



Cork County Council

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

Scheme / Agglomeration Name : Clonakilty

Submission Date : 14th December 2007

Copy No 1 : original

This is a draft document (VERSION 2) and is subject to revision.



Waste Water Discharge Licence Application Form

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EPA Ref. N ^o : (Office use only)	D0051-01
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Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie Email: info@epa.ie



Urban Waste Water Discharge Application Form

Tracking Amendments to Draft Application Form

Version No.	Date	Amendment since previous version	Reason
V. 1.	11/10/07	N/A	
V. 2.	18/10/07	Inclusion of a Note 1 superscript for Orthophosphate in Tables D.1(i)(b) & D.1(ii)(b)	To highlight the requirement for filtered samples in measurement of O-Phosphate for waste water discharges.

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Environmental Protection Agency
Application for a Waste Water Discharge Licence
Waste Water Discharge (Authorisation) Regulations 2007.

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ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for a Waste Water Discharge Licence under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) or for the review of an existing Waste Water Discharge licence.

The Application Form **must** be completed in accordance with the instructions and guidance provided in the *Waste Water Discharge Licensing Application Guidance Note*. The Guidance Note gives an overview of Waste Water Licensing, outlines the licence application process (including the number of copies required) and specifies the information to be submitted as part of the application. The Guidance Note and application form are available to download from the Licensing page of the EPA's website at www.epa.ie.

A valid application for a Waste Water Discharge Licence must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 16 of the Regulations sets out the statutory requirements for information to accompany a licence application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in the Regulations. In order to ensure a legally valid application in respect of Regulation 16 requirements, please complete the Regulation 16 Checklist provided in Annex 2.

This Application Form does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Water Discharge (Authorisation) Regulations, 2007. While every effort has been made to ensure the accuracy of the material contained in the Application Form, the EPA assumes no responsibility and gives no guarantee, or warranty concerning the accuracy, completeness or up-to-date nature of the information provided herein and does not accept any liability whatsoever arising from any errors or omissions.

Should there be any contradiction between the information requirements set out in the Application Form and any clarifying explanation contained in the accompanying Guidance Note, then the requirements in this Application Form shall take precedence.

PROCEDURES

The procedure for making and processing of applications for waste water discharge licences, and for the processing of reviews of such licences, appear in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) and is summarised below. The application fees that shall accompany an application are listed in the Third Schedule to the Regulations.

Prior to submitting an application the applicant must publish in a newspaper circulating in the area, and erect at the point nearest to the waste water treatment plant concerned or, if no such plant exists, at a location nearest the primary discharge point, a notice of intention to apply. An applicant, 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, must also notify the relevant Local Authority, in writing, of their intention to apply.

An application for a licence must be submitted on the appropriate form (available from the Agency) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form and include supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each discharge point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions is to facilitate both the applicant and the Agency in the provision of the information and its assessment. Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

All questions should be answered. Where information is requested in the application form, which is not relevant to the particular application, the words "not applicable" should be clearly written on the form. The abbreviation "N/A" should not be used.

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person.

Applicants should be aware that a contravention of the conditions of a waste water discharge licence is an offence under the Waste Water Discharge (Authorisation) Regulations, 2007.

The provision of information in an application for a waste water discharge licence which is false or misleading is an offence under Regulation 35 of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

Note: Drawings. The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- All drawings should have a unique reference number and should be signed by a clearly identifiable person.
- All drawings should indicate a scale and the direction of north.
- All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the waste water treatment plant location, if such a plant exists, can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.
- In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.

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SECTION A: NON-TECHNICAL SUMMARY

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

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

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

A description of:

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

Supporting information should form **Attachment N° A.1** (see attachment B1)

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SECTION A

NON-TECHNICAL SUMMARY

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APPLICATION FOR A WASTEWATER DISCHARGE LICENCE

CLONAKILTY SEWERAGE SCHEME

Non-Technical Summary

A Description of the Wastewater Works and the Activities Carried out therein

The Collection System

The wastewater in Clonakilty and its environs is collected in a partially combined foul and surface water network consisting of both gravity and pumped systems. The foul sewage consists of both domestic and industrial effluent. Generally the central part of the town gravitates in the partially combined system to the two main pump stations of the scheme – Long Quay and Clarke Street. These then along with Inchydoney main pumping station pump directly to the wastewater treatment plant. Pump stations on the outskirts of the town fed by essentially separate foul systems include Inchydoney (main and minor), Gallanes and Templebryan North. Further private pumping stations are located at Templebryan South housing estate, Clonakilty Technology Park, Ard Alainn housing estate (Tawnies Lower Td.) and Inis Sioda housing estate (Scartagh). See Drawing No. CLON A1. of Attachment No. A1 for locations.

Both Long Quay and Clarke Street pump stations have storm overflow channels set at high levels in order to avoid high tide infiltration back from the overflow. Occasionally bypasses set at lower levels on overflows at both pump station have to be opened manually to relieve flooding in the lower areas of the town. It is proposed to lower the levels of the overflows with the installation of Tideflex non-return valves to avoid tidal back-up. Long Quay pumps are capable of pumping 4 DWF and Clarke Street 5 DWF. In order to cater for storm water at Long Quay in excess of 4 DWF it is proposed to provide 750 m³ storm tank adjacent to the pumphouse. This tank is sized to store 30 minutes storage of the excess in the inlet pipe capacity over and above the pump capacity. These proposed works are to be carried out under the upgrade of the wastewater treatment plant approved under the Water Services Investment Programme.

All other pump stations contain overflows either to surface water (both Inchydoney stations), ground soakaway (Gallanes) or holding tank (Templebryan North housing estate, Templebryan South housing estate, Clonakilty Technology Park, Ard Alainn housing estate and Inis Sioda housing estate) to cater for emergencies such as pump breakdown or electricity outage. However this seldom occurs as each contains duty and standby pumps. In case of emergency Inchydoney stations are linked by telemetry with the wastewater treatment plant and all other stations have 24 hour storage with flashing beacon alarm for pump malfunction.

The main pump station in Inchydoney is over 3 km from the wastewater treatment plant and in order to overcome possible septicity in the rising main due to long retention times air is injected into it at both the pump station and at an intermediate air injection station 1.3 km from the plant.

Wastewater Treatment Plant

The existing wastewater treatment plant in Clonakilty is located on the sea front, east of the GAA pitch and adjacent to the Model Railway Village. The site is approximately 2.2 ha in area on reclaimed land and is relatively flat, lying at approximately 5.5 m OD. The influent from the town and environs is pumped into the inlet works from two pumping stations located at Clarke Street Bridge and Long Quay. A separate pumped feed from Inchydoney also enters the works.

The original design loads on the existing treatment plant were:-

- Design Population 5,333 pe
- Dry Weather Flow 1 DWF = 17 l/s
- Peak Flow 6 DWF = 102 l/s
- BOD Loading 364 kg/day

The purpose of the plant is to remove solids and pollutant matter from sewage entering the works thus rendering the treated effluent suitable for discharge to a watercourse. Grit and others materials are removed at the inlet works and the extended aeration process removing the main pollutant matter prior to discharge to harbour.

The existing treatment works consists of:-

- (a) Grit Removal: A grit trap is currently in operation at the plant with a design flow capacity of 0 – 180 l/s, which is adequate to serve up to 22,000 p.e. flowing at 3 DWF.
- (b) Grit Classifier - has been installed recently. This receives the grit from the grit trap and separates out the grit from other materials and conveys the relatively dry grit into an adjacent wheelie bin for removal to landfill.
- (c) Screening – In the year 2000, a mechanically brushed screen and Lisep unit (Haigh Ace Inlet System) were installed. The largest model, 991, was installed in Clonakilty and has a maximum capacity of 100 l/s. Although the design peak flow is 102 l/s, the current peak flow entering the works when all pumps are running, is in the region of 135 l/s. The screen, therefore, is on occasion operating at maximum capacity, with no room for an increase in flows entering the works.
- (d) Emergency Bypass – A hand-operated penstock is located between the screen and the inlet flumes at the inlet works. This penstock leads to a backdrop manhole, which connects to the treatment plant outfall at the easterly end of the site allowing bypass of plant in emergency situations.
- (e) Inlet Flumes – After the screen outlet, the inlet channel splits into two channels 300 mm wide, with future provision for a third channel. The two channels have Venturi flumes installed with a 200 mm throat to enable measurement of the flow through the works which is then transmitted to control house. These channels were designed for a flow capacity of 51 l/s. The divided flows are piped from here to the oxidation ditches
- (f) Extended Aeration – Extended aeration is by means of 2 no. racetrack type oxidation ditches with 4 no. rotors located midway along length of each ditch as a means of aeration. The design p.e. for these ditches was 2,666/stream. Aeration is by means of

rotors located midway along the racetrack, which also maintains a velocity of approximately 3 m/s for the mixed liquor within the ditch.

These ditches were designed for a much lower BOD loading than the peak 15,000 p.e. that it serves in the summer. However, the plant was designed for a higher hydraulic load of 6 DWF, whereas now most plants are designed to take a hydraulic loading of 3 DWF. Recently a further floating aerator was introduced into each ditch in order to increase the amount of oxygen available for microorganisms to cater for the increased loading. Dissolved oxygen probes measure the oxygen levels within the oxidation ditches. The flow from the oxidation ditches is piped to the settling tanks.

- (g) Settling Tanks – 2 no. circular hopper-bottomed settling tanks are currently in operation as a means of secondary sedimentation. Sludge settles to the bottom of these tanks and is returned to the lifting wheel chambers. The supernatant liquid from the settling tanks is piped to the outlet channel.
- (h) Outlet Channel – The 400 mm outlet channel collects the treated effluent from the settling tanks which then flows by gravity to the sea outfall. The flow is measured in the outlet channel and transmitted to control house.
- (i) Sludge Return – The sludge from the settling tanks is returned to the oxidation ditches by means of a sludge-lifting wheel. This lifting wheel lifts the sludge to a sufficient height so that it can flow by gravity to the oxidation ditch. The sludge can also be drawn off from the lifting wheel chambers to the sludge pump sumps for wasting.
- (j) Excess Sludge Pumps – 2 no. submersible pumps, one duty and one standby pump the excess sludge produced from the extended aeration process on to the picket fence thickener. The pumps operate automatically and pump the sludge to the picket fence thickener tank.
- (k) Picket Fence Thickener – A picket fence thickener is located adjacent to the control house. The supernatant effluent is returned to the head of the oxidation ditch, and the thickened sludge which settles to the bottom of the tank is piped to pumps pumping it to the sludge filter belt press.
- (l) The Filter Belt Press – Located in the control house, the filter belt press reduces the moisture content of the sludge to approximately 12 - 14% dry solids with the aid of polyelectrolyte which is mixed with the sludge prior to the press. A screw conveyor then conveys the sludge to a tanker for recovery to agriculture.
- (m) Control House – This consists of the control room, laboratory, storeroom and toilet. The control room contains a mimic of the plant operation and control panel with displays of various equipment, operations and measurements. A telemetry system is also in place to monitor the Inchydoney scheme operations.

The Clonakilty Sewerage Scheme is currently operated by a Cork County Council employed caretaker who carries out his duties generally during normal working hours Monday to Friday while checking the plant as required outside of these hours.

An upgrade of the wastewater treatment plant approved under the Water Services Investment Programme is to be carried out in the near future in order to cater for a total loading of 20,500 p.e. For further details concerning these proposals see Section B10 of the application - Capital Investment Programme.

The Sources of Emissions from the Wastewater Works

The pollution load from the Clonakilty agglomeration arises from the following areas:

- The local population
- Shannonvale Chickens
- Clona Milk Dairies
- Irish Yoghurts
- Hotels, schools, hospital, abbatoir, technology park etc.

Shannonvale Chickens has its own treatment plant discharging treated effluent to public sewer.

Development in Clonakilty generally has increased substantially in recent years with high seasonal variation in the population reaching its peak in summertime with influx of tourists and holidaymakers. Latest recorded peak pe at the plant is for 15,000.

The treatment plant was designed to be built in two stages with room allowed on the site for a third oxidation ditch to be added on expansion of the plant to cater for 20,500 pe. This increased load will include effluent from Shannonvale and Ring villages.

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

It must be noted that Clonakilty Harbour is classified as a National Heritage Area, Special Area of Conservation and a Special Protection Area.

Emissions from the plant are to comply with the Urban Wastewater Treatment Directive whose limits are :

BOD – 25 mg/l ; SS – 35 mg/l ; Phosphorus – 2 mg/l ; Nitrogen – 15 mg/l

Peak hydraulic load proposed through the plant after upgrade = 3 DWF = 111 l/s or 9590 m³/d
Flows in excess of this will be required to be overflowed at pump stations to storm tanks or for discharge to harbour.

One of the main concerns regarding the effects of the emissions on the environment is the classification of Inchydoney as a Blue Flag beach. The fact that it has maintained its status as such for the last number of years is an indication of the quality of water in the area and the compliance with coliform requirements.

The Environmental Impact Statement accompanying this application was carried out in conjunction with the proposed upgrade of the Wastewater Treatment Plant. This found that the optimum location for the outfall from the plant is its present one as the distance to Inchydoney beach meant the greatest reduction in bacterial contamination occurred.

The EIS also recommends that in order to allow for any change in the designation of the receiving waters or any increase in the wastewater flows, the WWTP should be designed to allow for retrofitting of disinfection equipment so that coliform levels in the treated effluent be reduced if necessary.

Modelling carried out as part of the EIS indicated that an increase in nutrient levels in Clonakilty Harbour is unlikely to occur due to full tidal flushing of the estuary on each tidal cycle. However, at low river flows, the effluent from the WWTP will result in unacceptably high concentrations of nitrogen and phosphates in the receiving water.

It is recommended that the WWTP should provide for reduction of nitrogen and phosphates in the treated effluent. The maximum levels of total phosphorus (P) and total nitrogen (N) in the treated effluent being discharged to sensitive areas under the Urban Wastewater Treatment Regulations 2001 are 2 mg/l P and 15 mg/l N. These levels are considered appropriate for the upgraded and expanded Clonakilty WWTP. Allowance should be made in the design of the WWTP for the further reduction in nitrogen and phosphates in the effluent if required.

In relation to odour and noise emissions the EIS states

1. Odour emissions are not predicted to be perceived at any sensitive receptor beyond the site boundary.
2. During the operational phase it has been concluded that the facility will not result in an adverse impact at the nearest sensitive receptors arising from on-site plant noise.

The proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works

Technologies

It is proposed to include SCADA technology in the upgrade of the plant to ensure proper monitoring and alarming of all equipment associated with running of the plant and pumphouses overflows etc. This will lead to rapid response to any problems or emergencies that may arise in the course of operation of the scheme.

Techniques

It is proposed to develop a Performance Management System (PMS) for the Clonakilty Wastewater Treatment Plant. This will provide a uniform approach to dealing with all relevant performance management issues including emergency procedures, reporting procedures and plant operation procedures.

The EIS recommends facilities be provided in upgrading of WWTP to allow for retrofitting of disinfection as well as nitrogen and phosphorus removal if such becomes necessary at a later date.

It is proposed to provide odour control and removal at both the inlet works and the sludge treatment plant to ensure no detrimental effect to adjacent development.

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

An upgrade of the wastewater treatment plant approved under the Water Services Investment Programme is to be carried out in the near future in order to cater for a total loading of 20,500 pe. For further details concerning these proposals see Section B Capital Investment Programme of the application.

This will lead to improvement in the quality of effluent from the wastewater treatment plant with consequent beneficial effects on the environment.

Included in the improvements is a storm tank serving Long Quay pump station which will retain storm overflow of 30 minutes duration thus leading to reduction of possible pollution particularly that caused by "first flush".

Modelling carried out as part of the EIS indicated that an increase in nutrient levels in Clonakilty Harbour is unlikely to occur due to full tidal flushing of the estuary on each tidal cycle. However, at low river flows, the effluent from the WWTP will result in unacceptably high concentrations of nitrogen and phosphates in the receiving water.

It is recommended that the WWTP should provide for reduction of nitrogen and phosphates in the treated effluent. The maximum levels of total phosphorus (P) and total nitrogen (N) in the treated effluent being discharged to sensitive areas under the Urban Wastewater Treatment Regulations 2001 are 2 mg/l P and 15 mg/l N. These levels are considered appropriate for the upgraded and expanded Clonakilty WWTP. Allowance should be made in the design of the WWTP for the further reduction in nitrogen and phosphates in the effluent if required.

Measures planned to monitor emissions into the environment

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SECTION B: GENERAL

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

B.1 Applicant's Details*

Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Provide a drawing detailing the agglomeration to which the licence application relates. It should have the boundary of the agglomeration to which the licence application relates clearly marked in red ink.

Name**:	Cork County Council
Address:	Water Services (Western Division)
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	declan.groarke@corkcoco.ie

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

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

Name*:	Declan Groarke
Address:	Cork County Council
	Courthouse
	Skibbereen
	Co. Cork
Tel:	028-21299
Fax:	028-21995
e-mail:	declan.groarke@corkcoco.ie

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

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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*:	John Conroy
Address:	Clonakilty Wastewater Treatment Plant
	Youghals
	Clonakilty
	Co. Cork
Grid ref (6E, 6N)	E138971 N041282
Level of Treatment	Secondary
Primary Telephone:	023-34206
Fax:	023-33147
e-mail:	john.conroy@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	Open pipe
Location	Youghals, Clonakilty
Grid ref (6E, 6N)	E139030 N041311

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	Outfall pipe
Location	Long Quay
Grid ref (6E, 6N)	E138859 N041382

Type of Discharge	Flap valve
Location	Clarke Street
Grid ref (6E, 6N)	E138667 N041336

Type of Discharge	Piped to Soakaway
Location	Gallanes
Grid ref (6E, 6N)	E140690 N042600

Type of Discharge	Outfall pipe
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Location	Inchydoney
Grid ref (6E, 6N)	E139612 N038533

Type of Discharge	Outfall pipe
Location	Inchydoney
Grid ref (6E, 6N)	E139373 N038612

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	Flap valve
Location	Long Quay Pump Station
Grid ref (6E, 6N)	E138859 N041382

Type of Discharge	Flap valve
Location	Clarke Street Pump Station
Grid ref (6E, 6N)	E138667 N041336

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:	Clonakilty Town Council
Address:	Town Hall
	Kent Street
	Clonakilty
	Co. Cork
Tel:	023-33380
Fax:	023-33558
e-mail:	council@clonakilty.ie

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

<i>has been obtained</i>	<input checked="" type="checkbox"/>	<i>is being processed</i>	<input type="checkbox"/>
<i>is not yet applied for</i>	<input type="checkbox"/>	<i>is not required</i>	<input type="checkbox"/>

Local Authority Planning File Reference N^o:	50070-06
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Attachment B.6 should contain **the most recent** planning permission, including a copy of **all** conditions, and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

Attachment included	Yes	No
	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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
	<input type="checkbox"/>	<input checked="" type="checkbox"/>

B.7 (ii) Health Services Executive Region

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

Name:	Health Service Executive
Address:	Area Headquarters
	Hospital Grounds
	Skibbereen
Tel:	028-40400
Fax:	028-21006
e-mail:	

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:	Clonakilty Town Council
Address:	Town Hall
	Kent Street
	Clonakilty
Tel:	023-3380
Fax:	023-33558
e-mail:	council@clonakilty.ie

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 (≤A3) showing its location. **The original application must include the original page of the newspaper in which the advertisement was placed.** The relevant page of the newspaper containing the advertisement should be included with the original and two copies of the application.

Attachment included	Yes	No
	✓	

B.9 (i) Population Equivalent of Agglomeration

TABLE B.9.1 POPULATION EQUIVALENT OF AGGLOMERATION

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

Population Equivalent	15,000
Data Compiled (Year)	2005
Method	Composite Sample

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 €)
	30,000

Appropriate Fee Included	Yes	No
	✓	

B.10 Capital Investment Programme

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

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

Attachment included	Yes	No
	✓	

B.11 Significant Correspondence

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

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

Attachment included	Yes	No
		✓

B.12 Foreshore Act Licences.

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

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

Attachment included	Yes	No
	✓	

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ATTACHMENT No B.1
AGGLOMERATION BOUNDARY

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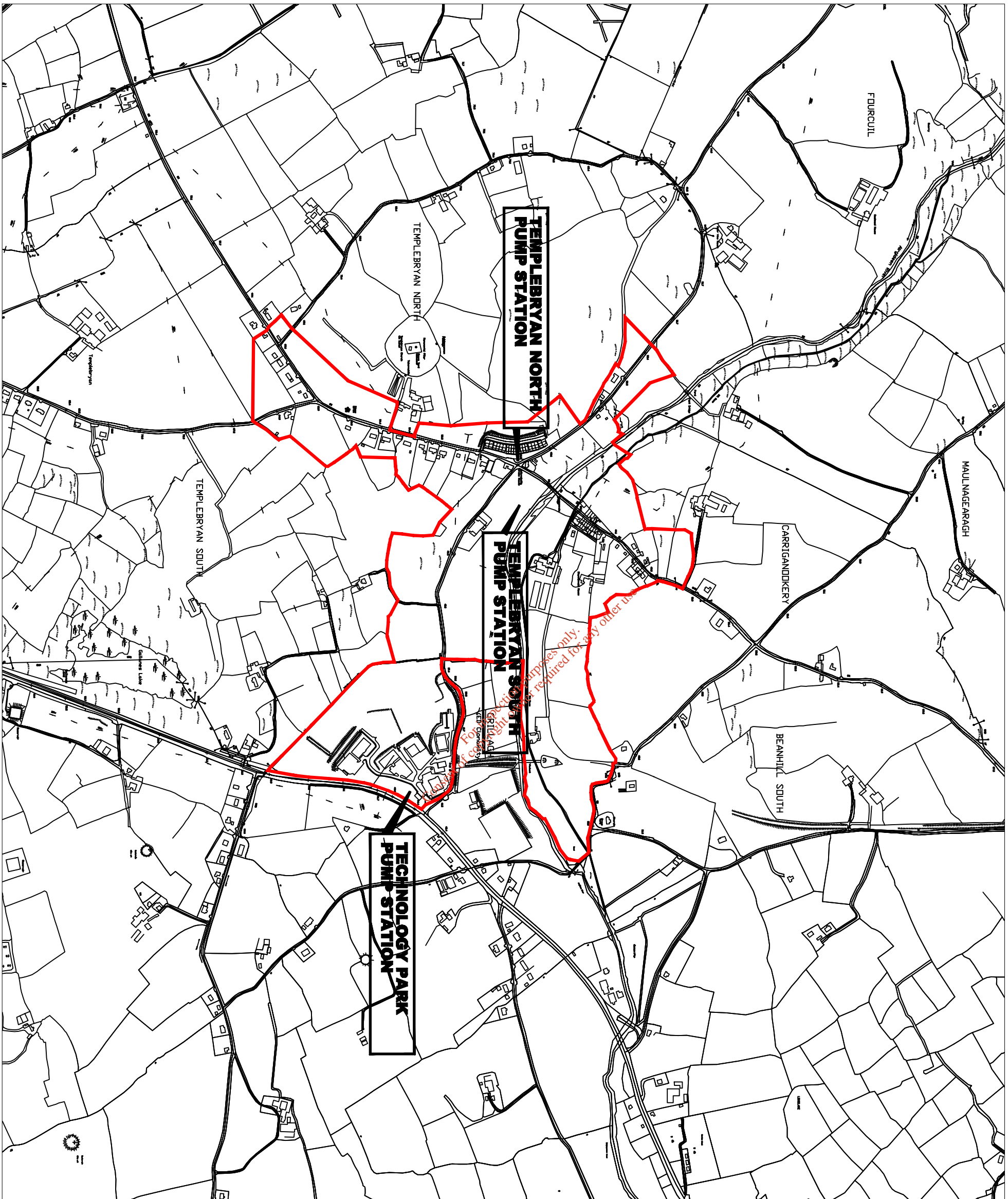
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LEGEND

— AGGLOMERATION BOUNDARY



No.	Date	Drawn	Surv	Chkd	Revision Description

**Cork County Council,
Western Division.**

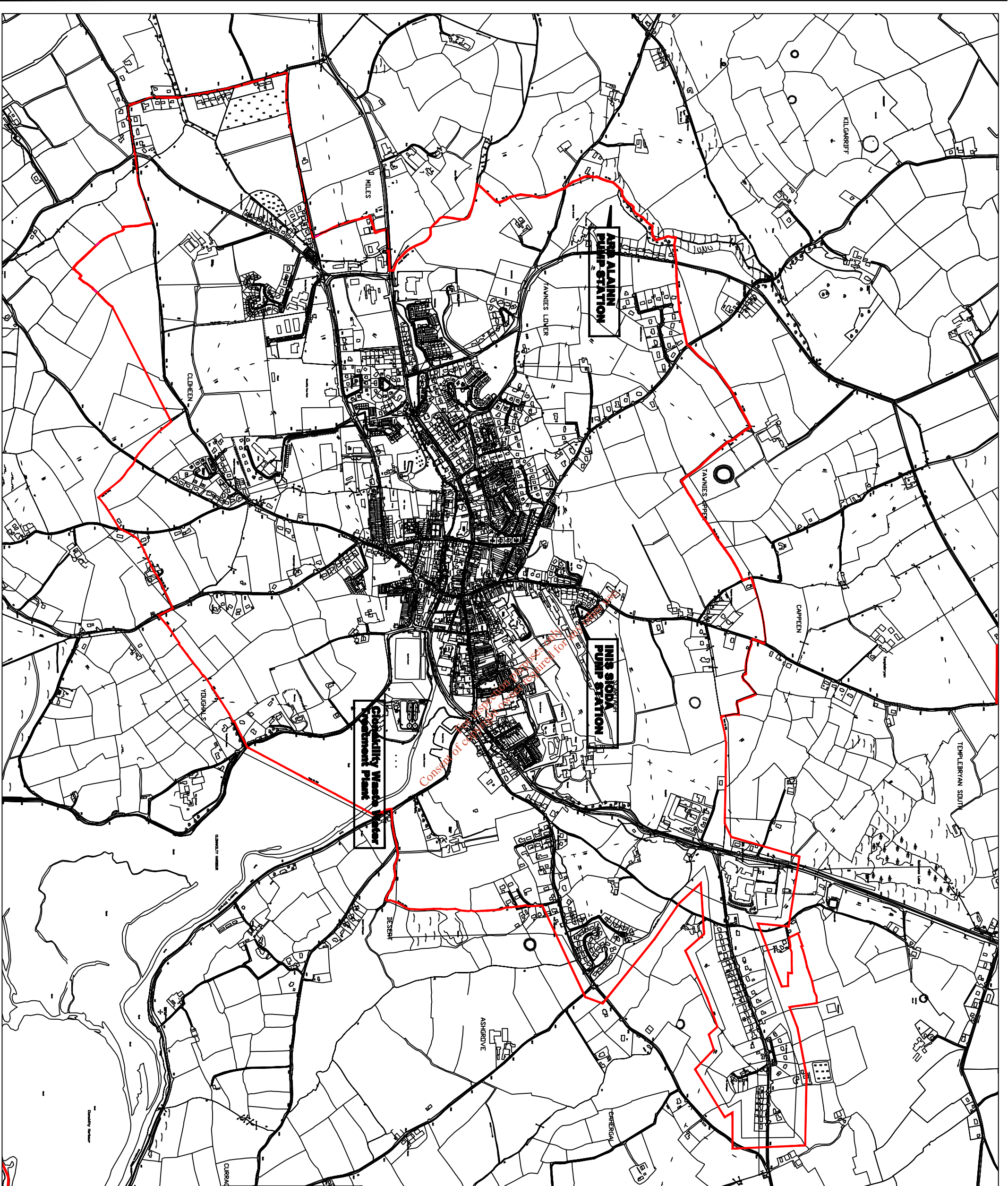


N. O'MAHONY, B.E.
SENIOR ENGINEER (WATER SERVICES),
COURTHOUSE, SIBBERREEN,
M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
**CLONAKILTY_WWTP
LICENCE APPLICATION TO EPA**

Drawing Title:
**ATTACHMENT B.1-SHEETS 3 OF 3
AGGLOMERATION BOUNDARY
SERVED BY WASTE WATER
TREATMENT PLANT**

Prepared By: J. CARRAGH	Checked By: D. GARDAGHER	Date: DBK
Drawing number: CLON_03	Scale: 1:10000	Rev



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— AGGLOMERATION BOUNDARY

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**Cork County Council,
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SENIOR ENGINEER, (WATER SERVICES),
COURTHOUSE, SIBBERGREEN,
M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
**CLONAKILTLY_WWTP
LICENCE APPLICATION TO EPA**

Drawing Title:
**ATTACHMENT B.1-SHEET 1
AGGLOMERATION BOUNDARY
SERVED BY WASTE WATER
TREATMENT PLANT**

Prepared By: J. CARRAGHER	Checked By: D. GARDINER	Date: DBK
Drawing number: CLON_01	Scale: 1:15000	Rev

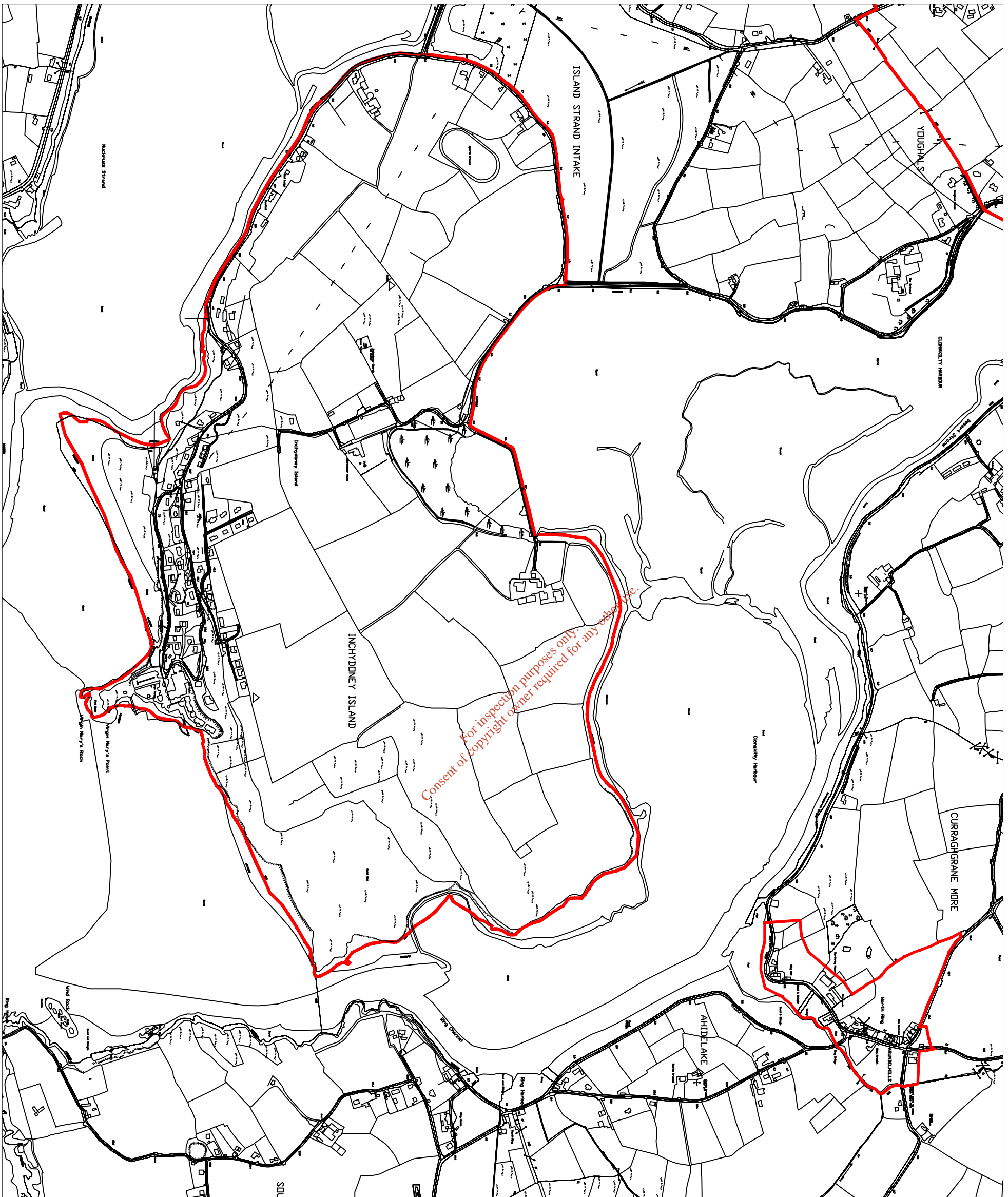
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— AGGLOMERATION BOUNDARY



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COURTHOUSE, SHIBBEREN,
WEST CORK.
M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK.

Job Title:
**CLONAKILTLY_WWTP
LICENCE APPLICATION TO EPA**

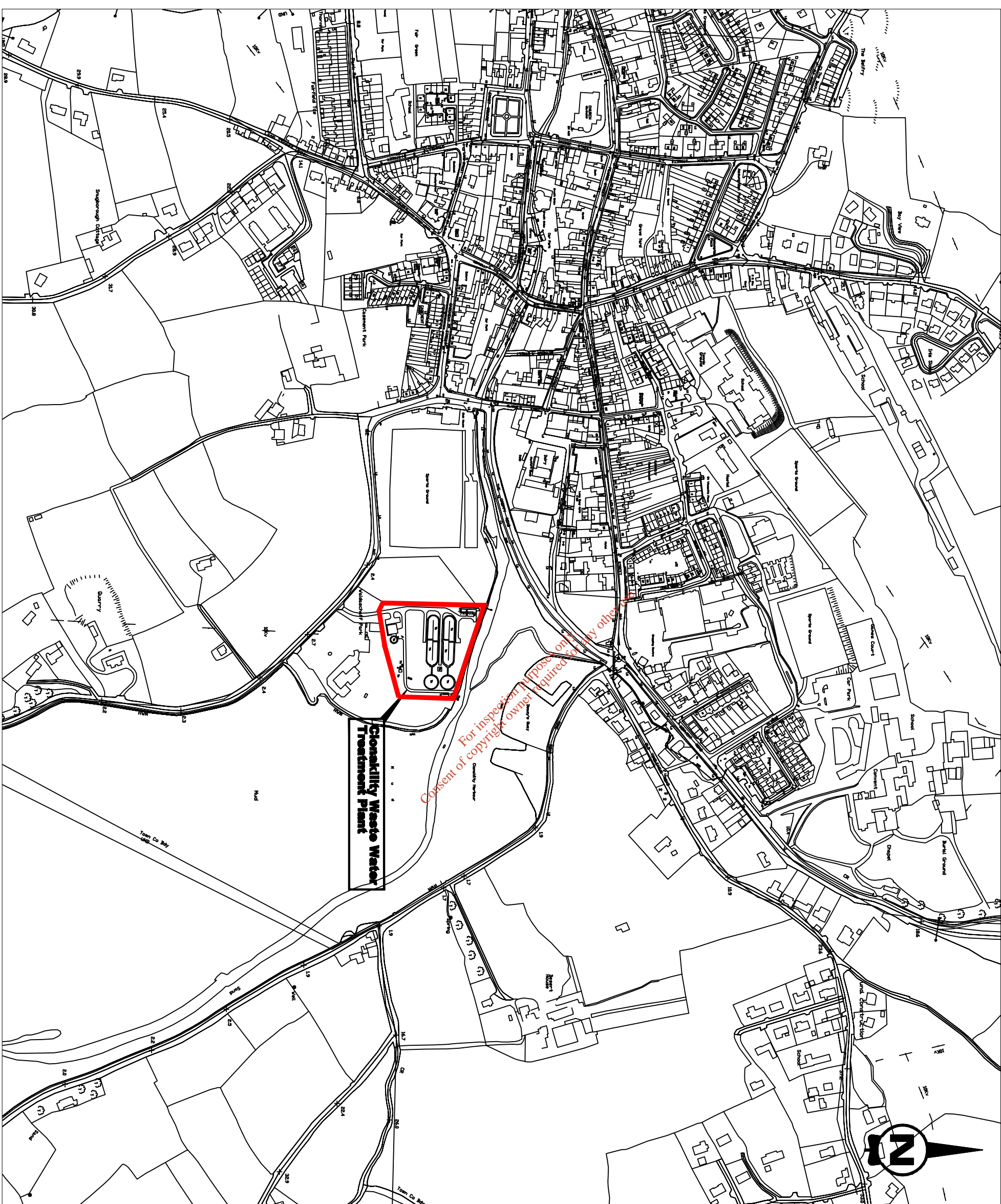
Drawing Title:
**ATTACHMENT B.1-SHEET 2 OF 3
AGGLOMERATION BOUNDARY
SERVED BY WASTE WATER
TREATMENT PLANT**

Prepared By: J. CARRAGH	Checked By: D. GAROARKE	Date: DBK
Drawing number: CLON_02	Scales: 1:10000	Rev

ATTACHMENT No B.2

WWTP SITE BOUNDARY

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Clonakilty Waste Water Treatment Plant

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LEGEND

— WASTE WATER TREATMENT
— SITE BOUNDARY

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COURTHOUSE, SMIBBEREN,
M. MARRELL,
DIRECTOR OF SERVICES
WEST CORK

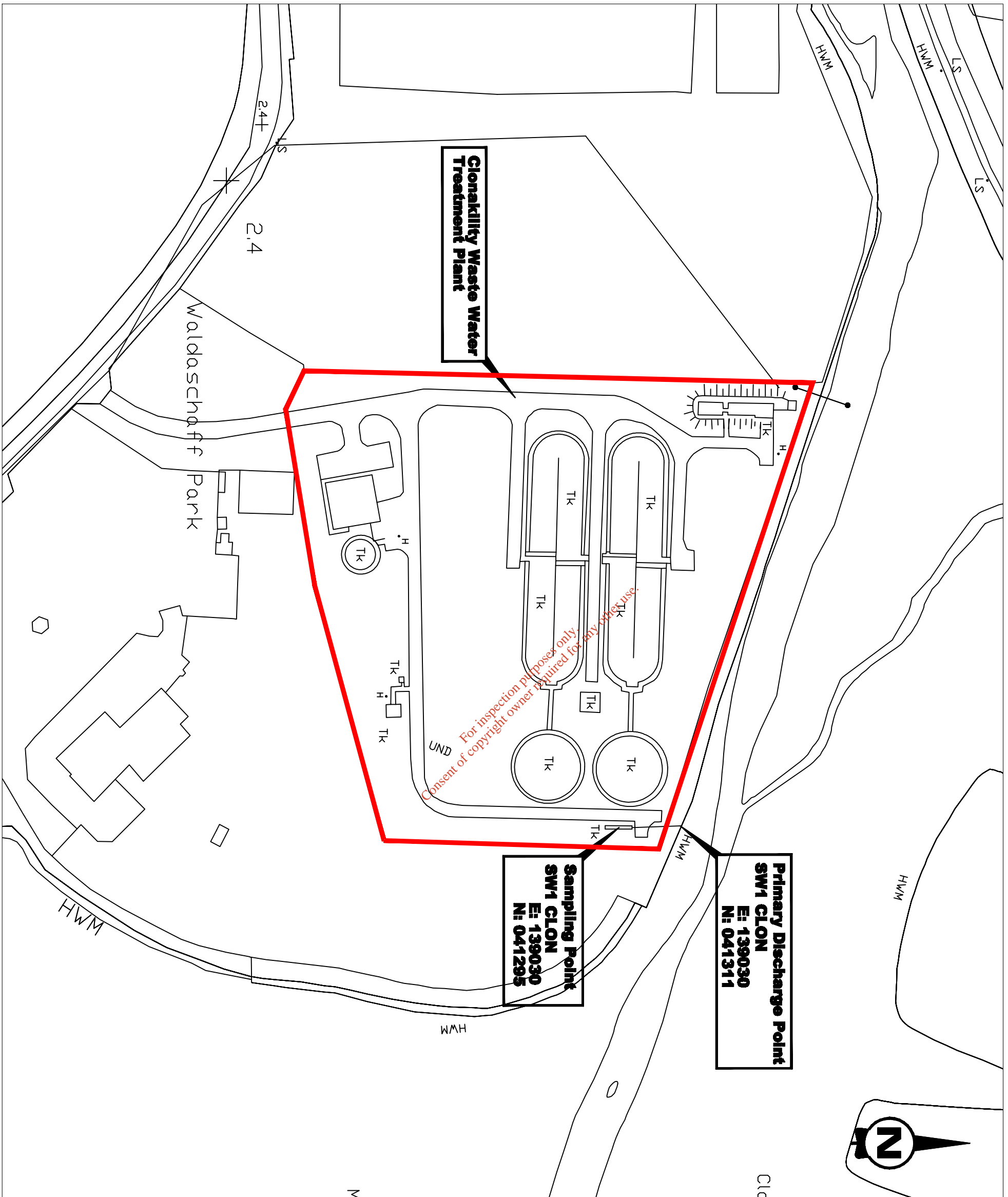
Job Title:
**CLONAKILTY_WWTP
LICENCE_APPLICATION_TO_EPA**

Drawing Title:
**ATTACHMENT_B2
SITE_LOCATION_PLAN
SHEET_1_OF_2**

Prepared By: J. CARRAGHER	Checked By: D. GAROARKE	Date: DBK
Drawing number: CLON_04	Scale: 1:5000	Rev

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LEGEND

— WASTE WATER TREATMENT

— SITE BOUNDARY

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COURTHOUSE, SKIBBEREN,
M. MARRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
**CLONAKILLY_WWTTP
LICENCE_APPLICATION_TO_EPA**

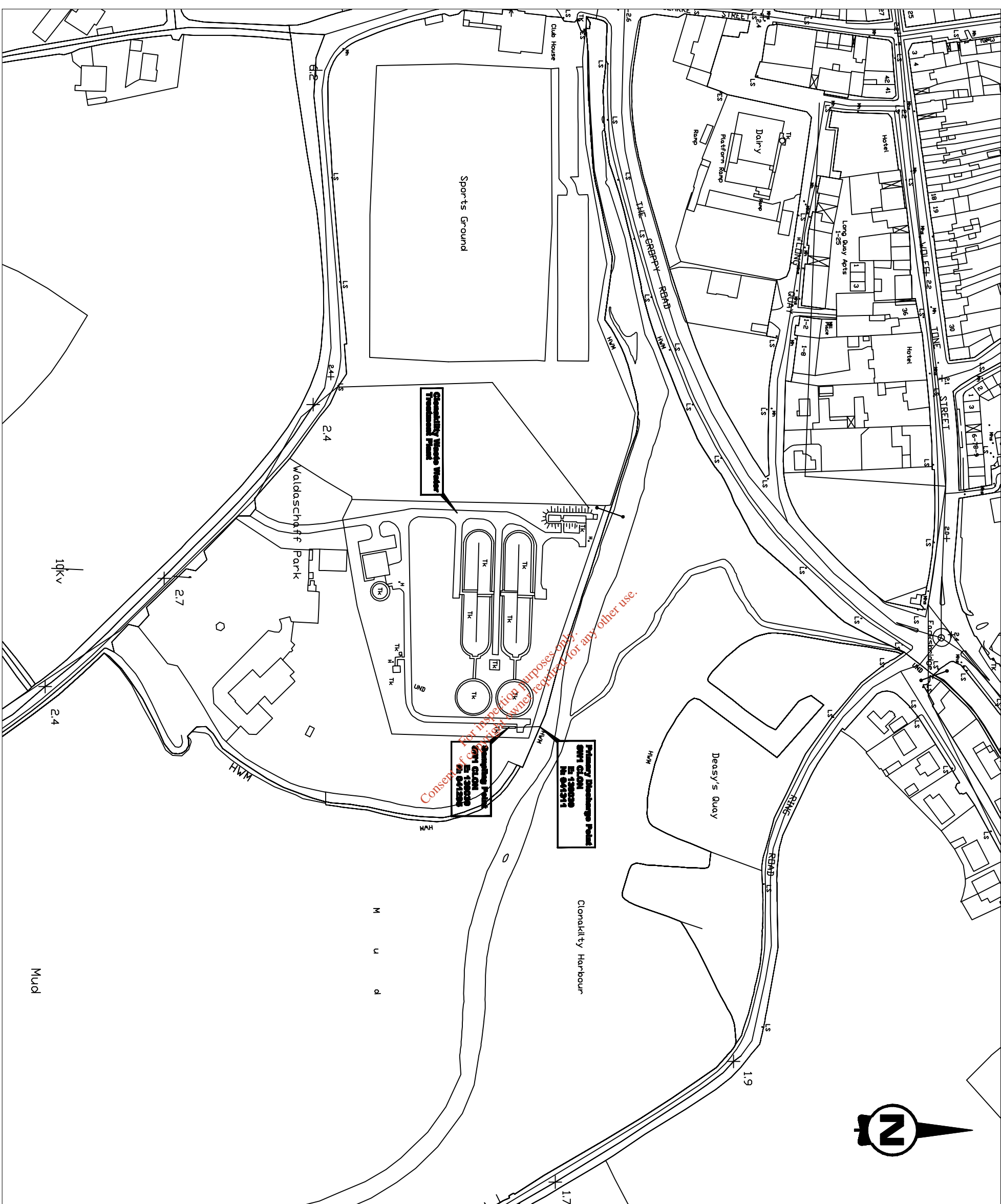
Drawing Title:
**ATTACHMENT_B2
SITE_LAYOUT_PLAN
SHEET_2_OF_2**

Prepared By: J.CREAGH	Checked By: D.GROARKE	Date: DBK
Drawing number: CLON_05	Scale: 1:1000	Rev

ATTACHMENT No B.3

PRIMARY DISCHARGE LOCATION

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M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

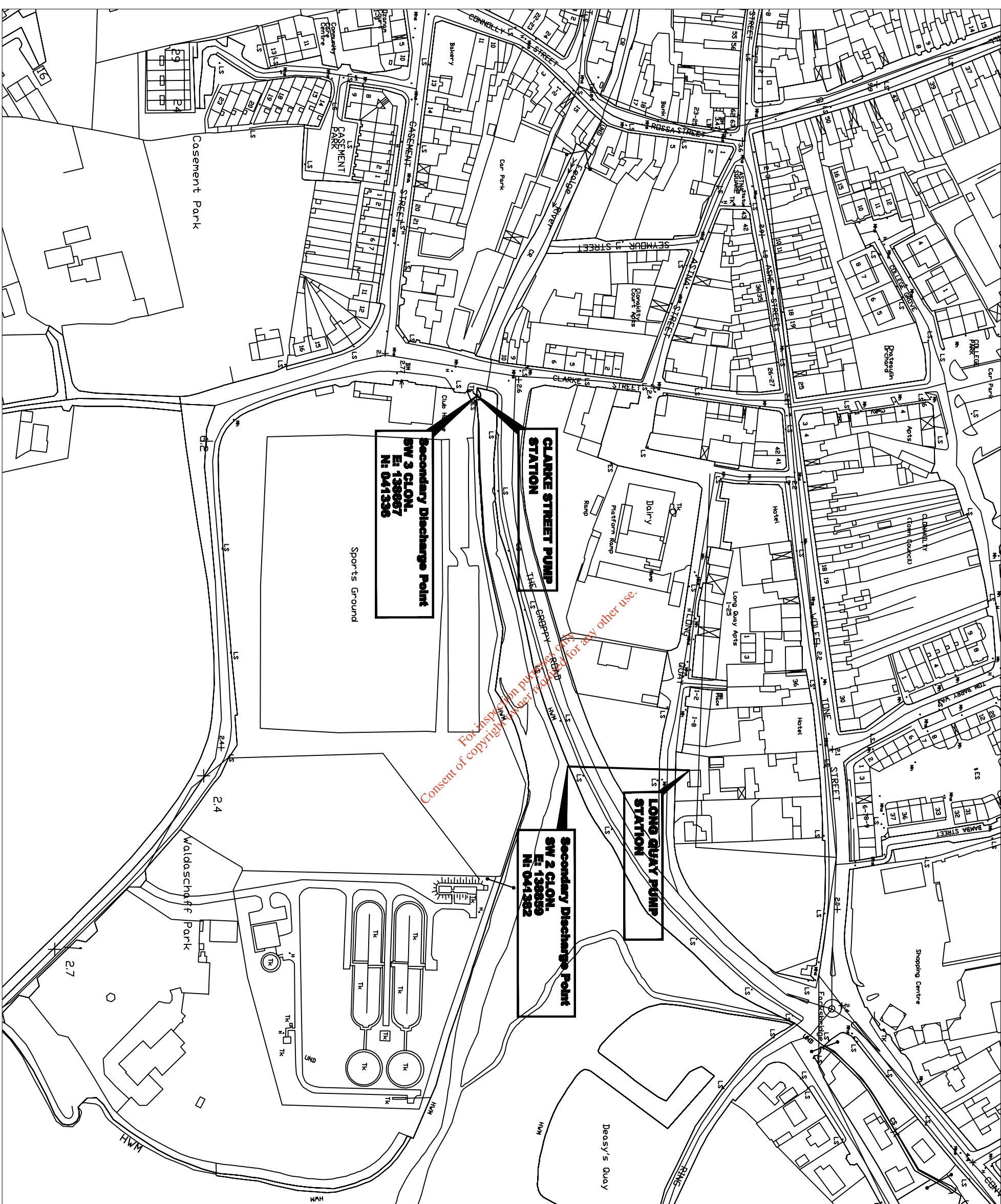
Job Title:
**CLONAKILTYP_WWTP
LICENCE_APPLICATION_TO_EPA**

Drawing Title:
**ATTACHMENT_B.3
PRIMARY_DISCHARGE_POINT**

Prepared By: J. CHERAGHI	Checked By: D. GARDARKE	Date: DEK
Drawing number: CLON_06	Scale: 1:2000	Rev

ATTACHMENT No B.4
SECONDARY DISCHARGE LOCATION

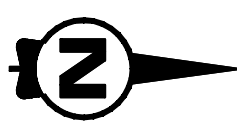
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 M. MURRELL,
 DIRECTOR OF SERVICES
 WEST CORK

Job Title:
CLONAKILTLY WWTP
LICENCE APPLICATION TO EPA

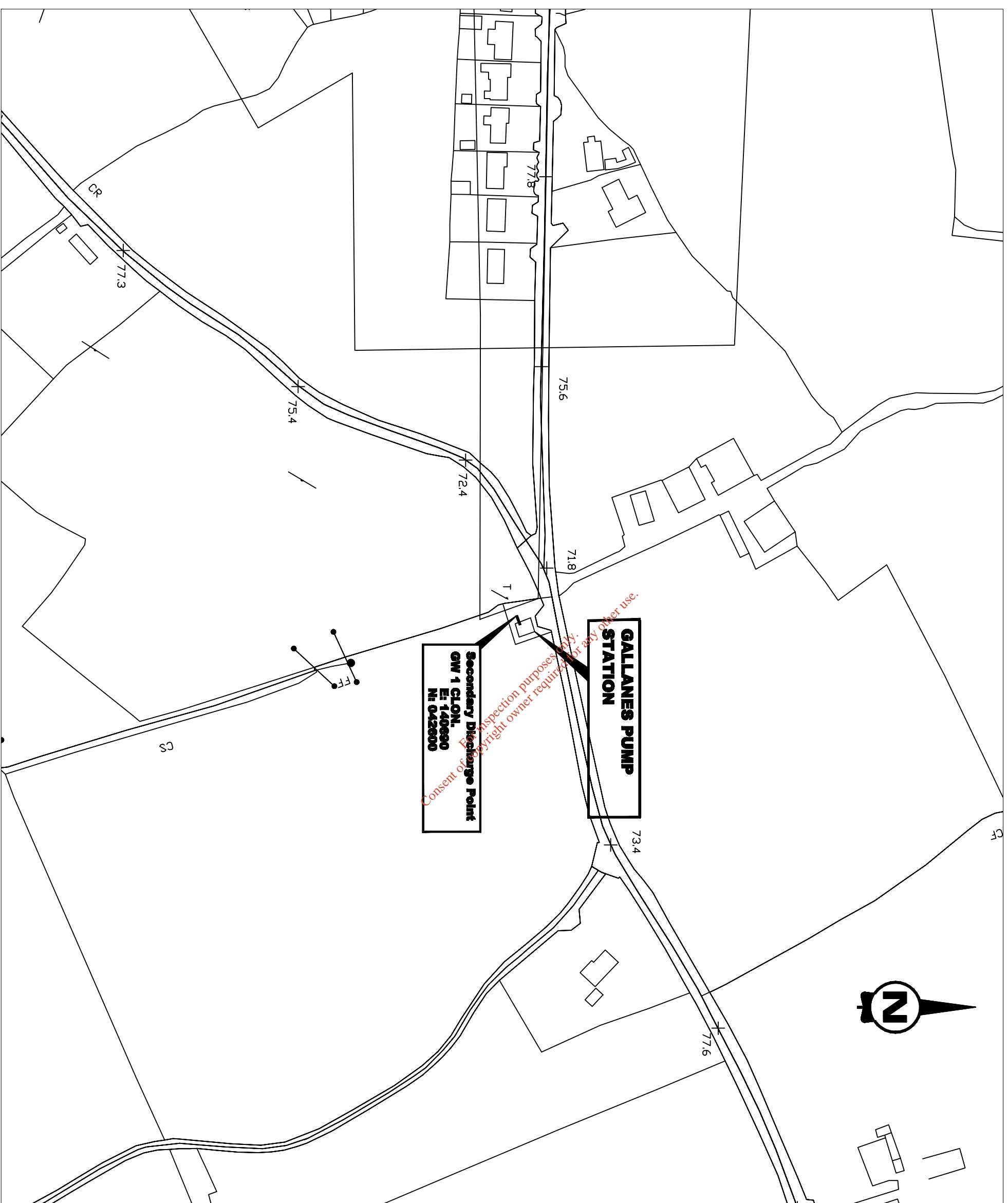
Drawing Title:

ATTACHMENT B4
SECONDARY DISCHARGE POINTS
SHEET 1 OF 3

Prepared By: J. CARRAGHER	Checked By: D. GARAGHER
Drawing number: CLON_07	Scale: 1:2000
	Date: DEC
	Rev

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M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK



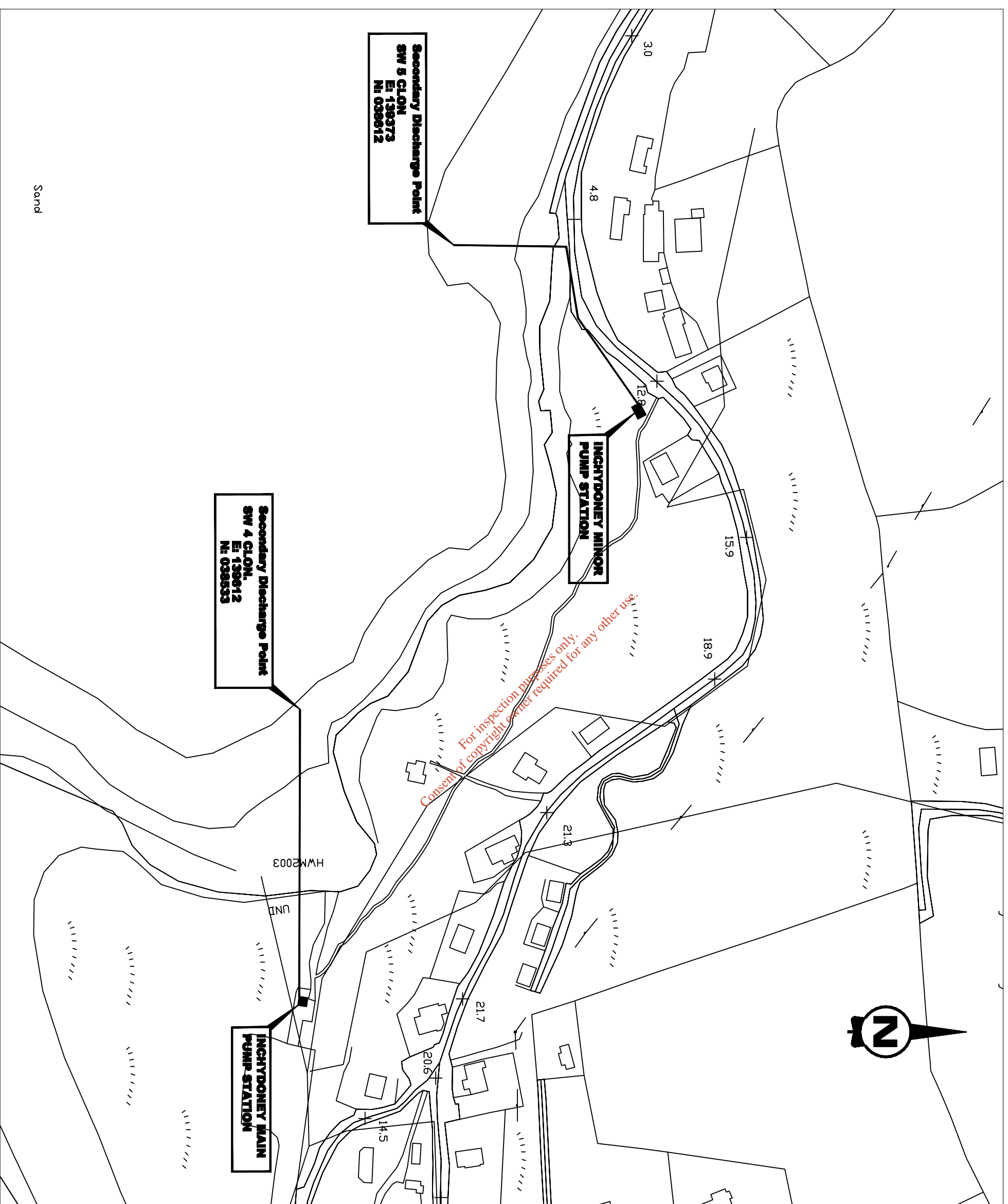
Job Title:
**CLONAKILTY_WWTP
LICENCE_APPLICATION_TO_EPA**

Drawing Title:
**ATTACHMENT_B4
SECONDARY_DISCHARGE_POINTS
SHEET_2_OF_3**

Prepared By: J. CERAIGHI	Checked By: D. GAROARKE	Date: DBK
Drawing number: CLON_08	Scale: 1:2000	Rev

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Cork County Council,
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LICENCE APPLICATION TO EPA**

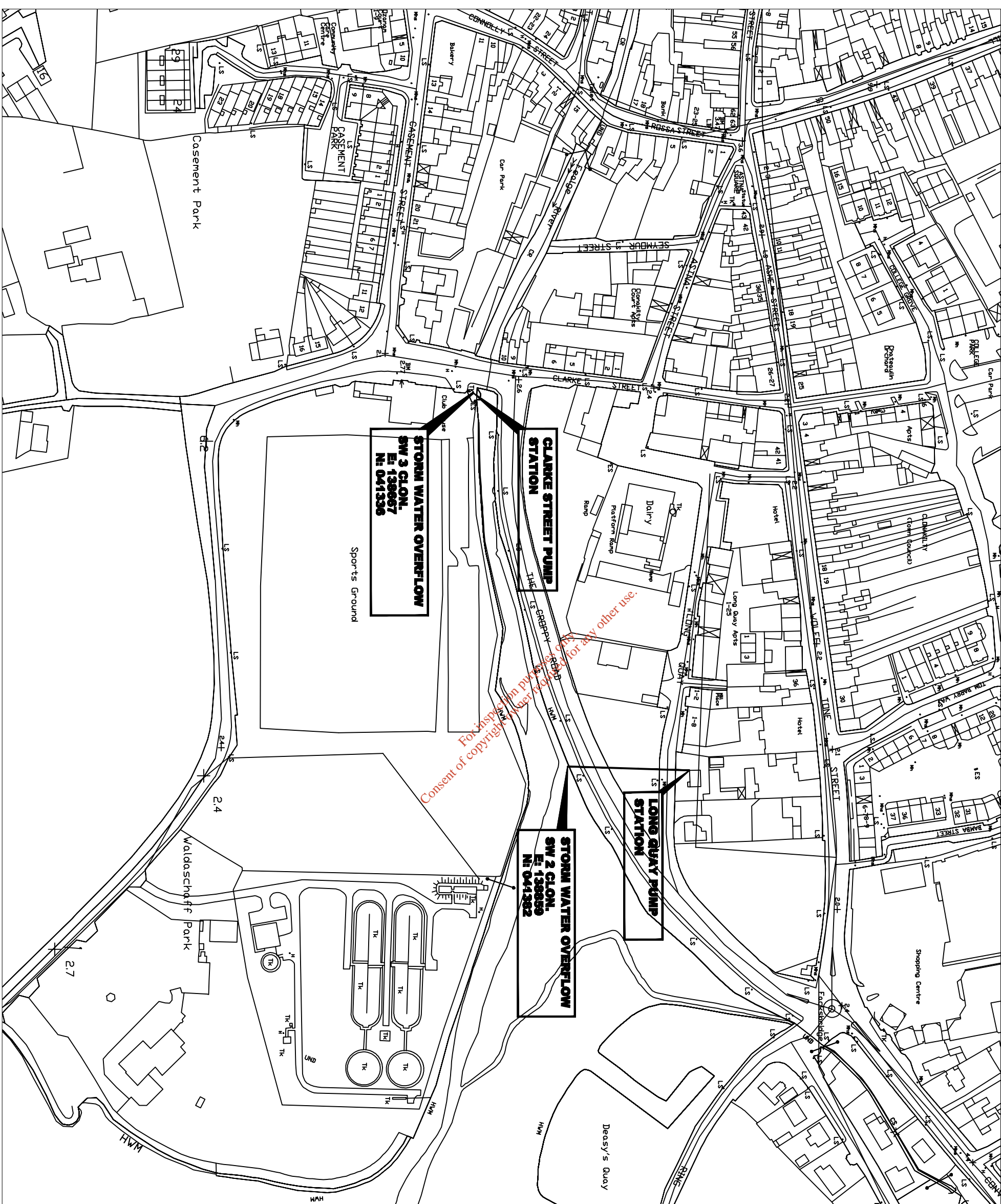
Drawing Title:
**ATTACHMENT B4
SECONDARY DISCHARGE POINTS
SHEET 3 OF 3**

Prepared By: J. CARRAGHER	Checked By: D. GAROARKE	Date: DBK
Drawing number: CLON_09	Scale: 1:2000	Rev

ATTACHMENT No B.5

STORM WATER OVERFLOW LOCATIONS

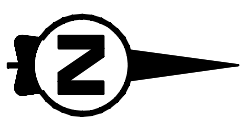
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 COURTHOUSE, SHARRIBREEN.
 M. MURRELL,
 DIRECTOR OF SERVICES
 WEST CORK

Job Title:
CLONAKILTY_WWTP
LICENCE APPLICATION TO EPA

Drawing Title:
ATTACHMENT B5
STORM_WATER_OVERFLOW_POINTS

Prepared By:	Checked By:	Date:
J. CARRAGHER	D. GARDINER	DBK
Drawing number:	Scale:	Rev
CLON_10	1:2000	

ATTACHMENT No B.6
PLANNING PERMISSION

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CLONAKILTY TOWN COUNCIL
Comhairle Bhaile Chloich na Coillte

Phone: 023-33380
Fax: 023-33558
email: clontc@corkcoco.ie

TOWN CLERK'S OFFICE,
TOWN HALL,
KENT STREET,
CLONAKILTY,
WEST CORK.

1st May, 2007

Cork County Council,
Courthouse,
Skibbereen,
Co Cork.



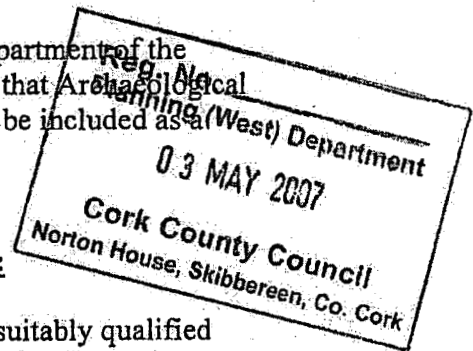
Re: Planning Reg. Ref. 50070-06
Permission for upgrading of Clonakilty Wastewater Treatment Plant
At: Inchydoney Road & Long Quay, Clonakilty, Co Cork.

A Chara,

Further to our correspondence of 29th January 2007, The Department of the Environment, Heritage and Local Government recommends that Archaeological Monitoring, as described below be carried out at this site and be included as a condition of planning.

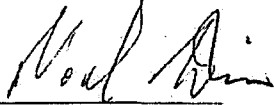
"Archaeological Monitoring shall consist of the following:

1. The applicant is required to engage the services of a suitably qualified archaeologist to monitor all topsoil stripping associated with the development.
2. Should archaeological material be found during the course of monitoring, the archaeologist may have work on the site stopped, pending a decision as to how best to deal with the archaeology. The developer shall be prepared to be addressed by the Department of the Environment, Heritage and Local Government with regard to any necessary mitigating action (e.g. preservation *in situ*, and/or excavation). The applicant shall facilitate the archaeologist in recording any material found.
3. The Planning Authority and the Department of the Environment, Heritage and Local Government shall be furnished with a report describing the results of the monitoring



Reason: To ensure the continued preservation (either *in situ* or by records) of place, caves, sites, features or other objects of archaeological interest,"

Mise le meas



Nicola Radley
Town Clerk

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Reg. No. _____
Planning (West) Department
03 MAY 2007
Cork County Council
Norton House, Skibbereen, Co. Cork

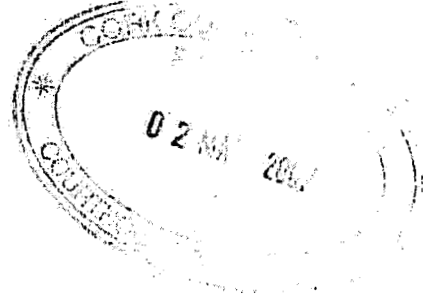
Water Dept

For Outline

Clonakilty Town Council

Planning and Development Act, 2000

To: Cork County Council
Court House,
Skibbereen
Co. Cork



Register Reference Number: T.P. 50070/06

Re: Application for Permission received on 24/11/2006

from:- Cork County Council

of :- Court House, Skibbereen, Co. Cork

for upgrading of Clonakilty Wastewater Treatment Plant at Inchydoney Road to cater for a population equivalent of 20,500, including expansion and covering of inlet works, construction of aeration tank and settling tank, 2 no. covered primary settling tanks, compressor/dewatering house and picket fence thickener and other ancillary works. Upgrading of pumping station and construction of storm holding/balancing tank at Long Quay. The Planning Application is accompanied by an Environment Impact Statement (EIS) which was available for inspection or purchase at the offices of the Planning Authority, Clonakilty Town Council

at Inchydoney Road & Lond Quay, Clonakilty Co Cork

Further to Notice dated 25th January 2007, Clonakilty Town Council hereby conveys a grant of Permission for the development described above subject to the conditions set out in the Second Schedule, attached to the said Notice of its intention to grant Permission.

Signed on behalf of Clonakilty Town Council



Nicola Radley
Town Clerk
28/02/2007

NOTE FOR GUIDANCE OF DEVELOPERS

A grant of Permission does not of itself empower a person to carry out a development unless that person is otherwise legally entitled to do so. Unless otherwise stated or unless it is revoked, a Permission is valid for a period of five years.

Any development which takes place prior to the payment of a financial contribution required by any of the conditions attached to a permission or permission consequent on the grant of Outline Permission will be unauthorised until compliance with the condition or conditions.

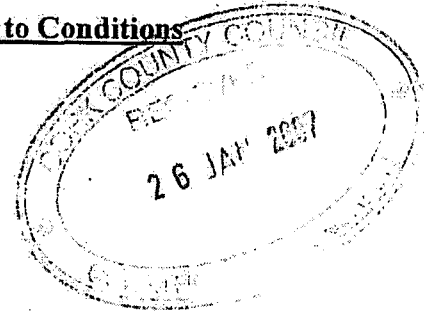
Please note that there is an onus on developers to ensure that there is no danger to the public as a result of the proposed development.

CLONAKILTY TOWN COUNCIL

Planning & Development Act 2000

Notification of Decision to Grant Permission subject to Conditions

TO: Cork County Council
Courthouse
Skibbereen
Co Cork



Planning Register Number: 50070/06

In pursuance of the powers conferred upon them by the above mentioned Act, Clonakilty Town Council have, by Order dated 25th January, 2007, decided to **GRANT PERMISSION** for the development of land, namely:-

to: Upgrading of Clonakilty Wastewater Treatment Plant at Inchydoney Road to cater for a population equivalent of 20,500, including expansion and covering of inlet works, construction of aeration tank and settling tank, 2 no covered primary settling tanks, compressor/dewatering house and picket fence thickener and other ancillary works. Upgrading of pumping station and construction of storm holding /balancing tank at Long Quay. The planning application is accompanied by an Environmental Impact Statement (EIS) which will be available for inspection or purchase at the offices of the Planning Authority, Clonakilty Town Council

at: Inchydoney Road & Long Quay Clonakilty Co Cork

in accordance with plans and particulars lodged with the Council on 24/11/2006 and subject to the 11 no. condition set out in the Second Schedule attached hereto.

An appeal against the decision of the Planning Authority may be made to An Bord Pleanala by any person BEFORE the EXPIRATION of the period of FOUR WEEKS beginning on the day of the giving of the decision (i.e. the date of the Order) of the Planning Authority. (SEE NOTE ATTACHED).

If there is no appeal against the said decision, a GRANT of Permission in accordance with the decision will be issued after the expiration of the period within which an appeal may be made to An Bord Pleanala.

It should be noted that until a grant of Permission has been issued, the development in question is NOT AUTHORISED.

Signed on behalf of Clonakilty Town Council

A handwritten signature in black ink, appearing to read "Noel Tobin".

Noel Tobin
A/Town Clerk
25/01/2007

CLONAKILTY TOWN COUNCIL

Application Reg. Ref. No. 50070/06

FIRST SCHEDULE

Having regard to the polices set out in the current Town Development Plan and the pattern of existing and permitted development in the vicinity it is considered that subject to compliance with the conditions set out in the Second Schedule herein the proposed development would be in accordance with the proper planning and sustainable development of the area.

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SECOND SCHEDULE

Register Reference No. 50070 /06

Column 1 - (Condition)	Column 2 - (Reason)
1. Prior to the commencement of development a program for the construction phase of the project to include measure to minimise environmental emissions	To safeguard the amenities of the area
2. Prior to the date of commissioning of the development, the applicant shall install and provide adequate measures to be agreed with the Planning Authority for the control of odours and environmental emissions from the plant.	To safeguard the amenities of the area
3. Prior to the commencement of development the developer shall submit to the Planning Authority a proposal for the reduction of nitrogen and phosphates in the treated effluent.	To safeguard the amenities of the area.
4. All construction and demolition waste resulting from the proposed development to be removed off site shall be disposed of in a licensed facility	In the interest of orderly development and to prevent unauthorised dumping
<p>5. Upon coming into operation of the development and in the event of an incident that may cause environmental emissions the plant operator shall immediately notify the Planning Authority as below</p> <ul style="list-style-type: none"> a) identify the date, time and place of the incident; b) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom; c) isolate the source of any such emission; d) evaluate the environmental pollution, if any, caused by the incident; e) identify and execute measures to minimise the emissions/malfunction and the effect thereof; f) provide a proposal to the Planning Authority for its agreement within one month of the incident occurring to: <ul style="list-style-type: none"> 1) identify and put in place measures to avoid reoccurrence of the incident; and 2) identify and put in place any other appropriate remedial action. 	To safeguard the amenities of the area

Column 1 - (Condition)	Column 2 - (Reason)
<p>6. Upon coming into operation of the facility regular monitoring of nutrient levels (nitrogen and phosphorous) in the receiving waters shall be carried out to determine if the nutrients from the plant are the cause of unacceptable nutrient levels in Clonakilty harbour. Allowance shall be made in the design for the further reduction of nitrogen and phosphates in the effluent discharge if required.</p>	<p>To safeguard the amenities of the area</p>
<p>7. Odour monitoring shall be carried out at the perimeter of the facility on twice annual basis and results submitted to the Planning Authority.</p>	<p>To safeguard the amenities of the area</p>
<p>8. Results of effluent discharge monitoring shall be submitted to the Planning Authority for information on an annual basis</p>	<p>To safeguard the amenities of the area</p>
<p>9. At least one month before commencing development, the developer shall pay a contribution of €51,831.89 (fifty one thousand eight hundred & thirty one euro eight nine cent) to Clonakilty Town Council in respect of public infrastructure and facilities benefiting development in the area of the planning authority. The value of this contribution is calculated in accordance with the Council's Development Contribution Scheme, and shall be increased at a rate of 8% per annum in the period between the date on which this value was calculated and the date of payment. No development shall take place until the monies have been paid to the Council</p>	<p>It is a requirement of the Planning & Development Act, 2000 that a condition requiring a contribution in accordance with the Development Contribution Scheme made under Section 48 of the Act, be applied to the permission</p>
<p>10. Slate finish to match existing building</p>	<p>In the interest of visual amenity</p>
<p>11. Samples of windows and doors to be submitted and agreed prior to the commencement of development.</p>	<p>In the interest of visual amenity</p>

Water Services Section
Courthouse



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CLONAKILTY TOWN COUNCIL

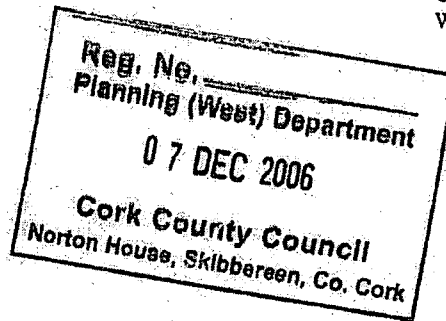
Comhairle Bhaile Chloich na Coillte

Phone: 023-33380
Fax: 023-33558
email: clonte@corkcoco.ie

TOWN CLERK'S OFFICE,
TOWN HALL,
KENT STREET,
CLONAKILTY,
WEST CORK.

30/11/2006

Cork County Council
Cork County Council
Courthouse
Skibbereen
C Cork

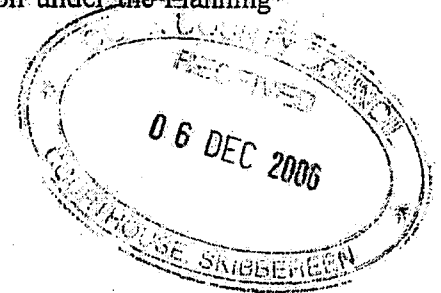


Register Reference Number: T.P 50070/06

A Chara,

I wish to acknowledge receipt of your application for Permission under the Planning & Development Act, 2000, for development as follows:

Date received : 24/11/2006
Site Address : Inchydoney Rd & Long Quay
Clonakilty
Co Cork



Development upgrading of Clonakilty Wastewater Treatment Plant at Inchydoney Road to cater for a population equivalent of 20,500, including expansion and covering of inlet works, construction of aeration tank and settling tank, 2 no covered primary settling tanks, compressor/dewatering house picket fence thickener and other ancillary works. Upgrading of pumping station and construction of storm holding /balancing tank at Long Quay. The planning application is accompanied by an Environmental Impact Statement (EIS) which will be available for inspection or purchase at the offices of the Planning Authority, Clonakilty Town Council

I also acknowledge receipt of application fee of €3222.00. Receipt no. 32577 refers.

Please quote the above Register Reference Number in all future correspondence.

Mise le meas,

H. Murphy
P.P. Nicola Radley
Town Clerk



CLONAKILTY TOWN COUNCIL
Comhairle Bhaile Chloich na Coillte

Phone: 023-33380
Fax: 023-33558
email: clontc@corkcoco.ie

TOWN CLERK'S OFFICE,
TOWN HALL,
KENT STREET,
CLONAKILTY,
WEST CORK.

Receipt Date 28/11/06

Receipt Number: 00032577

Received From:

Cork County Council
Courthouse
Skibbereen
Co. Cork

Issued By A. O' Leary

Reg. No. [unclear]
Planning (West) Department
07 DEC 2006
Cork County Council
Norton House, Skibbereen, Co. Cork

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Details as follows:

Payment Method Remark

Cash Planning Application 50070/06

Amount Received
RECEIVED
06 DEC 2006
€3,222.00

Received By: A. O' Leary



ATTACHMENT No B.7(iii)

NOTICE TO OTHER AUTHORITIES

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Town Clerk,
Clonakilty Town Council,
Town Hall
Kent St.,
Clonakilty,
Co. Cork

6th December 2007

**Re: APPLICATION TO THE ENVIRONMENTAL PROTECTION
AGENCY FOR A WASTEWATER DISCHARGE LICENCE**

A Chara,

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007 SI No. 684 of 2007, Water Services Western Division, of Cork County Council, Courthouse, Skibbereen, Co. Cork is applying to the Environmental Protection Agency for a Waste Water Discharge Licence for Clonakilty Waste Water Treatment Plant, Youghals, Clonakilty at the following locations:

Plant Name	Location	National Grid Ref.
Clonakilty WWTP	Youghals, Clonakilty	E139030 N041311

Discharge	Function	Townland	Receptor	Grid Reference
Primary	Main	Youghals	Clonakilty harbour	E139030 N041311
Secondary	Emergency	Scartagh	Clonakilty harbour	E138859 N041382
Secondary	Emergency	Youghals	Clonakilty harbour	E138667 N041336
Secondary	Emergency	Gallanes	Ground	E140690 N042600
Secondary	Emergency	Inchydoney	Muckruss Strand	E139612 N038533
Secondary	Emergency	Inchydoney	Muckruss Strand	E139373 N038612

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

A copy of the application for the Waste Water Discharge Licence, the Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's

consideration of the Application shall as soon as is practicable after receipt by the Agency be available for inspection or purchase at the

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

and at

- Cork County Council Offices, Emmet Square, Clonakilty, Co. Cork, Telephone: 023-33347 Fax: 023-33147.

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

Yours truly,

Declan Groarke
Senior Executive Engineer

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ATTACHMENT No B.8

NOTICES AND ADVERTISEMENTS

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CORK COUNTY COUNCIL

SITE NOTICE

APPLICATION TO THE ENVIRONMENTAL PROTECTION AGENCY FOR A WASTEWATER DISCHARGE LICENCE

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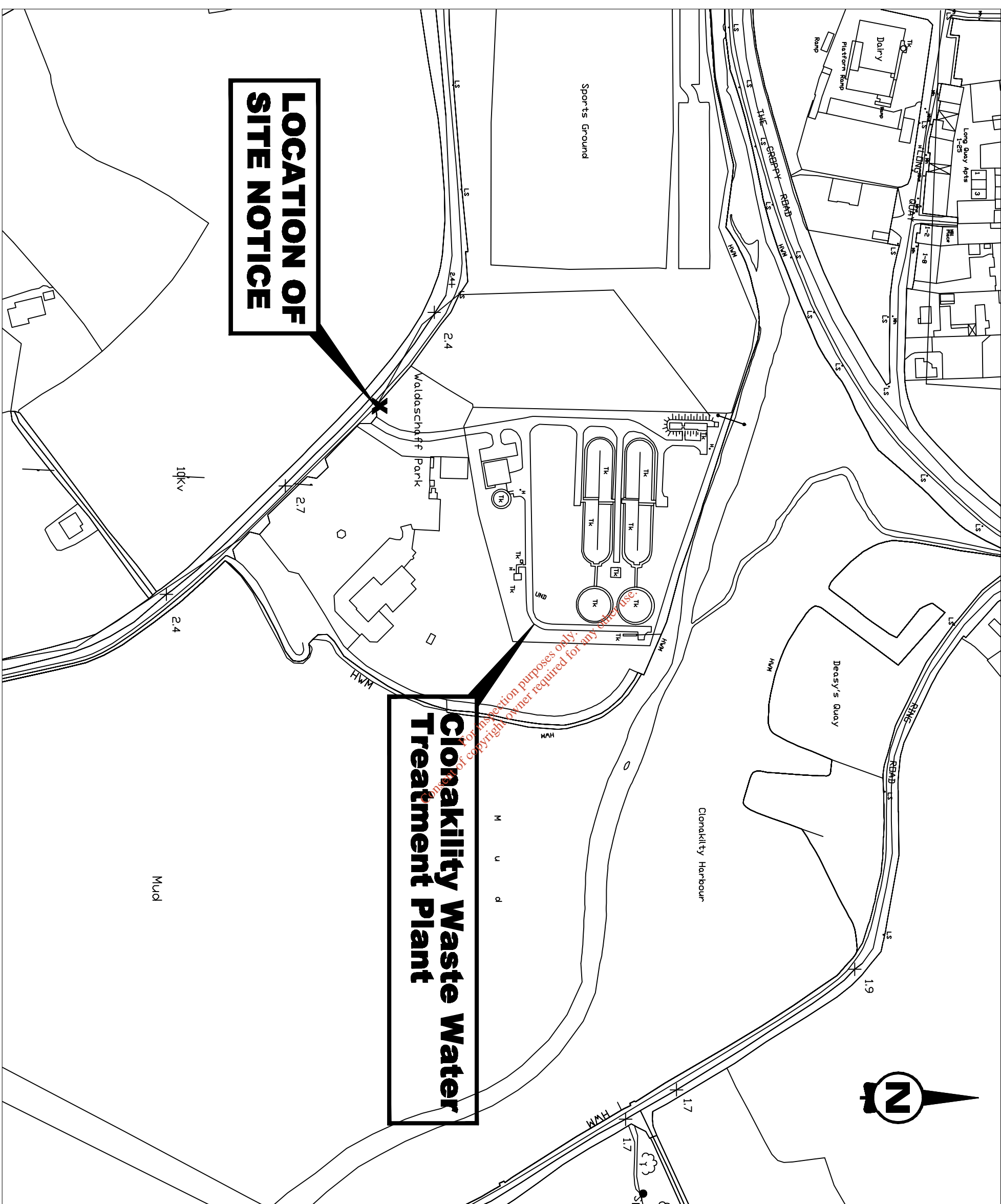
A copy of the application for the Waste Water Discharge Licence, the Environmental Impact Statement and such further information relating to the application as may be furnished to the Agency in the course of the Agency's consideration of the Application shall as soon as is practicable after receipt by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

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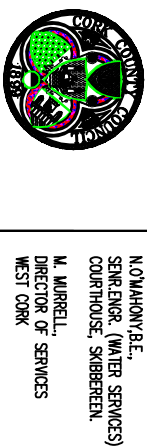


NOTES

1. Do not scale, use figured dimensions only. If in doubt
2. All dimensions to be checked on site
3. Drawings to be read in conjunction with Licence application
4. Includes Ordnance Survey Ireland data reproduced under OSI Licence number Cork County Council CMAA2004/07
Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland

Clonakilty Waste Water Treatment Plant

LOCATION OF SITE NOTICE



**Cork County Council,
Western Division.**

N. O'MAHONY, B.E.
SENIORENGR. (WATER SERVICES),
COURTHOUSE, SHARRIBREEN,
M. MURRELL,
DIRECTOR OF SERVICES
WEST CORK

Job Title:
CLONAKILTY_WWTTP
EPA LICENCE APPLICATION

Drawing Title:
ATTACHMENT_B.8
POSITION_OF_SITE_NOTICE

Prepared By: J. GIBBAGE	Checked By: D. GAROAGE	Date: DBK
Drawing number: CLON_11	Scale: 1:2000	Rev

No.	Date	Drawn	Surv	Chkd	Revision Description

SECTION B.10

CAPITAL INVESTMENT PROGRAMME

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APPLICATION FOR A WASTEWATER DISCHARGE LICENCE
CLONAKILTY SEWERAGE SCHEME

B.10 Capital Investment Programme

The Water Services Investment Programme 2007-2009 for Cork County includes Clonakilty Sewerage Scheme (Plant Capacity Increase) as a scheme to start in 2009 at an estimated cost of €3,677,000. (See copy of Water Services Investment Programme 2007-2009 for Cork County attached)

This improvement will allow for an increase in the design load from 5,333 pe to 20,500 pe in treatment capacity at the Plant. This will cater for future increases in development of existing catchment in Clonakilty, Shannonvale and Inchydoney as well as treatment of sewage from Ring village.

The Preliminary Report prepared by RPS Ltd. was submitted for approval to the Department of Environment Heritage and Local Government in August 2006 and this is still awaited.

The following extracts from Part 1 Introduction and Summary of the Preliminary Report outline the improvements proposed under the Water Services Investment Programme 2007-2009 scheme:

The main recommendations are as follows:-

1. Provide additional aeration and settling capacity.
2. Refurbish existing mechanical plant.
3. Upgrade the inlet works.
4. Upgrade the Long Quay Pumping Station and construct storm holding tank.
5. Upgrade sludge treatment and storage.
6. Provide odour control and odour removal, both at the sludge treatment plant and on the raw sewage from Inchydoney.
7. Construct pumping station in Ring Village and 2.5 km of rising main to pump sewage to gravity main flowing to Clonakilty STP.

Summary of Costs:

Stage 1 (Emergency Scheme):	€ 1,737,323.24
Stage 2:	€ 2,437,840.75
Ring Village sewage facilities:	€ 542,991.09
Sub-Total:	€ 4,718,155.08
Resident Engineer	€ 260,000.00
Total:	€ 4,978,155.08

Overall Estimate Total: € 4,978,200.00

As can be seen from the above summary of costs it was proposed to carry out the scheme in three stages as follows:

Stage 1 – Emergency Scheme to address most immediate problems at Plant

Stage 2 – Balance of works to complete improvements to Plant

Stage 3 – Connection of Ring village to Clonakilty Sewerage Scheme

It is now envisaged that Stages 1&2 will be carried out together followed by the connection of Ring village to the scheme.

A more detailed description of Upgrade of Plant is described in Part 5 of the Preliminary Report as follows:

5.3 Proposed Elements for Upgrade of Existing Plant

1.1.1 Grit Classifier

In order to eliminate the current situation whereby grit along with water and organic materials are being dropped directly into a grit collection pit to dry out, a grit classifier shall be installed. This can be placed in the existing grit collection chamber to separate out the grit from other materials and convey the relatively dry grit into an adjacent wheelie bin or skip.

1.1.2 Storm Overflow

The necessity of a storm overflow facility at the treatment works site is entirely dependant on the efficiency and capacity of the storm overflows located at the pumphouses in Clonakilty Town and Inchydoney. The future plant shall have a capacity of 115 l/s (from above). Once the total capacity of the pumps that pump effluent to the works does not exceed 115 l/s, a storm overflow at the treatment plant site is not required. However, it is essential that the storm overflows at the pumphouses in Inchydoney and Clonakilty Town have sufficient storage (6 DWF of the p.e. served), so as to ensure that the adjacent waterbodies are not contaminated by effluent overflowing from pumphouses' storm overflows. Therefore, it is proposed to construct a storm holding tank at Long Quay pumphouse as a preventative measure against possible contamination of the adjacent waterbodies.

1.1.3 Screening

The Haigh Ace 991 currently screening inflows has a maximum capacity of 100 l/s. To cater for the maximum hydraulic load of 115 l/s, a second screen inlet such as the Haigh Ace 290 Inlet System or equivalent shall be installed. This shall operate in parallel with the existing inlet screen and Lisep unit during peak season (i.e., summer periods) to remove, dewater, macerate and dispose of screenings. The 3 no. comminutors are no longer being used and shall be removed to provide room for this new inlet screen/Lisep unit.

1.1.4 Inlet Flume

A single 750mm wide channel shall replace the two existing Venturi flumes and channels with a flow capacity of 115 l/s. A precast polystyrene Venturi flume shall be fitted to enable measurement of flow by means of an ultrasonic beam. The existing flow recorder shall be altered to enable measurement and recording of flows through this new channel and Venturi flume.

1.1.5 Primary Settlement and Disposal of Sludge Sewage

Circular L6/94 refers to "Strategy Study on Options for the Treatment and Disposal of Sewage Sludge in Ireland". The recommendations include the following:-

- Satellite towns shall have storage facilities for short term storage of sludge awaiting collection.
- New and upgraded works greater than 5,000 p.e. shall include primary settlement as part of sewage treatment.

It is proposed to direct the flow after the inlet flume to 2 no. primary settling tanks, with dimensions and levels as per Drawing No. 04, in order to satisfy the above sludge requirements. After settlement, the flow shall be pumped to the selector tank prior to entering the aeration tanks.

The introduction of primary settlement will result in an estimated 25% reduction in the BOD load to the aeration tanks. The actual BOD load to be aerated would then be 15,375 p.e..

1.1.6 Selector Tank

It is proposed to install a selector tank in the location shown on Drawing No. 2, which shall act as the initial contact zone of the extended aeration process where the primary effluent and return activated sludge are combined. This initial contact process prevents and controls the growth of filamentous organisms, which can often lead to bulking sludge. These selector tanks will alleviate the current problem of Nocardia foam evident in the settling tanks. A retention time of 2.5 minutes is sufficient to ensure adequate mixing of the primary sludge and return activated sludge.

Average flow from inlet works = $0.5 \times 115 = 58$ l/s.

Return activated sludge = $0.33 \times 115 = 38.33$ l/s

Total entering selector tank = 96.33 l/s

2.5 minutes retention time = $0.09633 \text{ m}^3/\text{s} \times 60 \times 2.5 = 14.45 \text{ m}^3/\text{s} = \text{approx. } 15 \text{ m}^3$.

The selector tank shall consist of two chambers, the first being the inlet chamber where the return sludge and raw wastewater shall mix. A spill-over weir shall divide this chamber and the adjacent splitter chamber, which shall be benched to balance the three flows exiting the selector tank and flowing into the oxidation ditches. 3 no. hand penstocks shall be fitted on the three outlets from the selector tank, so that one stream (oxidation ditch and settling tank) may be shut down for maintenance or during the winter period when loadings to the works are considerably lower.

1.1.7 Extended Aeration

A third oxidation ditch shall be constructed to cater for the additional loading to the treatment plant. It shall have the same plan area as the two existing ditches, but shall have a depth of 1.86 m., versus a depth of 1.5 m for the existing ditches. The treatment plant shall then operate in three streams, the first two serving 4,000 p.e. each and being fed through the existing oxidation ditches and the third stream serving 7,375 p.e. being fed through the proposed deeper oxidation ditch.

Loadings/Stream (Oxidation Ditch and Settling Tank):

Stream 1 (existing)	=	4,000 p.e.
Stream 2 (existing)	=	4,000 p.e.
Stream 3 (proposed)	=	7,375 p.e.

Total Loading	=	15,375 p.e.

The existing oxidation ditches were originally designed for 2,667 p.e. each. The loading is to be increased to 4,000. In order to make this possible, it will be essential that the oxygen supply shall be increased. Currently, 4 no. 700 mm diameter rotors (if operating efficiently), provide approximately 404 kg O₂/day/ditch. However, at present, all rotors are in very poor condition.

Oxygen Required/Ditch 1 and 2 (Existing):

4,000 p.e. x 0.06 kg BOD x 2 kg O₂ = 480 kg O₂ required.

Therefore, a further 337 kg O₂/day minimum is required per existing ditch. This is assuming that the existing rotors are operating efficiently. It is recommended that the existing rotors should be replaced.

Oxygen Required for Ditch 3 (Proposed):

7,375 p.e. x 0.06 kg BOD x 2 kg O₂ = 885 kg O₂ required.

Because this proposed ditch is nearest the site boundary adjoining the Model Railway Village, it is essential that the means of aeration shall be selected on the basis that it creates the least odour problems. Air diffusers would be installed on the floor of the tank and mixers included to ensure adequate circulation. There would be little if any disturbance of the surface of the oxidation ditch, hence reducing spray and odours that may be emitted from the plant.

It shall be necessary to repair/replace the automatic adjustable weirs at the exit points from the two existing oxidation ditches.

Because of the varying loads entering the plants during the summer/winter season, dissolved oxygen probes and readings are absolutely necessary in each oxidation ditch to maintain the correct F/M ratio at all times.

Note: The assumption that the existing 700 mm diameter rotors produce 404 kg O₂/day/stream is based on a study carried out on a similar rotor under similar conditions. To be completely accurate on the oxygen produced by the rotors in Clonakilty, it would be necessary to carry out a similar study at the treatment plant under clear water conditions.

1.1.8 Secondary Settlement

The two existing settling tanks have a radius of 7.95 m and a side wall depth of 1.5 m. Though originally designed for 2,667 p.e., the settling tanks are adequate for an increased future load.

A third settling tank is proposed to cater with settlement of effluent from the third (proposed) oxidation ditch. This would have a radius of 7.2 m and a side wall depth of 2.25 m. The combined volume of the 3 settling tanks would be 1153 m³, with a total plan area of 560 m². The operating conditions are as follows:

Upward velocity = 0.9 m/hr.

Retention time at maximum flow = 2.2 hrs.

Maximum daily weir loading rate = 120 m³/m/day.

1.1.9 Outlet Flume

A precast polystyrene Venturi flume would be fitted to the existing outlet channel to enable measurement of flow by means of an ultrasonic beam. A flow recorder shall be installed to enable measurement and recording of flows through this new Venturi flume.

1.1.10 Sludge Return

The existing lifting wheel apparatus brings the sludge collected from the hopper of the secondary settling tanks to the outlet end of the oxidation ditches. With the introduction of selector tanks at the inlet end of the oxidation ditches, this set up is no longer suitable. It is proposed to replace the existing sludge lifting wheel chamber with a submersible sludge pump sump. This would collect the sludge from the existing settling tanks and pump it onto the proposed submersible sludge return pump sump (as seen in Drawing No. 2) which would also collect sludge from the third proposed settling tank. These sumps also have the facility to bleed sludge from the oxidation ditches, when required.

From the proposed submersible sludge pumping station, activated sludge shall be returned to the head of the selector tank at a rate of 1 DWF, where it shall mix with the wastewater prior to entering the oxidation ditches.

1.1.11 Sludge Thickening

The existing picket fence thickener has a radius of 3.25 m and a side wall depth of 3 m. This picket fence thickener is more than adequate to serve a p.e. of 20,500. Assuming the effluent has 1% DS upon entering the picket fence thickener, it would be capable of thickening the sludge to 2.5% DS. It has a volume sufficient to supply storage for 3 days of sludge produced during optimum operation of the plant, assuming 90 g/head/day of sludge produced. Assuming the picket fence thickener operates five days in the week, the conditions of the picket fence thickener would be in general within the recommended parameters.

Daily Sludge Production – 2,583 kgs/day.

The introduction of a second thickener would provide 6 days storage of thickened sludge.

1.1.12 Odour Control

As the picket fence thickener is located adjacent to the Model Railway village, the existing odour problem is a very serious one and needs to be ratified immediately. The installation of an odour control unit in this area would reduce if not eliminate the odour problems that exist in this area.

1.1.13 Sludge Dewatering

The existing sludge is dewatered by means of polyelectrolyte dosing and the use of a filter belt press. The dewatering house and main office/reception are all part of the one building. The existing belt filter press has been operating for 14 years and is capable of thickening the sludge to approximately 15 % DS. The filter belt press has the capacity to deal with a sludge loading rate of 171.36 kg/hr (assuming the filter belt press operates 5 days a week, eight hours a day, serving 20,500 p.e.).

However, this is assuming that the filter belt press operates at optimum efficiency and does not cut out at any stage during the working week. Considering the age of the existing filter belt press, it is recommended that a second filter belt press as well as a second lot of polyelectrolyte dosing pumps and mixing tanks similar to those already in the treatment plant be installed, to act as a standby in the very likely event of a breakdown or necessary maintenance of the existing filter belt press.

1.1.14 Dewatering/Compressor House

The existing sludge dewatering house located next to the office may pose a health hazard to the staff working on the premises. Not only are they subject to odours and germs from the dewatering house, but also the constant noise of the filter belt press as it operates. It is proposed, therefore, to isolate the sludge-dewatering house from the office premises by building a new dewatering house/compressor house in the location shown on Drawing No. 2.

This dewatering/compressor shall also house the air compressors which shall supply oxygen to the submerged vertical mechanical aerators in Oxidation Ditch No. 3.

1.1.15 Sludge Treatment/Disposal

The disposal of sludge generated in a sewage treatment plant has become the largest and most labour intensive element of that plant. In addition, the introduction of new restrictions with regard to disposal to agricultural land has created requirements for a better quality of treated sludge.

In the 1994 Strategy Study on Options for the Treatment and Disposal of Sewage Sludge in Ireland, it is indicated that sludge from smaller towns is to be transported to a hub centre. At

present a Sludge Management Plan is being prepared and it is not yet established what the final destination of the Clonakilty sludge shall be.

Currently sludge is transported to a landfill site in Roscarberry. This is the last option on a hierarchy of options as outlined by the sludge strategy. Due to the central location of the Clonakilty Treatment Plant, adjacent to the GAA Pitch, the Model Railway Village, and its proximity to the town itself, sludge treatment on site is not a possibility.

Odour control on site is an absolute necessity. At the moment the sludge cake is conveyed from the sludge filter belt press to an open top trailer. This trailer is towed away and deposited in the landfill site daily. The open top trailer does not alleviate the odour problems and an enclosed sludge storage facility with a storage capacity of three days is proposed. For a population of 20,500 p.e., the sludge produced would be approximately 6.5 m³/day (15% DS).

The Waste Management (Use of Sewage Sludge in Agriculture), Amendment Regulations 2001 – SI No. 267 of 2001 governs the use of sludge in agriculture. Under article 4, the use of sewage sludge shall be subject to a nutrient management plan which will secure the protection of soil where the limit of two tonnes of dry matter per hectare per year is replaced by the limits for concentration of heavy metals in soil and sludge referred to in article 6 and set out in Part 1 and part of the Schedule attached to SI No. 267.

In general, only treated sludge may be used in agriculture. However, untreated sludge may be injected or otherwise worked into the land. "Treated Sludge" means sludge which has undergone biological, chemical, heat treatment, long term storage or any other appropriate process so as to significantly reduce its fermentability and the health hazards resulting from its use.

The injection of untreated sludge into suitable agricultural lands locally in accordance with the 2001 regulations may be the cheapest immediate option. However, in terms of the net present value of a 20 year operation, this option will become more expensive the further away the necessary lands are located.

Extensive and ongoing studies are taking place internationally on the most sustainable options for sludge disposal. In the case of Clonakilty, the use of lime stabilisation may be among the least costly options, particularly if treatment is necessary and land to receive the sludge becomes available locally.

In the short term, sludge from the Clonakilty Works could be treated by lime stabilisation using a portable lime stabilisation treatment unit, which could be hired as required. This would enable its spreading over agricultural land, which is a much more suitable option than disposal to a landfill for the Clonakilty Treatment Plant, whose agriculture is prevalent throughout the surrounding area.

A bulk storage tank shall be provided to allow for 3 days storage of the dewatered sludge cake. In the case of lime-dosing, the dewatered sludge shall then be lime-dosed on a twice weekly basis by a mobile lime dosing/mixing rig. The lime dosed sludge shall achieve a temperature of 78°C and, on cooling, can be disposed of to local farms.

This is the most ideal on site method for a number of reasons:-

- (a) The mobile unit eliminates the need for the constructing of on site lime dosing facilities which, with the implementation of the sludge strategy may become obsolete in years to

come, when sludge is treated at a central sludge treatment plant which shall be located in a "hub" town.

- (b) The lime dosing and mixing achieves a temperature of 78°C, which will kill off the majority of micro-organisms; which cannot survive in the alkaline conditions in any case.
- (c) The twice weekly dosing of dewatered sludge eliminates the need for a large volume sludge storage tank.
- (d) The use of lime is a low capital cost operation.

1.2 Long Quay Pumping Station

Problems have been experienced with the operation of the Long Quay pumping station. When the capacity of the pumps is exceeded, surcharging of the gravity sewers in the area occurs. In addition, the overflow to the adjacent estuary operates frequently with raw sewage discharging to the tide.

The problem for surcharging is difficult to avoid in times of heavy rainfall since the overflow at the pumphouse is set at 4.35 mOD in order to avoid tidal back-up.

In order to alleviate the problems, the following are proposed:-

1. Replace the existing pumps and provide pumps with vortex impellers.
2. Provide lower overflow at pumphouse with "Tideflex" non-return valve. This type of valve operates at low heads.
3. Provide 750 m³ storm tank adjacent to the pumphouse. This tank is sized to store 30 minutes storage of the excess in the inlet pipe capacity over and above the pump capacity.

The proposed storm tank would be located in the green area between Wolfe Tone Street and the "Croppy Road".

Please note that sludge is currently transported to Ballineen, Co. Cork for recovery to agriculture in accordance with Waste Management (Use of Sewage Sludge in Agriculture) Regulations.

Note also that the grit classifier has been installed and it is proposed to install a new screen in 2008 to augment the capacity of the existing screen. Both items were viewed as works needing immediate attention.

Likely Timeframe

It is hoped to get approval of Preliminary Report shortly from the DOEHLG and following that the likely timeframe to construction would be as follows:

1. **Preparation of Brief** for the Appointment of Consulting Engineer for Scheme to go forward as Design, Build, Operate (DBO) Scheme by **January 2008**
2. **Approval of Brief** by DOEHLG - **July 2008**
3. **Appoint Consultant** – **January 2009**
4. **Design period + Receipt of Tenders** – **December 2009**
5. **Start construction** – **January 2010**
6. **Completion of Works** – **January 2011**

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ATTACHMENT No B.10

CAPITAL INVESTMENT PROGRAMME

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Cork County

Water Services Investment Programme 2007 - 2009

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

ATTACHMENT No B.12

FORESHORE ACT LICENCES

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Consent of copyright owner required for any other use.*

CLONAKILTY URBAN COUNCIL
REGISTER OF LANDS

1. Reference Number : FORESHORE LICENCE 29th NOVEMBER 1998
2. Situation and area of land : (See map) Area 1 = lease. Dist. 384 sq. p. Area 2 = 2... 2... 16
Foreshore a bed of sea at Clonakilly
 Townland : TOURINLS
 Division : CLONAKILTY
 Electoral : ELECTORAL
3. Tenure on which land is held : Minister may terminate licence on giving 3 months notice
FORESHORE LICENCE FOR 99 years from 29.11.1998
4. Name and address of person from whom the land was purchased or acquired : MINISTER OF TOURISM & TRANSPORT
5. Particulars of any burdens, easements or similar matters affecting the lands : See item 3 above
6. Location of documents of title : Office of Minister of Tourism & Transport.
Copy in sale in vac office
7. Entry number and folio number in which title is registered at the Land Registry : N/A
8. Date and purpose for which the land was acquired or leased : 29.11.1998 Clonakilly Sewerage Scheme
9. Price, compensation or rent paid for acquisition or lease : No charge
10. State the use made of the land from time to time : Originally used as Town Dump. Sewerage Treatment Works built on site (completed 1997)
11. Particulars of lettings, if any : None
12. Disposal: Where the land is no longer held by the Council, state the date on and manner in which the Council ceased to hold the land and the price (if any) received for the land :
13. Observations :

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60475

1. The license shall remain in force for the term of fifty-nine years from the date hereof except as hereinafter provided.

2. The licensee shall at all times during the continuance of this license keep the said sewerage scheme in a good and proper state of repair and in proper condition to the satisfaction of the Minister and so as to ensure that they will not be injurious to navigation the adjacent lands or the public interest.

3. The licensee shall indemnify and keep indemnified the

AND IT IS HEREBY AGREED by and between the Minister and the licensee as follows that as to say -

1. This license shall remain in force for the term of fifty-nine years from the date hereof except as hereinafter provided.

2. The licensee shall at all times during the continuance of this license keep the said sewerage scheme in a good and proper state of repair and in proper condition to the satisfaction of the Minister and so as to ensure that they will not be injurious to navigation the adjacent lands or the public interest.

3. The licensee shall indemnify and keep indemnified the



A.D. 1991 made the 29th day of November one thousand nine hundred and ninety one

MINISTER FOR TOURISM AND HERITAGE

MINISTER FOR TOURISM AND HERITAGE

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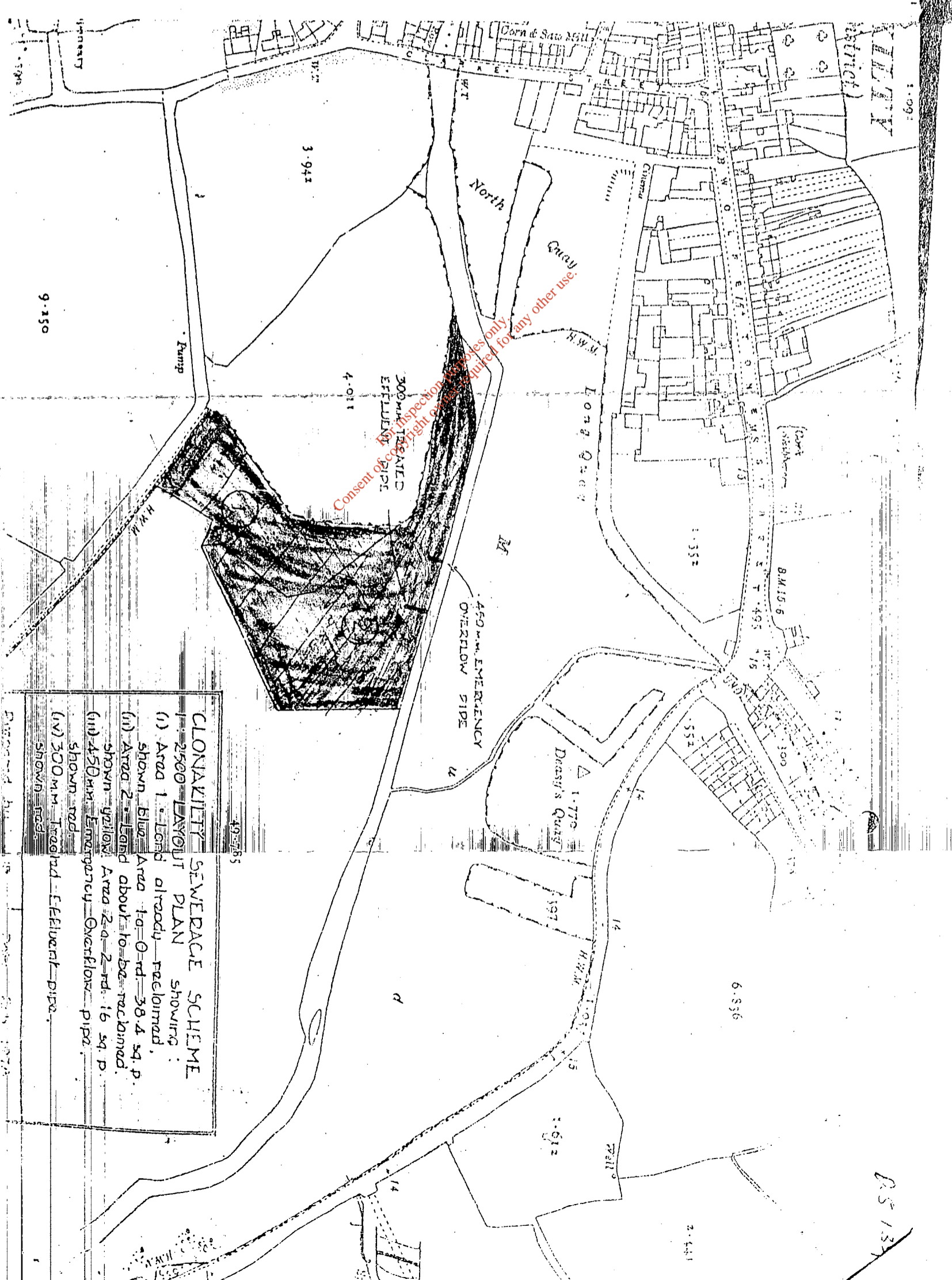
State the Minister and their officers, agents and employees against all persons who claim damages costs expenses and demand arising in any manner whatsoever in connection with the construction maintenance and use of the said sewerage scheme or in the exercise of the permission hereby granted.

4. The Minister shall be at liberty at any time to terminate this licence by giving the licensee three months previous notice in writing of his intention so to do and the licensee shall within three months after the receipt of such notice or on the termination of this licence from any other cause and at their own expense remove the said sewerage scheme and restore the site to its former condition to the satisfaction of the Minister and if the licensee refuse or fail so to do the Minister may cause the said sewerage scheme to be removed and the site to be restored and shall be entitled to be paid by and to recover from the licensee a civil debt due to the State all costs and expenses incurred by him in connection with such removal and restoration.

5. In the case of the breach non-performance or non-observance by the licensee of any of the conditions and conditions contained herein the Minister shall have power forthwith to terminate this licence.

6. Any notice to be given to the licensee in pursuance of this licence may be transmitted through the Post Office addressed to the licensee.

IN WITNESS WHEREOF the Minister and the Licensees have caused their respective seals to be hereunto affixed the day and year first herein written.



49-5785

CLONAVILITY SEWERAGE SCHEME
2500 LAYOUT PLAN showing:

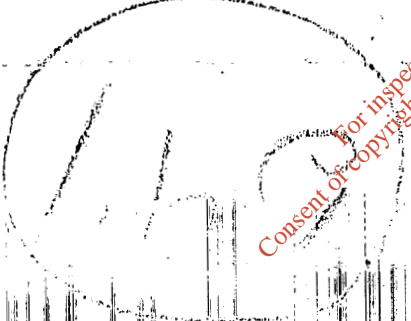
- (i) Area 1 - Land already reclaimed, shown blue. Area 1a - Ord. 38.4 sq. p. shown yellow. Land about to be reclaimed.
- (ii) Area 2 - Land already reclaimed, shown yellow. Area 2a - 2 rd. 16 sq. p. shown road.
- (iii) 450mm Emergency Overflow pipe, shown road.
- (iv) 300mm Inland Effluent pipe, shown road.

Engineered by: [Signature]

Consent of occupier and adjacent landowners only required for any other use.

Handwritten initials: "M" and "W"

LOUIS J. JOCKNEY,
CHIEF STATE SOLICITOR,
51 ST. STEPHEN'S GREEN,
DUBLIN 2.



L I C E N S E

GIORGAKIOTY URBAN DISTRICT CO. LTD.

2

THE MINISTER FOR TOURISM AND
TRANSPORT