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Administration
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Environmental Protection Agency
Headquarters
PO Box 3000
Johnstown Castle Estate
County Wexford.

27th June 2008.

RE:- WWDL FOR BALLINCOLLIG REF NO.D0049-01.

Response to Notice in accordance with Regulation 18(3) (b) of the Waste Water Discharge (Authorisation) Regulations 2007 – dated 04 April 2008

Dear Ms Donlon,

I refer to your letter of the 4th April 2008 concerning above. The following is our reply to your request for further information in accordance with Regulation 18(3) (b) dealing in numbered sequence with the points raised:

1. *Confirm the name of the agglomeration to which this Waste Water Discharge License application relates.*

Response:

Ballincollig and Environs

2. *Describe the waste water works by linking the trunk lines numbered on drawing number A. 1-03 with the named trunk lines described in the text of the application. Give the number and location of all pumping stations and confirm the number of emergency overflows.*

Response:

The revised text setting out the trunk line numbers is attached as file:

Section A(Executive Summary) rev 1 Ballincollig.doc

There are 11 pump stations as set out below,

There are 4 emergency overflows.

Pump Station	Emergency Overflow	Location of outfall
Leemount	No	-
Carrigrahane	Yes	SW3
Bridgewater	No	-
Greystones	No	-
Castlepark	No	-
Leesdale	Yes	SW4
Maglin	Yes	SW2
Muskerry	No	-
An Caislean	No	-
Classis Lake	No	-
Powdermill	Yes	SW1

3. *Give details of the storm water /emergency overflows from Daffodil Fields and Manor Hill estates.*

Response:

These overflows do not generally operate unless there is a blockage immediately downstream of them. These overflows are simply connections between the trunk foul sewer in the Main Street and foul sewer in the relevant housing estate. These are not overflows to storm sewers or surface waters

4. *Clarify the location and reference of the storm water discharge points referred to as SW03 and SW05. Give details as required by the application of the discharge referenced SW05.*

Response:

The map that was submitted was done so in error. The consultant prepared the original map with the understanding that SW05 was the emergency outfall. There is no outfall at the location of SW05.

Originally the storm holding tank was a wastewater treatment plant with the outfall shown in the originally submitted application as SW03, the outfall was extended during the construction of a bridge. The actual end of the outfall pipe has not been established at this point of time. The pipe discharges into a channel before discharging to the River Lee. The outfall pipe is now an emergency outfall and should only operate in very rare extreme circumstances. A revised map is attached, which shows where the emergency overflow would eventually enter the River Lee and this is now shown as SW03 on the resubmitted maps.

5. *Provide a description of the outfall design and construction for the primary discharge.*

Response:

The Ballincollig Outfall is 750mm diameter. It is a combined Stormwater and Treated Effluent Overflow. Its capacity is c 1600 m³/h.

6. *Where planning permission has been granted for development(s), but said development*

has not been commenced or completed to date, within the boundary of the agglomeration and this development is being, or is to be, served by the waste water works provide the following;

- a. information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,*
- b. the percentage of the projected p.e. to be contributed by the non-domestic activities, and*
- c. the ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving water habitat.*

Response:

Attached is a table, as an appendix to this report, that gives information on the planning and development activity within lands zoned within the 2003 County Development Plan and Carrigaline Electoral Area Local Area Plan 2005 (zoning did not seem to change). The current estimated household no. in Ballincollig based on this table would be **5892**. This means a domestic load of **17676 Pe** based on an average occupancy of 3 persons per household.

In 2000 the figures non-domestic would have made up approximately **5%** of the total load to the treatment plant (based on the Council's rates database). The non-domestic element of the load to the treatment plant has increased significantly over the last seven years (due to the development of the former Murphy Barracks). It is estimated that the non-domestic element is approximately **12.5%** of the total at this time. This would suggest a total estimated current load to the treatment plant of **20200 Pe**. This estimate would seem to relate well to the average dry weather flows calculated from 2007 flow records at the wastewater treatment plant.

Experience would suggest that the contribution from planning permissions granted that haven't been completed would be expected to take place on the basis of approximately 200 households (600Pe) per annum. This would reduce in accordance with the demand for new houses in Ballincollig. In two years the Advance Works proposed under the Ballincollig Sewerage Scheme Upgrade (included storm water storage for 60,000Pe should be completed). The load at that stage should be approximately 20660Pe.

The wastewater treatment plant capacity could be summarised as follows:

Description	Value	Unit
Biological Treatment Capacity of the aeration basin	30000	Pe
Hydraulic Capacity of the Treatment Plant	16400	Pe

The wastewater treatment plant capacity is limited by the capacity of the two operational clarifiers downstream of the aeration basin. The two operational clarifiers are 18m in diameter and 2.7m deep. The capacity of each clarifier is estimated to be approximately 8200Pe. An additional clarifier has been constructed under the interim measures contract at the wastewater treatment plant. This will mean a total capacity of approximately **24,600 Pe**.

The interim measures contract involved the conversion of the two existing humus tanks and two existing primary settling tanks (each tank circular, 12m in diameter and 2m deep) of the percolating filter plant for storm water storage. Using Formula A from the DoEHLG stormwater overflows guidance document:

The storm water overflow setting for a predicted **20660 Pe** load (immediately prior to implementation of the advance works) would be **1410m³/hr**.

The full flow to treatment for a treatment plant capacity of **24600 Pe** (based on three operational clarifiers) would be approximately **700m³/hr**.

The storage requirement (**without considering surface water runoff**) is approximately **1,400m³**.

The total available storage volume is approximately **1000m³**.

While the storage capacity of **1000m³** is less than that calculated above (1400m³ for the predicted load 20660Pe), it would provide approximately two hours of storage for 2.5DWF flow. Once this storage capacity is exceeded the foul water would begin to overflow the humus tank weirs to the wastewater treatment plant discharge pipe.

Further permissions for development referred to as “infill development” within existing development areas may result in slight increases in foul load to the wastewater treatment plant due to the policy of increased development density. Due to the implementation of storm water separation within the planning permissions these developments will reduce the hydraulic load to the wastewater treatment plant. The more significant planning permissions granted for “Infill Development” that I am aware of and that have not been completed yet are:

Planning Reference	Units	Comment	Pe
06/8566	19 new dwelling units	Not commenced as yet. Interim 24-hour foul water storage required on	50
05/4900	18 new dwelling units	Not commenced as	45
06/11256	18 new dwelling units	Under construction.	45

The definition of P.e. from the Urban Waste Water Treatment Directive is:

“population equivalent” is a measurement of organic biodegradable load and a population equivalent of 1 (1 p.e.) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD₅) of 60g of oxygen per day; the load shall be calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain.”

On 8th May 2007, the Environmental Protection Agency (EPA) received a complaint from a private person in relation to the quality of effluent from the sewage treatment works at Ballincollig.

The EPA Inspector responsible for the Ballincollig area carried out an investigation of the complaint. This involved a number of site visits, effluent quality tests and the preparation of an inspection report. This report culminated in a letter on 14th May 2007 from the EPA to the County Manager requesting a report from Cork County Council in relation to the matter.

This letter from the EPA was issued under “Section 63(1) of the Environmental Protection Agency Act 1992 and 2003” and included a request from the EPA for the Council’s “corrective action proposals, both short term and medium term, to improve plant performance and reduce vulnerability to similar repeat occurrences”.

On 28th May, Mary O’ Halloran, Director of Services, Cork County Council complied with the report request and submitted a detailed report to the EPA addressing all elements of the EPA report request.

The EPA continued to make site visits to the sewage treatment works. The EPA received another complaint relating the effluent on 1st June 2007.

On 7th June 2007, the EPA issued another letter to the Director of Services under “Section 63(1) of the Environmental Protection Agency Act 1992 and 2003” and included advice and recommendations from the EPA for the Council to make a further submission to the EPA. This letter listed seven requirements, the first of which related to the programme for implementation of the **“short term corrective actions in preparation (use of currently redundant tanks on site for stormwater storage and installation of emergency additional clarification).**

Further, the EPA made it known to Cork County Council in this letter that **“The Agency considers achievement of the seven requirements listed above to be necessary to the satisfactory performance by your Council of its statutory environmental protection functions”**.

On 20th June 2007, Mary O’ Halloran, Director of Services wrote back to the EPA. This letter included a detailed response to the seven EPA requirements and attached the Emergency Measures Report prepared by the Consultant on the Ballincollig Sewerage Scheme Upgrade.

The EPA responded with another letter on 22nd June 2007 noting **“that works are ongoing to carry out the necessary infrastructure and improvement works at the wastewater treatment plant in order to ensure compliance with the requirements of the Urban Waste Water Treatment Regulations 2001”**.

The EPA make it known in this letter that **“This is now a matter for Cork County Council to carry out the programme of works and actions as planned and submitted to the Agency”** and that **“In light of Cork County Council actions and proposals, the EPA will not be pursuing the matter further at this time”**.

Cork County Council used its powers under the Planning and Development Act 2000 179(6)(b) to address the implementation of the emergency measures as exceptional situation where the public consultation procedure (Part 8) would not apply. It was considered that immediate action was called for and the procurement process was fast tracked and the interim measures are now near completion. These measures were necessary for the Council to comply with its statutory environmental protection functions.

The Consultant for the Ballincollig Sewerage Scheme Upgrade prepared the tender documents for the implementation of the emergency measures. This work was advertised for tender as a design build contract 17th August, 2007.

- Tenders were returned on 17th September, 2007.
- The Council received the report on tenders from the Consultant on 1st October, 2007.
- The Council’s approval was given on the 3rd October, 2007.
- A letter of intent was sent out on 7th October, 2007.
- EPS Pumping & Treatment systems was awarded the contract.
- Work commenced in December 2007
- Work is nearly substantially completed

I have attached a progress report in the form of an email from the Consultant for the Ballincollig Sewerage Scheme Upgrade. It was originally proposed to refurbish and recommission the old filter belt press to provide standby sludge treatment. It is now proposed to remove the belt press and install a sludge centrifuge decanter instead. The Contractor has been instructed to provide a quotation for this work.

7. ***Give details of protected areas downstream of discharges and assess the impact of discharges on such protected areas. Provide details of any correspondence engaged in with the National Parks and Wildlife Service in relation to a determination as to the likelihood of discharges from the waste water works having a significant effect on a European site. If the discharges are deemed likely to have a significant effect an appropriate assessment of the implications for the designated site in view of the sites conservation objectives must be carried out. Any assessment, should it be deemed necessary, shall be submitted as part of the reasoned response to this notice.***

Response:

See attachment No. 1:- Maps and copy of Correspondence.

8. *Give particulars of the location of the nearest downstream drinking water abstraction point(s).*

Response:

Intake Coordinates for the Lee Road Waterworks serving Cork City are 162,715 E and 71,435 N as scaled from OS sheet.

9. *Provide information that demonstrates that the storm water overflows comply with the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows, 1995'. Where a storm water overflow does not comply with these guidelines, give details of the plans for improvement.*

Response:

See Attachment No. 2:- Report from Consultant Malachy Walsh and Partners.

10. *Confirm the effluent concentration and daily loading data provided in Table D.1(i)(b) at the primary discharge.*

Response:

See attachment No. 3:- Table D revised

11. *Provide a proposed monitoring of discharges programme.*

Response:

See attachment No. 4:- Copy of E2

12. *Describe existing or proposed measures to prevent unintended waste water discharges.*

Response:

The Consultant has been requested to review the need for separate maceration upstream of the pumping station at the northwest corner of the treatment plant. This work if necessary might be carried out as a variation to the interim measures contract.

Once the interim measures contract has been completed, the Council will request the Consultant to carry out a review of the need for further interim/temporary storm water storage or other additional interim works.

Further interim works will be carried out at the treatment plant as required (prior to Advance works).

Trunk surface water sewers are to be laid within Ballincollig Main Street and these will result in significant storm water separation within the old Ballincollig village centre.

13. *Give details and an assessment of the effects of the primary discharge on the receiving water having regard to orthophosphate and BOD, i.e. the assimilative capacity of the receiving water.*

Response:

See attachment No. 5:- Table of calculations

14. Clarify the status of improvements described in the emergency measures report and give details of the dates of expected completion.**Response:****Improvement works at Ballincollig WWTP****Date: May 2008**

Location	Item	Status	Holds/ Comments	Date item will be fully operational
INLET WORKS	Installation of an overflow weir in the Grit Settlement channels	Installed, but not yet operating. Remedial works required	Level of new weir also to be adjusted.	25/07/08
	Installation of a new inline Packaged Fine Screen rated at 1000m ³ /hr. Screen is to be installed down stream of the measuring flume at the inlet works.	Installed. Commissioning ongoing.	Non-mechanical bypass installed on 20/06/08. Drain from skip to be installed	25/07/08
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.	Refurbishment of sluice gates to be completed	Stormwater tanks to be cleaned out before opening sluice gates. Price from EPS currently being reviewed	25/07/08
	Install 2 No Positive Displacement Pumps (one on each desludging pipe) for return of settled storm water to head of the works.	Installed and Commissioned. Complete but not yet on line	Stormwater tanks to be cleaned out. Price from EPS currently being reviewed. (Note: following redesign, submersible pumps installed in lieu of positive displacement)	25/07/08
SUPPLEMENTARY CLARIFICATION	Install new Final Clarifier – capacity of 250m ³ /hr	Installed. Commissioned. On-line	Clarifier put on line on 03/06/08. Fully operational since 05/06/08. Some discussions to be held in relation to the possible installation of cut-out/ cut in sensors for the forward feed pumps	05/06/08
	Provide 2 no Mixed Liquor feed pumps – capacity of 250m ³ /hr	Installed. Commissioned. On-line	Clarifier put on line on 03/06/08. Fully operational since 05/06/08. Some discussions to be held in relation to the possible installation of cut-out/ cut in sensors for the forward feed pumps	05/06/08
	Provide Gravity Sludge Withdrawal Chamber	Installed. Commissioned. On-line	Clarifier put on line on 03/06/08. Fully operational since 05/06/08. Some discussions to be held in relation to the possible installation of cut-out/ cut in sensors for the forward feed pumps	05/06/08

	Provide inlet pipework, sludge return pipework and clarified effluent pipework Provide all necessary tankage	Installed. Commissioned. On-line	Clarifier put on line on 03/06/08. Fully operational since 05/06/08. Some discussions to be held in relation to the possible installation of cut-out/ cut in sensors for the forward feed pumps	05/06/08
SLUDGE RETURN	Install a supplementary sludge return pump – capacity 250m ³ /hr in the vacant screw pump chamber.	Installed and commissioned. Complete.	Levels cut ins to be adjusted.	06/05/08
SCUM COLLECTION	Provide a new scum collection chamber of dimensions 2m x 2m x 2m below Clarifier TWL.	Completed mid 2007. Not part of Interim Works		Mid 2007
	Install a submersible pump to pump the underflow back to the clarifier inlet chamber	Completed mid 2007. Not part of Interim Works		Mid 2007
OUTLET TO RIVER LEE	Duplicate/ upgrade the pipe from clarifiers to the outfall pipe within the treatment plant site.	Complete	Air Test to be carried out on pipework	Early 2007
SLUDGE DEWATERING	Provide a stainless steel tank 2m x 1m x 0.9m high adjacent to the sludge dewatering building to collect centrate.	Tank installed but pipework yet to be laid	Awaiting complete submission from EPS for approval in relation to proposed ramps which will encase pipework	25/07/08
	Provide a Variable Speed Drive positive displacement pump of capacity 25m ³ /h and associated hose and protection to discharge centrate adjacent to aerator platform.	Pump installed but not commissioned	Awaiting complete submission from EPS for approval in relation to proposed ramps which will encase pipework.	25/07/08
	Refurbishment and setting to work of the existing Filter Belt Press sludge dewatering equipment.	On hold	Jacobs reviewing an alternative centrifuge option.	Not known

15. Give details as of the nutrient removal work proposed including timeframe and schedule for such work.

Response:

The Consultant's design brief under the **Ballincollig Sewerage Scheme Upgrade** requires the preparation of an "Advance Report" for the works involved in the Phase 1 upgrading of the wastewater treatment plant's inlet works, provision of stormwater balancing facilities and **nutrient removal facilities** as well as necessary associated works. Subject the department approval the Consultant is then required to prepare Contract Documents for Phase 1 of the proposed wastewater treatment plant upgrade.

It was decided prior to the Consultant's appointment that nutrient removal facilities were to be provided.

The Consultant submitted a draft report on Phase 1 in December 2007. It was proposed to locate the phosphorous removal dosing equipment at the aeration tank and dose ferric salts. This draft report was commented on by the Council and is under review. The Consultant's final report on the phase 1 works is overdue. In the absence of the final report the Consultant has summarised the potential chemical phosphorous removal proposal at Phase 1 as follows:

Addition of either Ferric Sulphate, Ferrous Sulphate, Ferric Chloride or Alum to the

Carrousel, and co-precipitation of the Ortho-Phosphate with the Biological Sludge. A target of 1.5 mg/l P is anticipated.

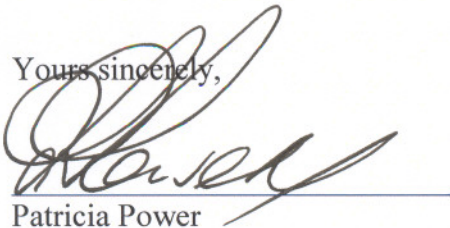
The required installation would include:

- Chemical Storage Tank ~ 20 m³*
- Chemical Dosing Pumps (duty and standby)*
- Specific Ion Monitor for Dosing Control*
- Small bore pipework*

The necessary installation work could be complete by end 2009.

I trust the above answers the queries you have raised

Yours sincerely,



Patricia Power
Director of Services

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List of Attachments:

- A** Revised Executive Summary (Section A)

- B**
 1. Maps and copy of Correspondence with National Parks & Wildlife Service
 2. Report from Consultant Malachy Walsh and Partners on storm Overflows.
 3. Table D revised
 4. Copy of E2
 5. Table of calculations for the assimilative capacity of the receiving water.

- C**
 1. Revised E4 tables
 2. ~~Revised E4-02 tables~~
 3. Revised D2
 4. Revised Table E3

SECTION A: NON-TECHNICAL SUMMARY Revised

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: -

Poulavone Trunk Sewer 1	Serves the main road to the East of Ballincollig
Original Trunk Sewer 2	Serves the old town and Muskerry Estate
Castlepark Trunk Sewer 3	Serves the Castlepark and pumped Maglin areas
Western Trunk Sewer 4	Serves the West end of Ballincollig
Eastern Lower Trunk Sewer 5	Serves the Leesdale area of the town
Western Lower Trunk Sewer 6	Serves the Innishmore area of the town

(a) Original Trunk Sewer 2

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. There is a pumping station in Muskerry Estate to serve the southern part of the estate. this pumping station has no overflow. The last section through the Barracks development has been upgraded and amalgamated with the Castlepark Trunk in a new sewer.

(b) Poulavone Trunk Sewer 1

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 discharge to the foul sewers in new estates (Daffodil Fields and Manor Hill) to relief potential flooding on the Main St. A subsequent model shows that these are of minor value and would only be utilised in the event of a blockage down stream.

Most recently the pumped discharges from Bridgewater Estate and Carrigrohane, (*which serves Leemount & Western end of Model Farm Road*) have been connected to this trunk sewer near Poulavone roundabout. The pumping station at Carrigrohane has a storm water retention tank. The storm water overflow discharges via a 225 mm diameter pipe to a channel which discharges to the River Lee (SW03)

(c) Castlepark Trunk Sewer 3

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

Castleview pumphouse (Maglin) was designed to pump 6 DWF (*approx. max 270 litres/sec.*) from the anticipated development area (*145 hectares*) set out in the 1979 Preliminary Report. There is an emergency overflow to the Maglin River from the pumpstation.

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 4

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 sewage from Classis Lake estate is pumped via a rising main to a head manhole at Coolroe. From this manhole there is a gravity sewer to the trunk sewer at the West End roundabout.

There is a temporary arrangement by which the sewage from Caislean estate is pumped to the foul sewer at City West Mews which eventually discharges to trunk sewer. When the Barry's Road sewerage scheme is in place the sewage will discharge by gravity to the pumping station at Maglin and from there be pumped to trunk sewer 3.

The trunk 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 6.

(e) Western Lower Trunk Sewer 6

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

(f) Eastern Lower Trunk Sewer 5

This gravity sewer serves the Leedale area and but some of the estate is pumped to it via the Leedale pumping station. It is proposed to pump the sewerage from an under construction housing estate east of Leedale to this trunk sewer.

In summary:

There are 11 pump stations as set out below,
There are 4 emergency overflows.

Pump Station	Emergency Overflow	Location of outfall
Leemount	No	-
Carrigrahane	Yes	SW3
Bridgewater	No	-
Greystones	No	-
Castlepark	No	-
Leedale	Yes	SW4
Maglin	Yes	SW2
Muskerry	No	-
An Caislean	No	-
Classis Lake	No	-
Powdermill	Yes	SW1

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 carousal 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 m³ 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 dewateres 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.

The Outfall is 750mm diameter to the side of the River Lee. It is a combined Stormwater and Treated Effluent Overflow. Its capacity is c 1600 m³/h.

Present Capacities of Treatment Plants

(i) 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 ³ /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 or replaced 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 1000m³/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 250m³/hr
- Provide 2 no Mixed Liquor feed pumps – capacity of 250m³/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 250m³/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 25m³/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° A.1**

SECTION B: GENERAL Revised

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 Southern Division
Address:	County Hall, Carrigrohane Road, Cork
Tel:	021 2476891
Fax:	021 4276321
e-mail:	

*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*:	Patricia Power
Address:	Director of Services Floor 5 County Hall, Cork
Tel:	021 4285285
Fax:	021 4276321
e-mail:	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

Name*:	Not Applicable
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*:	Not Applicable
Address:	
Tel:	
Fax:	
e-mail:	

*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*:	Michael Murphy
Address:	Ballincollig WWTP
	Powdermills
	Ballincollig
	Co Cork
Grid ref (6E, 6N)	E159203 N71139
Level of Treatment	Secondary
Primary Telephone:	021 4875643
Fax:	021 4289868
e-mail:	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.

Type of Discharge	Pipe to river
Unique Point Code	SW01-Ballincollig
Location	Ballincollig
Grid ref (6E, 6N)	N159240 E071520

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	SW01-Ballincollig
Location	Ballincollig
Grid ref (6E, 6N)	N159240 E071520

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

Type of Discharge	Emergency overflow.
Unique Point Code	SW03-Ballincollig Revised
Location	Carrigrohane
Grid ref (6E, 6N)	E161474 N071720

Type of Discharge	Emergency overflow.
Unique Point Code	SW04-Ballincollig
Location	Ballincollig
Grid ref (6E, 6N)	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.

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 water overflow
Unique Point Code	SW01-Ballincollig
Location	Ballincollig
Grid ref (6E, 6N)	N159240 E071520

Type of Discharge	Storm water overflow
Unique Point Code	SW03-Ballincollig Revised
Location	Carrigrohane
Grid ref (6E, 6N)	E161474 N071720

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:	County Hall, Carrigrohane Road, Cork
Tel:	021 2476891
Fax:	021 4276321
e-mail:	

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

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

Local Authority Planning File Reference N^o:	
---	--

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.

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:	HSE Southern Division
Address:	Slanta House Wilton Road Cork
Tel:	021-4545011
Fax:	021-4545748
e-mail:	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.

Name:	Not Applicable
Address:	
Tel:	
Fax:	
e-mail:	

Relevant Authority Notified	Yes	No

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

Attachment included	Yes	No
		✓

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.

Population Equivalent	24,542
Data Compiled (Year)	2006
Method	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

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.

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 8th 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 16th 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 28th of May 2007 in response.

The EPA issued formal notice of **Advice & Recommendations** on 7th 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 20th 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 26th 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.

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 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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Kevin

Apologies for the delay.

The existing Ballincollig WWTP, as operated at present, was designed for 6 DWF for the original hydraulic load from 14,500 p.e. The old Percolating Filter Plant has a capacity for a further 4,000 p.e. at 6 DWF. 6 DWF was the old "Royal Commission" standard for overflows to waters with a dilution of 8 or greater. This standard does not quite meet the DEHLG guidelines for "Formula A".

Since the existing load to the Plant is in excess of 20,000 p.e. the Plant does not meet the guidelines.

Cork County Council is actively addressing this shortfall in two ways: -

1. An immediate conversion of the existing Primary Sedimentation and Humus tanks in the Percolating Filter Plant to Storm water storage, balancing and return
2. Design of a completely new Storm water management for the ultimate design load (30/50 year horizon) to "Formula A"

The first part of this process is already under construction with the Ballincollig WWTP Interim Works, which is increasing the Treatment capacity of the Plant by adding additional screening and settling capacity. As part of this contract the conversion of the existing Primary Sedimentation and Humus tanks has been undertaken and is due to be commissioned in the new few weeks. This installation consists of a new overflow set below the level of the main overflow. This new overflow discharges to the Primary Sedimentation tanks. When commissioned the WWTP will have a capacity for 750 m³/hr. Flow to Full treatment plus a further 90 m³/hr flow to storm tank.

The second part of the commitment is the completion of the design of the WWTP, including Storm water management, for the Ultimate Flow and this report will be submitted on 25th August 2008.

I trust this gives you adequate information to respond to the Agency.

Regards

Michael J.

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From: Michael O'Sullivan [mailto:michael.osullivan@mwp.ie]
Sent: 24 June 2008 12:44
To: Donald A. Cronin
Cc: Pat Sheppard
Subject: RE: Ballincollig WWDL

Donald

I've asked Richard to address this as requested.

Regards

Michael J.

From: Donald A. Cronin [mailto:DonaldA.Cronin@CorkCoCo.ie]
Sent: 24 June 2008 11:54
To: Michael O'Sullivan
Cc: Pat Sheppard
Subject: FW: Ballincollig WWDL

Michael,
 You might please respond to the EPA request for clarification below. I was on leave yesterday and only just opened the
 27/06/2008

email from Kevin.
Due to urgency you might respond directly to Kevin and copy to me.
Thanks,
Regards,
Donald

From: Donald A. Cronin
Sent: 24 June 2008 11:51
To: 'Michael O'Sullivan'
Subject: FW: Ballincollig WWDL

From: Kevin Sugrue
Sent: 23 June 2008 15:50
To: Donald A. Cronin
Cc: Mick Murphy (Water Services)
Subject: Ballincollig WWDL

Donald
There is one question still outstanding from the EPA queries namely

- 9. *Provide information that demonstrates that the storm water overflows comply with the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows, 1995'. Where a storm water overflow does not comply with these guidelines, give details of the plans for improvement.*

Can you get this information from the consultants asap. I need the information by the Wednesday 25th at the latest
Kevin

D.K. Sugrue
Senior Engineer
Water Services Operation
Floor 5
Cork County council
County Hall
Cork.
Phone: 021 4285127
Fax: 021 4285118
✉ kevin.sugrue@corkcoco.ie

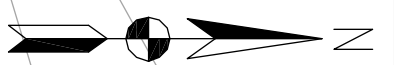
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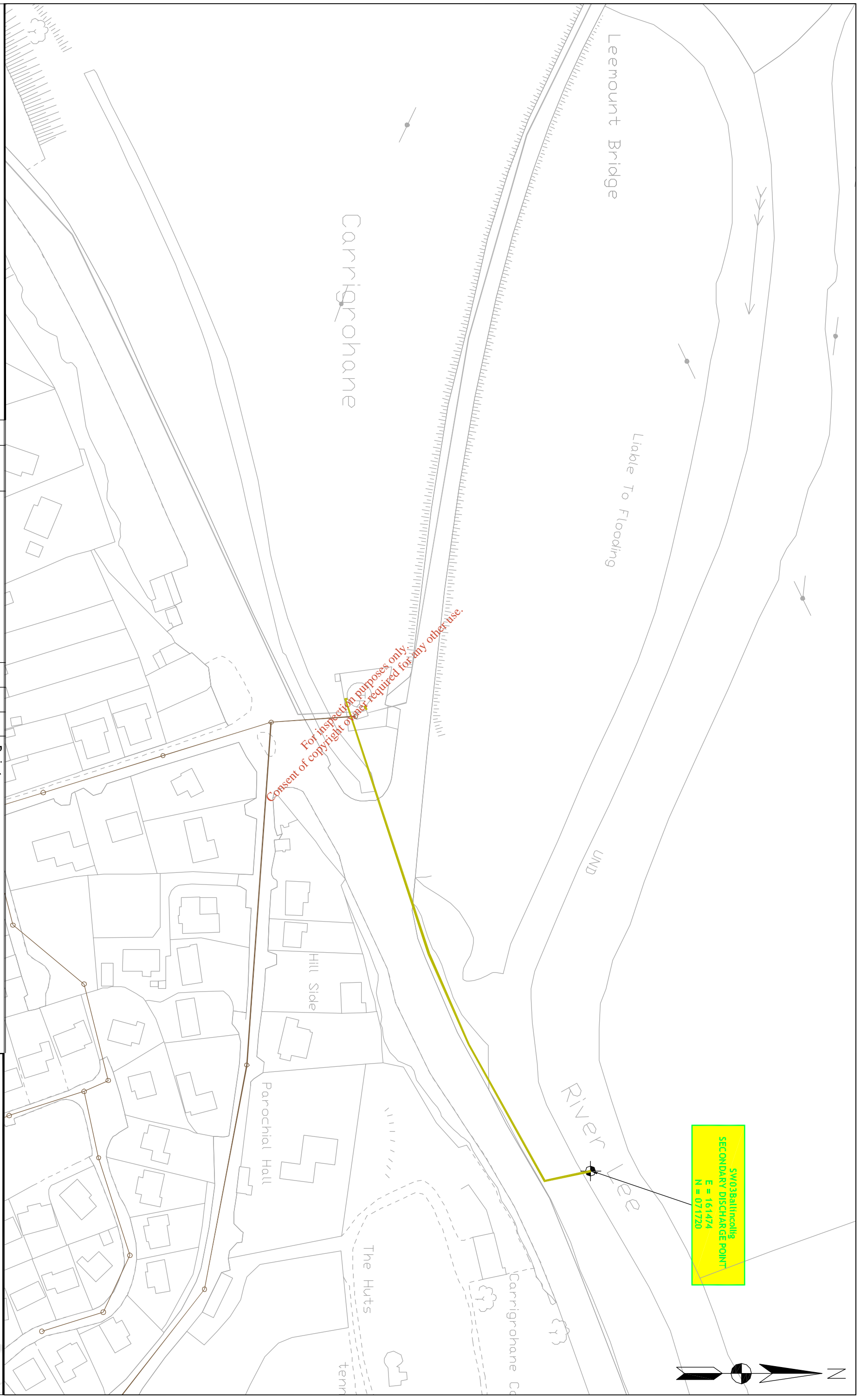
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SW03Ballincollig
 SECONDARY DISCHARGE POINT
 E = 161474
 N = 071720



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	PS	PS	MOS
B	03.06.08	RE-ISSUED FOR APPLICATION	AR	PS	PS	MOS
A	07.12.07	ISSUED FOR APPLICATION	chd	app		

Project

BALLINCOLLIG WASTE WATER TREATMENT PLANT WASTE WATER DISCHARGE LICENSE

Title

LOCATION OF SECONDARY DISCHARGE POINT(S) (SHEET 2 OF 3)



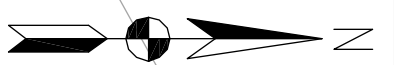
Malachy Walsh and Partners
 Consulting Engineers
 Cork | Tralee | London | Limerick

Scales (A3) 1:1,500

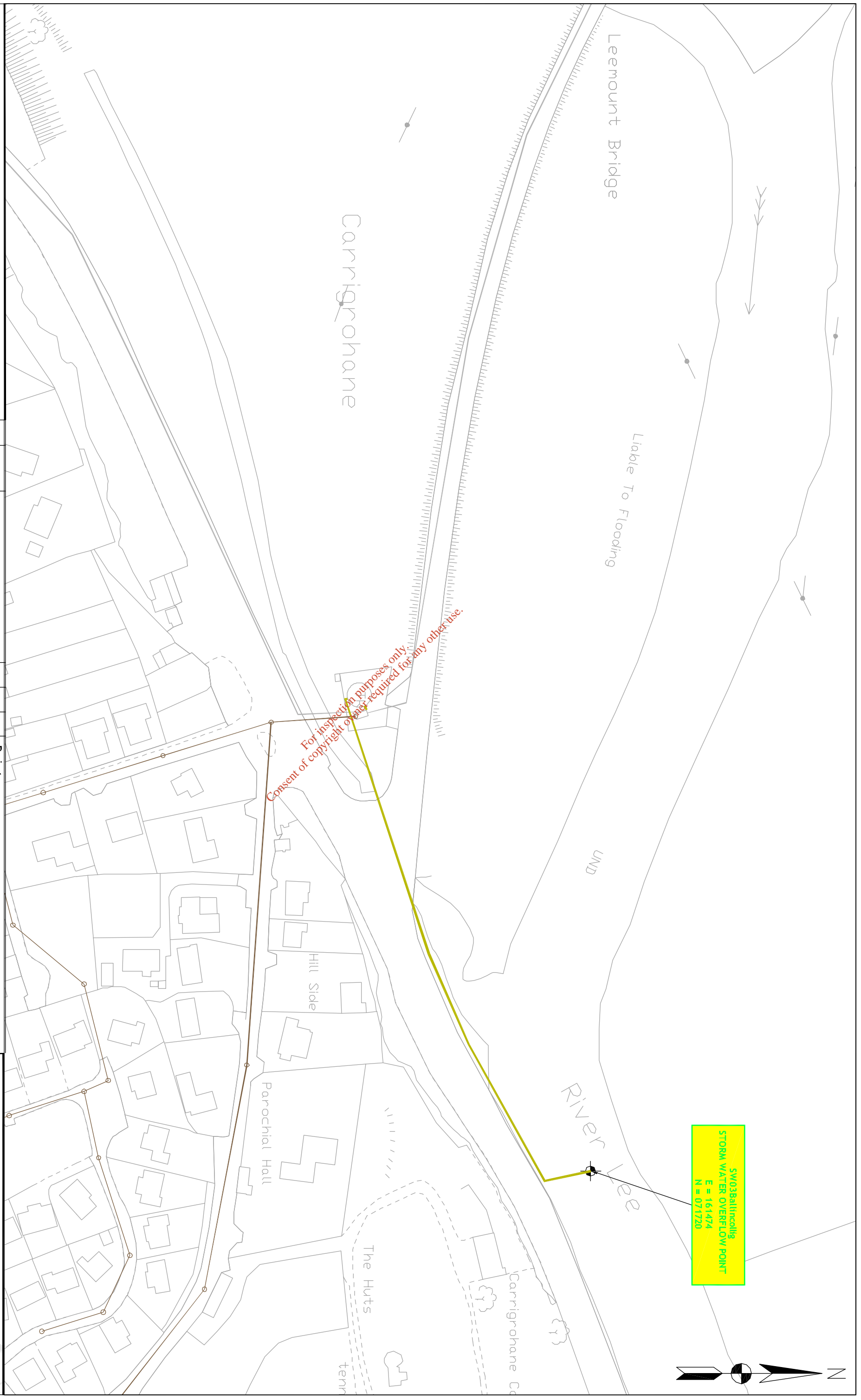
Drawn	AR	07.12.07
Checked	PS	07.12.07

Dwg. No. **B.4 - 02**

Rev. **B**



SW03Ballincollig
STORM WATER OVERFLOW POINT
E = 161474
N = 071720



Leemount Bridge

Liable To Flooding

UND

River Lee

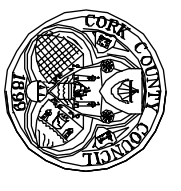
Carrigrohane

Hill Side

Parochial Hall

The Huts

tem



Client
Mr. N. O'Keefe
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Rev.	Date	Description	by	PS	PS	MOS
B	23.06.08	RE-ISSUED FOR APPLICATION	AR	PS	PS	MOS
A	07.12.07	ISSUED FOR APPLICATION	chd	app		

Project
BALLINCOLLIG WASTE WATER TREATMENT PLANT WASTE WATER DISCHARGE LICENSE
Title
LOCATION OF STORM WATER OVERFLOW POINT(S) (SHEET 2 OF 2)



Malachy Walsh and Partners
Consulting Engineers
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Drawn	AR	07.12.07
Checked	PS	07.12.07

Scale (A3)	1:1,500
Dwg. No.	B.5 - 02
Rev.	B