

Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Environmental Protection Agency,
Headquarters, P.O. Box 3000,
Johnstown Castle Estate,
Co. Wexford.

For Attention of: Ms Yvonne English

22nd April, 2013

**Re: Licensing Action - Reg 18(3)(b) Notice Sent – 3 for Ballyclough
Licence (D0441-01)**

A Chara,

I refer to correspondence issued on 11/04/2013 in relation to the above. The following addresses the query which was raised.

REGULATION 16 COMPLIANCE REQUIREMENTS

Question *Clarify the design population (p.e) of the WWTP, the current p.e to the plant, the projected p.e to be contributed to the waste water works over the next six years, bearing in mind planning permission that has been granted for development but where development has not been completed to date, and provide the percentage p.e to be contributed by non domestic activities*

Answer *The design p.e of the plant is 800. The current p.e to the plant is estimated to be 635, based on a 5.9% increase in population in the area between the 2006 and 2011 Censuses. There is currently no uncompleted development in the agglomeration. Planning permission was granted for 28 houses and 5 serviced sites in 2006 (Reference 06/7204), but this did not commence and has lapsed. It is not expected that there will be any additional p.e to be contributed to the waste water works over the next 6 years. It is estimated that only 10% of the p.e loading to the waste water works is from non-domestic sources, as there is no industrial/commercial activity in the agglomeration save for Schools, Shops, Community Facilities and Public Houses etc. It is expected that this will not change over the next 6 years.*

Question *Provide the effluent monitoring results for BOD, COD, suspended solids, orthophosphate and ammonia from the primary discharge in 2012*

Answer Please see summary of effluent monitoring results below, and find attached copy of laboratory test report (Appendix A). Effluent monitoring did not include results for orthophosphate and ammonia

	BOD	COD	SS
	(mg/l)	(mg/l)	(mg/l)
04/04/2012	4.4	31	17
07/06/2012	<1.0	<21	<2.5
29/08/2012	42	104	82
06/09/2012	<1.0	<21	<2.5
04/10/2012	4.8	<21	<2.5
06/11/2012	1	<21	<2.5

Question Provide a revised drawing clearly detailing the boundary of the agglomeration to which this application relates. Please note that the agglomeration boundary shall include all areas serviced by the sewer network and shall include the waste water treatment plant. All areas of the agglomeration shall be within the agglomeration boundary.

Answer Please find attached copy of Drawing Title ' Agglomeration Boundary Attachment B1- Map 4 Revision A dated April 2013 which incorporates a revision to the agglomeration boundary such that the site of the waste water treatment works is within the curtilage of the agglomeration boundary.(Appendix B)

Question Confirm the daily normal and daily maximum effluent volumes emitted from the primary discharge, expressed as m3/day.

Answer There is currently no flow measurement on site. The normal daily effluent discharge is calculated as 143 m3/day, based on current p.e of 635 and usage of 225 litres per person per day. In times of rainfall discharges would be greater than this depending on the intensity and duration of the rainfall event.

Question Provide details on any programme of improvements for the agglomeration. The details should include a timeframe for the completion of the improvement works

Answer There is currently no programme of improvements for the agglomeration.

A revised non-technical summary which reflects information supplied in compliance with the notice is attached as Appendix C

The following is a list of the drawings revised as a result of the request

Drawing No.	Drawing Title.	Revision.
A1 – Map 1	Location Map Scale 1:50,000 Attachment A1 – Map 1	-
A1 – Map 2	Site Locations of WWTP Attachment A1 – Map 2	-
A1 – Map 3	Waste Water Treatment Plant Site Layout Attachment A1 – Map 3	-
B1 – Map 4	Agglomeration Boundary Attachment B1 – Map 4	A
B2 – Map 5	Wastewater Treatment Plant Site Layout Attachment B2 – Map 5	-
B3 – Map 6	Location of Primary Discharge Point SW01 – BALY Attachment B3 – Map 6	-
B3 – Map 7	Locations of Sampling Points Attachment B3 – Map 7	-
B8 – Map 8	Location of Site Notice Attachment B8 – Map 8	-
C1 – Map 9	Wastewater Treatment Plant Site Layout Attachment C1 – Map 9	-
C1- Drawing 1	Schematic showing Existing Treatment Plant Process Attachment C1 – Drawing 1	-

Is mise le meas,

Pat Britton
Executive Engineer,
Waste Water Pumping & Treatment Zone 4,
WATER SERVICES DIRECTORATE

Direct Tel: 022-54808
Email: pat.britton@corkcoco.ie

APPENDIX A

Laboratory Test Report

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



Laboratory Test Report

Cork County Council

Waste Water Laboratory

Inniscarra, Co. Cork

March 7, 2013

Industry Name: Ballyclough S.T.P.
 Address: Ballyclough,
 Mallow
 Co. Cork

Industry Code No. 368
 Report Ref No. X07-03-13-101
 Issued to B. Sullivan
SEE
CCC

Licence No. Type S

Licence Limit	Volume m3	pH	B.O.D. mg/l	C.O.D. mg/l	S.Solids mg/l	T.P.-P. mg/l	TN-N\$ mg/l	Code	Comments
999999		12.99	25	125	35	99	999		
Date									
			4.4	31	17			GW209	G
~			<1.0	<21	<2.5			GW440	G
			* 42	104	* 82			GW798	G
			<1	<21	<2.5			GW827	G
			4.8	<21	<2.5			GW907	G
			<i>3.1</i>	<21	<2.5			GW1089	G
% Compl.	***	***	83	100	83	***	***		
Average	**** **	**** **	8.53	22.50	16.50	**** **	**** **		

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



The samples are received at the Laboratory on the day of sampling. The above test methods are based on Standard Methods for the examination of Water and Waste Water, 21st Edition 2005, APHA, AWWA, WEF.

C = Composite Sample, G = Grab Sample.

The compliance value may be varied on items marked with an * by the application of uncertainty of measurement values on reverse Page Chemical Procedure Numbers(CP No.) for INAB accredited tests are as follows:

- CP NO. 1 = B.O.D.
- CP NO. 3 = S.S.
- CP NO. 20 = TP-P
- CP NO. 5 = pH
- CP NO. 6 = C.O.D.
- CP NO. 7 = Cl₂
- CP NO. 22 = Ammonia(KONELAB)
- CP NO. 23 = OPO4-P(KONELAB)
- CP NO. 24 = Chloride (KONELAB)
- CP NO. 25 = Sulphate(KONELAB)

This report relates only to the samples listed above. This report shall not be reproduced except in full and only with the approval of the testing laboratory. Cork County Council is not accredited by INAB for tests marked with \$. Kg loadings based on flows as supplied by the company. ~ indicates results that have been edited.

Reported by: V. Hannon Date: 7/3/13

Ms. V. Hannon Technical Manager
 Deputy Technical Manager

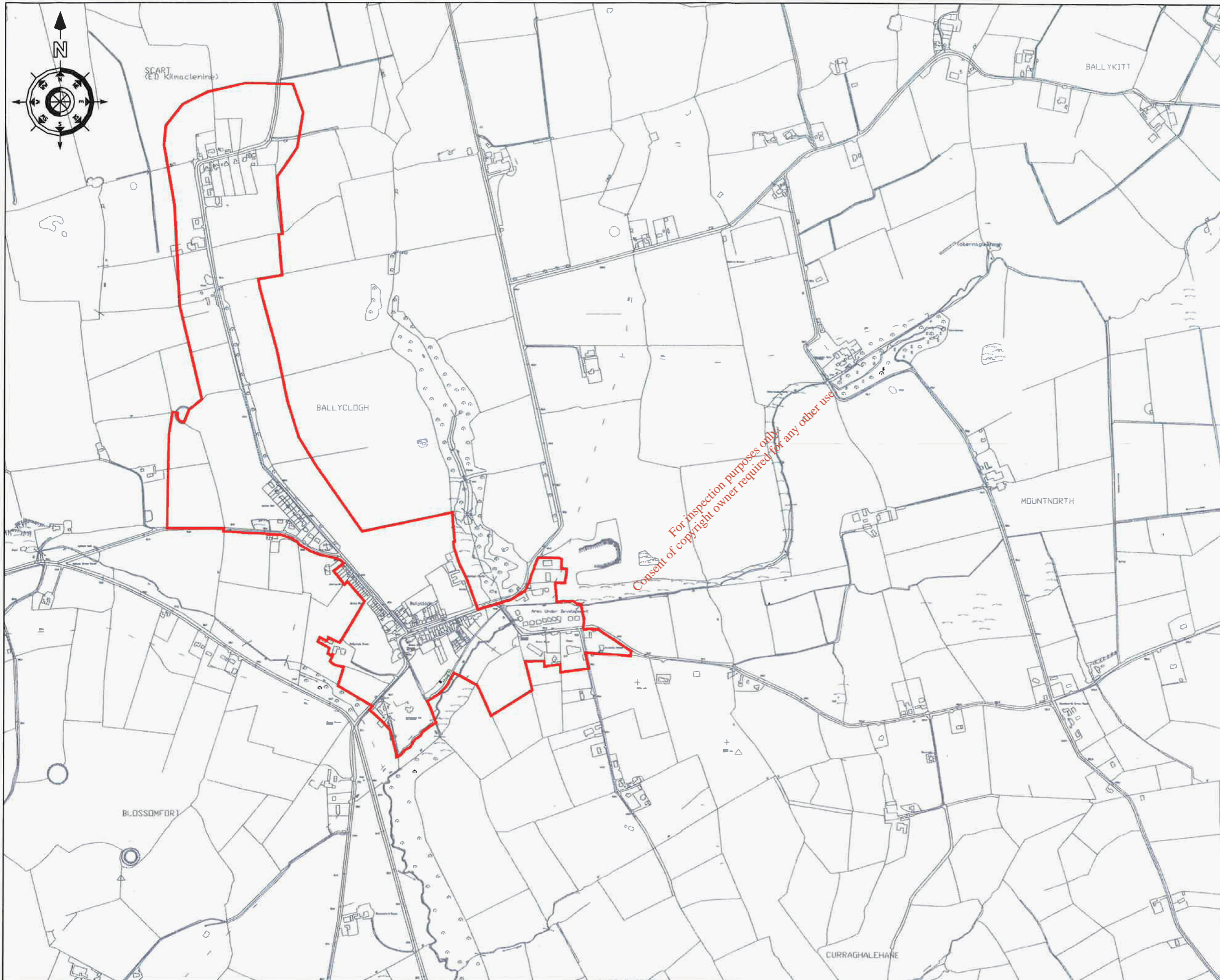
CTR 001

Issue No 16

~~November 2007~~ October 2008 (VH) 7/3/13

APPENDIX B Revised Drawing(s)

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



NOTES

1. Dimensions are not to be scaled from drawing. For any discrepancies found consult with the design office.
2. This drawing is to be read in conjunction with the Specification.
3. This drawing is to be read in conjunction with all other contract drawings.

No.	Date	Drawn	Survey	Checked	Revision Description
A	04/13	D.L.	D.L.	P.B.	Change to agglomeration boundary

**Cork County Council,
Northern Division.**



**N. O'KEEFE, B.E.,
COUNTY ENGINEER,
COUNTY HALL,
CORK.**

Job Title:
Ballyclogh & Environs
Waste Water Discharge
Licence Application

Drawing Title:
Agglomeration Boundary
Attachment B1 - Map 4

Scale: 1:10,000 @ A3	Surveyed by: D.L.	Drawn by: D.L.
Designed by: E.M.	Checked by: F.C.	Date: June 2009
Drawing number: B1 - Map 4		Rev: A

APPENDIX C

Revised Non-Technical Summary

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

SECTION A: NON-TECHNICAL SUMMARY

Ballyclough Village is located on the L1203, circa 7km North-West of Mallow town. The village is well developed from the point of public services such as a primary school, shops and amenities

The waste water from the Ballyclough agglomeration is currently treated by a SBR waste water treatment plant prior to being discharged to the Finnow Stream.

The Waste Water Works and the Activities Carried Out Therein

Ballyclough wastewater treatment plant (WWTP) was constructed in 2002 on the site of a pre-existing septic tank which had previously served the village. The design population equivalent (p.e) of the plant is 800. As of 2013 it is estimated that the p.e being served is 635.

The main elements of the WWTP are;

1. Inlet works: Forward feeding pump sump
2. Secondary Treatment: Sequence Batch Reactor- 2 tanks
3. Discharge to Finnow stream

The wastewater in Ballyclough is collected in a partially combined foul and sewer drainage network and gravitates to the wastewater treatment plant. There are two ejector stations which contribute to the gravity flow. Each ejector station serves a small cluster of houses (8-14 houses)

Ballyclough WWTP is operated by Cork County Council. The plant is operated by a caretaker who duties also involves the maintenance of a number of other small WWTP's in the area.

The sources of emissions from the waste water works

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

- Domestic population
- Commercial premises
- School & crèches
- Infiltration

The sewerage from all commercial premises is collected via the public sewer and treated in conjunction with the domestic waste at the WWTP. There are no industrial waste streams discharging into the sewer network.

The main source of emissions from the works is via a 300mm open pipe outfall to the Finnow stream.

The pre-existing septic tank is fitted with an inlet baffle to prevent normal flows to the tank. High storm flows will breach this baffle and enter the tank. The outflow from the tank is at the same level as the inflow. This connects to the main effluent stream where the sampling kiosk is located

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 wastewater treatment plant treats only municipal waste water from the Village and its environs via sewage collection system which is discharged to the River Finnow. There is currently no flow measurement on site. The normal daily effluent discharge is calculated as 143 m³/day, based on current p.e of 635 and

usage of 225 litres per person per day. In times of rainfall discharges would be greater than this depending on the intensity and duration of the rainfall event.

During power black outs, the waste stream will back up the pump sump and will overflow to the pre-existing septic tank which will discharge directly to the effluent stream prior to the discharge point. The number of occasions when this happens and the natures and quantities involved are not known

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

The treatment works consists of the following elements:

- Inlet works including macerator and Grit Trap
- Forward feeding pump sump
- Sequence Batch Reactor (2 tanks)

The treatment plant does not have a backup power generation power system.

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

There are no planned works for the treatment plant.

Measures planned to monitor emissions into the environment

The Cork County Council Environmental Laboratory carries out sampling of the influent and effluent biannually. Sampling, Monitoring and analysis of the wastewater sludge is also undertaken by the Environmental Laboratory.

The Cork County Council Environmental Department located in Inniscarra takes samples from the Finnow Stream upstream and downstream of the wastewater treatment plant approximately 2 times per year. Samples of the influent and effluent are also taken at these times.

The EU Water Framework Directive Monitoring Programme is to be fully operational by the year 2012. This monitoring programme was prepared by the EPA to meet the requirements of the EU Water Framework Directive (2000/60/EC) and National Regulations implementing the Water Framework Directive (S.I. No. 722 of 2003) and National Regulations implementing the Nitrates Directive (S.I. No. 788 of 2005).