

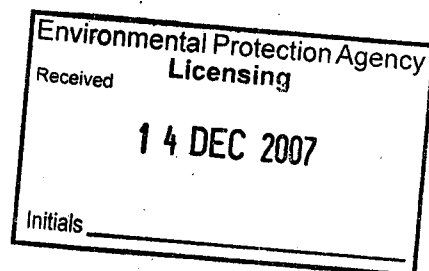


Cork County Council

Wastewater Discharge Licence Application under S.I. 684 of 2007  
Regulations

Scheme / Agglomeration Name : Ballincollig

Submission Date : 14<sup>th</sup> December 2007



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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.

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

#### ***General***

The village (and now town) of Ballincollig developed to a large extent to the south due to the presence of the Cavalry Barracks on the North side of the main road.

The original village comprised the square and some linear building opposite the main gates to the Barracks.

This development was served by an old Sewage Collection System at the back of the buildings which discharges through the Barracks lands to the West of the Village.

By the early sixties the village had extended, by means of ribbon development on the Cork side, as far as Poulavone at the end of the Model Farm Road. The population had increased to approximately 1,600 persons and a new trunk sewer was laid to service the development.

A Secondary Sewage Treatment Plant (Stone Percolating Filters) was constructed on a site acquired from the Barracks lands.

Towards the end of the 60s and early 70s the Cork Land Use and Transportation Study (LUTS) proposed the model of satellite towns and the first housing estates were constructed in Ballincollig. These, Inniscara View and Rosewood were initially built on the Cork side of the village and discharge to the Poulavone sewer.

There was also a meat (pork) processing factory, Cork Farmers Union (CFU) located near the East Gate (on what is now the Link Road) and this discharged to the Poulavone sewer. Muskerry estate was built to the West of the village and discharges to the original village sewer. These are all large estates and all straddle a low watershed. Because of this all three are partly served by pumping stations.

A new Sewerage Scheme was designed in the mid 70s to service this development and further zoned and un-zoned lands to the South and West of the Village. The first stage of this, a Wastewater Treatment Plant (on the existing site) and extended sewer network, was constructed in the late 70s.

The WWTP was designed to treat the combined domestic load, arising from the dormitory town type development, and the waste from CFU. This pollution load concentration of this wastewater averaged at approximately twice a domestic wastewater.

The sewer network was extended by means of a trunk sewer which serves Beech Park, Castlepark, Time Square and Church View estates and which ultimately discharges through the Barracks lands along the same route as the original town sewer. These have recently been combined into a single sewer during the construction of the new Barracks development. The sewer network was designed on a partially combined basis (18 DWF) with the storm water from the estate developments being discharged to local soakpits.

Provision was also made for development to the south of the watershed by means of a pumphouse (Castleview of Maglin), which can cater for substantial development in the catchment. This pumphouse is designed to pump 6 DWF and discharges to the Castlepark sewer.

In the late 70s/early 80s the Council acquired a large area of Inishmore land from the Department of Defence to the West. A further stage of the Sewerage Scheme was constructed to service this and other zoned lands further west. Because of the low-lying nature of the lands the collected sewage has to be pumped into the WWTP. This pumphouse is located within the WWTP site. This was the first part of the scheme to include a separate Storm sewer.

Some other minor sewer extensions have been carried out to accommodate new developments. In addition a storm water drain was laid from Time Square Eastwards towards Collaiste Coilm and thence to the River Lee. Some work was carried out to separate out Road drainage in half of both Inniscarra View and Rosewood estates where the soakpits had failed.

Storm Water is the major problem affecting both the Collection system and the WWTP. Except for the new developments all other rainwater run-off is discharged to the foul sewers and this results in a very flashy drainage system with storm run-off arriving at the WWTP within 30 minutes of the start of a rainfall event

#### ***Existing Foul Sewage Collection System***

As described above the existing Sewage Collection System has developed over a long number of years but most of has been constructed to a plan contained in the 1979 Ballincollig Sewerage Scheme Preliminary Report.

The main sewage collection system, as it exists at present, consists of four (4) main gravity foul trunk sewers with a further two (2) entering the WWTP site at the lower



end and being pumped to the inlet. There is a sub-catchment serving the Maglin area. These main sewers are as follows: -

Original Trunk Sewer	Serves the old town and Muskerry Estate
Poulavone Trunk Sewer	Serves the main road to the East of Ballincollig
Castlepark Trunk Sewer	Serves the Castlepark and pumped Maglin areas
Western Trunk Sewer	Serves the West end of Ballincollig
Western Lower Trunk Sewer	Serves the Innishmore area of the town
Eastern Lower Trunk Sewer	Serves the Leesdale area of the town

**(a) Original Trunk Sewer**

This is the original sewerage scheme for Ballincollig and drains the back of the Main Street, the Square and part of Church Road. It flows westward at the back of the buildings (through the Village SC) as far as the present Statoil petrol station from where it turns north through the Barracks lands to the WWTP. At the point where it turns north through the Barracks lands it collects a branch from the west carrying the wastewater from the ribbon development in that direction and virtually all of Muskerry estate. The last section through the Barracks development has been upgraded and amalgamated with the Castlepark Trunk in a new sewer.

**(b) Poulavone Trunk Sewer**

This sewer was laid in 1963 when the first Secondary Sewage Treatment Plant was constructed and served the ribbon development along the main road from Poulavone to Father Sexton Terrace near the East Gate. From there the sewer turns north and then west through the former J A Woods machinery depot and the Barracks lands to the WWTP.

As mentioned earlier the first large-scale developments in Ballincollig (Inniscarra View and Rosewood) were constructed in this area and they discharge their wastewater to the Poulavone Trunk sewer. The drainage of these and several subsequent developments were designed on a partially combined basis with only road run-off being discharged to soakpits. Over the years these began to fail and this run-off was also turned into the sewers.

In the mid 90s a Storm Water separation scheme was carried out to drain the north facing road drainage from these estates directly to the Lee. At the same time two overflows were constructed to new estates (Daffodil Fields and Manor Hill) to relief flooding. A subsequent model shows that these are of minor value.

Most recently the pumped discharge from Bridgewater and Carrigrohane has been connected to it.

**(c) Castlepark Trunk Sewer**

This sewer was part of the 1979 Preliminary Report proposals and was laid in the early 80s. It was designed to capture all the gravity flows from the centre of the village and to accommodate all the pumped foul flows from the development area of the Maglin valley.

This sewer runs parallel to the Original Town sewer (but at a higher level) and meets Station Road just below the Boys National School. From here it follows Station Road before again turning and paralleling the original sewer as far as the Statoil petrol station. This has been combined with the Original Trunk Sewer where it passes through the new Barracks lands development.

**(d) Western Trunk Sewer**

This Trunk Sewer serves much of the Western end of Ballincollig and the advent of the Ballincollig By-Pass would suggest that development in this area will be complete in the very near future. This sewer was laid, with a parallel Storm drain in the mid 80s and drains the Greenfields/ Coolroe area of Ballincollig. En-route it collects the partially combined flows from Westcourt Estate at the new West End Roundabout.

The sewer follows the contours at the rear of Westcliffe and Oriel Court to discharge to the head of the WWTP.

At the West End roundabout, this trunk Sewer has an overflow to the western lower trunk foul sewer.

**(e) Western Lower Trunk Sewer**

This sewer runs along the land at the bottom of the Innishmore commercial and housing development and discharges to the pumphouse in the bottom of the WWTP site.

**(f) Eastern Lower Trunk Sewer**

This gravity sewer serves the Leesdaile area and but some of the estate is pumped to it via the Leesdaile pumping station.

**(i) Maglin Sewers**

Castleview pumphouse (Maglin) was designed to pump 6 DWF from a potential Development area of approximately a maximum of 270 litres/sec., from the anticipated development area in the 1979 Preliminary Report of 145 hectares.

**Wastewater Treatment Plant**

The existing Sewage Treatment Plant at Ballincollig consists of two separate and distinct Sewage Treatment Plants as follows: -

- (a) A biological percolation filtration plant complete with primary sedimentation tanks, stone percolating filters and secondary humus tanks, built in the 1960's. This is now defunct.
- (b) An extended aeration, carousel type, activated sludge treatment plant consisting of a single carousel bioreactor, twin settling tanks and sludge return facility. This plant was constructed in the early 1980's.

The wastewater arrives at the WWTP via a number of pipes, at an inlet chamber upstream of the inlet works.

The wastewater passes through two mechanically raked coarse bar screens (25mm c/c).

an overflow weir discharges excess storm water to the outfall pipe.

Grit is removed in three constant velocity grit channels.

The wastewater flows to a Carousel type activated sludge plant. The volume of this basin is approximately 9000 m<sup>3</sup> and this would limit the average daily BOD load to 1890 kg.

The mixed liquor is settled in two circular radial flow clarifiers.

The settled sludge (RAS) is returned to the aeration basin using Archimedes screw pumps.

The excess sludge (WAS) is pumped to the picket fence thickener (PFT) where it settles and compacts.

The floating scum on the clarifiers is removed via a scum box and is pumped to the PFT for further treatment.

The thickened sludge is pumped from bottom of the PFT to the centrifuge.

The centrifuge dewater and further thickens the sludge prior to off-site disposal. The sludge is presently being composted, off site, for agricultural usage.

The centrate is presently pumped to the inlet area (Dec 07) but it will shortly be pumped to the aeration basin.

There are two Bord na Mona odour removers used, one at the picket fence thickener and the other at The centrifuge.

The treated effluent is discharged from the clarifiers via a weir to a chamber. From this chamber it flows to a manhole on the north west of the treatment plant site. From this manhole it is discharged to the river Lee via the outfall pipe.

There are two composite samplers in the process one at the inlet (flow proportional) and the other at the outlet chamber from the clarifiers that is time based.

## Present Capacities of Treatment Plants

### (ii) Biological Capacity of Treatment Works

the Biological Treatment Capacity of Ballincollig Sewage Treatment Plant is approx 32,000 p.e. .

	BOD Load (Kgs)	Population Equivalent @ 6DWF
Activated Sludge Plant	1890	31,500

### **Hydraulic Capacity of Treatment Works**

The hydraulic capacity of the plant is approximately 15,000 **p.e.** at 6 DWF. .

	Hydraulic Load (m <sup>3</sup> /d)	Population Equivalent @ 6DWF
Clarifiers for Activated Sludge Plant	19980	14479

It is intended to provide extra capacity by providing a new clarifier in the immediate future.

The Urban Wastewater Directive dictates the standards to which the plant must treat effluent.

**Table 1**

Parameter	Effluent Limit
BOD	25 mg/l
COD	125 mg/l
Suspended Solids	35 mg/l

Notwithstanding the hydraulic problems, the biological treatment plant is still capable of producing a good final effluent.

The Ballincollig WWTP is currently operated by Cork County Council staff. The plant is manned during the working week 8.30am - 5.00pm (Monday - Friday) and the curator is also on site for a number of hours both Saturday and Sunday. 2 no Wastewater Curator and a general operative maintain the plant and network. An Environmental Technician is fully employed between Ballincollig and Blarney WWTPs.

### **The Sources of Emissions from the Waste Water Works**

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

- The local Population
- The local Industries, commercial and non-domestic users.

The pollution load from these sources varies with daily, weekly and seasonal producers of effluent. The sewage from all industries is collected via the public sewer and treated in conjunction with domestic waste at the wastewater treatment plant.

The domestic population of Ballincollig has grown over the last three censuses owing to its development as a town within the Cork Metropolitan area. The population of Ballincollig was determined to be 16,339 by the 2006 CSO census.

Other sources of influent that contribute to the sewage scheme would be:

- Commercial premises
- Schools

- Tourism

An approximate non-domestic population equivalent of 8,200 was calculated for 2006.

This gave a present total pollution load of 24,542

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

The final effluent is discharged into the River Lee.

The effluent quality will be according Table 1. (*Above*)

**Environmental Impacts**

An Environmental Impact Statement is being carried out for the Expansion and Upgrading of Ballincollig Sewage Treatment Works. This report will address the following:

- Ecology
- Noise
- Odour
- Roads & Traffic
- Landscaping and Planting
- Archaeological Assessment

It is necessary to consider that the effluent quality will meet the requirements stated in the Urban Waste Water Directive 1994.

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

***Technologies***

In the WWTW at Ballincollig a sufficient number of standby pumps, etc. is provided in order to ensure continuation of the wastewater and sludge treatment and to comply with all environmental standards in case of equipment failures or breakdowns. Standby equipment is installed, ready for take over, or available in stock on site. The disused dewatering belt press is to be refurbished to provide for emergency situations.

***Techniques***

A Performance Management System (PMS) will be put in place at the Ballincollig Wastewater Treatment Plant. The Water Services National Training Group (WSNTG) is developing this Performance Management System. The PMS will provide 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.



Cork County Council performs the Operation of the WWTP in accordance with the Operation Manual procedures and maintains the design performance capability of the existing treatment plant.

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

***Prevention of pollution***

An upgrading of the existing infrastructure is being undertaken by Cork County Council in order to reduce the potential to cause pollution in the environment.

***Improvements which are to be Effected Immediately***

The works include but are not limited to the following;

**INLET WORKS**

- Installation of an overflow weir in the Grit Settlement channels
- Installation of a new inline Packaged Fine Screen rated at 1000m<sup>3</sup>/hr. Screen is to be installed down stream of the measuring flume at the inlet works.

**STORMWATER MANAGEMENT**

- Bring into use the original Primary Settling Tanks by opening both sluice gates at inlet to “old” grit channels and bring into use existing Humus Tanks as Storm water holding/ settling Tanks.
- Install 2 No Positive Displacement Pumps (one on each desludging pipe) for return of settled storm water to head of the works.

**SUPPLEMENTARY CLARIFICATION**

- Install new Final Clarifier – capacity of 250m<sup>3</sup>/hr
- Provide 2 no Mixed Liquor feed pumps – capacity of 250m<sup>3</sup>/hr
- Provide Gravity Sludge Withdrawal Chamber
- Provide inlet pipework, sludge return pipework and clarified effluent pipework  
Provide all necessary tankage

**SLUDGE RETURN**

- Install a supplementary sludge return pump – capacity 250m<sup>3</sup>/hr in the vacant screw pump chamber.

**SCUM COLLECTION**

- Provide a new scum collection chamber of dimensions 2m x 2m x 2m below Clarifier TWL.
- Install a submersible pump to pump the underflow back to the clarifier inlet chamber.

**OUTLET TO RIVER LEE**

- Duplicate/ upgrade the pipe from clarifiers to the outfall pipe within the treatment plant site.

**SLUDGE DEWATERING**

- Provide a stainless steel tank 2m x 1m x 0.9m high adjacent to the sludge dewatering building to collect centrate.
- Provide a Variable Speed Drive positive displacement pump of capacity 25m<sup>3</sup>/h and associated hose and protection to discharge centrate adjacent to aerator platform.

- Refurbishment and setting to work of the existing Filter Belt Press sludge dewatering equipment.

In particular 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***

Cork County Council shall 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.

### **Measures planned to monitor emissions into the environment**

Cork County Council, as current operator monitors the treatment plant in accordance with the Urban Waste Water Treatment Regulations. The analysis undertaken by the monitoring body (Cork County Council Environment Dept) is done in accordance with the latest edition of the Standard Methods for the Examination of Water and Wastewater. The American Public Health Association publishes these methods.

This lab is ISO 17025 accredited under the umbrella of the Irish National Accreditation Board (INAB).

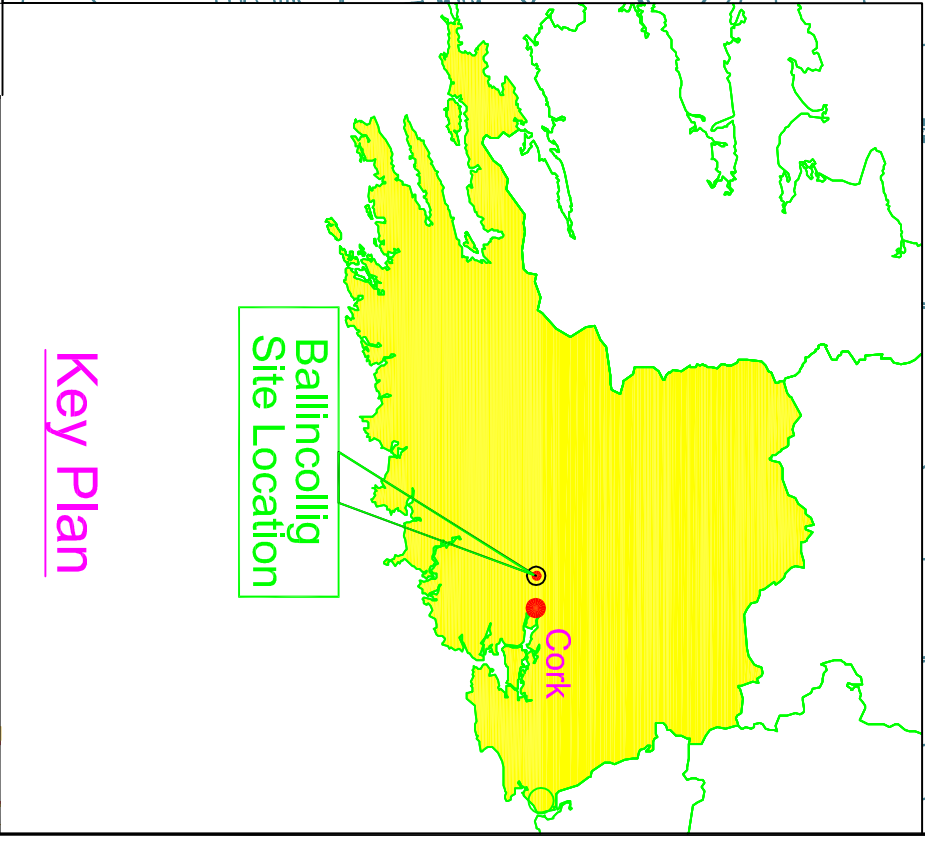
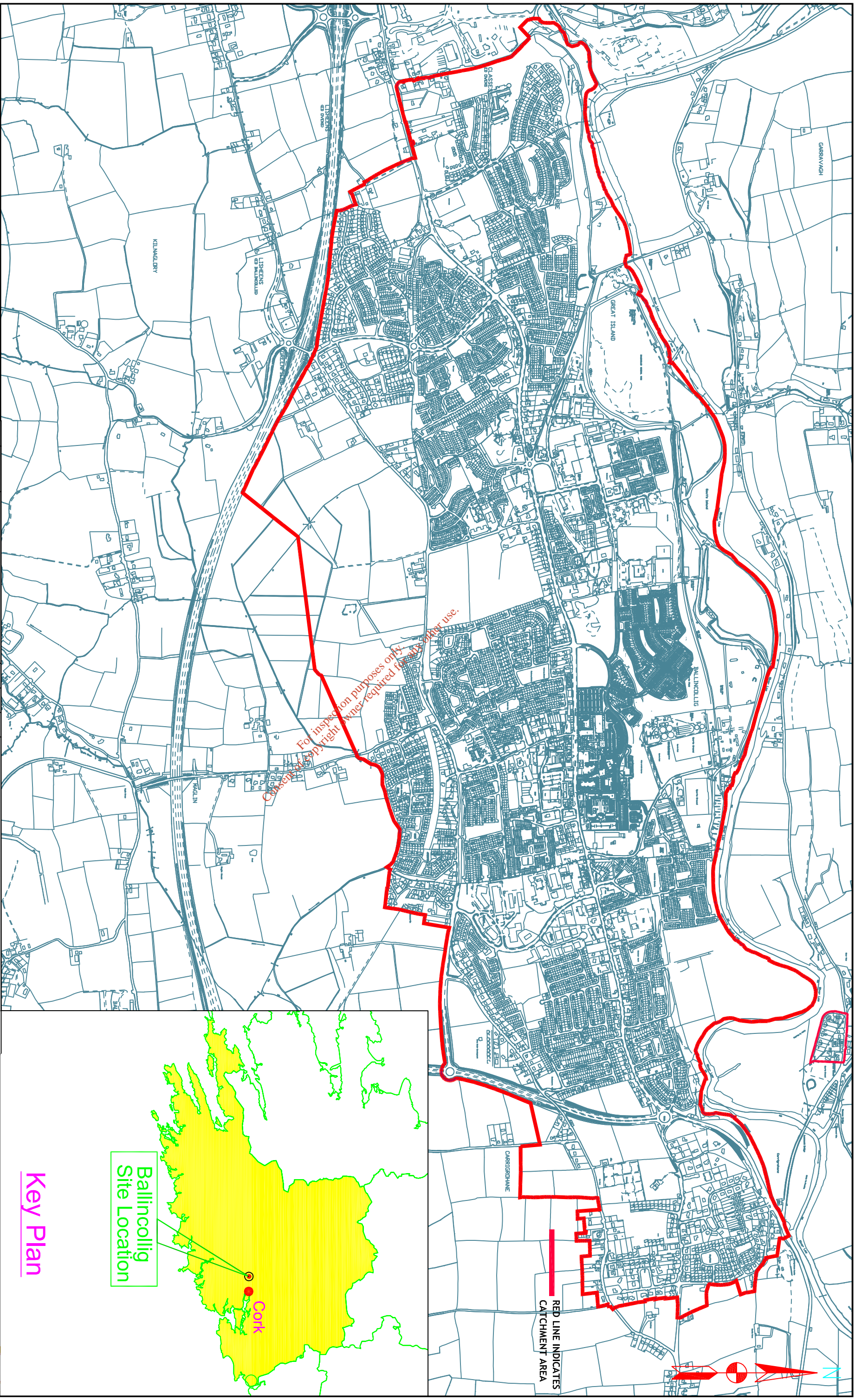
To monitor compliance with the regulations the inlet and discharge samples tested are 24-hour composite samples either flow proportional or time based. A refrigerated sampler minimizes degradation between collection and analysis. Analysis is undertaken within 24 hours of the sample being taken. Non-regulatory analysis is routinely carried out using standard laboratory techniques.

There is planned for the coming year the introduction of a PMS system. This system will set out a control system for procedures and processes for running the treatment plant.

Heavy metal analysis is determined on de-watered sludge. This analysis is part of the licence at the receiving facility. This analysis is done as part of the 'Sewage Sludge in Agriculture regulations'.

Supporting information should form **Attachment N<sup>o</sup> A.1**





Client

**Mr. N. O'Keefe**  
**B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.**  
 A/County Engineer  
 Cork County Council


Rev.	Date	Description	by	ch'd	app
B	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS
A	30.11.07	ISSUED FOR INFORMATION	AR	PS	MOS

Project

**BALLINCOLLIG WASTE WATER TREATMENT PLANT**  
**WASTE WATER DISCHARGE LICENSE**

Title

**SITE LOCATION MAP**



**Malachy Walsh and Partners**  
 Consulting Engineers

Cork | Tralee | London | Limerick

Scales (A3) 1:15,000

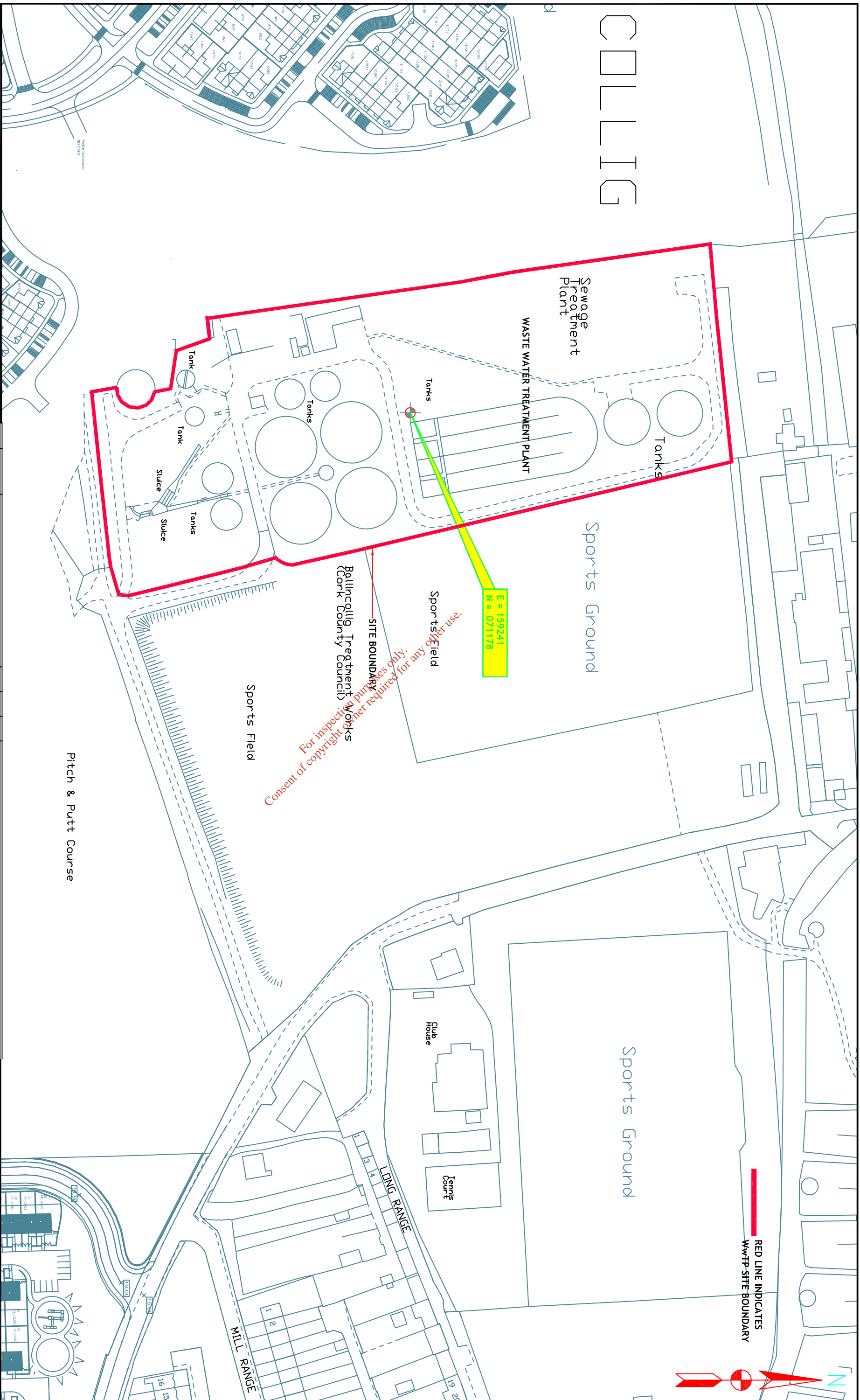
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Rev. **B**



# COLLIG



Client

**Mr. N. O'Keefe**  
**B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.**  
**A/County Engineer**  
**Cork County Council**


Rev.	Date	Description	by	ch'd	app
B	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS
A	30.11.07	ISSUED FOR INFORMATION	AR	PS	MOS

Project

**BALLINCOLLIG WASTE WATER TREATMENT PLANT**  
**WASTE WATER DISCHARGE LICENSE**

Title

**SITE PLAN**



**Malachy Walsh and Partners**  
**Consulting Engineers**  
 Cork | Tralee | London | Limerick

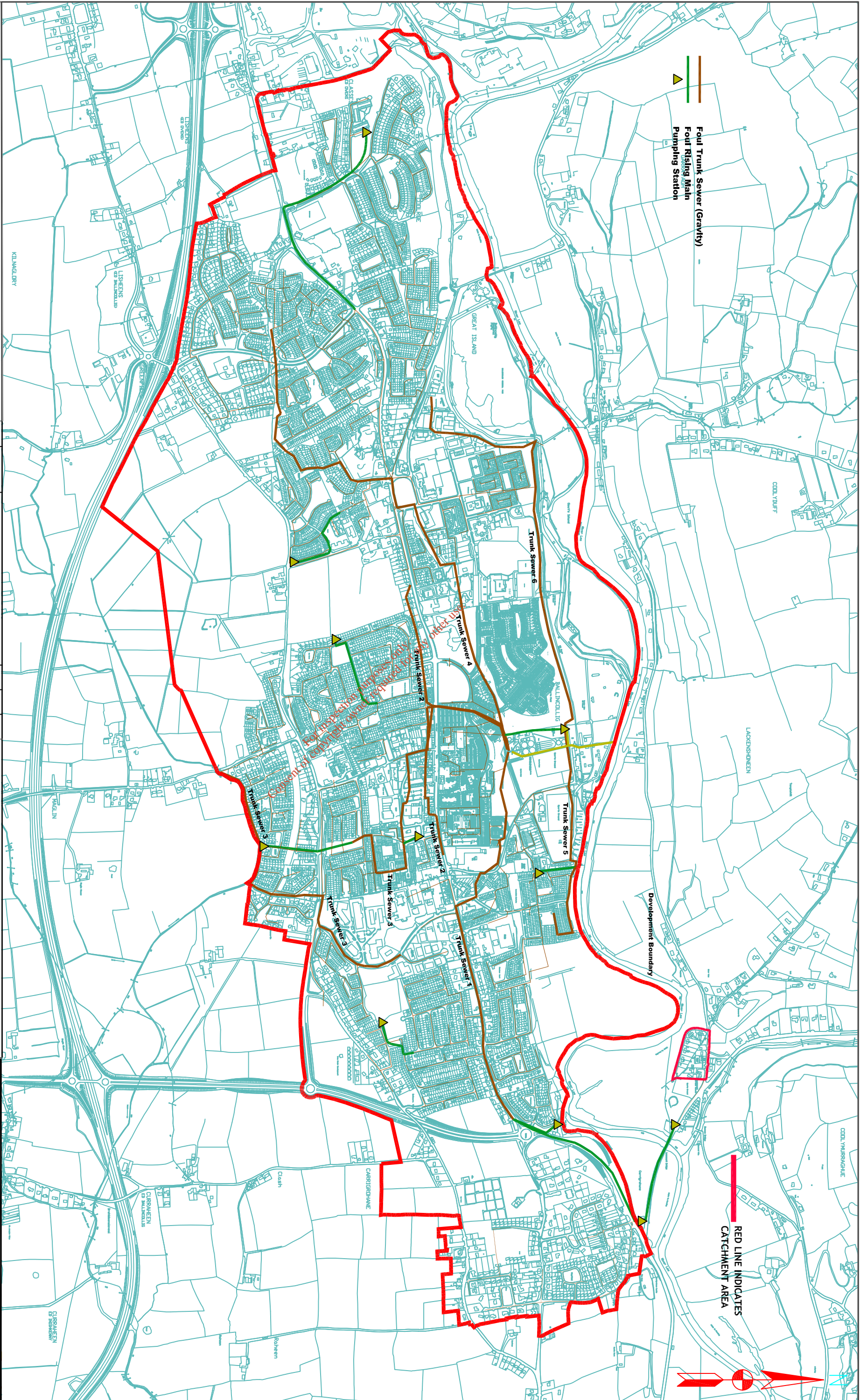
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Dwg. No. **A.1 - 02**

Rev. **B**





 Foul Trunk Sewer (Gravity)  
 Foul Rising Main  
 Pumping Station

 RED LINE INDICATES  
 CATCHMENT AREA



Client  
**Mr. N. O'Keefe**  
**B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.**  
 A/County Engineer  
 Cork County Council

Rev.	Date	Description	by	ch'd	app
B	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS
A	30.11.07	ISSUED FOR INFORMATION	AR	PS	MOS

Project  
**BALINACOLLIG WASTE WATER  
 TREATMENT PLANT  
 WASTE WATER DISCHARGE LICENSE**  
 Title  
**SCHEMATIC LAYOUT OF  
 SEWERAGE SCHEME**



**Malachy Walsh and Partners**  
**Consulting Engineers**  
 Cork | Tralee | London | Limerick

Scales (A3)		Dwg. No.		Rev.	
Drawn	AR	30.11.07	A.1 - 03	B	
Checked	PS	30.11.07			



## 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.

<b>Name**:</b>	Cork County Council Southern Division
<b>Address:</b>	County Hall, Carrigrohane Road, Cork
<b>Tel:</b>	021 2476891
<b>Fax:</b>	021 4276321
<b>e-mail:</b>	

\*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.

<b>Name*:</b>	Patricia Power
<b>Address:</b>	Director of Services Floor 5 County Hall Cork
<b>Tel:</b>	021 4285285
<b>Fax:</b>	021 4276321
<b>e-mail:</b>	patricia.power@corkcoco.ie

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

### Co-Applicant's Details

<b>Name*:</b>	Not Applicable
<b>Address:</b>	
<b>Tel:</b>	
<b>Fax:</b>	
<b>e-mail:</b>	

\*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

<b>Name*:</b>	Not Applicable
<b>Address:</b>	
<b>Tel:</b>	
<b>Fax:</b>	
<b>e-mail:</b>	

\*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.

<b>Name*:</b>	Michael Murphy
<b>Address:</b>	Ballincollig WWTP
	Powdermills
	Ballincollig
	Co Cork
<b>Grid ref (6E, 6N)</b>	E159203 N71139
<b>Level of Treatment</b>	Secondary
<b>Primary Telephone:</b>	021 4875643
<b>Fax:</b>	021 4289868
<b>e-mail:</b>	mick.murphy@corkcoco.ie

\*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.

<b>Type of Discharge</b>	Pipe to river
<b>Unique Point Code</b>	SW01-Ballincollig
<b>Location</b>	Ballincollig
<b>Grid ref (6E, 6N)</b>	N159686 E71520

**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.

<b>Type of Discharge</b>	Emergency overflow.
<b>Unique Point Code</b>	SW01-Ballincollig
<b>Location</b>	Ballincollig
<b>Grid ref (6E, 6N)</b>	N159686 E71520

<b>Type of Discharge</b>	Emergency overflow.
<b>Unique Point Code</b>	SW02-Ballincollig
<b>Location</b>	Maglin
<b>Grid ref (6E, 6N)</b>	E159686 N70000

<b>Type of Discharge</b>	Emergency overflow.
<b>Unique Point Code</b>	SW03-Ballincollig
<b>Location</b>	Carrigrohane
<b>Grid ref (6E, 6N)</b>	E161301 N71619

<b>Type of Discharge</b>	Emergency overflow.
<b>Unique Point Code</b>	SW04-Ballincollig
<b>Location</b>	Ballincollig
<b>Grid ref (6E, 6N)</b>	E160046 N071382

**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.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	✓	

#### **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.

<b>Type of Discharge</b>	Storm water overflow
<b>Unique Point Code</b>	SW01-Ballincollig
<b>Location</b>	Ballincollig
<b>Grid ref (6E, 6N)</b>	N159686 E71520

<b>Type of Discharge</b>	Storm water overflow
<b>Unique Point Code</b>	SW03-Ballincollig
<b>Location</b>	Carrigrohane
<b>Grid ref (6E, 6N)</b>	E161301 N71619

**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.

<b>Name:</b>	Cork County Council
<b>Address:</b>	County Hall, Carrigrohane Road, Cork
<b>Tel:</b>	021 2476891
<b>Fax:</b>	021 4276321
<b>e-mail:</b>	

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

<b>has been obtained</b>	<b>is being processed</b>	
<b>is not yet applied for</b>	<b>is not required</b>	

<b>Local Authority Planning File Reference N<sup>o</sup>:</b>	
---	--

**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
		✓

### 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.



<b>Within the SFADCo Area</b>	<b>Yes</b>	<b>No</b>
		✓

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.

<b>Name:</b>	HSE Southern Division
<b>Address:</b>	Slanta House
	Wilton Road
	Cork
<b>Tel:</b>	021-4545011
<b>Fax:</b>	021-4545748
<b>e-mail:</b>	Not available

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.

<b>Name:</b>	Not Applicable
<b>Address:</b>	
<b>Tel:</b>	
<b>Fax:</b>	
<b>e-mail:</b>	

<b>Relevant Authority Notified</b>	<b>Yes</b>	<b>No</b>

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

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		✓

**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.

The population of Ballincollig was determined to be 16,339 by the 2006 CSO census and using the Geodirectory a total of 234 non-domestic buildings were found to be present in the area these include for six schools, two churches and one hotel. In establishing the pollution load of the Catchment area the non-domestic population equivalent was estimated as follows.

The non-domestic pollution load in Ballincollig includes for commercial, industrial, institutional and agricultural loads. The method of determining the exact number of non-domestic consumers in the area was by using Geodirectory, by cross-referencing these with metered records (2004) provided by Cork County Council and through various other sources (business listings, golden pages etc.),

An approximate non-domestic population equivalent of 8,200 was calculated for 2006. This gave a present total pollution load of 24,542.

<b>Population Equivalent</b>	24,542
<b>Data Compiled (Year)</b>	2006
<b>Method</b>	See above

### 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 €)
Greater than 10,000 pe	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.

#### ***Cork County Council Assessment of Needs July 2006***

Ballincollig Sewerage Scheme Upgrade-€23,100,000(estimated cost)-Priority No. 8 from 2007 to 2009

Barry's Road Foul and Storm Sewers-€2,500,000(estimated cost)-Priority No. 24 from 2007 to 2009

#### ***WaterServices Investment Programme 2007 - 2009***

Ballincollig Sewerage Scheme (Nutrient Removal) €950,000(approved funding)-  
Programmed to start in 2008 by second quarter 2013

Ballincollig Sewerage Scheme (Upgrade) €22,250,000(approved funding)-  
Programmed to start in 2009 by second quarter 2013

Interim Works approved by County Council in July 2007

Additional Clarifier Tank to be installed and interim storm water storage/management by converting existing tanks. Tender price is €600,000. Works have commenced

**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.

Water Services Investment Programme 2007 to 2009

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	✓	

## 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.

### **EPA Ref No: Ballincollig Sewage Works- PAE2007/206**

#### **Section 63 Correspondence**

The EPA received a complaint concerning a discharge from the Ballincollig Sewage Treatment Plant on the evening of 8<sup>th</sup> May 2007. That evening an EPA official inspected the treatment plant and took samples of the discharge to the River Lee.

The EPA issued notice of a **Report Request** on 16<sup>th</sup> May 2007 under Section 63(a) of the Environmental Protection Agency Acts 1992 as amended by Section 13 of 2003 Act to the South Cork, City Hinterland Division. The laboratory results of the samples taken by the EPA indicated a high pollutant loading had entered the River Lee. The Council furnished a report on 28<sup>th</sup> of May 2007 in response.

The EPA issued formal notice of **Advice & Recommendations** on 7<sup>th</sup> June 2007. This listed the requirements considered necessary by the EPA for the Council to meet its obligations in relation to environmental protection functions.

The Council submitted a detailed response on 20<sup>th</sup> June 2007 that dealt with the EPA list of requirements in its formal notice of **Advice & Recommendations** to the Council and which included the **Emergency Measures Report** (a schedule of emergency works). This detailed response was copied to Mr. Tadhg O' Connor, Department Inspector.

On 26<sup>th</sup> June the EPA wrote to inform Cork County Council that it would not be pursuing the matter, subject to the Council implementing "**the programme of works and actions as planned and submitted to the Agency**". The EPA is satisfied that the proposed interim measures are required to address these difficulties satisfactorily.

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

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	✓	

## B.12 Foreshore Act Licences.

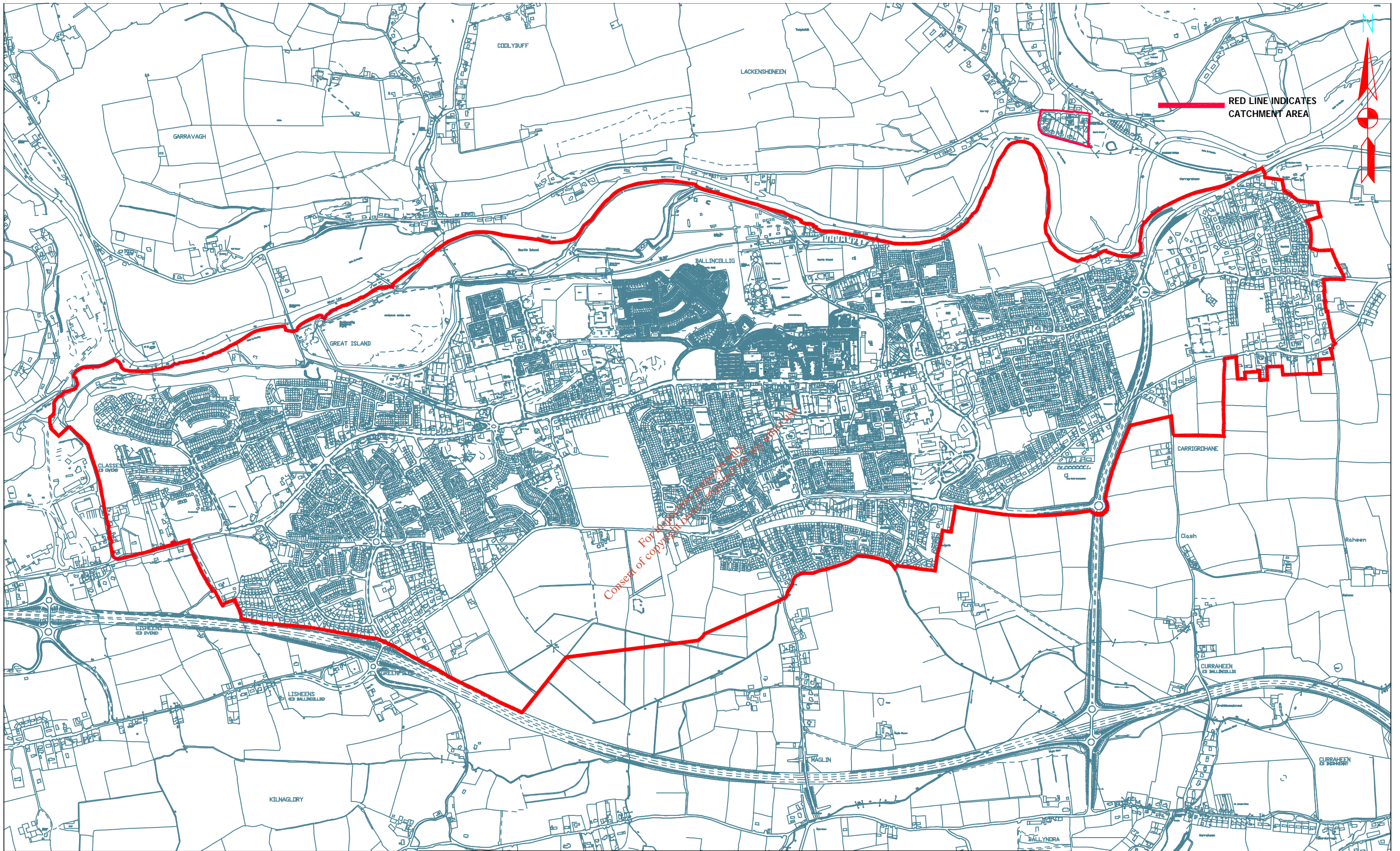
Provide a copy of the most recent Foreshore Act licence issued in relation to discharges from the waste water works issued under the Foreshore Act 1933.

**Attachment B.12** should contain the most recent licence issued under the Forshore 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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Client



**Mr. N. O'Keefe**  
**B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.**  
**A/County Engineer**  
**Cork County Council**

Rev.	Date	Description	by	ch'd	app
B	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS
A	30.11.07	ISSUED FOR INFORMATION	AR	PS	MOS

Project **BALLINCOLLIG WASTE WATER TREATMENT PLANT WASTE WATER DISCHARGE LICENSE**

Title **LAYOUT PLAN INDICATING AGGLOMERATION**

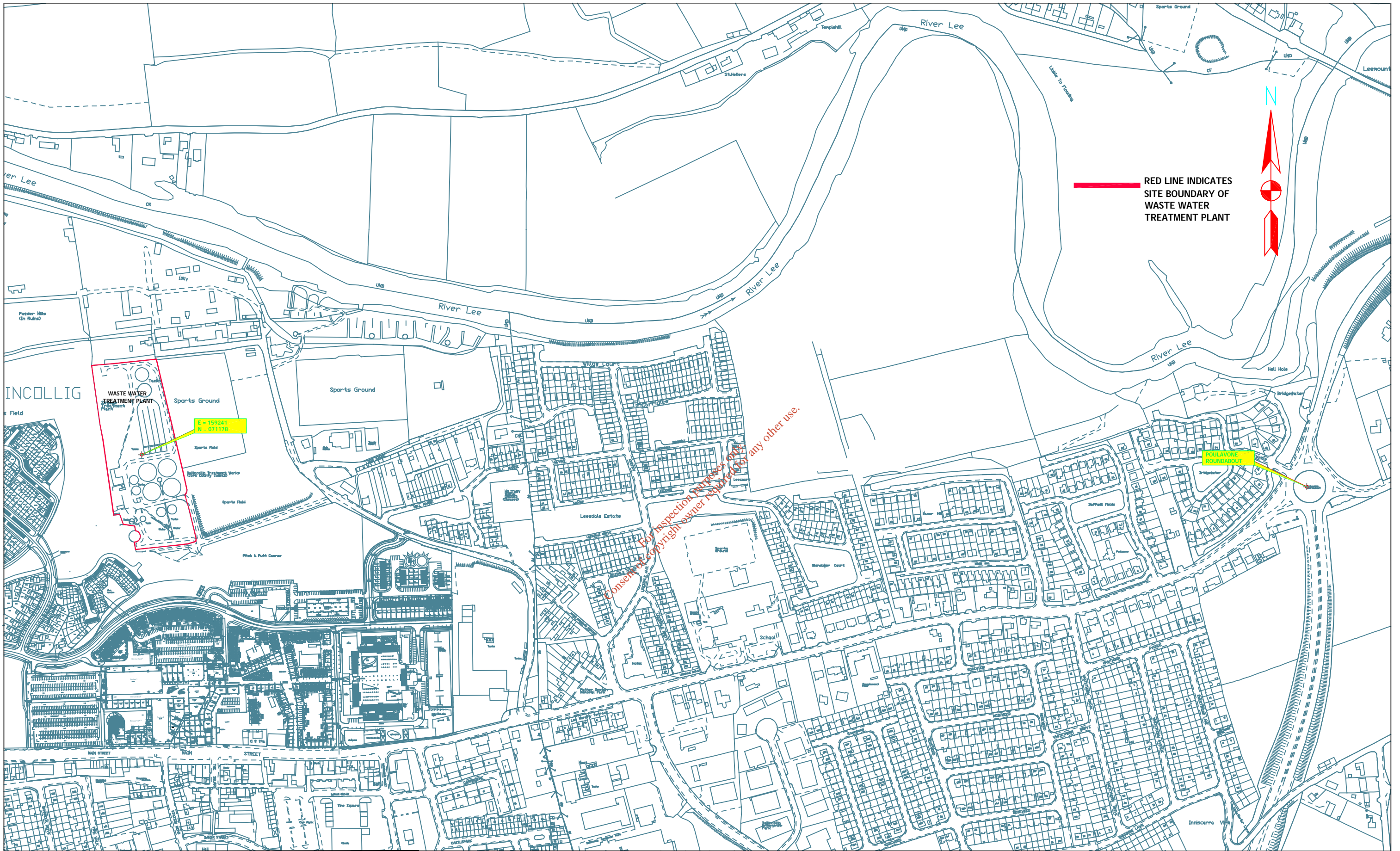


**Malachy Walsh and Partners**  
**Consulting Engineers**  
 Cork | Tralee | London | Limerick

Scales (A3)	1:15,000	
Drawn	AR	30.11.07
Checked	PS	30.11.07

Drg. No.	<b>B.1- 01</b>	Rev.	<b>B</b>
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Client



**Mr. N. O'Keefe**  
**B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.**  
**A/County Engineer**  
**Cork County Council**

Rev.	Date	Description	by	ch'd	app
B	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS
A	30.11.07	ISSUED FOR INFORMATION	AR	PS	MOS

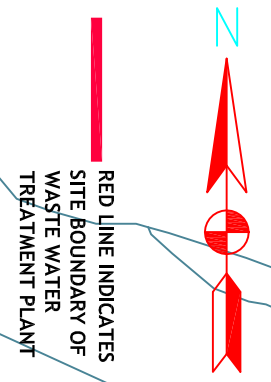
Project **BALLINCOLLIG WASTE WATER TREATMENT PLANT WASTE WATER DICSHARGE LICENSE**

Title **SITE LOCATION MAP**

**Malachy Walsh and Partners**  
**Consulting Engineers**  
 Cork | Tralee | London | Limerick

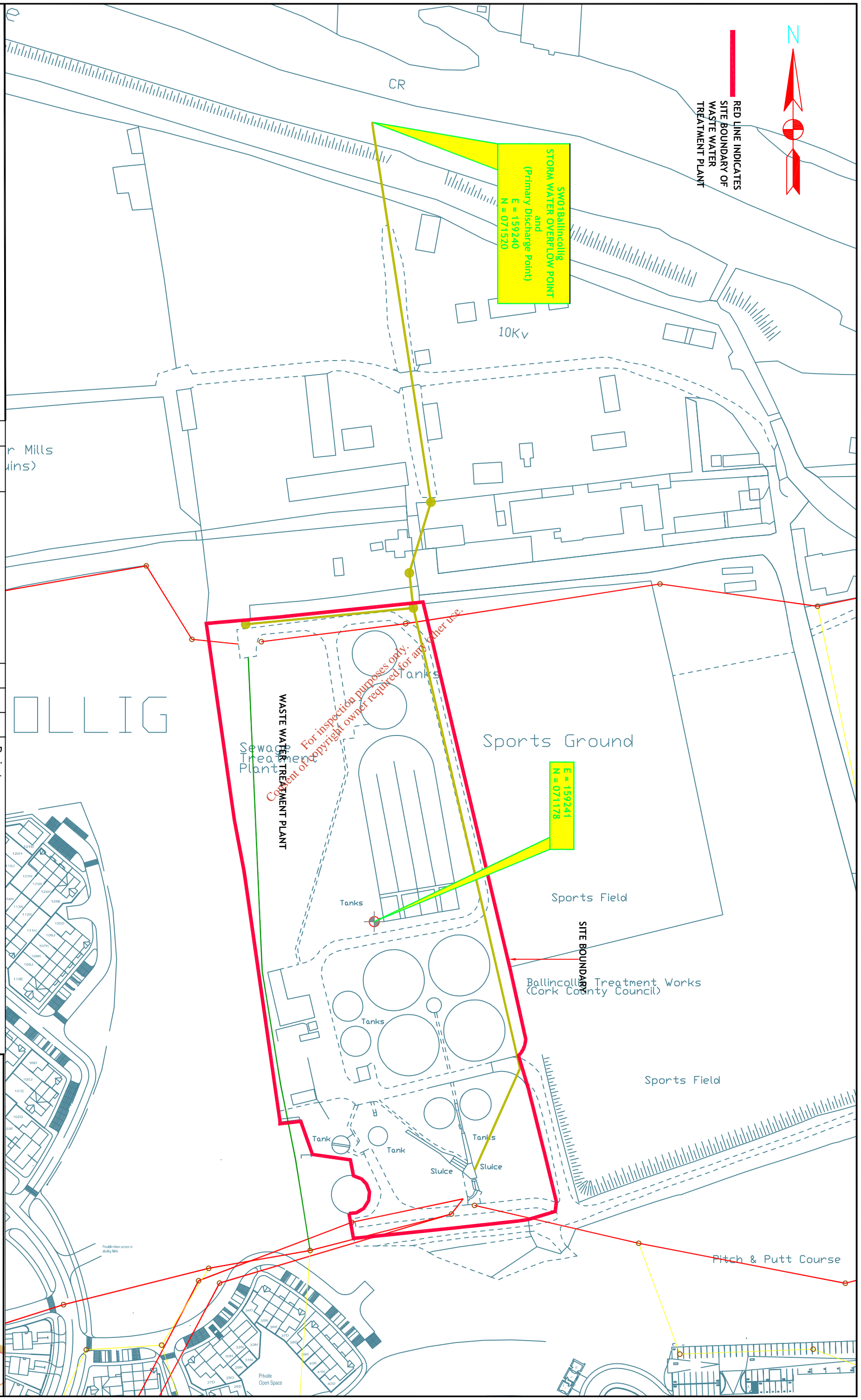
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Drawn	AR	30.11.07			
Checked	PS	30.11.07			






SW01 Ballincollig  
STORM WATER OVERFLOW POINT  
and  
(Primary Discharge Point)  
E = 159240  
N = 071520

E = 159241  
N = 071178




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**Client**  
  
 Mr. N. O'Keefe  
 B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.  
 A/County Engineer  
 Cork County Council

Rev.	Date	Description	by	ch'd	app
B	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS
A	30.11.07	ISSUED FOR INFORMATION	AR	PS	MOS

**Project**  
 BALLINCOLLIG WASTE WATER  
 TREATMENT PLANT  
 WASTE WATER DISCHARGE LICENSE  
**Title**  
 SITE LAYOUT PLAN

  
**Malachy Walsh and Partners**  
 Consulting Engineers  
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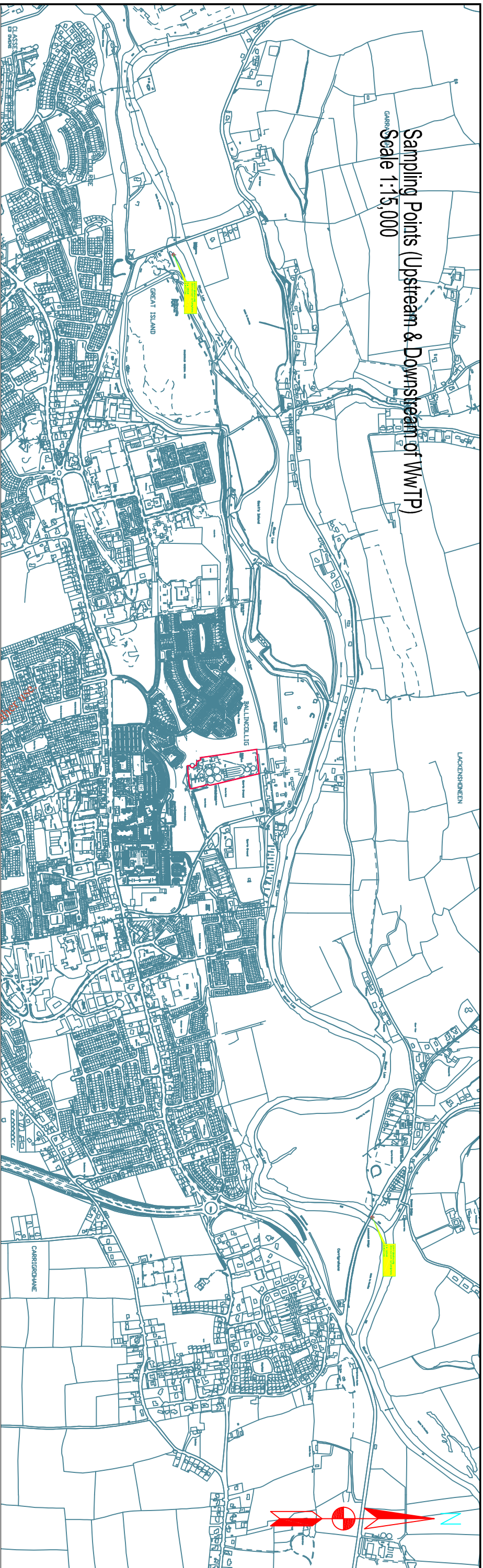
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Drawn	AR 30.11.07
Checked	PS 30.11.07

Dwg. No. **B.2 - 02**

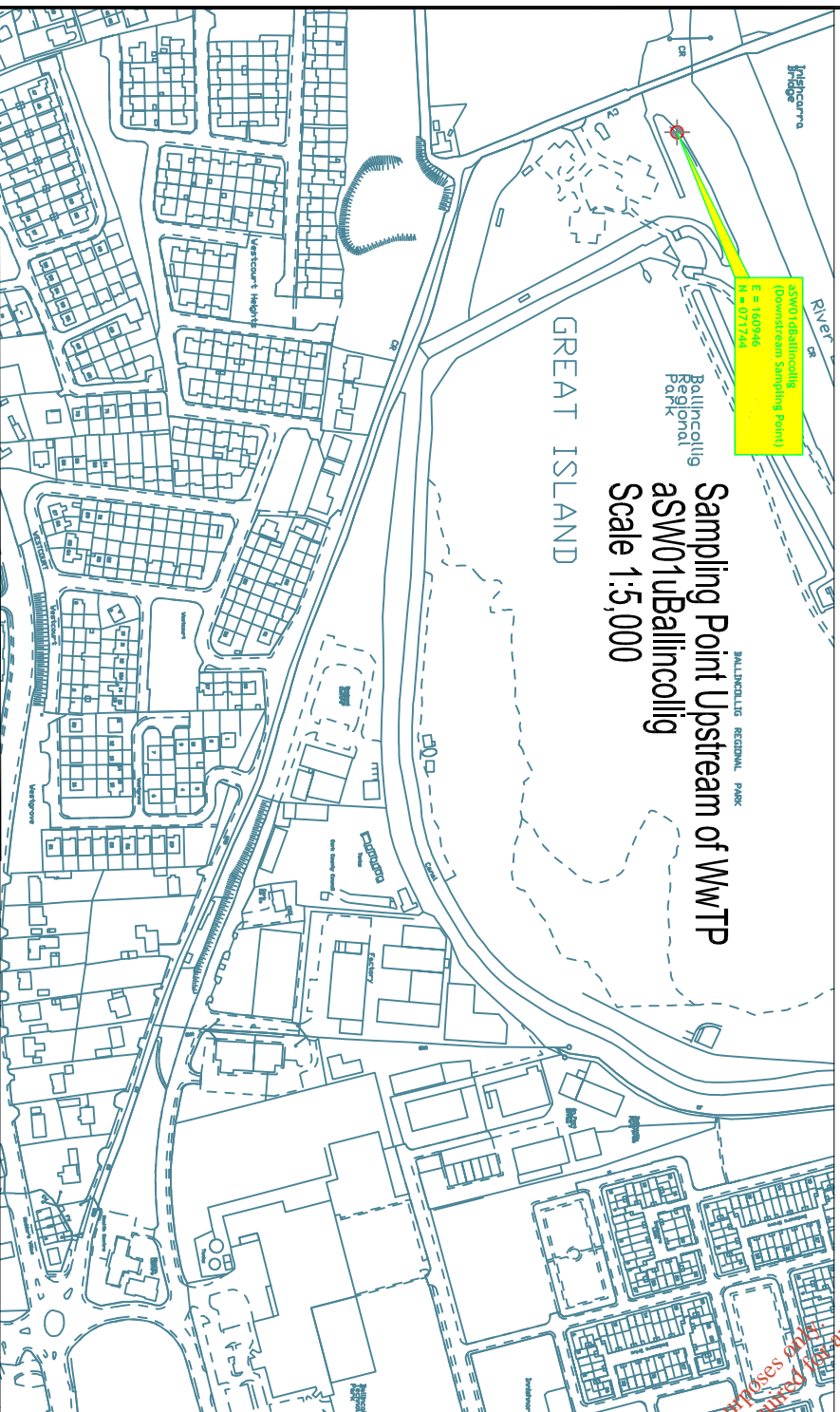
Rev. **B**



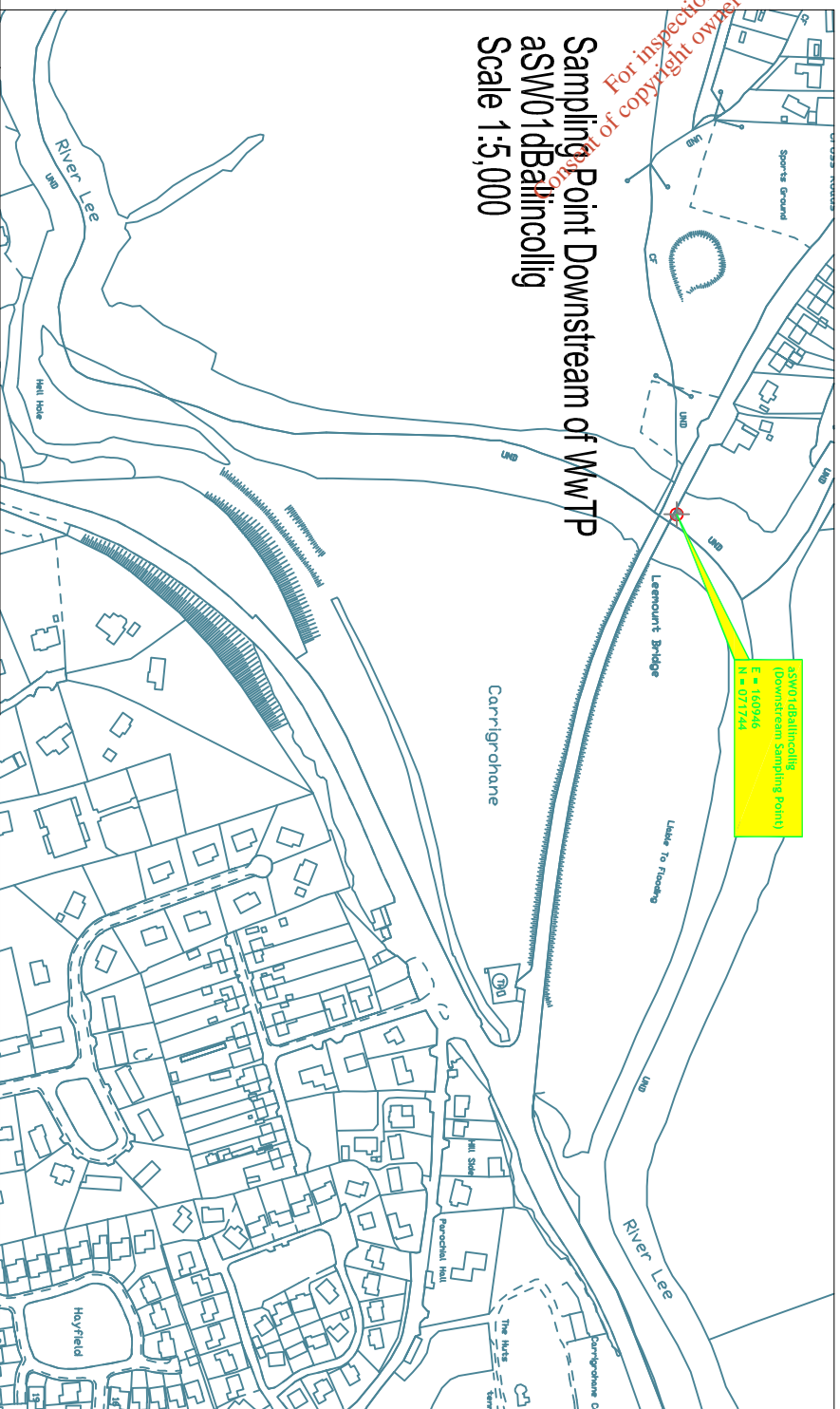
Sampling Points (Upstream & Downstream of WWTP)  
 Scale 1:15,000



Sampling Point Upstream of WWTP  
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 Scale 1:5,000



Sampling Point Downstream of WWTP  
 asW01dBallincollig  
 Scale 1:5,000



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Client

Mr. N. O'Keefe  
 B.E., C.Eng., Eur. Eng., F.I.E.I., M.I.C.E.  
 A/County Engineer  
 Cork County Council

Rev.	Date	Description	by	ch'd	app
A	07.12.07	ISSUED FOR APPLICATION	AR	PS	MOS

Project  
 BALLINCOLLIG WASTE WATER  
 TREATMENT PLANT  
 WASTE WATER DISCHARGE LICENSE

Title  
 LOCATION OF SAMPLING POINTS



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 Consulting Engineers  
 Cork | Tralee | London | Limerick

Drawn	AR	07.12.07
Checked	PS	07.12.07

Drwg. No.	<b>B.2 - 03</b>
Rev.	<b>A</b>

