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OFFICE OF CLIMATE, LICENSING, RESOURCES & RESEARCH

INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To:	Dara Lynott, Director
From:	Gavin Clabby, Eimer Godsil, Donal Grant, Breen Higgins and Suzanne Wylde (Environmental Licensing Programme)
Date:	23 January 2015
RE:	Application for a Waste Water Discharge Licence from **Irish Water**, for the agglomeration named **Bantry** Reg. No. D0168-01

Application & Agglomeration Details	
Agglomeration Name:	Bantry (See map in Appendix 1)
County:	Cork
Schedule of discharge licensed:	Discharges from agglomerations with a population equivalent of 2,001 to 10,000.
Licence application received:	22/09/2008
Notices under Regulation 18(3)(b)[1] issued:	18/09/2014
Information under Regulation 18(3)(b) received:	07/10/2014
Site notice check:	17/10/2008
Site Visit:	13/10/2014
Submission(s) Received:	Two (20/10/2008 and 19/08/2009)
Design Population Equivalent:	6,000
Actual Population Equivalent:	5,647
Type of treatment:	Tertiary
Plant description:	The plant consists of extended aeration with nitrification / denitrification, phosphorous reduction and UV treatment before final discharge via a tidal tank.

[1] Wastewater Discharge (Authorisation) Regulations, 2007, as amended.

1. Discharges to waters

The following table outlines the main considerations in relation to discharges to waters from this agglomeration.

Table 1: Discharges to waters

Primary discharge point (SW001)	
Receiving water name	Inner Bantry Bay
Type of receiving water	Transitional
Normal flow	3,082 m^3/day
Secondary discharge point(s)	
Receiving water name	Two - Mill River and Ally River
Storm water overflow(s)	
Storm water overflow(s)	Yes (two – William Street, Marino Street)
Receiving water name(s)	Both discharge to Inner Bantry Bay
Emergency overflow(s)	
Emergency overflow(s)	Yes (Three – Old Quay pumping station, Reenrour pumping station and the IDA pumping station at Kilnaraune.)

Schedule A: Discharges & Discharge Monitoring of the recommended licence (RL) specifies the Emission Limit Values (ELVs) to which the discharge from the Bantry agglomeration must conform. Monitoring of the discharges will take place as per this schedule of the RL.

2. Receiving waters and impact

The following table summarises the main considerations in relation to Inner Bantry Bay downstream of the primary discharge.

Table 2: Receiving waters

Characteristic	Classification	Comment
Receiving water name	Inner Bantry Bay	(WFD Code: IE_SW_170_0100)
Designations	Glengarriff Harbour and Woodland SAC Sheep's Head SAC Bantry Bay Shellfish Area League Point Shellfish Area	Site Code: 000090 Site Code: 000102
Receiving water monitoring stations	Bantry Bay Shellfish Area monitoring point League Point Shellfish Area monitoring point	3.4 km from SW001 in Outer Bantry Bay 4.6 km from SW001 in Outer Bantry Bay
TSAS	Unpolluted (extrapolated)	-
WFD status	High (Not monitored)	Protect
WFD Risk Category	1a	At risk at not achieving good status (WWTPs)

The Transitional and Coastal Action Plan (TrAC) for the South Western River Basin District lists Inner Bantry Bay (WFD Code: IE_SW_170_0100) as a waterbody at risk from land based point source pressures, with waste water treatment plants (WWTPs) identified as a as a point source potentially putting the waterbody at risk. The document also identified Inner Bantry Bay as having 'High' ecological status.

In the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended, the key water parameters for transitional waters are BOD and orthophosphate (MRP). The OEA has assigned Inner Bantry Bay an extrapolated value of 'Unpolluted' for the purposes of the trophic status assessment scheme (TSAS) 2010 to 2012. No monitoring results are available for Inner Bantry Bay.

The RL has set emission limit values (ELVs) 25 mg/l for cBOD, 125 mg/l for chemical oxygen demand (COD), 35 mg/l for suspended solids (SS), which apply from date of grant of licence. These limits are in accordance with Urban Wastewater Treatment Regulations, 2001, as amended.

Given that the agglomeration discharges to a transitional waterbody, the RL also specifies an orthophosphate (MRP) limit of 8 mg/l, which will apply from date of grant of licence. This limit is in accordance with the Surface Waters Regulations. The current status for MRP in the receiving water is 'high' (extrapolated). This proposed MRP limit should be possible with standard secondary treatment (i.e. without nutrient reduction).

There are two secondary discharges from the agglomeration. *Schedule C: Specified Programme of Improvements* requires that these be discontinued by 31st December 2015.

It is considered that the treatment currently provided in this agglomeration is appropriate.

Bantry Bay Shellfish Area

The primary discharge point is located in the Bantry Bay shellfish area. The Bantry Bay Inner Pollution Reduction Programme (PRP) lists the Bantry urban waste water system as a key pressure on the protected shellfish area.

The results of monitoring (2012) undertaken in accordance with this PRP indicated that there were no issues with faecal coliform levels within / in the vicinity of the shellfish area, although there was some compliance issues on the 2009 monitoring. The bivalve mollusc production areas in the Bantry Bay area are classified as Class B for the purposes of EC Regulation 854/2004. The results of shellfish water monitoring for the other parameters do not indicate any other water quality issues within/ in the vicinity of this shellfish area.

It was noted from the site visit that UV disinfection is in place at the Bantry wastewater treatment plant. Condition 5.5 requires that the disinfection system be maintained and operated according to its design.

3. Ambient Monitoring

Schedule B: Ambient Monitoring of the RL specifies the parameters, analysis method and frequency for which ambient monitoring of the primary discharge shall be carried out. The requirements for ambient monitoring in *Schedule B: Ambient Monitoring* are sufficient to ensure that there will be no deterioration in the status of the receiving water as a result of the discharge.

4. Combined Approach

The Wastewater Discharge (Authorisation) Regulations, 2007, as amended, specify that a 'combined approach' in relation to licensing of waste water works must be taken, whereby the emission limits for the discharge are established on the basis of the stricter of either or both, the limits and controls required under the Urban Waste Water Treatment Regulations, 2001, as amended, and the limits determined under statute or Directive for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharge is made. The RL as drafted gives effect to the principle of the Combined Approach as defined in Wastewater Discharge (Authorisation) Regulations, 2007, as amended.

5. Programme of Improvements

The WWTP in Bantry provides secondary treatment for wastewater from the Bantry agglomeration. Condition 5.1 of the RL requires the licensee to prepare and submit to the Agency a programme of infrastructural improvements to maximise the effectiveness and efficiency of the waste water works. The conditions and emission limit values specified in the RL will ensure no deterioration in the quality of the receiving waters as a result of the discharge.

6. Compliance with EU Directives

In considering the application, regard was had to the requirements of Regulation 6(2) of the Wastewater Discharge (Authorisation) Regulations, 2007, as amended, notably:

Table 4: Compliance with EU Directives/Regulations

Compliance with Directives/Regulations	Description and Conditions in RL
Urban Waste Water Treatment Directive [91/271/EEC]	Compliant/Not compliant in 2012
Water Framework Directive [2000/60/EC]	High status to be protected.
EC Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009), as amended	Schedule A of RL sets ELVs to contribute to maintaining the environmental quality objectives.
Drinking Water Abstraction Regulations	There are no drinking water abstractions downstream.
Bathing Water Directive [2006/7/EC]	No designated bathing waters present.
Dangerous Substances Directive [2006/11/EC]	Condition 4 requires screening for priority substances.
Environmental Impact Assessment Directive [85/337/EEC]	An EIS was required for Bantry WWTP. In accordance with Article 22 of the 684 of 2007, regard was had to the matters mentioned in the EIS, and in the decision of An Bord Pleanála on an application under section 175(3) of the Act of 2000 for approval of such development only in so far as they relate to the risk of environmental pollution of the receiving waters from the waste water discharge concerned.
Environmental Liability Directive	Condition 7.2 of RL satisfies the requirements of this Directive.

Birds Directive [79/409/EEC] & Habitats Directive [92/43/EEC]

The Bantry WWTP discharges into Inner Bantry Bay. Glengarriff Harbour and Woodland SAC[2] lies on the opposite side of Outer Bantry Bay, approximately 8km from the primary discharge. The site is protected for habitats, including one priority habitat, listed under Annex 1 of the Habitats Directive. It is also selected for protection of species listed under Annex II of the same directive. Sheep's Head SAC is further south west of the discharge, approximately 10km.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects, is likely to have a significant effect on a European Site(s). In this context, particular attention was paid to the European Sites at Glengarriff Harbour and Woodland SAC and Sheep's Head SAC. The Agency considered, for the reasons set out below, that the activity is not directly connected with or necessary to the management of these sites as European Sites and that it can be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects will have a significant effect on a European Site, and accordingly the Agency determined that an Appropriate Assessment of the activity was not required. This determination is based

[2] SAC: Special Area of Conservation designated under the *Habitats Directive,* Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

on the following:

The high quality of the effluent discharged from the agglomeration, the 'High' water quality status assigned to the transitional receiving water (Inner Bantry Bay) under the WFD, and the distance (>7km) of the primary discharge from the European Sites.

7. Cross Office Liaison

Advice and guidance issued by the Waste Water Technical Working Group (TWG) was followed in my assessment of this application. Advice and guidance issued by the TWG is prepared through a detailed cross-office co-operative process, with the concerns of all sides taken into account. The Board of the Agency has endorsed the advice and guidance issued by the TWG for use by licensing inspectors in the assessment of wastewater discharge licence applications.

In assessing the application, consultation was undertaken with Office of Environmental Assessment (Shane O'Boyle/Robert Wilkes) in relation to water quality issues.

8. Submissions

Two (2 no.) submissions were received in relation to this licence. The submissions received were submitted by Mr David Bollins and Dr Terry McMahon (Marine Institute). The issues raised in the submissions are summarised in below. However, the original submission should be referred to at all times for greater detail and expansion of particular points.

Mr David Bollins

In his submission Mr Bollins details, at length, a number of issues relating to planning and development issues around the greater Bantry area. The issues raised cannot appropriately be considered under the Waste Water Discharge (Authorisation) Regulations, 2007, as amended as the regulations relate to the control of discharges from the waste water works only. Concerns expressed in relation to the general environmental conditions prevalent in the greater Bantry area are addressed from a waste water perspective through the construction of a new WWTP for the Bantry agglomeration and the requirements as specified in the RL.

Schedule A: Discharges and Discharge Monitoring also specifies emission limit values in accordance with the requirements of the Urban Wastewater Treatment Regulations (2001, as amended) and are aimed at ensuring that there will be no deterioration in the quality of the receiving water.

Dr Terry McMahon (Marine Institute)

In his submission Dr McMahon outlines the main concerns of the Marine Institute in relation to the discharges of treated waste water from the Bantry agglomeration directly into the Inner Bantry Bay designated shellfish water. In order to adequately deal with each of the points raised in the submission I will deal with each in turn.

Shellfish Production and Classification

Dr McMahon notes that for the period prior to the submission (2009) the South Chapel production zone has a seasonal B classification for the period Dec-June but a C Classification at other times. This is noted as deterioration in microbial water quality in this production area. Dr McMahon acknowledges that the improved waste water infrastructure is likely to improve this situation.

The newly constructed waste water treatment plant is designed and operated to a very high standard. The treatment includes secondary treatment, UV disinfection and retention in a tidal tank prior to discharge in line with tidal movements. The RL as drafted provides a high degree of protection to the shellfish area in that Condition 5.5 requires that the UV disinfection system is operated to the designed disinfection efficiency at all times. The Condition also requires that the disinfection efficiency of the system shall be measured to demonstrate that the system is operated within its design range. Schedule B.2: Receiving Water Monitoring also requires monitoring for E. coli and faecal coliform levels in accordance with relevant statutory instruments.

Unauthorised 'rouge' discharges

Prior to the upgrade works Dr McMahon notes that 'rogue' discharges were present within the Bantry agglomeration.

The improvement works undertaken by Cork County Council has addressed this issue and no unauthorised discharges exist within the agglomeration. Condition 3.2 prohibits discharges from the agglomeration except in accordance with the terms of the RL.

Shellfish waters designation and the primary discharge

The Submission requests that the standards for the discharge must be in accordance with standards as specified in the European Communities (Quality of Shellfish Waters) Regulations 2006.

Schedule A: Discharges and Discharge Monitoring also specifies emission limit values aimed at ensuring that there will be no deterioration in the quality of the receiving water and ensuring that the high status of the receiving water will be protected.

Strom overflow discharges

Dr McMahon requests that storm water overflows be kept to a minimum and that the frequency, duration and volume of significant overflow events must be reported to the relevant bodies, namely sea Fisheries Protection Authority, Marine Institute, Food Safety Authority of Ireland and Irish Shellfish Association.

The storm water overflows related to this application is designed in accordance with the DoECLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995. This discharge is therefore not considered to pose a threat to the receiving water quality. Condition 5.2 of the RL requires the licensee to continue to monitor the effectiveness of the performance of all storm water overflows within the agglomeration. Condition 6.1 of the RL defines the reporting requirements relating to discharges from the agglomeration for key stakeholders such as the Marine Institute and Sea Fisheries Protection Authority.

Emergency Overflows

Dr McMahon requests that a system for detecting and recording of emergency overflows be established.

There are no emergency overflows associated with the agglomeration.

Microbial monitoring

Dr McMahon requests that fortnightly monitoring of faecal coliform and E. coli levels in the influent and final effluent be undertaken in order to establish a body of data showing compliance with design standards.

Due to the fact that the waste water treatment plant was commissioned in early 2011 the default monitoring values (bi-annually) for monitoring of the E.coli and faecal coliform levels are appropriate as the compliance picture is by now clearly established.

Public health

Dr McMahon highlights concerns relating to the potential for risk to public health as a result of the direct discharge for treated effluent to the shellfish area.

It is considered that the measures specified in the RL to monitor and control the discharges (Condition 4) from the agglomeration provide a very high degree of protection to the water body and in turn to public health. *Schedule A: Discharges & Discharge Monitoring* of the RL specifies the ELVs to which the discharge from the agglomeration must conform. UV disinfection is also in place at the Bantry wastewater treatment plant and Condition 5.5 requires that the disinfection system be maintained and operated according to its design.

9. Charges

The RL sets an annual charge for the agglomeration at €7,113.78 and is reflective of the monitoring and enforcement regime being proposed for the agglomeration.

10. Recommendation

I recommend that a Final Licence be issued subject to the conditions and for the reasons as set out in the attached Recommended Licence.

Signed

Suzanne Wylde, Eimer Godsil, Gavin Clabby, Donal Grant and Breen Higgins

Environmental Licensing Programme

Appendix 1: Map showing location of Bantry WWTP and associated primary discharge point.