | 5.7 | Grab |
| 18/10/2012 | 1 | 54 | 3 | 7.17 | 0.4 | | 0.1 | 0.2 | 4.2 | Grab |
| 22/11/2012 | 1 | 28 | 2 | 7.36 | 0.2 | | 0.07 | 0.2 | 5.2 | Grab |
| 06/12/2012 | 1 | 10 | 1 | 7.95 | 0.1 | | 0.06 | 0.19 | 6.1 | Grab |

D/S

| Date | B.O.D. | C.O.D. | S.S. | pH | NH ₃ -N | TON-N | PO ₄ ³⁻ -P | Total P | Total N | Sample Type |
|------------|--------|--------|------|------|--------------------|-------|----------------------------------|---------|---------|-------------|
| 27/01/2012 | 1 | 16 | 1 | 7.64 | 0.13 | | 0.06 | 0.08 | 6.6 | Grab |
| 27/02/2012 | 1 | 12 | 4 | 7.57 | 0.03 | | 0.05 | 0.12 | 6.4 | Grab |
| 23/03/2012 | 2 | 11 | 2 | 7.91 | 0.1 | | 0.06 | 0.12 | 6.2 | Grab |
| 26/04/2012 | 1 | 25 | 2 | 7.81 | 0.05 | | 0.04 | 0.11 | 6 | Grab |
| 17/05/2012 | 2 | 11 | 1 | 7.32 | 0.08 | | 0.05 | 0.22 | 6.3 | Grab |
| 22/06/2012 | 1 | 41 | 19 | 6.96 | 0.2 | | 0.15 | 0.29 | 4 | Grab |
| 12/07/2012 | 1 | 12 | 2 | 7.53 | 0.06 | | 0.07 | 0.18 | 3.8 | Grab |
| 23/08/2012 | 2 | 12 | 1 | 7.52 | 0.2 | | 0.1 | 0.13 | 5.3 | Grab |
| 04/09/2012 | 1 | 28 | 1 | 7.72 | 0.2 | | 0.09 | 0.2 | 5.9 | Grab |
| 18/10/2012 | 1 | 57 | 4 | 7.13 | 0.4 | | 0.1 | 0.22 | 4.2 | Grab |
| 22/11/2012 | 1 | 27 | 2 | 7.28 | 0.2 | | 0.11 | 0.19 | 5.3 | Grab |
| 06/12/2012 | 1 | 15 | 1 | 8.01 | 0.1 | | 0.05 | 0.13 | 6.2 | Grab |

8. Certification and Sign Off

Pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 I hereby submit the 2012 Annual Environmental Report (AER) for Castledermot Agglomeration (Licence Register Number: D0236-01).

| | |
|--|------------|
| Does the AER include an executive summary? | Yes |
| Does the AER include an assessment of the performance of the Waste Water Works? | Yes |
| Is there a need to advise the EPA for consideration of a technical amendment / review of the licence? | No |
| Reason | N/A |
| Is there a need to request / advise the EPA of any modifications to the existing WWDL? | No |
| Reason | N/A |
| Have these processes commenced? | N/A |
| Are all outstanding reports and assessments from previous AERs included as an appendix to this AER? | N/A |
| 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: _____

