

TABLE OF CONTENTS

SECTION A: NON-TECHNICAL SUMMARY

SECTION B: GENERAL

SECTION C: INFRASTRUCTURE & OPERATION

SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

SECTION E: MONITORING

SECTION F: EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)

SECTION G: PROGRAMMES OF IMPROVEMENTS

SECTION H: DECLARATION

SECTION I: JOINT DECLARATION

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SECTION A: NON-TECHNICAL SUMMARY

Advice on completing this section is provided in the accompanying Guidance Note.

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the discharge of waste water associated with the waste water works. This description should also indicate the hours during which the waste water works is supervised or manned and days per week of this supervision.

The following information must be included in the non-technical summary:

A description of:

- the waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works,
- further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused;
- measures planned to monitor emissions into the environment.

Supporting information should form **Attachment N° A.1**

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A Description of the Waste Water Works and the Activities Carried Out Therein

The wastewater in Midleton is collected in a partially combined foul and surface water drainage network. Within the combined sewer network there are 4 No. existing sewage pumping stations (Dungourney Road PS, Rock PS, Bailick 3 PS & Ballinacurra No. 2 Untreated Effluent PS) and two terminal pumping stations (Bailick No. 1 & No 2 PS's) and one final effluent pumping station (Ballinacurra No. 1 Treated Effluent PS). The Midleton WWTP is designed for a Population Equivalent (PE) of 10,000PE and BOD loading of 600Kg/day.

The influent sewage arriving at the plant is a cumulated pumped flow from Bailick No.1 Pumping Station and Bailick No.2 Pumping Station. The maximum hydraulic capacity of the Midleton WWTP is 90l/s, which is 3 Dry Weather Flow (3DWF). In order that this capacity is not exceeded the maximum discharge capacity of Bailick No.1 Pump Station is 75 l/s and Bailick No.2 Pump Station is 15l/s.

In order to cope with flows above 3DWF storm storage has been provided at both Terminal Pumping Stations. The volume of storm storage at Bailick No. 1 Pumping Station is approximately 1750m³ and at Bailick No. 2 Pumping Station is approximately 350m³. Flows in excess of the storage volume are screened to 5mm and then discharge into the adjacent water course.

Bailick No. 1 Pumping Station also receives treated industrial effluent from Irish Distillers Group Ltd. These flows are pumped directly to Ballinacurra No. 1 Treated Effluent Pumping Station.

The influent flow to the Midleton WWTP ranges from between 2 DWF (Dry Weather Flow) and 3DWF even during dry weather periods. Typical influent flow to the plant is 60 -100% of the design flow. The reasons for this are assumed to be significant infiltration/illegal surface water connections within the Midleton catchment. Currently Cork County Council is undertaking an infiltration project to replace and repair old sections of the sewer network within the Midleton catchment and also to construct a new Pumping Station at Dwyer's Road which will divert some of the flows from Bailick No. 1 Pumping Station.

The treatment plant treats all flows that arrive at the works (3DWF) to tertiary treatment standards (UV disinfection).

The main Waste Water Treatment Plant process stages consist of: -

- Inlet works – 2 No. screens, 2 No. macerator pumps and liquid separator, aerated grit and grease removal system, flow measurement and grit classifier with 3 No. grit suction pumps, gas detection system, 2 No. air blowers and skip.
- The screened influent passes directly to the aeration tanks – there is no primary settlement stage. The aeration system comprises 2 separate lanes, with 4 aeration chambers per lane, each chamber having a volume of 406m³ and a liquid depth 4.5m. The first chamber acts as an anoxic zone, and there is internal sludge recirculation from chamber 4 back to the anoxic zone. Each chamber is equipped with fine bubble membrane disc aeration under dissolved oxygen control. A central mixer in each cell ensures adequate mixing during those periods when the air supply to the diffusers is switched off, due to high Dissolved Oxygen. Aeration equipment comprises of 3 No. blowers, 8 No. mixers, 8 No. DO probes, 2 No. flow meters and 1 No. sampler.
- Final Settlement – There are 2 No. 18.5m diameter final settlement tanks with half bridge scrapers. Surplus Activated Sludge (SAS) is withdrawn between the aeration tank and final settlement tank for each process stream. The SAS is pumped to 1 No. 5.4m diameter picket fence thickener for thickening from 0.5% to 3% Dry Solids. Return Activated Sludge (RAS) is withdrawn from the bottom of each final settlement tank and is pumped back into the inlet of the aeration tank via the RAS Pumping Station.
- UV Disinfection – The final effluent overflows the 2 No. final settlement tanks and combines to the UV disinfection chamber, which comprises 2 No. banks of Ultra-Violet lamps acting in duty/assist mode, and includes flow measurement and final effluent sampler unit.

The sludge treatment process consists of: -

- Raw Sludge Holding Tank – 1 No. mixer and air extraction unit, and raw sludge pump sump equipment with 2 No. Pumps. The plant is currently not receiving any imported sludges from any other Waste Water Treatment Plants.

- Sludge Return Chamber – 2 No. Return Activated Sludge (RAS) pumps, 1 No. sludge drain pump, 1 No. chamber drain pump, 1 No. scum pump, and 2 No. RAS flow meters
- Surplus Activated Sludge Chamber – 2 No. Surplus Activated Sludge (SAS) pumps, 2 No. SAS flow meters.
- Sludge Holding Tank with Picket Fence Thickener – 1 No. sludge blanket detector and air extraction unit.
- Dewatering Room – 2 No. sludge transfer pumps, 1 No. flow meter, 1 No. centrifuge including 2 No. poly dosing and transfer pumps, 1 No. Seepex cake pump and skip.

Ancillary equipment at the WWTP also includes the following:

- Odour Control – 2 No extractor fans, air flow meter and woodchip scrubber.
- Standby Generator and SCADA system covering all the plant including sludge treatment process.
- Buildings – Inlet and sludge building, electricity transformer building, laboratory and control room building with fire alarm and security alarm systems.
- Telemetry System – WWTP, Bailick No. 1 & No. 2, Ballinacurra No. 1 Treated Effluent Pumping Stations.
- Private access road to WWTP.

Treated Effluent (TE) is then discharged from the WWTP by gravity to a pumping station at Ballinacurra No. 1 Treated Effluent Pumping Station which lifts the treated effluent into the tidal holding tank at Rathcoursey.

The holding tank has a penstock that discharges the treated effluent into Cork Harbour via an outfall pipe at appropriate times during the lunar cycle of the tide.

A schematic of the Midleton network catchment is included in **Section C – Infrastructure and Operation.**

The Midleton WWTP is currently operated by a private operator under a 10 year Operation and Maintenance Contract (Commenced September 2006). The plant is manned during the working week 8.00am – 5.30pm (Monday – Friday) by a plant manager and 2 No. operators. During out of hours the SCADA system will send alarms to a mobile phone of the person on standby.

There is provision made in the site general arrangement for the extension of the WWTP to accommodate a future total population of 15,000 P.E by the addition of a further aeration lane and 1 No. final settlement tank. Currently Cork County Council is advertising for Consulting Engineer's to undertake the Design and procurement of the upgrade to 15,000PE.

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The Sources of Emissions from the Waste Water Works

The pollution load for the Midleton agglomeration arises from the following areas:

- The local Population
- Irish Distillers Group Ltd
- Dawn Meats
- Nordic Cold Storage

The pollution load from these sources varies greatly with daily, weekly and seasonal producers of effluent. Three of the above have their own treatment plants. Irish Distillers Group discharge into a sump at Bailick No. 1 Pumping Station, from here it is pumped into the gravity treated effluent sewer which goes to Ballinacurra No. 1 Treated Effluent Pumping Station. Here the treated industrial and domestic effluent are pumped to Rathcoursey tidal holding tank and discharged into the Owenacurra River/Estuary. Dawn Meats and Nordic Cold Storage discharge their treated effluent directly into the Owenacurra River. The sewage from the other industries is collected via public sewer and treated in conjunction with domestic waste at the waste water treatment plant.

The domestic population of Midleton has grown over the last three censuses owing to its development as a town within the Cork Metropolitan area. The most recent Census figures show that Midleton Town and environs now has a population in excess of 10,000. (Census, 2006). Other sources of influent that contribute to the sewage scheme would be:

- Commercial premises
- Schools
- Tourism

The treatment plant was designed to be built in two stages. Stage 1 was designed for a population equivalent of 10,000 with Stage 2 increasing the capacity of the WWTP to 15,000PE. This upgrade will accommodate the development area available within Midleton and the possible population which could occupy the designated development area.

The nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment

Prior to the construction of the waste water treatment plant, the sewage from Midleton received only primary treatment in the form of comminution at Ballinacurra pumping station after which it was discharged to the estuary at Rathcoursey Point. As a condition on the granting of the first foreshore license in 1986, a holding tank was constructed at Rathcoursey so that discharge would not occur for one hour at low tide. The second licence was granted in 1999 a copy of which can be found in Section B, Attachment No. B.12.

Sampling was carried out due to the granting of the foreshore license to monitor the receiving waters with particular reference to faecal coliform counts. This was conducted due to the existence of extensive oyster farming in the North Channel. Analysis of this data with particular reference to the Bathing Water Directive and the Shellsan Classification System indicated the installation of a secondary treatment plant for the sewage of Midleton would greatly improve the quality of the effluent from the Rathcoursey Outfall and greatly diminish any contribution from that source to the levels of contamination in the receiving waters as a whole.

Following assessments of the environmental condition of the receiving water by analysis of samples from the North Channel, from assimilation and dispersion characteristics of the receiving water, it was reported that the proposed upgrading of the quality of effluent released was likely to have a beneficial effect on the marine life of the East Passage and the North Channel. The most likely predicted effect was a change in the character of sediments and the species composition of benthic communities close to the outfall, as well as an increase in species diversity.

The wastes treated at the Midleton plant may be broken down into two groupings:

- Sources of faecal coliforms and possible pathogens (human and animal source).
- Other sources.

The wastes originating from human and animal sources are:

- Domestic sewage
- Meadow/Dawn Meats Ltd.
- Nordic Cold Stores Ltd.

The wastes which do not give rise to faecal coliforms are:

- Irish Distillers Group Ltd.

Environmental Impacts

The Owenacurra Estuary and the North Channel have been designated Sensitive Areas in tidal waters according to the EPA's report on Water Quality in Ireland 2001-2003. The same report highlighted the disimprovement in quality in the Owenacurra Estuary from the period 1995-1999 to the last survey period 1999 - 2003. It has been confirmed that this estuary is eutrophic due to the high levels in the Owenacurra River. A loss of nitrates and Phosphorus from farm land has been identified as the main contributor of these pollutants to the water in the Estuary.

The waters of the North Channel, East Passage and Owenacurra Estuary are not recognised bathing waters.

Similarly, although the Dungourney and Owenacurra Rivers are not designated salmonid rivers in accordance with the First Schedule of SI293, 1008, Natura Environment Consultants, in their report on the existing environment, refer to runs of sea trout, grisle, and salmon and these should be protected as much as possible.

The main marine life activity in the area is the harvesting of oysters in the North Channel.

The most significant environmental impact to the receiving waters associated with the discharge of wastewater from this plant is that of bacteria counts.

It is necessary to consider a number of standards both European and Irish which relate to the quality of the water into which the sewage for Midleton is discharged.

- These standards are –
- Urban Wastewater Treatment Directive Standards
 - Shellfish Standards
 - Salmonid Water Standards

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The Proposed Technology and Other Techniques for Preventing or, Where This Is Not Possible, Reducing Emissions from the Waste Water Works

Technologies

The WWTP at Midleton and Bailick No. 1 & 2 and Ballinacurra No. 1 Treated Effluent Pumping stations are equipped with duty standby pumps and standby diesel generators or generator sockets in control panels to enable the plant to operate during mains electric power failure thereby preventing untreated emissions from entering the receiving aqueous environment.

Techniques

A Performance Management System (PMS) is in place at the Midleton Wastewater Treatment Plant. This Performance Management System was developed by the Water Services National Training Group (WSNTG). The PMS provides a uniform approach to dealing with all relevant performance management issues, including Independent Compliance Audits, Management of Change, Dispute Resolution, Public Relations, Emergency Procedures and Reporting Procedures.

The current operator is contractually obliged to perform the Operation of the WWTP in accordance with the Performance Management System and to maintain the design performance capability of the existing treatment plant.

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Further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused

As part of the operator's contract, failure to meet specified final effluent quality standards results in financial penalties due to non-compliance. The penalties vary depending on the severity of the pollution caused.

Prevention of pollution

Any alteration / upgrading of the existing infrastructure undertaken by the operator must not increase the potential to cause pollution in the environment. In particular any alterations to the wastewater treatment plant will be designed to enable any operator of the facility to prevent pollution of the environment by the following potential contaminants:

- Surface water run-off
- Spillages
- Solid Waste

Toxic Substances

The current operator is to ensure that any modification or alterations to the plant do not increase the impact by any toxic substances. All chemicals and dangerous substances must be stored safely at all times and all appropriate safety measures must be taken to ensure against leakage and spillage in accordance with the relevant Health and Safety Legislation.

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Measures planned to monitor emissions into the environment

The current operator has developed, using the PMS as a template, procedures and processes for sampling and analysis of the incoming raw sewage, outgoing effluent, sludge and other by-products such as screenings, so that analytical results are reliable, repeatable, consistent and accurate.

Sampling procedures are in accordance with EU and Irish Regulations, and in particular in accordance with the Environmental Protection Agency's (EPA) monitoring and operating requirements. All laboratory analyses are performed in accordance with the latest edition of the Standard Methods for the Examination of Water and Wastewater, published by the American Public Health Association, and the Water Pollution Control Federation or other methods of comparable accuracy.

Regular independent laboratory analysis is also undertaken to externally monitor the operator's performance. Flow proportional or time based 24 hour samples are collected at the same well defined point at the inlet and outlet of the treatment works in order to monitor compliance with the requirements. A refrigerated sampler minimizes degradation between collection and analysis. Certain heavy metal analyses are also required on an annual basis as identified in 'Code of Good Practice for Use of Biosolids in agriculture'.

The operator is responsible for developing and implementing procedures to remedy defects in his laboratory procedures where the independent checking shows variations of more than $\pm 10\%$.

The sampling of the statutory samples is in accordance with the following procedures: -

- All samples are representative of the appropriate stream.
- Composite samples are collected weekly and these are fixed, stored and handled as per standard methods. Analysis of the samples (both operator's and Employer's) are undertaken within 24 hours and reported to the Employer's Representative within 48 hours. Exceptions are BOD, metals and pathogens, which are reported within 7 days.

The monitoring and recording of the status of all parameters appropriate to proper control and operation of the plant is carried out.

SECTION B: GENERAL

Advice on completing this section is provided in the accompanying Guidance Note.

B.1 Applicant's Details*

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.
Provide a drawing detailing the agglomeration to which the licence application relates. It should have the boundary of the agglomeration to which the licence application relates clearly marked in red ink.

Name**:	Cork County Council
Address:	South Cork Rural
	Floor 4
	County Hall
	Cork
Tel:	021-4276891
Fax:	021-4276321
e-mail:	Valerie.hannon@corkcoco.ie

*This should be the name of the water services authority in whose ownership or control the waste water works is vested.

**Where an application is being submitted on behalf of more than one water services authority the details provided in Section B.1 shall be that of the lead water services authority.

Name*:	J. B. Barry & Partners Consulting Engineers
Address:	3A Eastgate Road
	Eastgate
	Little Island
	Co. Cork
Tel:	021-4524418
Fax:	021-4524419
e-mail:	rkent@jbbarry.ie

*This should be the name of person nominated by the water services authority for the purposes of the application.

Co-Applicant's Details

Name*:	
Address:	
Tel:	
Fax:	
e-mail:	

*This should be the name of a water services authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge (authorisation) licence application.

Design, Build & Operate Contractor Details

Name*:	EPS Limited
Address:	Quartermown Industrial Estate
	Mallow
	Co Cork
Tel:	022 31200
Fax:	022 31250
e-mail:	info@epsireland.com

*Where a design, build & operate contract is in place for the waste water works, or any part thereof, the details of the contractor should be provided.

Attachment B.1 should contain appropriately scaled drawings / maps ($\leq A3$) of the agglomeration served by the waste water works showing the boundary clearly marked in red ink. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.2, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.2 Location of Associated Waste Water Treatment Plant(s)

Give the location of the waste water treatment plant associated with the waste water works, if such a plant or plants exists.

Name*:	Gerald Buckley, EPS Limited
Address:	Midleton WWT
	Ballyannan, Garryduff,
	Midleton
	Co. Cork
Grid ref (6E, 6N)	E:187505 N:72801
Level of Treatment	Tertiary (U.V Disinfection)
Primary Telephone:	021 4634636
Fax:	021 4634640
e-mail:	gbuckley@epsireland.com

*This should be the name of the person responsible for the supervision of the waste water treatment plant.

Attachment B.2 should contain appropriately scaled drawings / maps ($\leq A3$) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.3 Location of Primary Discharge Point

Give the location of the primary discharge point, as defined in the Waste Water Discharge (Authorisation) Regulation, associated with the waste water works.

Type of Discharge	Diffuser operated on a tidal clock	
Unique Point Code	SW01 MIDL	
Location	Rathcoursey, Midleton	
Grid ref (6E, 6N)	E: 186177	N: 069506

Attachment B.3 should contain appropriately scaled drawings / maps ($\leq A3$) of the discharge point, including labelled monitoring and sampling points associated with the discharge point. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing the drawings and tabular data requested in sections B.1, B.2, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.4 Location of Secondary Discharge Point(s)

Give the location of **all** secondary discharge point(s) associated with the waste water works. Please refer to Guidance Note for information on Secondary discharge points.

Type of Discharge	Emergency Overflow.	
Unique Point Code	SW02 MIDL	
Location	Ballinacurra No. 1 Treated Effluent Outfall	
Grid ref (6E, 6N)	E: 188366	N: 071791

Type of Discharge	Storm Overflow.	
Unique Point Code	SW03 MIDL	
Location	Bailick No. 1 Storm Overflow	
Grid ref (6E, 6N)	E: 187973	N: 073127

Type of Discharge	Storm Overflow.
Unique Point Code	SW04 MIDL
Location	Bailick No. 2 Storm Overflow
Grid ref (6E, 6N)	E: 188045 N: 072514

Type of Discharge	Storm Overflow.
Unique Point Code	SW05 MIDL
Location	Ballinacurra No. 2 Storm Overflow
Grid ref (6E, 6N)	E: 188520 N: 071783

Type of Discharge	Storm Overflow.
Unique Point Code	SW06 MIDL
Location	Bailick No. 3 Storm Overflow
Grid ref (6E, 6N)	E: 188268 N: 072058

Attachment B.4 should contain appropriately scaled drawings / maps ($\leq A3$) of the discharge point(s), including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.5 Location of Storm Water Overflow Point(s)

Give the location of **all** storm water overflow point(s) associated with the waste water works.

Type of Discharge	Storm Overflow
Unique Point Code	SW03 MIDL
Location	Bailick No. 1 Storm Overflow
Grid ref (6E, 6N)	E: 187973 N: 073127

Type of Discharge	Storm Overflow
Unique Point Code	SW04 MIDL
Location	Bailick No. 2 Storm Overflow
Grid ref (6E, 6N)	E: 188045 N: 072514

Type of Discharge	Storm Overflow
Unique Point Code	SW05 MIDL
Location	Ballinacurra No. 2 Storm Overflow
Grid ref (6E, 6N)	E: 188520 N: 071783

Type of Discharge	Storm Overflow
Unique Point Code	SW06 MIDL
Location	Bailick No. 3 Storm Overflow
Grid ref (6E, 6N)	E: 188268 N: 072058

Attachment B.5 should contain appropriately scaled drawings / maps ($\leq A3$) of storm water overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

B.6 Planning Authority

Give the name of the planning authority, or authorities, in whose functional area the discharge or discharges take place or are proposed to take place.

Name:	Cork County Council
Address:	Planning Department
	County Hall
	Carrigrohane Road
	Cork
Tel:	021-4276891
Fax:	021-4867007
e-mail:	planninginfo@corkcoco.ie

Planning Permission relating to the waste water works which is the subject of this application:- (tick as appropriate)

has been obtained	✓	is being processed	
is not yet applied for		is not required	

Local Authority Planning File Reference N^o:	
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Attachment B.6 should contain **the most recent** planning permission, including a copy of **all** conditions, and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

Attachment included	Yes	No
	✓ (EIS Only)	

B.7 Other Authorities

B.7 (i) Shannon Free Airport Development Company (SFADCo.) area

The applicant should tick the appropriate box below to identify whether the discharge or discharges are located within the Shannon Free Airport Development Company (SFADCo.) area.

Attachment B.7(i) should contain details of any or all discharges located within the SFADCo. area.

Within the SFADCo Area	Yes	No
		✓

B.7 (ii) Health Services Executive Region

The applicant should indicate the **Health Services Executive Region** where the discharge or discharges are or will be located.

Name:	Health Service Executive
Address:	South Lee Local Health Office Abbeycourt House Georges Quay
Tel:	Cork
Fax:	021-4965511
e-mail:	grettam.crowley@mailp.hse.ie

B.7 (iii) Other Relevant Local Authorities

Regulation 13 of the Waste Water Discharge (Authorisation) Regulations, 2007 requires all applicants, not being the local authority in whose functional area the relevant waste water discharge or discharges, to which the relevant application

relates, takes place or is to take place, to notify the relevant local authority of the said application.

Name:	NA
Address:	
Tel:	
Fax:	
e-mail:	

Relevant Authority Notified	Yes	No
	NA	NA

Attachment B.7(iii) should contain a copy of the notice issued to the relevant local authority.

Attachment included	Yes	No
	NA	NA

B.8 Notices and Advertisements

Regulations 10 and 11 of the Waste Water Discharge (Authorisation) Regulations, 2007 require all applicants to advertise the application in a newspaper and by way of a site notice. See *Guidance Note*.

Attachment B.8 should contain a copy of the site notice and an appropriately scaled drawing ($\leq A3$) showing its location. **The original application must include the original page of the newspaper in which the advertisement was placed.** The relevant page of the newspaper containing the advertisement should be included with the original and two copies of the application.

Attachment included	Yes	No
	✓	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

The population equivalent (p.e.) of the agglomeration to be, or being, served by the waste water works should be provided and the period in which the population equivalent data was compiled should be indicated.

Population Equivalent	10,000
Data Compiled (Year)	1993
Method	Pollution Assessment Load

B.9 (II) FEES

State the relevant Class of waste water discharge as per Column 1 of the Second Schedule, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of the Waste Water Discharges (Authorisation) Regulations 2007, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
Discharges from agglomerations with a population equivalent of more than 10,000	€30,000

Appropriate Fee Included	Yes	No

B.10 Capital Investment Programme

State whether a programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the relevant agglomeration. If a programme of works has been prioritised provide details on funding, (local or national), allocated to the capital project. Provide details on the extent and type of work to be undertaken and the likely timeframes for this work to be completed.

Attachment B.10 should contain the most recent development programme, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
	✓	

B.11 Significant Correspondence

Provide a summary of any correspondence resulting from a Section 63 notice issued by the Agency in relation to the waste water works under the Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

Attachment B.11 should contain a summary of any relevant correspondence issued in relation to a Section 63 notice.

Attachment included	Yes	No
	✓	

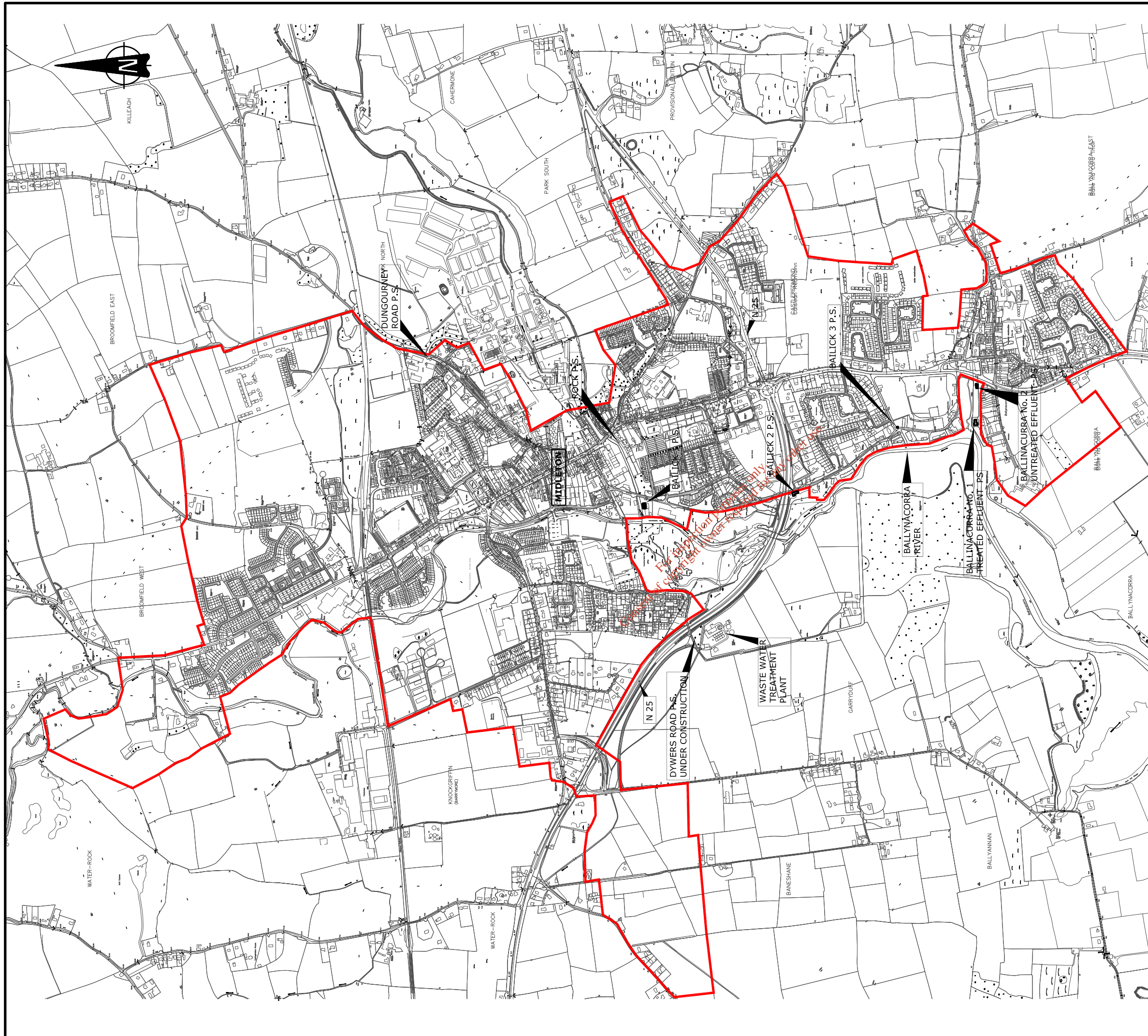
B.12 Foreshore Act Licences.

Provide a copy of the most recent Foreshore Act licence issued in relation to discharges from the waste water works issued under the Foreshore Act 1933.

Attachment B.12 should contain the most recent licence issued under the Foreshore Act 1933, including a copy of **all** conditions attached to the licence and any monitoring returns for the previous 12-month period, if applicable.

Attachment included	Yes ✓	No
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NOTES:

Figured dimensions only to be taken from this drawing.
All dimensions to be checked on site.

LEGEND:

AGGLOMERATION BOUNDARY █

Rev.	Description	Drawn	Chkd	Date

Client: CORK COUNTY COUNCIL

Client Representative:

BARRY & PARTNERS
 consulting engineers
J. B. Barry & Partners Limited
 3A East Gate Road, Eastgate
 Little Island, Co. Cork,
 Ireland.
 Phone: +353-21-4524418
 Fax: +353-21-4524419
 E-mail: cork@jbbarry.ie

Project: MIDLETON WWTP EPA LICENCE APPLICATION

Drawing Title:
 ATTACHMENT B.1
 AGGLOMERATION BOUNDARY SERVED BY
 WASTE WATER TREATMENT WORKS

Drawn by:	M.H.	Date:	20.08.07
Checked by:	R.K.	Date:	20.08.07
Approved by:	R.K.	Date:	20.08.07

Scales: 1:15,000 @ A3

Stage: PRELIMINARY

Drawing No.:	Y7 334 / PR / 002	Revision:	—
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Inlet Works /
Dewatering
Building

Control
Building

Splitter Chamber

Aeration
Tanks 1 & 2

Future Aeration
Tank

Sludge Pump Sump

Future Settlement
Tank

Waste Water
Treatment Plant
Boundary

Rising Main from
Bailick 1 Pump Stn

Rising Main from
Bailick 2 Pump Stn

Picket Fence
Thickener

Outlet Flume & UV
Disinfection Chamber

Final Settlement
Tanks 1 & 2

400mmØ Outfall Pipe
to Rathcoursey

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N25

NOTES:

Figured dimensions only to be taken
from this drawing.
All dimensions to be checked on site.

Rev.	Description	Drawn	Chkd	Date
-	-	-	-	-

Client:
CORK COUNTY COUNCIL

Client Representative:
BARRY & PARTNERS
consulting engineers
J. B. Barry & Partners Limited
3A East Gate Road, Eastgate
Little Island, Co. Cork,
Ireland.
Phone: +353-21-4524418
Fax: +353-21-4524419
E-mail: cork@jbbarry.ie

Project:
MIDDLETON WWTP EPA
LICENCE APPLICATION

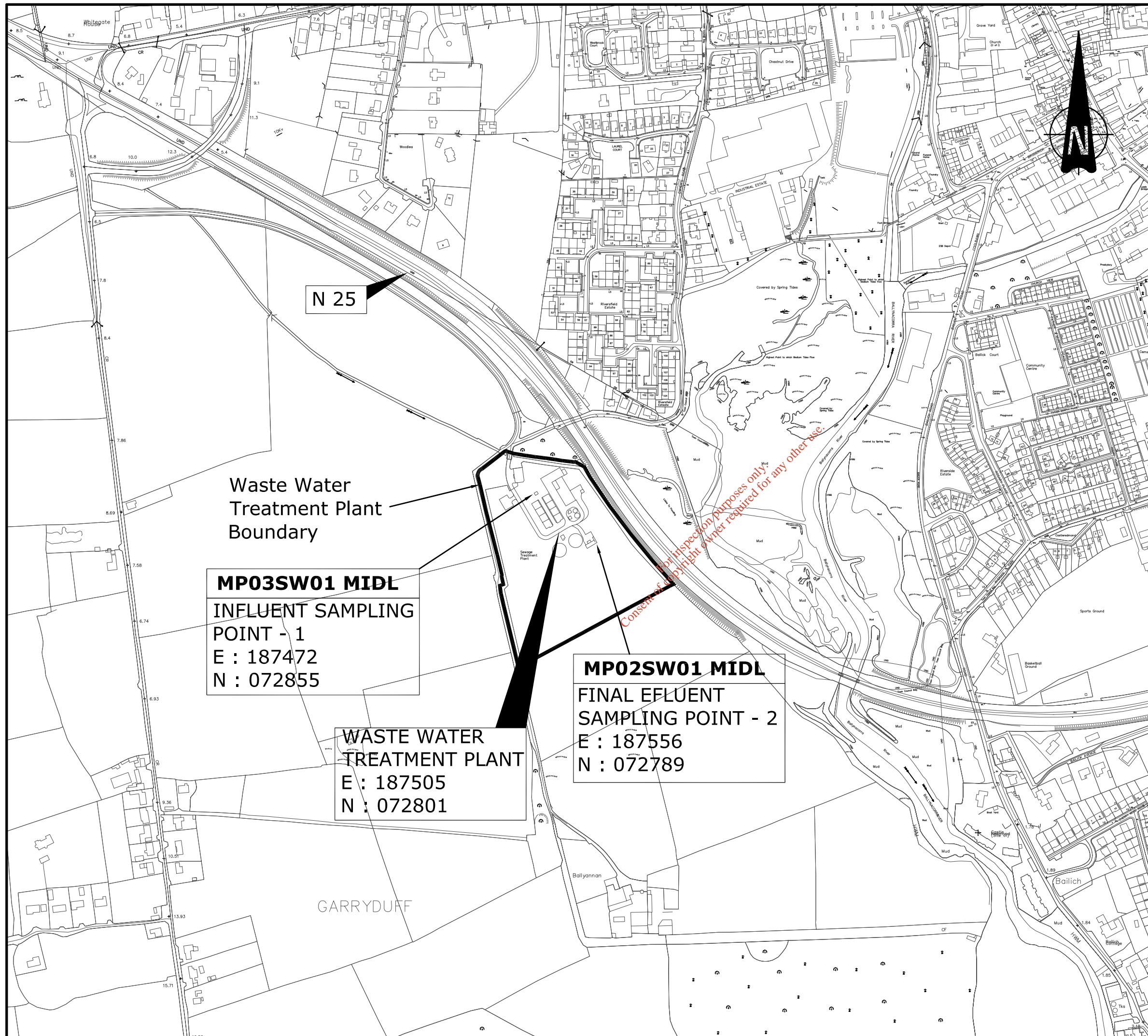
Drawing Title:
ATTACHMENT B.2
SITE PLAN OF WASTE WATER
TREATMENT PLANT

Drawn by: M.H. Date: 20.08.07
Checked by: R.K. Date: 20.08.07
Approved by: R.K. Date: 20.08.07

Scales: 1:1250 @ A3

Stage: PRELIMINARY

Drawing No.: Y7 334 / PR / 004
Revision: -



NOTES:
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Waste Water Treatment Plant Boundary

MP03SW01 MIDL
 INFLUENT SAMPLING POINT - 1
 E : 187472
 N : 072855

WASTE WATER TREATMENT PLANT
 E : 187505
 N : 072801

MP02SW01 MIDL
 FINAL EFFLUENT SAMPLING POINT - 2
 E : 187556
 N : 072789

Rev.	Description	Drawn	Chkd	Date

Client: CORK COUNTY COUNCIL

Client Representative:

BARRY & PARTNERS
 consulting engineers

J. B. Barry & Partners Limited
 3A East Gate Road, Eastgate
 Little Island, Co. Cork,
 Ireland.
 Phone: +353-21-4524418
 Fax: +353-21-4524419
 E-mail: cork@jbbarry.ie

Project: MIDDLETON WWTP EPA LICENCE APPLICATION

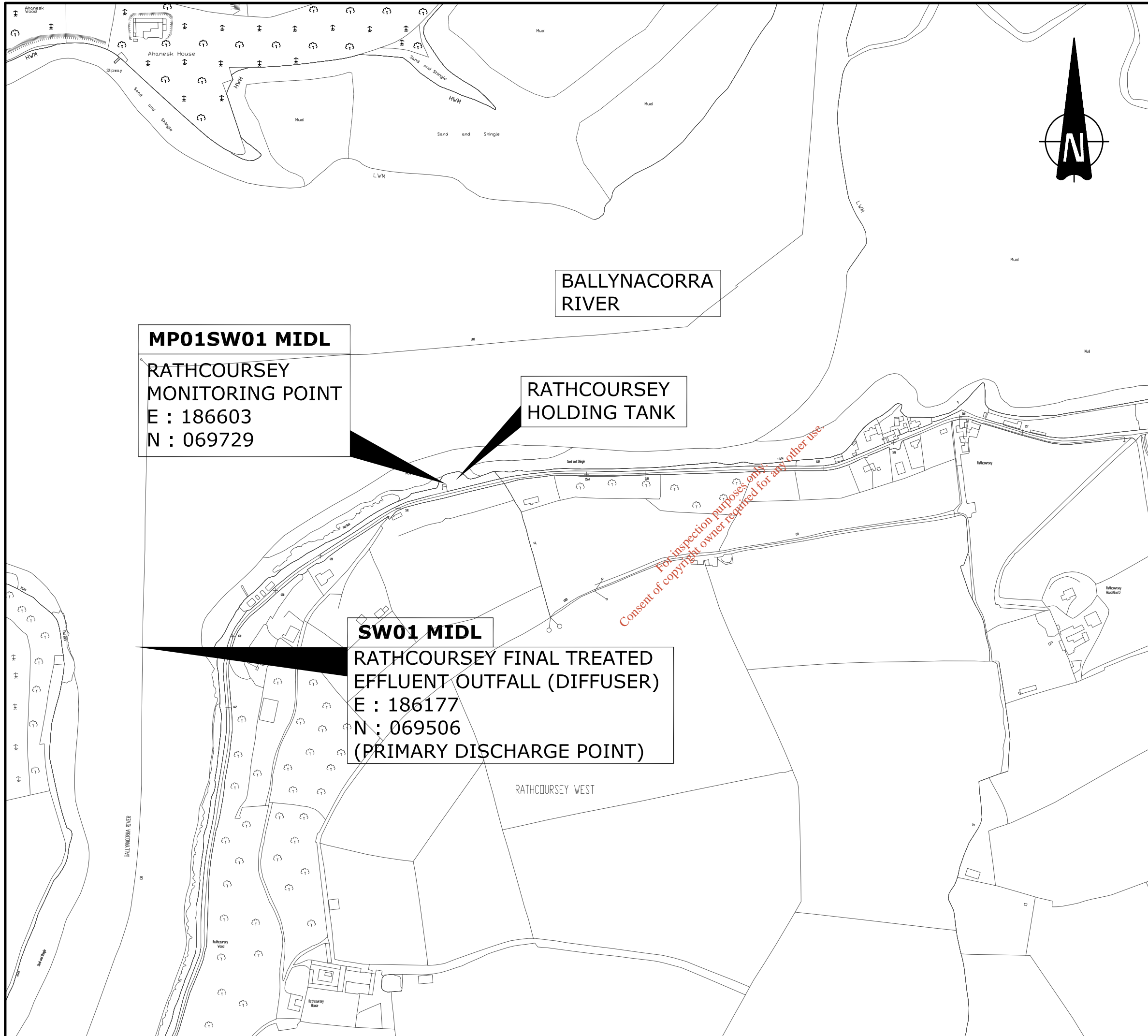
Drawing Title: ATTACHMENT B.2 LOCATION PLAN OF WASTE WATER TREATMENT PLANT

Drawn by: M.H. Date: 20.08.07
 Checked by: R.K. Date: 20.08.07
 Approved by: R.K. Date: 20.08.07

Scales: 1:5000 @ A3


Stage: PRELIMINARY

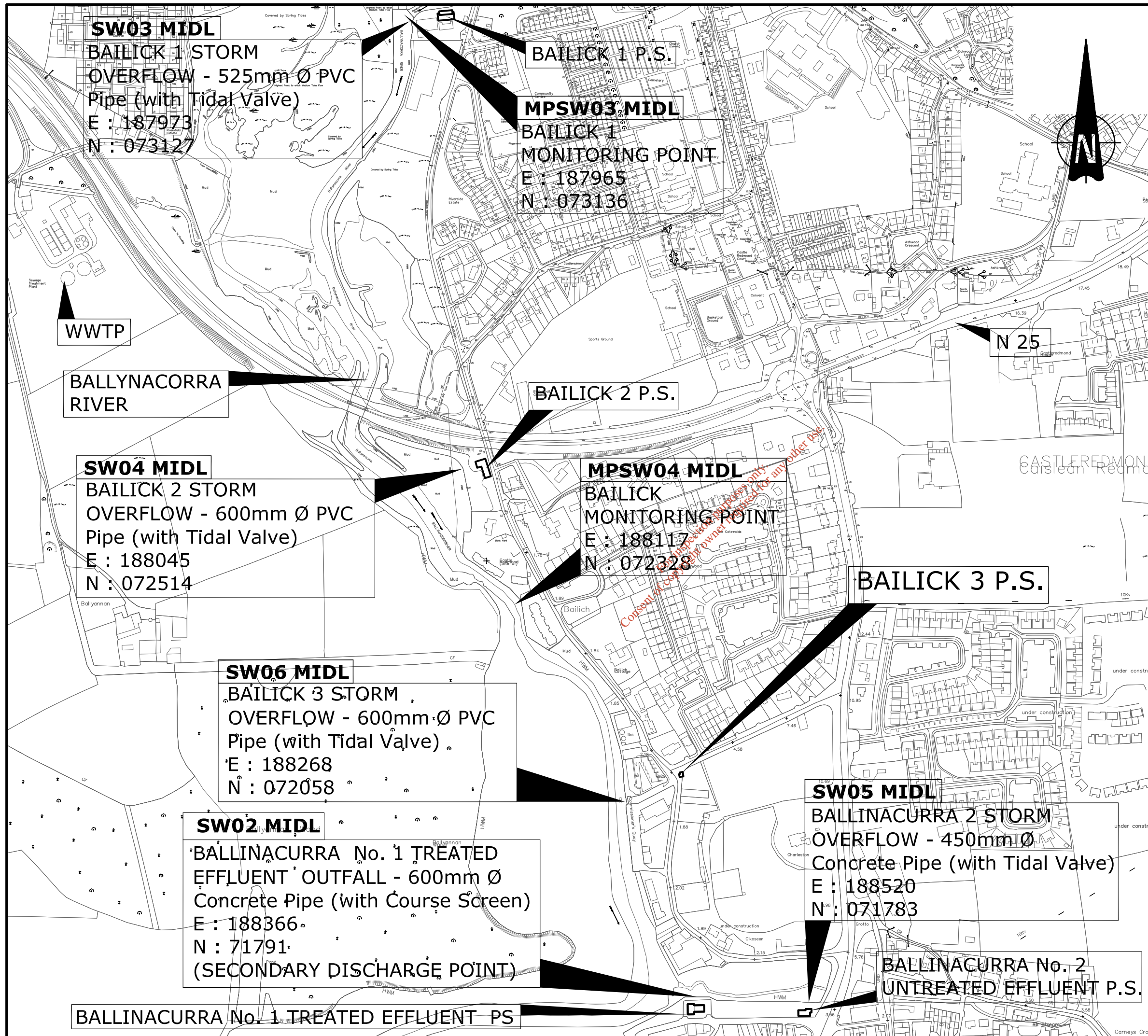
Drawing No.: Y7 334 / PR / 003
 Revision: -




NOTES:

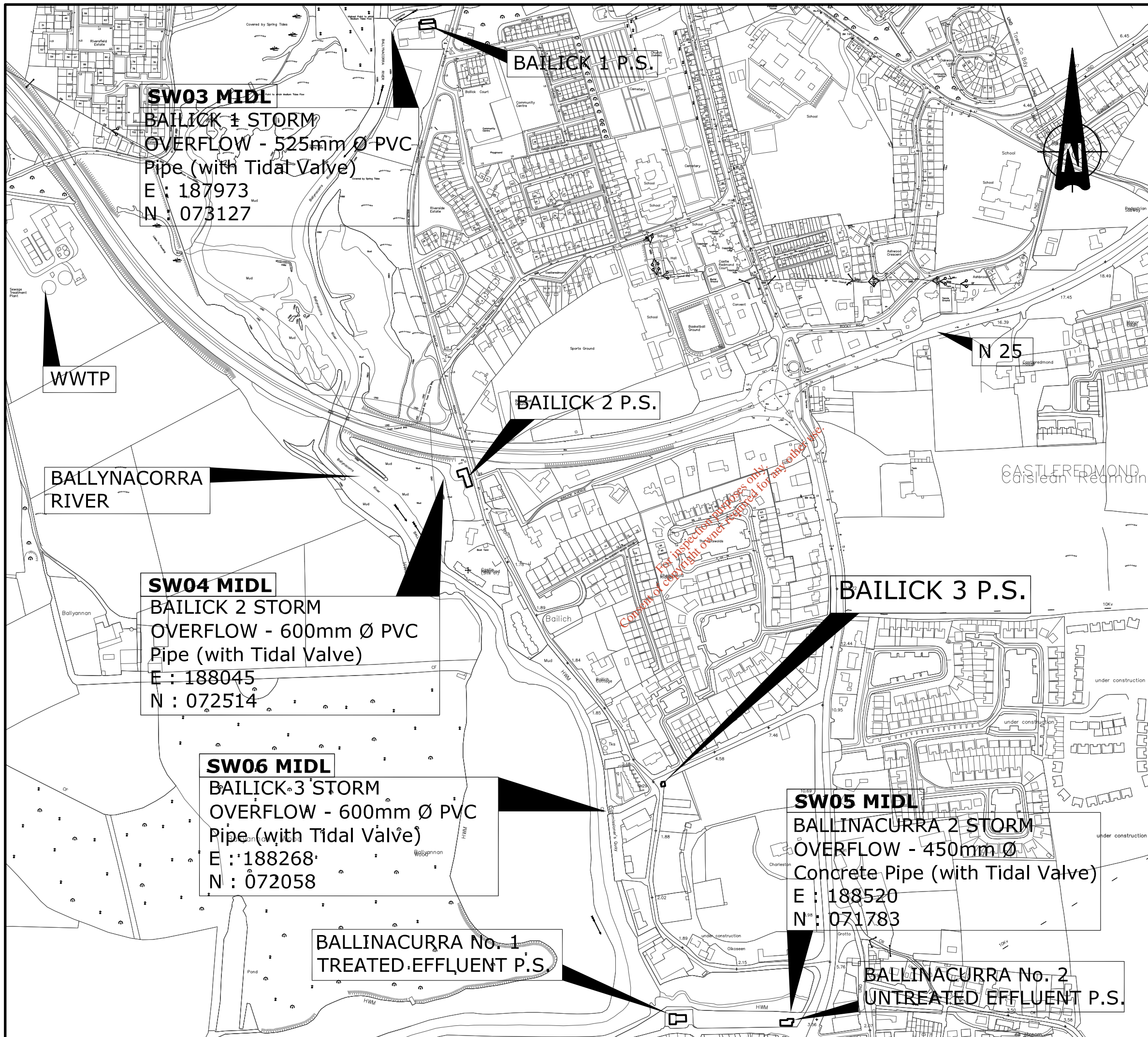
Figured dimensions only to be taken from this drawing.
All dimensions to be checked on site.

Rev.	Description	Drawn	Chkd	Date
-	-	-	-	-
Client: CORK COUNTY COUNCIL				
Client Representative:				
		<small>J. B. Barry & Partners Limited 3A East Gate Road, Eastgate Little Island, Co. Cork, Ireland. Phone: +353-21-4524418 Fax: +353-21-4524419 E-mail: cork@jbbarry.ie</small>		
Project: MIDDLETON WWTP EPA LICENCE APPLICATION				
Drawing Title: ATTACHMENT B.3 LOCATION OF PRIMARY DISCHARGE POINT AT RATHCOURSEY, MIDDLETON				
Drawn by:	M.H.	Date:	20.08.07	
Checked by:	R.K.	Date:	20.08.07	
Approved by:	R.K.	Date:	20.08.07	
Scales:		1:5000 @ A3		
Stage:		PRELIMINARY		
Drawing No.: Y7 334 / PR / 005			Revision: -	



NOTES:
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Rev.	Description	Drawn	Chkd	Date
Client: CORK COUNTY COUNCIL				
Client Representative:				
		<small>J. B. Barry & Partners Limited 3A East Gate Road, Eastgate Little Island, Co. Cork, Ireland. Phone: +353-21-4524418 Fax: +353-21-4524419 E-mail: cork@jbbarry.ie</small>		
Project: MIDDLETON WWTP EPA LICENCE APPLICATION				
Drawing Title: ATTACHMENT B.4 LOCATION OF SECONDARY DISCHARGE POINTS ON THE BALLYNACORRA RIVER, MIDDLETON				
Drawn by:	M.H.	Date:	20.08.07	
Checked by:	R.K.	Date:	20.08.07	
Approved by:	R.K.	Date:	20.08.07	
Scales:		1:5000 @ A3		
Stage:		PRELIMINARY		
Drawing No.:		Y7 334 / PR / 006		Revision:
				-



SW03 MIDL

BAILICK 1 STORM
OVERFLOW - 525mm Ø PVC
Pipe (with Tidal Valve)
E : 187973
N : 073127

BAILICK 1 P.S.

WWTP

BALLYNACORRA
RIVER

BAILICK 2 P.S.

SW04 MIDL

BAILICK 2 STORM
OVERFLOW - 600mm Ø PVC
Pipe (with Tidal Valve)
E : 188045
N : 072514

BAILICK 3 P.S.

SW06 MIDL

BAILICK 3 STORM
OVERFLOW - 600mm Ø PVC
Pipe (with Tidal Valve)
E : 188268
N : 072058

BALLINACURRA No. 1
TREATED EFFLUENT P.S.


SW05 MIDL

BALLINACURRA 2 STORM
OVERFLOW - 450mm Ø
Concrete Pipe (with Tidal Valve)
E : 188520
N : 071783

BALLINACURRA No. 2
UNTREATED EFFLUENT P.S.

NOTES:

Figured dimensions only to be taken from this drawing.
All dimensions to be checked on site.

Rev.	Description	Drawn	Chkd	Date
Client: CORK COUNTY COUNCIL				
Client Representative:				
		<small>J. B. Barry & Partners Limited 3A East Gate Road, Eastgate Little Island, Co. Cork, Ireland. Phone: +353-21-4524418 Fax: +353-21-4524419 E-mail: cork@jbbarry.ie</small>		
Project: MIDDLETON WWTP EPA LICENCE APPLICATION				
Drawing Title: ATTACHMENT B.5 LOCATION OF STORM OVERFLOW POINTS				
Drawn by:	M.H.	Date:	20.08.07	
Checked by:	R.K.	Date:	20.08.07	
Approved by:	R.K.	Date:	20.08.07	
Scales:		1:5000 @ A3		
Stage:		PRELIMINARY		
Drawing No.:		Y7 334 / PR / 007		Revision: -

**ATTACHMENT No B.7(i)
LOCATION OF DISCHARGES LOACTED
WITHIN SHANNON FREE AIRPORT
DEVELOPMENT COMPANY AREA - NA**

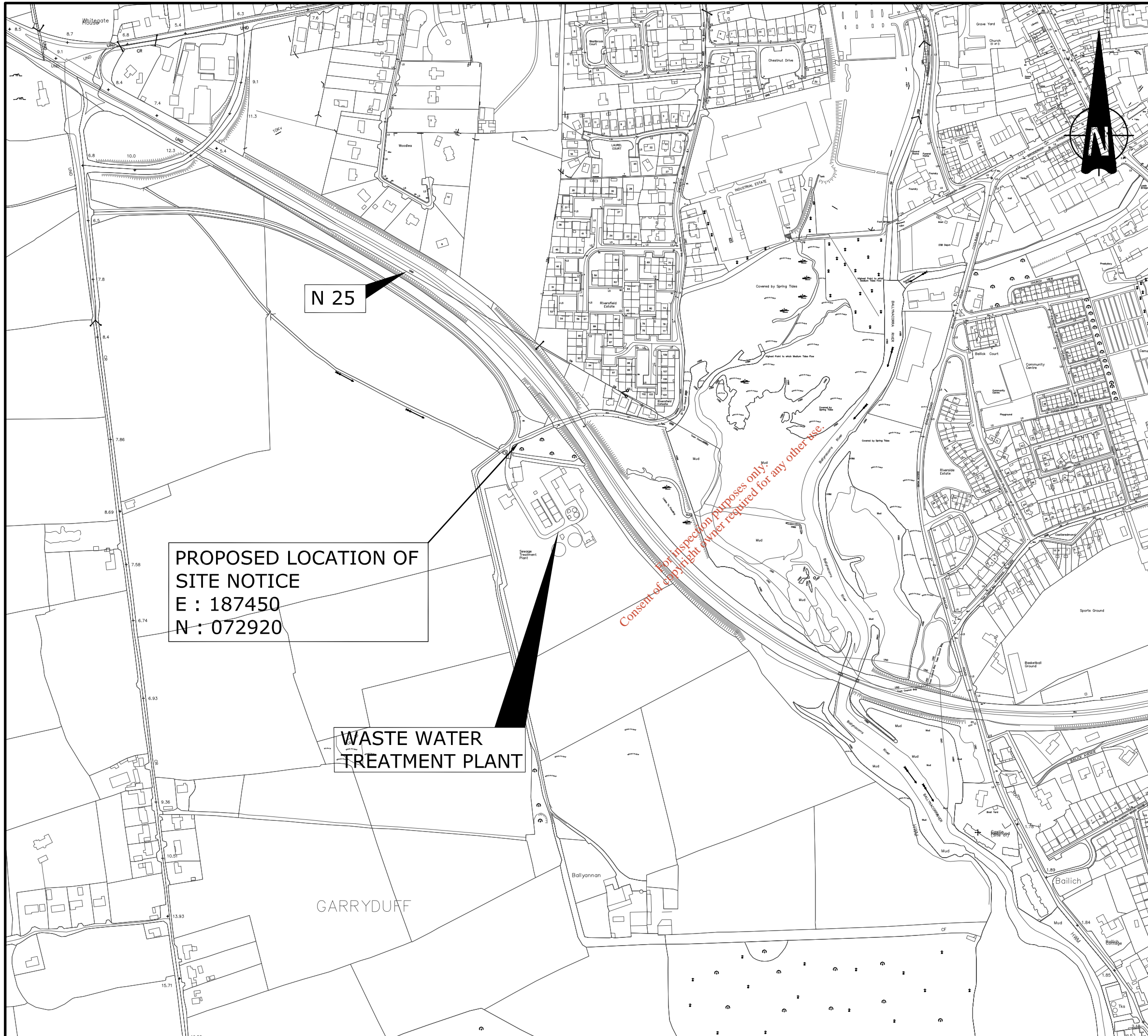
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ATTACHMENT No B.7(iii)
NOTICE ISSUED TO THE RELEVANT
LOCAL AUTHORITY - NA

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ATTACHMENT No B.8
COPY OF SITE NOTICE & DRAWING
SHOWING ITS LOCATION

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N 25

PROPOSED LOCATION OF
SITE NOTICE
E : 187450
N : 072920

WASTE WATER
TREATMENT PLANT

EPA inspection purposes only.
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NOTES:
Figured dimensions only to be taken
from this drawing.
All dimensions to be checked on site.

Rev.	Description	Drawn	Chkd	Date
Client: CORK COUNTY COUNCIL				
Client Representative:				
		<small>J. B. Barry & Partners Limited 3A East Gate Road, Eastgate Little Island, Co. Cork, Ireland. Phone: +353-21-4524418 Fax: +353-21-4524419 E-mail: cork@jbbarry.ie</small>		
Project: MIDDLETON WWTP EPA LICENCE APPLICATION				
Drawing Title: ATTACHMENT B.8 LOCATION PLAN SHOWING POSITION OF SITE NOTICE				
Drawn by:	P.R.	Date:	24.09.07	
Checked by:	R.K.	Date:	24.09.07	
Approved by:	R.K.	Date:	24.09.07	
Scales:		1:5000 @ A3		
Stage:		PRELIMINARY		
Drawing No.: Y7 334 / PR / 008				Revision: -



CORK COUNTY COUNCIL

SITE NOTICE

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007, S.I. No. 684 of 2007 Water Services Southern Division, Cork County Council, County Hall, Carrigrohane Road, Cork is applying to the Environmental Protection Agency for a Waste Water Discharge Licence in respect of Rathcoursey outfall which includes the agglomeration of Midleton and trade effluent discharges from the Midleton area

Plant Name	Location	National Grid Ref.
Midleton WWTP	Ballyannan, Midleton Townland of Garryduff	E187505 N72801

Discharge	Function	Townland	Receptor	Grid Reference
Primary	Main Outfall	Rathcoursey West	Ballynacorra River/Estuary	E186177 N69506
Secondary	Emergency	Ballynacorra West	Ballynacorra Rv	E188366 N 71791
Secondary	Emergency	Ballynacorra west	Ballynacorra Rv	E188520 N 71783
Secondary	Emergency	Townparks (ED Midleton)	Ballynacorra Rv	E187973 N73127.2
Secondary	Emergency	Townparks (ED Midleton)	Ballynacorra Rv	E188045 N72513.8
Secondary	Emergency	Townparks (ED Midleton)	Ballynacorra Rv	E188268 N72058

It is intended to submit the Environmental Impact Statement associated with the provision of a Waste Water Treatment Plant to the Agency along with the Application.

A copy of the application for the Waste Water Discharge Licence, the Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application shall as soon as is practicable after receipt by the Agency be available for inspection or purchase at the

- Environmental Protection Agency, PO Box 3000, Johnstown Castle Estate, Co. Wexford, Lo Call 1890 335599 Telephone: 053-9160600 Fax: 053-9160699 Email: info@epa.ie

and at

- Cork County Council Offices, Water Services South, Co Hall Carrigrohane Road, Co. Cork, Telephone: 021-4276891 Fax: 021-4276321.

Submissions in relation to the application may be made to the Environmental Protection Agency at its headquarters described above.

**ATTACHMENT No B.10
DEVELOPMENT PROGRAMME
INCLUDING COPIES OF APPROVED
FUNDING AND TIMEFRAMES FOR
COMPLETION**

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Development Programme Including Copies of Approved Funding and Timeframes for Completion

Currently within the Midleton network sewer catchment there is works currently being undertaken to reduce the infiltration within the catchment by the repair/replacement of existing sewers and the laying of dedicated storm sewers and diversion of storm sewers currently connected to the foul system. This project also involves the construction of a terminal pumping station at Dwyers Road which will receive flow from the west of the catchment and pump them directly to Midleton WWTP. These works shall reduce the flows going to Bailick No. 1 Pumping Station and therefore reduce the current spill frequency from the Storm Holding Tanks. The works is currently being constructed on site and will be completed by the end of 2007. Enclosed is a copy of the 2007-2009 Water Services Investment Programme which details the funding which has been approved and allocated to the Scheme.

Approval has also been obtained by Cork County Council for the upgrading of the Midleton WWTP to 15,000PE to accommodate the predicted growth within the area. This project will also assessment of Bailick No. 1 & 2 pumping stations and will incorporate any upgrading required. Currently Cork County Council is advertising for Consulting Engineers to Design and Procure the wastewater treatment plant upgrade. It is anticipated that Construction works will commence at the end of 2008 with completion by the end 2009. Enclosed is a copy of the Department of Environments approval to proceed with the project and allocated funding.

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11th December 2006

County Secretary,
 Cork County Council,
 County Hall,
 Cork.

Send copy to R Kent of JRB Bury

SOUTH CORK RURAL
 14 DEC 2006
 CORK COUNTY COUNCIL
 COUNTY HALL - CORK

Re: Approvals under the Serviced Land Initiative Scheme.


A Chara,

I am directed by the Minister for the Environment and Local Government to inform you that the following schemes have been approved under the Serviced Land Initiative:

Scheme	Total Cost of Scheme*	Departments 40% Contribution	No. of Housing Units	Cost per Unit
Castlemartyr Wastewater Treatment Plant Upgrade	€1,210,595	€370,537	339	€2,414
Killeagh Wastewater Treatment Plant Upgrade	€1,229,192	€420,102	335	€2,771
Midleton Wastewater Treatment Plant Upgrade	€4,050,956	€1,371,866	1,191	€2,679
Total	€6,490,743	€2,162,505	1,865	€7,864

*The total cost of the schemes includes amounts attributable to non-domestic marginal cost. This is not eligible for Departmental funding

I am also to request the Council to progress these projects without delay.

3, Barrack Street, (Cork)
 3903

 46317120

H:\COMMON\WORDS\Martina\Cork & Wex Lets\Cork Lets-2005\Crklet 2006- Co.Council.doc

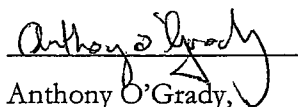


Please note that Exchequer funding will be provided at a rate of 40% of the approved cost, unless otherwise stated, of the schemes in accordance with circular L5/98.

Up to date records on the progress and results of Serviced Land Initiative schemes are necessary to ensure the success of the Initiative and its continued implementation. The Council should therefore ensure that the quarterly reports for each Serviced Land Scheme in your area are submitted promptly. When completing these forms, it is important to give precise construction start and end dates for each scheme and details of the current status of the scheme and the number of housing sites to be provided. The forms have been designed in order to collect vital basic information while minimising the effort required of individual local authorities

If you have any queries in this matter, please contact the undersigned. (01 – 8882152)

Mise, le meas,


Anthony O'Grady,

Water Services Section,

Environment Infrastructure and Services Division.

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Cork County

Water Services Investment Programme 2007 - 2009

Schemes at Construction	W/S	Est. Cost	W/S	Est. Cost
Cork North			Cork South	
Mitchelstown Sewerage Scheme (Nutrient Removal)	S	221,000	Ballincollig Sewerage Scheme (Upgrade) (G)	S 22,248,000
Cork South			Cork Lower Harbour Sewerage Scheme (excl. Crosshaven SS)	S 73,542,000
Ballyvourney/ Ballymakeery Sewerage Scheme	S	3,049,000	Shanagarry/ Garyvoe/ Ballycotton Sewerage Scheme	S 3,780,000
Cobh/ Midleton/ Carrigtwohill Water Supply Scheme	W	10,135,000	Youghal Sewerage Scheme	S 14,420,000
Cork Lower Harbour Sewerage Scheme (Crosshaven SS) (G)	S	4,850,000	Cork West	
Cork Water Strategy Study (G)	W	941,000	Ballydehob Sewerage Scheme	S 683,000
Kinsale Sewerage Scheme	S	20,000,000	Bantry Water Supply Scheme	W 14,935,000
Midleton Sewerage Scheme (Infiltration Reduction) (G)	S	2,078,000	Clonakilty Sewerage Scheme (Plant Capacity Increase)	S 3,677,000
		41,274,000	Courtmacsherry/ Timoleague Sewerage Scheme	S 2,472,000
Schemes to start 2007			Dunmanway Regional Water Supply Scheme Stage 1	W 12,669,000
Cork North				164,629,000
North Cork Grouped DBO Wastewater Treatment Plant (Buttevant, Doneraile & Kilbrin)	S	5,150,000	Serviced Land Initiative	
Cork West			Cork North	
Skibbereen Sewerage Scheme	S	20,000,000	Ballyclough Water Supply Scheme	W 139,000
		25,150,000	Ballydooley Improvement Scheme	WS 139,000
Schemes to start 2008			Broghill-Rathgoggin Sewerage Scheme	S 406,000
Cork North			Sweeng Water Supply Scheme	W 115,000
Mallow/ Ballyvintier Regional Water Supply Scheme (H)	W	8,652,000	Churchtown Sewerage Scheme (incl. Water)	WS 543,000
Mallow Sewerage Scheme (H)	S	5,408,000	Clondulane Sewage Treatment Plant	S 417,000
Cork South			Freemount Sewerage Scheme	S 150,000
Ballincollig Sewerage Scheme (Nutrient Removal) (G)	S	948,000	Pike Road Sewerage Scheme (incl. Water)	WS 2,080,000
Ballingeary Sewerage Scheme	S	1,296,000	Rathcormac Sewerage Scheme (incl. Water)	WS 555,000
Bandon Sewerage Scheme Stage 2	S	14,729,000	Spa Glen Sewerage Scheme	S 736,000
City Environs (CASP) Strategic Study (G)	S	153,000	Uplands Fermoy Sewerage Scheme (incl. Water)	WS 1,174,000
Cloghroe Sewerage Scheme (Upgrade)	S	683,000	Watergrasshill Water Supply Scheme (incl. Sewerage) (G)	WS 4,151,000
Coachford Water Supply Scheme	W	1,318,000	Cork South	
Garrettsown Sewerage Scheme	S	2,153,000	Ballincollig Sewerage Scheme (Barry's Rd Foul and Storm Drainage) (G)	S 1,164,000
Inniscarra Water Treatment Plant Extension Phase 1	W	2,678,000	Belgooley, Water Supply Scheme (incl. Sewerage)	WS 2,913,000
Little Island Sewerage Scheme (G)	S	2,200,000	Blarney Water Supply Scheme (Ext. to Station Rd) (G)	W 416,000
Cork West			Canigtwohill Sewerage Scheme (Treatment and Storm Drain) (G)	S 7,632,000
Bantry Sewerage Scheme	S	7,148,000	Castlemartyr Wastewater Treatment Plant Extension	S 1,200,000
Dunmanway Sewerage Scheme	S	2,153,000	Crookstown Sewerage Scheme (incl. Water)	WS 1,200,000
Leap/ Baltimore Water Supply Scheme	W	6,365,000	Dripsey Water Supply Scheme (incl. Sewerage)	WS 1,112,000
Schull Water Supply Scheme	W	5,253,000	Glounthane Sewerage Scheme (G)	S 1,576,000
		61,137,000	Innishannon Sewerage Scheme	S 277,000
Schemes to start 2009			Innishannon Wastewater Treatment Plant	S 694,000
Cork North			Kerypikie Sewerage Scheme	S 832,000
Banteer/Dromahane Regional Water Supply Scheme	W	1,576,000	Kerypikie Water Supply Scheme	W 416,000
Conna Regional Water Supply Scheme Extension	W	2,627,000	Killeagh Wastewater Treatment Plant Extension	S 1,200,000
Cork NE Water Supply Scheme	W	4,326,000	Killeagh Water Supply Scheme (includes Sewerage)	WS 485,000
Cork NW Regional Water Supply Scheme	W	6,046,000	Killeens Sewerage Scheme	S 420,000
Millstreet Wastewater Treatment Plant (Upgrade)	S	1,628,000	Kinagleary Sewerage Scheme	S 694,000
			Midleton Wastewater Treatment Plant Extension	S 4,050,000

**ATTACHMENT No B.11
RELEVANT CORRESPONDENCE ISSUED
IN RELATION TO A SECTION 63
NOTICE**

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Comhairle Contae Chorcaí Cork County Council

Environmental Department,
Inniscarra, Co. Cork.
Tel: (021) 4532700 • Fax (021) 4532727
Web: www.corkcoco.ie
An Rannóg Comhshaoil,
Inis Cara, Co. Chorcaí.
Fón: (021) 4532700 • Faics (021) 4532727
Suíomh Gréasáin: www.corkcoco.ie



Director of Services
South Cork Rural

03rd May 2007,

Cony Madalen
Ken O'Leary
Paul Kent JB Barry
Brian O Toole - EDS

Section 63 (3) (a) of the Environmental Protection Agency Acts 1992 & 2003*
Advice & Recommendations

Og P D

Dear Sir,

1. The Environmental Protection Agency carried out an inspection of the WWTP and collection system in Midleton as part of the Urban Waste Water audit on the 06th December 2006.
2. Please find attached correspondence in relation to this inspection from the Environmental Protection Agency.
3. Please also note that
 - a. The EPA person dealing with the issues raised in the audit is Dr. Suzanne Monaghan to whom all queries and correspondence in relation to this matter should be sent.
 - b. Information requested should be submitted to the EPA by the 01st June 2007 – please forward a copy of any information submitted to this office for our records.
4. I also attached a copy of Section 63 (3) (a) of the Environmental Protection Agency Acts 1992 & 2003* for your info

Should you wish to discuss this matter further, please do not hesitate to contact the undersigned.

Nicholas Bond
Complaints Co-Ordinator
Environmental Department
Cork County Council
Inniscarra
Co. Cork
Ireland

00 353 21 4532701
nicholas.bond@corkcoco.ie

Copy to: Valerie Hannon – Environment Directorate

SOUTH CORK RURAL
- 4 MAY 2007
CORK COUNTY COUNCIL
COUNTY HALL - CORK

J. B. Barry & Partners Ltd., (Cork).	
Corres. No.	1178
Date Received	
08 MAY 2007	
Referred To: <i>JK</i>	Initial when seen
	<i>JK</i>
File Reference:	45335/2



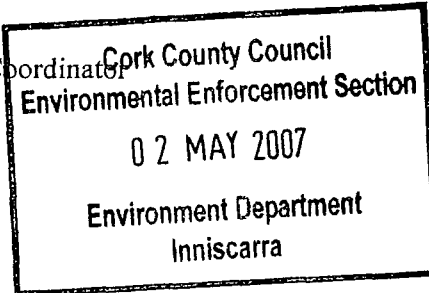
Headquarters, PO Box 3000,
Johnstown Castle Estate
County Wexford, Ireland

Ceanncheathrú, Bosca Poist 3000,
Eastát Chaisleán Bhaile Sheáin
Contae Loch Garman, Éire

T: +353 53 916 0600
F: +353 53 916 0699
E: info@epa.ie
W: www.epa.ie

Lo Call: 1890 33 55 99

Mr. Nicholas Bond
Environmental Complaints Coordinator
Cork County Council
Inniscarra
Co. Cork



1st May 2007

Section 63(3)(a) of the Environmental Protection Agency Acts 1992 and 2003*

Advice & Recommendations

Re: Midleton WWTP & Stormwater – 04-15-04-06-03

Dear Mr. Bond

Further to the Agency's previous correspondence in relation to complaints about Midleton waste water treatment plant and collecting system (file reference 04-15-04-06-03) and to the inspection of the treatment plant on the 6th December 2006 as part of the Urban Waste Water Audit and having considered the information obtained in the course of that exercise, the Agency, in accordance with Section 63(3)(a) of the EPA Acts 1992 and 2003 issues the advice and recommendations as set out in the attached audit report "*Urban Waste Water Audit Report*" to Cork County Council.

The Agency considers achievement of the recommendations listed in the audit report to be necessary for the satisfactory performance by your Council of its statutory environmental protection functions in this matter.

Cork County Council is requested to submit a written report to the Agency on the achievement of the recommendations related to Midleton waste water treatment plant and collecting system no later than the 1st June 2007.

These recommendations and advice are issued without prejudice to the right of the Agency to take any further action which it may in future decide is appropriate, whether under Section 63 of the EPA Acts 1992 and 2003 or otherwise.

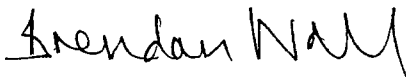
The EPA person dealing with this file is Dr. Suzanne Monaghan to whom all correspondence and queries in relation to the matter should be addressed.

S.63(3)(a) – Advice/Recommendations



Please use the reference number above in all future communications with the OEE regarding this matter.

Yours sincerely,



Brendan Wall
Senior Inspector
Public Authority Enforcement
Office of Environmental Enforcement

*Section 63 of the EPA Act 1992 as amended by Section 13 of the Protection of the Environment Act 2003.

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Urban Waste Water Audit Report

Authority:	Cork County Council	Visit No:	2
Plant visited:	Midleton WWTP	Date of Audit:	6/12/06
Auditors:	Brendan Wall David Smith	Previous Audits:	26/2/04
Audit Criteria	<ul style="list-style-type: none"> • Previous EPA Waste Water Audit Reports; • Urban Wastewater Treatment Regulations, 2001; • The recommendations specified in the Environmental Protection Agency Act, 1992[Urban Waste Water Treatment] Regulations, 1994: A handbook on the implementation for Sanitary Authorities; • The recommendations specified in the Urban Waste Water Treatment Reports; • The Water Pollution Acts 1977 & 1990; • The Waste Management (Use of Sewage Sludge in Agriculture) Regulations, 1998; • European Communities(Waste Water Treatment) Prevention of Odour and Noise Regulations, 2005; • The Waste Management (Use of Sewage Sludge in Agriculture)(Amendment) Regulations, 2001. 		

The opening meeting for the urban waste water audit commenced at 11:00 am at Cork County Council offices. At the opening meeting the audit team were introduced and the scope, objective and audit criteria were explained. The following were in attendance:

Representing Local Authority:

Mr. Derek O’Gorman (SEO, Environment), Ms. Eliz Hipwell (SES Environment), Mr. Billy O’Sullivan (EE, Water Services, North Cork), Mr. Mick Murphy (SEE, Water Services, South Cork), Mr. Niall O Mahoney (SE Western Division), Mr. Diarmuid Cronin (North Cork Lab), Ms. Valerie Hannon (ES Environment), Ms. Madeline Healy (SEE South Cork Rural), Mr. Pat O’Mahony (SE South Cork Rural), Mr. Kevin Sugrue (SE South Cork), Mr. Paddy O’Freil (SEE North Cork), Mr. Alan Costello (Environmental Technician), Mr. Gerard Murphy (SEE Water Services West Cork) and Mr. Greg Williams (Environmental Technician).

Representing the Environmental Protection Agency:

Brendan Wall (Senior Inspector), David Smith (Inspector).

1. AUDIT FINDINGS

a) Provision of Secondary Treatment Plant:

Observation:

There are a number of agglomerations in County Cork where secondary waste water treatment is not in place. In particular the EPA noted that there are six locations that do not have secondary waste water treatment facilities as required by Article 4(1) of the Urban Waste Water Treatment Regulations. These agglomerations are listed below;

Agglomeration	Population Equivalent (p.e)	Receiving Water Type	Expected Construction / Commencement Status
Cobh	10,000	Coastal	2009 / 2010
Skibbereen	3,500	Estuarine	2007
Carrigaline	12,000	Estuarine	2009 / 2010
Kinsale	5,000	Estuarine	2007
Passage / Monkstown	5,000	Estuarine	2009 / 2010
Youghal	8,000	Estuarine	2008 / 2009

The EPA noted that a complaint was received in relation to untreated discharges in Skibbereen town and that this was forwarded to Cork County Council (PAE2006/369).

Recommendation:

Cork County Council should progress as a matter of urgency the provision of adequate treatment at the six agglomerations (as listed above) that do not have the required level of treatment. The Council needs to progress swiftly with the planned schemes in order to ensure full compliance with the Regulations. The EPA should be provided with a schedule and timescale for the planned schemes and kept up to date with progress on the projects.

The audit team also recommended that the Council review the treatment in place at other locations, especially those agglomerations below the 2000 p.e. thresholds for freshwater and estuaries and 10000 p.e. threshold for coastal water that do not currently have secondary treatment in place. As part of this review the Council should determine whether the treatment in place is appropriate as per the requirements of Article 7 of the Regulations. Appropriate in this instance means treatment of urban waste water by any process and / or disposal system, which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions of the Directive and of other Community Directives.

b) Performance of Secondary Treatments Plants:

Observation:

The performance of waste water treatment plants in meeting the effluent quality standards for BOD, COD and suspended solids as set out in Article 4 (3) of the Regulations was discussed in detail. Engineers from each of the Divisions in the Council provided an overview of issues and explained the difficulties faced in some cases in meeting the limits, including overloading of plants. The Council have been proactive in identifying the issues at plants and have set up a Sustainable Waste Water Development Working Group through which they have identified and prioritised 30 waste water treatment plants and collection systems.

Following the discussions with Council staff the EPA noted that a number of plants in the county were having difficulty in meeting the effluent quality standards based on the results of the monitoring carried out during 2005 (overall the effluent quality failed at least one of the standards for BOD, COD or Suspended Solids at approximately 64% of treatment plants in the County). Treatment plants that were highlighted as having particularly poor effluent quality results during 2005 included Clonakilty, Rathcormac, Buttevant, Kilworth, Castlemartyr and Carrigtohill.

The audit team was informed that the Environmental Office notifies the relevant area office when an exceedance occurs and advises with regards to environmental issues. There is however no formal documented corrective action procedures in Water Services for investigation of each reported exceedance and there isn't a closing out notification procedure from Water Services to Environment once the source of the exceedance has been dealt with.

Recommendation:

Cork County Council should carry out such measures as are necessary to ensure that effluent from waste water treatment plants meets the standards specified in the Urban Waste Water Treatment Regulations, 2001.

While the EPA notes that a water quality monitoring programme is in place for the county, Cork County Council is required under Article 10(1)(b) of the Urban Waste Water Treatment Regulations, 2001 (S.I. No. 254 of 2001) to carry out, cause to be carried out or arrange for the monitoring of waters subject to a discharge from an urban waste water treatment plant where it can be expected that the receiving waters will be significantly affected. Therefore the monitoring programme should be reviewed and monitoring should be carried out on all water where negatively impacting discharges occur and the results made available to the treatment plant managers for action.

Corrective action programmes should be developed and implemented for the plants that are failing to meet the effluent quality standards set out in the Regulations. It is advised that the corrective action procedure be documented to close off the notification process from Water Services to Environment once the cause of the exceedance at the plant is rectified.

The council should provide a list of the overloaded waste water treatment plants with details of the design capacity (P.E.) and actual current P.E. loading, and actions being taken to address the effluent quality and capacity problems.

c) Monitoring Programme, Sampling and analysis

Observation:

A monitoring programme and standard operating procedures are in place for the sampling and analysis of waste water. Cork County Council has reported that grab samples are still taken from some treatment plants.

In the case of Ballincollig waste water treatment plant the Council reported that the outlet sample is a combined treated effluent and storm water discharge sample.

During 2005, the sampling frequency for plants over 2000 p.e. was not sufficient in 61% of the plants. In these cases the Council did not take the mandatory 12 samples following an exceedance of the standard for at least one sample the previous year. The Council explained that the programme in place for 2006 addressed this issue.

Recommendation:

Flow-proportional or time-based 24-hour samples should be collected at the same well-defined point in the outlet and if necessary in the inlet of the treatment plant, in order to monitor compliance with the requirements for discharges of waste water as specified in The Urban Waste Water Treatment Regulations, 2001. The Council should provide the EPA with details on plants that currently do not have composite samplers in place.

The outlet sample should be representative of the treated effluent and where necessary a separate sample should be taken to monitor combined treated effluent and storm water overflows.

The possibility of having the composite samplers operating 24 hours a day should be considered rather than operating the samplers only when samples are required. In this way a composite sample will be available for analysis in the event of a water pollution incident or complaints about the performance of a plant.

The Council should annually review the monitoring programme to ensure that they are fully compliant with the Urban Waste Water Treatment Regulations, 2001 and ensure that at a minimum the requisite number of samples is taken.

The EPA recommends that as a minimum secondary treatment plants serving a population equivalent of between 500 p.e. and 2000 p.e. have their waste water treatment discharges sampled at least 6 times per year and reported to the EPA as part of the annual returns.

d) Storm water Overflows

Observation:

Article 3(2) of the Urban Waste Water Treatment Regulations, 2001 requires that collecting systems shall be designed, constructed and maintained in accordance with best technical knowledge not entailing excessive costs, notably regarding a) volume and characteristics of urban waste water, b) prevention of leaks and c) limitation of pollution of receiving waters due to storm water overflows.

Recommendation:

In relation to the waste water collection systems in place through out the county the EPA recommends that the frequency and volume of storm water overflow within each collection system should be assessed, mapped and ranked in order of significance. Measures should also be implemented to limit the pollution due to storm water overflows in order to ensure compliance with Article 3(2) of the Urban Waste Water Treatment Regulations, 2001. Cork County Council should ensure that those stormwater overflows that are having a negative impact on the receiving waters be prioritised for advanced works. Interim measures should be taken where possible to prevent any further impacts on these waters prior to upgrade.

Notwithstanding the above, Cork County Council is required under Article 10(1)(b) of the Urban Waste Water Treatment Regulations, 2001 to carry out, cause to be carried out or arrange for the monitoring of waters subject to a discharge from an urban waste water treatment plant where it can be expected that the receiving waters will be significantly affected. Therefore monitoring should be carried out on all waters where negatively impacting storm water discharges occur and the results made available to the treatment plant managers for action.

e) Register of discharges to surface water and sewers

Observation:

The files reviewed were satisfactory and well managed, and it is noted that there is a programme in place to follow up and enforce the licences issued.

Recommendation:

Discharge licences should be reviewed on a priority risk based approach and work should continue in relation to ensuring that all food premises and car washes that discharge to sewer or surface water are covered by appropriate licences. Refer to DoEHLG Circular L8/03 (WP) for guidance on the licensing of discharges.

f) European Communities (Waste Water Treatment)(Prevention of Odours and Noise) Regulations, 2005

Observation:

These regulations came into effect in 2005 and the main responsibilities for local authorities are that plants must be maintained and operated to avoid causing odour and noise nuisance, records must be maintained of all environmental complaints about odour and noise and an annual report must be submitted to the EPA outlining any complaints received and actions taken to resolve them. Cork County Council was not familiar with these new regulations and has not implemented training for treatment plant staff on the requirements.

Recommendation:

Cork County Council needs to familiarise themselves with the Odour and Noise Regulation and develop procedures and a training programme for staff on the implementation of this Regulation. It is also a requirement to provide an annual report to the Agency on all odour and noise complaints received. This should be done via the EPA website at epa.ie/urbanwastewater.

2. CLOSING MEETING

Following the morning audit a closing meeting was held at the County Council offices. The following were in attendance:

Representing Local Authority:

Mr. Derek O'Gorman (SEO, Environment), Ms. Eliz Hipwell (SES Environment), Mr. Niall O Mahoney (SE Western Division), Ms. Valerie Hannon (ES Environment), Ms. Madeline Healy (SEE South Cork Rural) Mr. Pat O'Mahony (SE South Cork Rural), Mr.

vin Sugrue (SE South Cork), Mr. Paddy O'Freil (SEE North Cork), Mr. Alan Costello (Environmental Technician) and Mr. Gerard Murphy (SEE Water Services West Cork).

Representing the Environmental Protection Agency:

Brendan Wall (Senior Inspector) and David Smith (Inspector).

The audit team presented the main findings of the audit as outlined in Section 1 of this report. The findings of the inspection carried out later in the day are presented in Section 3 of the report.

The local authority was thanked for their co-operation during the audit and advised that an audit report would be issued.

3. SITE VISIT: MIDDLETON WASTE WATER TREATMENT PLANT

Midleton Waste Water Treatment Plant.

Following the audit in Cork County Council offices an inspection of the Midleton WWTP was undertaken. The following people were in attendance:

Representing Local Authority:

Ms. Madeline Healy (SEE South Cork Rural), Mr. Pat O'Mahony (SE South Cork Rural), Mr. Vincent Brown (Laboratory Technician), Mr. Richard Kent (JP Barry) and Mr. Gerard Buckley (Plant Manager).

Representing the Environmental Protection Agency:

Brendan Wall (Senior Inspector) and David Smith (Inspector).

A meeting was held on site and a walk over inspection of the treatment plant was carried during which site issues were discussed with representatives from Cork County Council and the on-site personnel involved in operating the plant.

Observations:

- The secondary waste water treatment plant at Midleton serves the town and environs. The untreated waste water from the town is pumped to the plant from two pumping stations in the town called Bailick No. 1 and Bailick No.2. The sewer system in the town is a combined system and this has caused problems in that the treatment plant is not able to cope with the volume of waste water and storm water entering the system and as a result there are regular overflows of untreated effluent to the estuary from the two pumping stations.
- The Council have plans for infiltration projects and improvements to the network.
- The treatment plant is operated privately under a contract from Cork County Council.
- The plant consists of screens, flow grit chamber, grease removal, activated sludge processes, two clarifiers, and UV treatment. During the visit the effluent being discharged from the clarifiers was clear with no visual evidence of any carry over of sludge. The treated effluent is pumped to Rathcoursey for discharge to Cork Harbour.
- The treated effluent is UV treated before discharge and this treatment was in operation during the visit. A transmission of 87% was noted at 16.05.
- The audit team were informed that all effluent that enters that plant is treated at that plant and that once the effluent enters the plant there are no internal overflows (the overflows are located further upstream at Bailick No.1 and No. 2).
- The Council staff explained the issues in relation to storm water overflows at the pumping stations called Bailick No. 1 and Bailick No. 2. Copies of the results from the pumping stations for September and October 2006 and a drawing showing the location of the pumping stations was provided by Council officials.
- During October 2006 the volume of the storm discharge to the estuary as a daily percent of the total volume

varied from 0 to 57% with discharges occurring most days. In September 2006 the storm discharge to the river as a daily percent of the total volume varied from 0 to 35% with discharges above 10% of the total flows occurring on 9 days. In total during September 2006 a total of 13622 m³ of untreated waste water / storm water was pumped to the estuary from the storm water overflows compared to 153688m³ pumped to the treatment plant resulting in 9% overall going out via the storm water overflows during September 2006. Further details on the operation of the pumping station and the overflows was requested following the audit and this was submitted in an e-mail from Cork County Council dated the 11/12/06.

- A picket fence thickener is used to dewater the sludge. The Council noted that the main outlet for sludge disposal is landfill. Also up to the mid October sludge was also used on an off-site willow plantation that is operated under a waste permit from Cork County Council.
- During the visit the composite samplers at the inflow and outflow of the plant were in operation taking time based samples every 20 minutes.
- Sampling at the plant is undertaken by the in-house laboratory, an independent laboratory and the Environment Section of Cork County Council. The on-site programme is as follows;
Daily sampling for suspended solids, COD, TN, TP, Ammonia.
Weekly sampling for BOD, Total and Faecal Coliforms.
Monthly monitoring by Environmental Section.
- The monitoring results reported to the EPA as part of the annual returns were reviewed for the period 2004 and 2005. One out of the 12 sample results submitted to the Agency during 2005 failed the standards specified in the Regulations. This related to a sample taken by the Environment Section of Cork County Council on the 2/3/05. The Environment Section provided copies of the results from 2006 and all samples were within the limits specified in the Regulations.
- Overall the treatment plant itself was well maintained and visually the house keeping was considered excellent. No odours were noted during the visit. The effluent results were in compliance except for the one sample taken on the 2/3/05.

Recommendations:

- Cork County Council should progress works without delay to prevent untreated wastewater overflowing to the Owennacurra estuary and must ensure that the collecting system in place meets the requirements of the First Schedule of the Urban Waste Water Treatment Regulations, 2001 (S.I. No. 254 of 2001). Details on the planned improvement works and a timeframe for such works should be submitted to the EPA. The EPA should also be kept informed of progress on the works.
- In view of the regular occurrence of storm water overflows, Cork County Council should develop a monitoring programme and carry out an assessment of the impact of the storm water overflows on the Owennacurra estuary and Cork Harbour. A copy of this assessment should be submitted to the EPA.
- The results of sampling carried out by the Environment Section of the Council are forwarded to the EPA as part of the annual returns. In addition to these results the Council should also submit the results of other monitoring carried out on-site during 2006 for inclusion in the 2006 report subject to these results meeting quality control procedures.
- Cork County Council was requested to submit details on the cause of the sample failure on the 2/3/05. The Council submitted a detailed explanation by e-mail and letters dated the 11/12/06 and 12/12/06. The cause of the non-compliance was attributed to a short carry over of the sludge blanket on the 1/3/05.
- In relation to split samples the Council should develop a procedure for comparing the results from these samples. Also the on-site laboratory should join the EPA inter calibration scheme.
- The outlets used for sewage sludge should be assessed to ensure that appropriate analysis of the sludge is carried out prior to disposal at landfill or use on willow plantations.
- In relation to the UV treatment of the treated effluent the Council should consider adding trigger level alarms for transmission to the SCADA system.

4 FOLLOW-UP ACTIONS

The audit raises a number of issues that need to be addressed by Cork County Council in order to meet the statutory provisions set out in the Urban Waste Water Treatment Regulations, 2001 and Odour & Noise Regulations 2005. Cork County Council has developed positive links between the Environment and Sanitary Sections in implementing the requirements of the Regulation. While the issues at many treatment plants are identified there have been delays in the provisions of necessary improvements and upgrades.

Cork County Council should submit the reports and information requested in this audit report and inform the Agency of the actions taken to address the recommendations listed by the 1st June 2007. These actions will be verified during subsequent audits.

Report prepared
by:

Brendan Wall

Brendan Wall

Date:

1st May 2007

Reviewed
by:

Matt Crowe

Matt Crowe

Date:

1st May 2007

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Previous Page ◀

Print Act ▶

Next Page ▶

Protection of the Environment Act 2003 SECTION 13

Amendment of section 63 of Act of 1992. **13.**—The following section is substituted for section 63 of the Act of 1992:

"Performance 63.—(1) The Agency may request a local authority to furnish, within a specified period, to it information in relation to the performance by the authority, either generally or in a specific case, of a statutory function of that authority in relation to environmental protection and the authority shall comply with such a request.

(2) The Agency may, having notified the local authority of its intention to do so, carry out an assessment of the performance by a local authority, either generally or in a specific case, of a statutory function of that authority in relation to environmental protection; for that purpose the authority shall comply with any request for the furnishing to the Agency of information, records or reports or the results of any monitoring by the authority, or, in connection with the foregoing, the affording to the Agency of access to any premises occupied by the authority, made by the Agency during the course of such assessment.

(3) Having exercised its powers under subsection (1) or (2), and having considered any information furnished to, or otherwise coming into the possession of, it in consequence of that exercise, the Agency may, with a view to ensuring the satisfactory performance by the local authority concerned of the function in question, do all or any of the following—

(a) issue such advice and recommendations to the authority as it considers necessary,

(b) provide, on such terms and conditions as may be agreed, such assistance, support or guidance as the Agency considers, in consultation with the authority, would be helpful,

(c) without prejudice to any of its powers under this Act or any other enactment, issue to the authority the terms of a direction ('the proposed direction') it proposes to issue, under subsection (5), to the authority requiring it to carry out, cause to be carried out, or arrange for, within a specified period, such action related to the function in question as the Agency considers necessary for the purposes of environmental protection.

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(4) The proposed direction shall specify a period within which the local authority may make observations to the Agency in relation to the proposal to make the direction (and the authority may make such observations within that period accordingly).

(5) After the expiration of the period referred to in subsection (4) and consideration of any observations made by the local authority under that subsection, the Agency may confirm, with or without modification, or decide not to confirm its proposal to make the direction concerned, and, in a case where the proposal is confirmed, the Agency shall issue to the authority the direction concerned accordingly and the authority shall comply with the direction within the period specified therein.

(6) Notwithstanding anything in this section, where the Agency is of the opinion that the failure of a local authority to perform in a satisfactory manner a statutory function of the authority in relation to environmental protection is resulting in significant environmental pollution, or in a real and imminent risk of such pollution, the Agency may direct the authority

to carry out, cause to be carried out, or arrange for, within a specified period, such action related to the function in question as the Agency considers necessary for the purposes of preventing, limiting, eliminating, abating or reducing such pollution, and the authority shall comply with such a direction.

(7) Where a local authority fails to comply with a direction issued under subsection (5) or (6), the Agency may carry out, cause to be carried out, or arrange for, such action related to the function in question as it considers necessary to ensure compliance with the direction and the costs of such action may be recovered by the Agency from the authority as a simple contract debt in any court of competent jurisdiction.

(8) A local authority shall be guilty of an offence if it—

(a) fails to comply with a request under subsection (1) or (2), or

(b) fails to comply with a direction under subsection (5) or (6).

(9) The Minister may, with the consent of such other (if any) Minister of the Government as the Minister considers appropriate having regard to the functions of that other Minister, make regulations enabling the Agency to exercise, in relation to a public authority (other than a local authority within the meaning of this section) that, in the opinion of the Minister, performs a statutory function in relation to environmental protection, the powers conferred on the Agency by this section in relation to a local authority.

(10) Nothing in this section shall be construed as enabling the Agency to exercise any power or control under this section in relation to the making of a decision on an application for a permission under section 34 of the Act of 2000.

(11) In this section, 'local authority' has the meaning assigned to it by the Local Government Act 2001."

Previous Page ◀

Print Act ▶

Next Page ▶

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From: Madeleine Healy

Sent: 11 December 2006 13:04

To: 'Brendan Wall'

Cc: Noel O'Keeffe; Pat OMahony; Valerie Hannon; 'd.smith@epa.ie'

Subject: RE: [Possible Spam] Midleton Waste Water Treatment Plant - Monitoring Results
Brendan

Attached please find a spreadsheet with the results you requested at the Audit for 2005. Those highlighted are carried out by Consultus - an accredited Lab - the remainder are carried out by EPS staff on site. CCC does not have the traceability documentation attached to Consultus results and it does not exist for EPS. Just wanted to highlight this before you include the results in your annual report.

I also attach the results we have for the period you requested in your email Sept to Dec 7th 2006. I attach CCC, Consultus and EPS chemical results and Consultus and CCC bacteriological results. As you can see we do not have any data for December yet at this time.

With regard to Bacteriological testing and results. EPS get Consultus to test and the results are included in the EPS sheets. The lab at Inniscarra used to do it in Midleton but due to staff shortages this was outsourced in 2005 to a private company. Dixon Brosnan are Environmental Consultants and they collect samples for us weekly and get them analysed. They sample at numerous locations as you can see on the attached sheet. Babys walk refers to the location where Irish Distillers waste enters the council sewer. Industrial tank refers to same waste where it is collected at Bailick 1 pumphouse and pumped onwards to Ballinacurra.

Note: Earlier this year CCC contacted the EPA with a regard to reviewing the licence conditions under which Irish Distillers operate. Breen Higgins is currently working on this. We requested the review because the existing licence did not take into account the UWW regs or the Foreshore licence conditions by which the waste discharged at Rathcoursey is governed .

With regard to the queries raised in your email

The final discharge point for the treated effluent from Midleton is at Rathcoursey. Irish Distillers Ltd. treats its own waste on site and discharges its treated waste into a council sewer which takes it to Rathcoursey via Bailick 1 and Ballinacurra pumping stations. It does not go through the MWWTP. Treated effluent from Midleton is gravity fed to Ballinacurra. It combines on route with the distillery waste and both are pumped from Ballinacurra to Rathcoursey. Ballinacurra 1 refers to the treated waste that is pumped from there onto Rathcoursey. (Irish distillers and Midleton WWTP). Ballinacurra 2 foul pumps refer to the local system for the village of Ballinacurra. It is a record of the waste collected at Ballinacurra and pumped back to the treatment plant for treatment.

Finally with regard to the results recorded for the WWTP that failed the UWW regs for 2/3/05. I will send on the test reports recorded by the Lab at Inniscarra that detail the incident. I am also sending on the uv graphs for that day. In brief having spoken to Valerie Hannon in our lab and having gone through EPS records there was an incident at the plant on the 1/03/05. The sludge blanket carried over into the final effluent channel for a period in the afternoon of the 1/03/05. This would have been represented in the composite sample collected on the 2/03/05. I do not know at this stage exact details as to why the blanket rose and spilled over. High sludge blankets are expected in a denitrifying system where the sludge is recirculated to facilitate denitrification and the wasted sludge is not drawn from the clarifiers but from the sludge return system. The documentation I will send to you in the post shows the incident was short lived and high uv transmission and good quality effluent was restored in a matter of hours.

Valeries record shows that she took a grab sample also on the 2/03/05 from the Clarifier. The results from this are attached and I believe that it was this sample and not the composite sample that was split on the day which explains why the Consultus results do not show the poor quality.

I am on annual leave from Wed 13th Dec until Tues 19th. If you have any further queries during this time please contact either Valerie Hannon (021 - 4532707) or Helena O'Riordan (021 4285922)

-----Original Message-----

From: Brendan Wall [mailto:b.wall@epa.ie]

Sent: 08 December 2006 13:00

To: Madeleine Healy

Cc: David Smith

Subject: [Possible Spam] Midleton Waste Water Treatment Plant - Monitoring Results

Att: Madeleine Healy
Senior Executive Engineer
Roads and Water Services
Cork County Council

Dear Ms. Healy

Following on from the EPA audit and visit to Midleton WWTP on the 6 December 2006 could you please forward or arrange to have forwarded to the EPA a copy of the monthly monitoring results spreadsheet showing the results of all the influent and effluent monitoring from the 1st September 2006 to the 7 December 2006. Please also include the results of the bacteriological monitoring on the treated effluent.

Could you please advise on the location of the discharge point for the treated effluent from the WWTP. Also could you clarify whether any other effluent, waste water or storm water is discharged from the same location. In relation to the Ballinnacurra No.1 Treated Effluent Sump could you clarify whether this is just used for the treated industrial discharge or are there other discharges at this location (treated effluent from the WWTP or storm water).

If you have any questions on the above then please do not hesitate to contact me on 053 9160600.

Yours Sincerely

Brendan Wall

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MIDLETON WASTEWATER TREATMENT PLANT

EPA AUDIT REPORT ISSUED MAY 2007

COMMENTS ON RECOMMENDATIONS MADE.

Recommendation No.1

Cork County Council should progress works without delay to prevent untreated wastewater overflowing to the Owenacurra Estuary and must ensure that the collecting system in place meets the requirements of the First Schedule of the Urban Waste Water Treatment Regulations, 2001 (S.I. No. 254 of 2001). Details on the planned improvement works and a timeframe for such works should be submitted to the EPA. The EPA should also be kept informed of the progress of the works.

In 2005, Cork County Council commissioned an investigation into the Midleton sewerage collection system. The infiltration of ground water into the collection system leading to increased dry weather flows particularly at the Bailick 1 pumping station was examined and recommendations made in relation to remedial measures. The condition of the existing pipe network was assessed by reviewing previous flow and CCTV surveys. These surveys identified sources of infiltration not remedied to date and identified areas for further investigation. Further flow and CCTV surveys were commissioned on areas of suspected infiltration.

The focus of this Study has been the reduction of infiltration into the collection system. This infiltration has led to the Bailick 1 pump station receiving more than the design capacity of the WWTP and storm tanks resulting in overflows to the Owenacurra Estuary. The principal source of the infiltration on this continual basis is known to be from groundwater entering the system at the large number of defects identified.

The following remedial measures were recommended to be undertaken as a priority as a result of the analysis of the survey results:

- Replacement of sewers at The Green and Connolly Street
- Relining of industrial main serving Irish Distillers
- Relining of sewers at Mill Road Upper, Knockgriffin, west of the WWTP and Bailick Road
- Construction of new storm sewer at Thomas Street
- Construction of new pump station and storm holding tank at Dwyer's Road serving west bank of Owenacurra River
- Localised repairs in network serving Bailick 1 pumping station including manhole serving IDL.

The above works are considered a priority and will deliver a significant reduction in the volumes arriving at the Bailick 1 pumping station. Works were undertaken and completed in 2006 to replace the defective sewer at The Green as an Advance Contract.

The ultimate reduction in the base flows that will result from these measures cannot at this time be precisely defined. However it may reasonably be expected that a reduction in the range of 30% to 50% of these base flows should be readily achievable from the measures proposed above. A recent study of the base flow figures collected at the Bailick 1 pumphouse between 2002 and 2005 show that for a reduction of 50% as indicated above the corresponding reduction in spills would be 41%, for a 40% reduction in base flows the spills would be reduced by 36% and for a 30% reduction the percentage reduction in overflows would be in the region of 27%.

Cork County Council appointed consultants to prepare a detailed design and contract documents to implement the recommendations of the Report. These Contract Documents were tendered in accordance with the public procurement procedures requiring national advertisement and imposing a set timeframe. Tenders have now been received and assessed for these works and the contract for the works is to be awarded in May 2007. The cost of these works is approximately €1.8M.

All statutory requirements in advance of construction have now been completed such as gaining planning permission, obtaining all necessary construction wayleaves and consultations with other statutory bodies. Planning permission was sought and obtained under the Part 8 Regulations applicable to local authorities of the 2001 Planning and Development Act for the pump station structure proposed for Dwyer's Road.

Construction on site will commence in June 2007 with an expected duration of 12 months. It is a requirement of the Contract that works commence immediately on the foul pumping station at Dwyer's Road adjacent to the treatment plant which will replace the defective gravity sewer crossing the Owenacurra River to the Bailick 1 pump station. These works have been identified as a priority to deliver the necessary substantial reductions in overflows as soon as possible.

As well as replacing the defective sewer the contract also includes the construction of a storm holding tank at the Dwyers Road pumping station. This tank will have a 5 hour storage capacity.

The elimination of this defective sewer and the facility provision of extra storm water storage capacity within the network will have a major role in substantially reducing the frequency and volumes of wastewater being overflowed to the river.

The works are to be supervised on site by Cork County Council resident engineering staff. Regular progress meetings are to be scheduled to ensure the agreed programme of works is achieved by the Contractor.

As per best practice all remediation works will be carried out on a phased basis. Phase 1 is the remediation works currently being undertaken. The effect of these works on the infiltration problem in Middleton will be closely monitored. If it is felt that more work is required after this Contract is completed then the Council will look at increasing storage capacity at the existing pumping station at Bailick 1 (Phase 2).

Cork County Council are also at the present time about to proceed with plans to increase the WWTP at Middleton from 10,000pe to 15,000pe. From proposal stage to commissioning should be in the region of four to five years. As well as increasing the DWF capacity of the plant, extra storage for stormwater can also be incorporated into the overall design of the project should the present remediation works be proven to be inadequate. (Phase 3)

Bailick 2 Pumphouse

There have been problems with the pumps in Bailick 2 with some time leading to constant overflows because the pumps are blocking regularly and need to be lifted and unblocked. Mechanical munchers to further break up the waste entering the system at this point are being installed shortly and this will reduce the current monthly amount overflowing by approx. 20%.

General Note

The recommendation from the EPA implies that raw untreated sewage is overflowing into the Owenacurra River. "...progress works without delay to prevent untreated wastewater overflowing to the owenacurra estuary..."

The system is designed as follows

Excess wastewater flows into the storm holding tanks (over and above what is taken directly to the treatment plant). The three tanks fill in series which allows for settlement to take place. If the storm or rain event abates before the tanks are full the volume in the tanks are pumped back into the system and on for treatment at the WWTP. The total volume held in the tanks is 1741.69 cu.m. This combined with approx. 400cu.m. storage in the pipe network itself is equivalent to approx. 6hrs storage for the 3DWF volume. This means that the effluent portion of the wastewater is well diluted before, if the storage capacity is beaten, it overflows to a pump sump to be pumped out to the river. The pumps have a 5mm screen attached to prevent any solid matter discharging to the river this further ensures that what is discharged has a negligible impact on its receiving waters.

Recommendation No. 2

Cork County Council have recently installed composite samplers upstream and downstream of the overflow sites for Bailick 1 and 2 pumping stations.

Samples from these locations will be tested weekly with regard to assessing the impact the overflow volumes have on the composition of the river water.

The EPA recommendation mentions assessing the impact the overflows have on the greater Cork harbour.

The overflow sites are situated approximately 3km upstream of where the river flows into the North Channel of Cork harbour.

I am not sure how it would be possible to determine the effect this volume of storm water overflow has on the harbour waters especially as there are many other discharge points around the harbour (both municipal and from septic tanks) and recent dispersion modelling has shown that the currents and eddies in the harbour waters carry discharges all around the mouth of the harbour and into the North Channel.

We have no test results as yet to assess the impact on the river itself. These will be forwarded to the EPA as requested.

Recommendation No.3

Cork County Council have outsourced the monitoring of the WWTP and Outfall to private Environmental Consultants. The samples taken weekly are sent to an accredited Laboratory and the results can be forwarded to the EPA as recommended. The private operator running the treatment plant also send samples to a different accredited lab. These can also be sent to the EPA.

The plant operators have an onsite lab and take samples daily to monitor the plant operation. This on site lab is obviously not an accredited lab and therefore these results will not be included.

Recommendation No. 4

Details already submitted. No further clarification requested.

Recommendation No. 5

“ In relation to split samples Cork County Council should develop a procedure for comparing the results from these samples. The on site Laboratory should join the EPA inter calibration scheme.”

The environment department has considered the above recommendation and will fulfil the following role

There are two area of sampling with regard to the Midleton Main Drainage Wastewater scheme and testing and monitoring is performed as part of this criteria

- a. Microbiological sampling by an agent on behalf of cork county council and by the operator of the treatment plant
- b. Chemical testing of the treated effluent discharge from the wastewater plant for the parameters contained in the Urban Wastewater directive by the ISO17025 accredited wastewater laboratory of Cork County Council and the operator of the treatment plant who subcontract the treated effluent samples to another accredited laboratory

In terms of the Microbiological analysis, Cork County Council will split samples on a monthly basis with the agent of Cork County Council and the laboratory used by the operator of the plant and compare the results obtained. Both laboratories will also incorporate the Evaluated Measurement of Uncertainty values for the parameters as part of this process

In terms of the chemical analysis, Cork county council will split samples on a quarterly basis with another ISO accredited laboratory and compare the results obtained. Both laboratories will also incorporate the Evaluated Measurement of Uncertainty values for the parameters as part of this process.

The private Operators will be in contact with the EPA about the inter calibration scheme.

Recommendation No. 6

Sewage sludge from Midleton is taken for disposal to Landfill. Rossmore Landfill at Carrigtwohill Co. Cork was used up to December 2006 when this facility closed. Youghal Landfill is now being used. Both facilities are licenced by the EPA and the terms of the operating licences do not require the testing of municipal sludges. Last year approx 50 tonne of sewage sludge was taken from Midleton by a private operator to be used on a willow plantation.

The operator in question had to be approved initially by the environmental department of Cork Co. Council to ensure that his operation complied with all the regulations regarding spreading of sewage sludge as per the 1998 waste management regulations.

Recommendation No. 7

On foot of this recommendation the Council has directed the plant operator at Midleton to install trigger level alarms for the transmission rate on the UV system. This alarm will be routed to the SCADA system. The trigger level set will be established after liasing with the UV supplier.

DATE	UPSTREAM OF BAILLICK 1 OVERFLOW			Overflows at Baillick 1			DOWNSTREAM OF BAILLICK1/UPSTREAM OF BAILLICK2 OVERFLOWS			Overflows at Baillick 2			DOWNSTREAM OF BAILLICK2 OVERFLOW		
	Sample A		Sample B	Sample A		Sample B	Sample A		Sample B	Sample A		Sample B	Sample A		Sample B
	Total	Faecal	Total	Total	Faecal	Total	Faecal	Total	Faecal	Total	Faecal	Total	Faecal	Total	Faecal
30/03/07	6,000	4,800		Yes (29/03/07)	5,800	4,600				2,800	2,800				
02/04/07	410	250			3,700	3,000				140,000	84,000				
13/04/07	>200,000	>120,000			200,000	40,000				>200,000	>40,000				
19/04/07	6,100	4,900			30,000	6,000				34,000	<10,000				
25/04/07	16,000	6,400	12,000 7,200		17,000	10,000				41,000	25,000				
01/05/07	21,000	17,000	26,000 16,000		19,000	11,000				23,000	14,000				
09/05/07	4,500	3,600	4,000 3,200		2,600	2,100				3,800	3,800				
14/05/07	19,000	6,300	5,100 3,400		15,000	11,000									
24/05/07	4,700	4,700	4,100 4,100		200	200	210 200			380	380	260 170			
29/05/07	24,000	26,000	38,000 <10,000		2,200	1,100	1,900 1,900			1,300	260				
05/06/07	12,000	9,000	15,000 3,000		48,000	<1,000	38,000 <1,000			180,000	72,000				
15/06/07	>200,000	>120,000		Yes (20/06/07)	140,000	56,000				90,000	18,000				
21/06/07	36,000	22,000	42,000 17,000		70,000	1,000	98,000 59,000			21,000	17,000	18,000 3,600			
27/06/07	46,000	9,200			48,000	9,000				6,000	3,000				
02/07/07	4,800	2,400			19,000	<1,000	19,000 <1,000			9,000	9,000	4,000 <10			
13/07/07	49,000	39,000	47,000 19,000		34,000	17,000	30,000 6,000			19,000	<100	6,700 5,400			
19/07/07	45,000	27,000			34,000	14,000	4,100 2,500			150,000	<100	90,000 <1,000			
25/07/07	16,000	11,000	26,000 <10		60,000	<1,000	<1,000 <1,000			2,600	1,700	4,100 4,100			
31/07/07	4,200	4,200	3,300 3,300	Yes (30/07/07)	54,000	<1,000	47,000 9,400			5,400	<1,000	3,800 <1,000			
10/08/07	9,600	9,600	33,000 13,000	Yes (09/08/07)	7,000	2,300				4,200	<100	4,100 <100			
13/08/07	5,000	3,000	1,800 <100	Yes (12/08/07)	4,700	<100				1,900	760	2,700 1,600			
24/08/07	11,000	4,400	30,000 24,000		31,000	25,000				1,400	1,100	1,100 660			
30/08/07	49,000	20,000			44,000	18,000	42,000 25,000			3,700	2,200	2,200 1,300			
05/09/07	3,000	<10			3,500	3,500	3,200 3,200			8,500	4,300	7,500 <10			
10/09/07	36,000	36,000			29,000	<10	22,000 17,000			220	55	120 <10			
18/09/07	13,000	4,000	27,000 5,400		7,800	<100				9,600	3,800	10,000 8,000			
27/09/07	11,000	4,400	13,000 10,000		45,000	<1,000	26,000 <1,000			3,800	1,500	3,600 720			
05/10/07	16,000	<1,000	11,000 <1,000		18,000	<1,000	7,600 3,800			9,600	9,600	4,700 1,900			
12/10/07	7,200	2,900	5,400 1,300		4,200	2,500				14,000	3,500	11,000 8,800			
19/10/07	22,000	8,800	21,000 8,400		20,000	6,700									

Consent of copyright owner is required for any other use.

ATTACHMENT No B.12
MOST RECENT FORESHORE LICENCE
ISSUED IN RELATION TO DISCHARGE
FROM THE WASTE WATER WORKS
ISSUED UNDER THE FORESHORE ACT
1993

For inspection purposes only.
Consent of copyright owner required for any other use.

MEMORANDUM OF AGREEMENT made the *2nd* day of *September* 1999
BETWEEN THE MINISTER FOR THE MARINE AND NATURAL
RESOURCES (hereinafter called "the Minister") of the One Part and THE COUNTY
COUNCIL FOR THE COUNTY OF CORK (hereinafter called "the Licensee") of

the Other Part WHEREAS the Licensee has applied to the Minister for a Licence to use and occupy that part of the foreshore at Midleton and Ballynacorra River, Midleton in the County of Cork more particularly delineated on the map annexed hereto for the purpose of laying, using and maintaining Foreshore Crossings, Domestic Rising Main, Outfall Pipes, Pumping Stations Storm Water Outfall and Overflow Pipe thereon in connection with the Midleton Sewerage Scheme.

AND WHEREAS the Minister in exercise of the powers vested in him by Section 3 of the Foreshore Act, 1933 hereby grants to the Licensee licence to use and occupy the said part of the foreshore on the terms and conditions following:-

1. This Licence shall remain in force for the term of thirty-five years from the date hereof except as hereinafter provided.
2. The Licensee shall pay to the Minister through the Superintendent of the Mercantile Marine Office at 27 Eden Quay, in the City of Dublin, the sum of Thirty Thousand Pounds (£30,000) on the execution hereof and thereafter during the term hereby created the yearly rent of One Pound (£1.00), if demanded.
3. The Licensee shall use that part of the foreshore the subject matter of this Licence for the purpose of laying using and maintaining the aforesaid structures and for no other purpose whatsoever.
4. The Licensee shall at all times during the continuance of this Licence keep the said structures in a good and proper state of repair and condition to the satisfaction of the Minister and ensure that it will not be injurious to navigation, the adjacent lands or the public interest.

5. The Licensee shall provide a level of treatment, including ultra-violet treatment, which shall ensure the following effluent quality at the inspection chamber in the channel downstream of the treatment plant:

The geometric mean of faecal coliforms per 100 ml of effluent must be 250 fc or less. This limit can be reviewed in the event of variation of effluent inputs. Compliance with this clause shall be measured on the basis of a 50 sample rolling programme, as applicable.

95% of all samples shall be less than 1,000 fc/100 ml.

In the event of a result of over 1,000 fc/100 ml, the Licensee shall immediately contact the Department of the Marine and Natural Resources to agree necessary action.

6. A detailed sampling programme to monitor compliance with condition 5 shall be agreed with the Department of the Marine and Natural Resources before any discharge is allowed through the pipelines. The programme will cover, inter alia, frequency and times of sampling and analysis centres and methodology. Should the analysis show that the standards laid down are not complied with, an immediate programme shall be put in place to redress the situation. The cost of all the aforementioned sampling and monitoring shall be borne by the Licensee.
7. Should a viral health problem arise in the adjacent oyster beds, an objective study of the sources of contamination will be carried out to determine the contribution, if any, by the Midleton Municipal discharge to the contamination and the standards laid down in condition no. 5 will be reviewed accordingly.
8. Should a statutory viral classification system be laid down for molluscan production areas, the Licence will be revised and amended if necessary to take this into account particularly in relation to condition no. 5.
9. The Licensee shall ensure that any breakdown of the effluent treatment system be notified immediately to the local Department of Marine and Natural

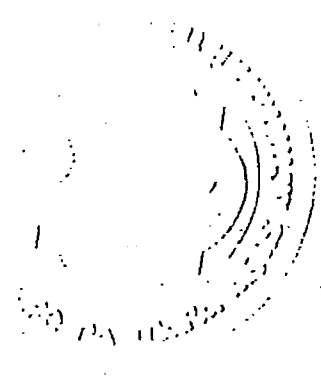
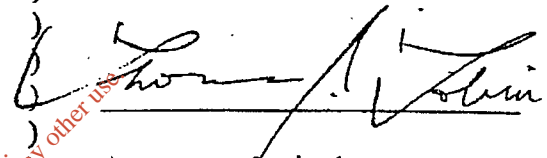
Resources Sea Fishery Officer and Fish Quality Officers, so that any health problems posed by the oysters can be contained.

10. The said structures shall be laid and constructed in accordance with plans and drawings which have been submitted to, and approved by the Minister.
11. The Licensee shall indemnify and keep indemnified the State and the Minister, their officers, agents and employees against all actions, loss, claims, damages, costs, expenses and demands arising in any manner whatsoever in connection with the construction maintenance or user of the said outfall pipe or in the exercise of the permission hereby granted.
12. The Minister shall be at liberty at any time to terminate this Licence by giving to the Licensee twelve months previous notice in writing ending on any day and upon determination of such notice the licence and permission hereby granted shall be deemed to be revoked and withdrawn without the liability for the payment of any compensation by the Minister to the Licensee.
13. The Licensee shall if so required by the Minister within twelve months after receipt of such notice or on determination of this Licence from any other cause at its own expense remove the said structures to the satisfaction of the Minister and if the Licensee refuses or fails to do so the Minister may cause the said works to be removed and shall be entitled to be paid by and to recover from the Licensee as a civil debt due to the State all costs and expenses incurred by him in connection with such removal and restoration.
14. In the event of the breach non-performance or non-observance by the Licensee of any of the conditions herein contained the Minister may forthwith terminate this Licence without prior notice to the Licensee.
15. Any notice to be given by the Minister may be transmitted through the Post Office addressed to the Licensee at its last known address.

IT IS HEREBY CERTIFIED for the purpose of the stamping of this instrument that this is an instrument to which the provisions of Section 112 of the Finance Act, 1990 do not apply for the reason that the entire of the property involved comprises foreshore and contain no buildings.

PRESENT when the Seal of
office of the MINISTER FOR THE
MARINE AND NATURAL RESOURCES
was affixed and was authenticated by the

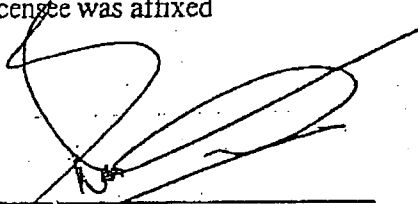
Signature of:
THOMAS J. TOBIN

A person authorised under Section 15(1) of the Ministers and Secretaries Act, 1924 to authenticate the seal of the Minister.

WITNESS: Thomas J. Tobin
ADDRESS: 1/ Marine & Natural Resources, Leeson Lane, Dublin 2
OCCUPATION: CIVIL SERVANT

PRESENT when the Common Seal of the Licensee was affixed hereto:


ASSISTANT COUNTY MANAGER
Kevin Murphy
NOMINATED MEMBER

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