OFFICE OF CLIMATE, LICENSING, RESOURCES & RESEARCH

INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To:	Directors	
From:	Yvonne English, Deirdre French, Michael Martin & Éimer Godsil	Environmental Licensing Programme
Date:	3rd November 2015	
RE:	Application for a Waste Water Discharge Licence from **Irish Water**, for the agglomeration named **Rosscarbery Owenahincha**, Reg. No. D0172-01.	

Application & Agglomeration Details	
Agglomeration Name:	Rosscarbery Owenahincha (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:	09/04/2010, 09/02/2015
Information under Regulation 18(3)(b) received:	04/06/2010, 10/03/2015
Site notice check:	12/10/2008
Site Visit:	24/02/2015
Submission(s) Received:	None
Design Population Equivalent:	5,239
Actual Population Equivalent:	4,051
Type of treatment:	Primary
Wastewater treatment plant (WWTP) description:	The treatment process is a primary sedimentation system consisting of two identical septic tanks.

[1] Waste Water 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	
Receiving water name	Rosscarbery Bay
Type of receiving water	Coastal
Normal flow	698m^3/day
Maximum flow	3,456m^3/day
Storm water overflow(s)	
Storm water overflow(s)	Yes (6)
Receiving water name(s)	Freshwater, coastal and transitional.
Emergency overflow(s)	
Emergency overflow(s)	No

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

There is a large variation noted between the normal and maximum flows recorded from the primary discharge point. This variation can be attributed to the combined nature of the collection network.

2. Receiving waters and impact

The *Southern Western RBD Transitional and Coastal Waters Action Programme* lists Rosscarbery Bay as a waterbody at risk from land based point source pressures and the *Skibbereen Clonakilty Water Management Unit Action Plan* identifies the Rosscarbery/Owenahincha WWTP as a point source potentially putting the waterbody at risk. Rosscarbery Bay is currently assigned 'Moderate' status under the WFD.

Consultation with Robert Wilkes, Office of Environmental Assessment (OEA), indicates the occurance of serious eutrophication in Rosscarbery Bay, primarily due to nitrogen but also due to phosphorus. OEA conclude that agricultural inputs are of greater impact on the waterbody than the plant discharge, there are derogation farms in the catchment, but that as the p.e. of the agglomeration is 4,051 the impact of the plant cannot be discounted.

The following table summarises the main considerations in relation to the Rosscarbery Bay in the vicinity of the primary discharge.

Table 2: Receiving waters

Characteristic	Classification	Comment
Receiving water name	Rosscarbery Bay	WFD Code: IE_SW_110_0000
Designations	Kilkeran Lake and Castlefreke Dunes SAC Galley Head to Duneen Point SPA	SAC Site code: 001061 SPA Site code: 004190
Receiving water monitoring stations	No monitoring stations nearby.	
Water Quality	Intermediate (2010-2012)	Rosscarbery Bay
WFD status	Moderate – Extrapolated (2014)	Restore 2015

In accordance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended), Dissolved Inorganic Nitrogen (DIN)[2] is usually the limiting nutrient for coastal water bodies. DIN is measured as the sum of the concentrations of nitrate (NO_3), nitrite (NO_2) and ammonia (NH_3), representing nitrogen readily available for uptake by plants. Due to issues with nitrogen in Rosscarbery Bay, the RL, as drafted, has set emission limit values for total oxidised nitrogen and ammonia. The standard for "Good/High" status of Dissolved Inorganic Nitrogen in coastal receiving waters is ≤0.25/0.17mg/l in accordance with European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended.

The objective of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment, as amended by Council Directive 98/5/EC, is to protect the environment from the adverse effects of waste water discharges. This Directive was transposed into Irish law by the Urban Wastewater Treatment (UWWT) Regulations 2001, as amended. Article 7 of 91/271/EEC required that by 31st December 2005, urban waste water entering a collection system shall before discharge, be subject to appropriate treatment as defined in Article 2(9) of 91/271/EEC for discharges to coastal waters from agglomerations of less than 10,000 p.e..

'Appropriate Treatment' is defined in the UWWT Regulations (2001, as amended) as the: *"treatment of urban waste water by any process and/or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and the relevant provisions of the Directive and of other Community Directives".* It should be noted that the p.e. of the agglomeration is below the threshold at which the ELVs specified in Part 1 of the second schedule of the UWWT Regulations (2001, as amended) apply. For agglomerations under this threshold, "appropriate treatment" is required as specified in Article 7 of the Directive.
It is considered that the primary treatment currently provided in this agglomeration is not appropriate as,

- the receiving water is currently not achieving 'Good' status,
- there are nitrogen issues in the receiving water and secondary treatment is required to address nitrogen levels in the effluent and
- it cannot be discounted that the WWTP is having an impact on the 'moderate' status of the receiving water.

The Water Framework Directive specifies that the receiving waterbody achieve good status by 2015. Following consulation with the DoECLG it is considered that, at this point in the WFD cycle, setting timelines on the applicant to comply with infrastructural works by a 2015 deadline is not practical. The DoECLG has agreed in specific circumstances to the loosening of the 2015 timelines to allow for a

[2] DIN is the sum of the concentrations of nitrate, nitrite and ammonia.

reasonable, pragmatic and practical approach to licensing urban waste water discharges. This approach was approved by the Board of the Agency.

The RL, as drafted, requires that appropriate works be completed by 31/12/2018 in order to ensure compliance with the emission limit values as set out in *Schedule A: Discharges & Discharge Monitoring of the RL.*

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). These limits are in accordance with UWWT Regulations, 2001, as amended and will apply from the date of grant of licence.

The RL has set a limit of 15mg/l for total oxidised nitrogen and 10 mg/l for ammonia in accordance with the requirements of the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended. These limits will apply from 01/01/2018.

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 Waste Water 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 Waste Water Discharge (Authorisation) Regulations, 2007, as amended.

5. Programme of Improvements

The WWTP in Rosscarbery/ Owenahincha provides primary treatment for wastewater from the Rosscarbery/ Owenahincha 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.

The RL as drafted requires that the WWTP comply with ELVs to ensure protection of the receiving waterbody. *Schedule C: Specified Improvement Programme* of the RL specifies that appropriate works be completed by 31/12/2018 in order to ensure compliance with the emission limit values as set out in *Schedule A: Discharges & Discharge Monitoring* of the RL.

6. Compliance with EU Directives

In considering the application, regard was had to the requirements of Regulation 6(2) of the Waste Water 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]	Appropriate Treatment to be provided.
Water Framework Directive [2000/60/EC]	Good status to be achieved.
EC Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009), as amended	Schedule A of RL sets ELVs to contribute towards achieving environmental quality objectives.
Bathing Water Directive [2006/7/EC]	Bathing Location - Roscarbery Bay Bathing Water Area – Warren Cregane Strand IESWBW _110 -0000_0100 Bathing Water Area – Owenahincha Little Island Strand IESWBW _110 -0000_0200
Dangerous Substances Directive [2006/11/EC]	Condition 4 requires screening for priority substances.
Environmental Impact Assessment Directive [85/337/EEC]	An EIS was not required for Rosscarbery Owenahincha WWTP.

Birds Directive [2009/147/EC] & Habitats Directive [92/43/EEC]

The Rosscarbery Owenahincha WWTP discharges in the vicinity of the Kilkeran Lake and Castlefreke Dunes SAC[3]. The site is protected for priority habitats listed under Annex 1 of the Habitats Directive. The Galley Head to Duneen Point SPA (designated an SPA[4] under the Birds Directive for the conservation of wild birds) is located approximately 4 km to the South East of the primary discharge.

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 any European Site. In this context, particular attention was paid to the European site(s) at the Kilkeran Lake and Castlefreke Dunes SAC and the Galley Head to Duneen Point SPA.

The Agency considered, for the reasons set out below, that the activity is not directly connected with or necessary to the management of any European site 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 any European site and accordingly determined that an Appropriate Assessment of the activity was not required.

This determination is based on the fact that the boundaries of the European sites do not extend into the receiving water (Rosscarbery Bay IE_SW_110_0000) and the qualifying interests of the European sites are not water dependent.

[3] 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.

[4] SPA: Special Protection Area designated under the *Birds Directive*, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

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. Robert Wilkes (OEA) was consulted regarding nutrient issues and status of the receiving water.

8. Submissions

No submissions were received in relation to this application.

9. Charges

The RL sets an annual charge for the agglomeration at *€5,978.10* 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

Yvonne English, Deirdre French, Michael Martin & Éimer Godsil

Environmental Licensing Programme

Appendix 1: Map showing location of Rosscarbery & Owenahincha WWTP and associated primary discharge point.