



OFFICE OF ENVIRONMENTAL SUSTAINABILITY

INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To: Eimear Cotter, Director

From: Deirdre French, Inspector, Environmental Licensing Programme

Date: 5 December 2018

RE: Application for a Waste Water Discharge Licence from Irish Water, for the agglomeration named Durrus, Reg. No. D0545-01.

Application & Agglomeration Details

Agglomeration Name:	Durrus (See Map Appendix 1)
County:	Cork
Schedule of discharge licensed:	Discharges from agglomerations with a population equivalent of 500 to 1,000.
Licence application received:	11/09/2017
Notices under Regulation 18(3)(b) ¹ issued:	27/04/2018
Information under Regulation 18(3)(b) received:	18/05/2018
Site notice check:	06/10/2017
Site Visit:	06/04/2018
Submission(s) Received:	None
Design Population Equivalent (p.e.):	500 p.e.
Actual Population Equivalent:	630 p.e.
Type of treatment:	Tertiary
Wastewater treatment plant (WWTP) description:	The plant consists of an inlet screen, primary settlement tank, rotor modules, final settlement tank, UV system and a storm water holding tank.

¹ Waste Water Discharge (Authorisation) Regulations, 2007, as amended.

1. Authorisation History

The Durrus agglomeration is currently authorised under a Certificate of Authorisation (A0394-01). The current population equivalent of the agglomeration is 630 p.e. Given that the p.e. has increased above the 500 p.e. threshold, Irish Water are now applying for a Waste Water Discharge Licence.

2. 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	Four Mile Water River (also referred to as Carrigboy River)
Type of receiving water	Transitional
Normal flow	141.75 m ³ /day
Maximum flow	442.13 m ³ /day
Storm water overflow(s)	
Storm water overflow(s)	Yes (1)
Receiving water name(s)	Transitional

Schedule A: Discharges & Discharge Monitoring of the recommended licence (RL) specifies the Emission Limit Values (ELVs) to which the discharge from the Durrus 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.

3. Environmental Impact Assessment Considerations

3.1 EIA Screening

I have considered the requirements of Regulation 3(1) of the Waste Water Discharge (Authorisation) (Environmental Impact Assessment) Regulations 2016 and have determined that the Agency is not required to carry out screening for Environmental Impact Assessment (EIA) for this application due to the application not being an Agency initiated review and given that there is (planned) development associated with the discharge.

4. Receiving waters and impact

The following table summarises the main considerations in relation to the Four Mile Water River downstream of the primary discharge.

Table 2: Receiving waters

Characteristic	Classification	Comment
Receiving water name	Four Mile Water River	WFD Code: IE_SW_21F020500
Designations	Dunbeacon Shingle SAC	Site Code: 002280
	Sheep's Head SAC	Site Code: 000102
	Reen Point Shingle SAC	Site Code:002281
	Roaringwater Bay and Islands SAC	Site Code: 000101
	Farranamanagh Lough SAC	Site Code: 002189
	Sheep's Head to Toe Head SPA	Site Code: 004156
	Dunmanus Inner Shellfish Area	Shellfish Area
Receiving water monitoring stations	Upstream - Br u/s Durrus (EPA RS Code: RS21F020500)	Approx. 670 m u/s of SW001 on the Four Mile Water River
	Downstream - Coastal Monitoring for license D0545-01 (Durrus) (EPA RS Code: CW05003188DM1001)	Approx. 1 km d/s of SW001 in Dunmanus Bay
Biological quality rating (Q value)	Upstream - Q4 2015 (RS21F020500)	Approx. 670 m u/s of SW001 on the Four Mile Water River
	No downstream Monitoring	
WFD status	Unassigned	

The Four Mile Water River drains into Dunmanus Bay approximately 90 m downstream of the primary discharge. The WFD ecological status of Dunmanus Bay is currently unassigned. I have contacted the Office of Evidence and Assessment (OEA) of the EPA and they do not carry out any monitoring in the Dumanus Bay area. However, according to the Water Framework Directive (WFD) online application (in November 2018) the Dunmanus Bay Coastal Waterbody is categorised as 'Not at risk'.

Futhermore, the Four Mile Water River (IE_SW_21F020500) which drains into the bay is at 'Good' status and the adjacent coastal waterbodies, Outer Bantry Bay (IE_SW_170_0000) and Roaring Water Bay (IE_SW_140_0000) are currently assigned 'High' and 'Good' respectively. Therefore, the water in the area is showing no signs of impact.

The section of the Four Mile Water River into which the SW001 discharges is considered to be transitional based on Irish Water monitoring data received by the EPA on 18/05/2018. In the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended, the key water parameters for the protection of transitional waters are BOD and orthophosphate (MRP). In accordance with these Regulations, the standard for good status of BOD in transitional waters is 4.0 mg/l, and the standard for orthophosphate in transitional waters (at salinity of 27 psu) is ≤ 0.049 mg/l.

The population equivalent of the agglomeration is below the 2,000 p.e. threshold at which the ELVs specified in Part 1 of the second schedule of the Urban Wastewater Treatment Regulations, 2001, as amended, apply.

For agglomerations under this threshold, “*appropriate treatment*” is required.

Article 7 of Directive 91/271/EC² requires that urban waste water entering collection systems shall, before discharge, be subject to appropriate treatment, as defined in Article 2(9), for discharges to freshwater and estuaries from agglomerations of less than 2,000 p.e.. The term ‘appropriate treatment’ is defined in the Directive as ‘*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 is considered that the treatment currently provided in this agglomeration is appropriate.

The RL has set emission limit values (ELVs) 25 mg/l for carbonaceous Biological Oxygen Demand (cBOD), 125 mg/l for Chemical Oxygen Demand (COD), 35 mg/l for Suspended Solids (SS). These limits are in accordance with Urban Waste Water Treatment Regulations, 2001, as amended.

The RL has set a limit of 9 mg/l for orthophosphate, in accordance with the requirements of the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended. The WWTP has Rotor Module (biozone) technology which is an activated sludge process, which can achieve standards of 4.5-9 mg/l for orthophosphate in the discharge. Based on this information the emission limit value for orthophosphate in the RL are achievable.

It is noted that the WWTP appears to be overloaded. *Schedule C: Specified Improvement Programme* of the RL, as drafted, requires improvement works to ensure compliance with Condition 1.7 of the RL by 31/12/2021. Condition 1.7 states that the licensee shall maintain such available capacity within the waste water works as is necessary to ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges.

Dunmanus Inner Shellfish Area

The Dunmanus Inner shellfish area is located approximately 1.8 km from the primary discharge point. The Dunmanus Inner Pollution Reduction Programme (PRP) lists the Durrus urban waste water system as a key pressure on the protected shellfish area.

The results of monitoring (2009-2015) undertaken in accordance with this PRP indicated that there were historical water quality issues with faecal coliform levels in the vicinity of the shellfish area. The bivalve mollusc production areas in Dunmanus Bay are classified as ‘Class A’ for Sea Urchins and ‘Class B’ for Mussels 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 in the vicinity of this shellfish area.

Condition 5.6 of the RL, as drafted, requires the licensee to carry out an assessment of the impact of the discharge(s) from the waste water works on the microbiological quality (including viruses) of the shellfish in the Dunmanus Inner shellfish area. Conditions 5.7 & 5.8 require, where the assessment finds that the discharge is having a deleterious effect on the shellfish, to install and maintain appropriate disinfection systems within a specified timeframe.

² Council Directive of 21 May 1991 concerning urban waste water treatment.

5. 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 monitor for potential impacts on the status of the receiving water as a result of the discharge.

6. 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.

7. Programme of Improvements

The WWTP in Durrus provides tertiary treatment for wastewater from the Durrus 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.

Condition 1.7 of the RL states that the licensee shall maintain such available capacity within the waste water works as is necessary to ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges.

8. 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]	Not applicable
Water Framework Directive [2000/60/EC]	Unassigned
EC Environmental Objectives (Surface Water) Regulations 2009 (S.I. No. 272 of 2009), as amended	Schedule A of RL sets ELVs to protect the receiving water
Drinking Water Abstraction Regulations	There are no drinking water abstractions downstream
Bathing Water Directive [2006/7/EC]	No 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 not required

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

Appendix 2 lists the European Sites assessed, their associated qualifying interests and conservation objectives.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Site(s) at Dunbeacon Shingle SAC, Sheep’s Head SAC, Reen Point Shingle SAC, Roaringwater Bay and Islands SAC, Farranamanagh Lough SAC, and Sheep’s Head to Toe Head SPA.

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it can be excluded, on the basis of objective information, that the activities, 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 activities was not required.

This determination is based on the following reasons:

1. The ‘Good’ Water Framework Directive status of the Carrigboy River (also referred as the Four Mile (Water) River) (IE_SW_21F020500) into which the discharges from the agglomeration discharge.
2. The capacity of the receiving water to assimilate the discharges from the agglomeration, therefore, not having a significant effect on any European Sites.

9. Cross Office Liaison

Advice and guidance issued by the Waste Water Technical Working Group (WWTWG) was followed in the assessment of this application. Advice and guidance issued by the WWTWG 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 WWTWG for use by licensing inspectors in the assessment of wastewater discharge licence applications.

I have consulted with my colleagues in Catchments Science and Management Unit (CSMU) of the EPA and the Durrus agglomeration has not been identified as being a pressure on the Four Mile Water River or Dunmanus Bay.

10. Submissions

No submissions were received in relation to this application.

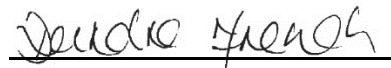
11. Charges

The RL requires that the licensee shall pay to the Agency, such sum as the Agency from time to time determines is reflective of the monitoring and enforcement regime being proposed for the agglomeration.

12. 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

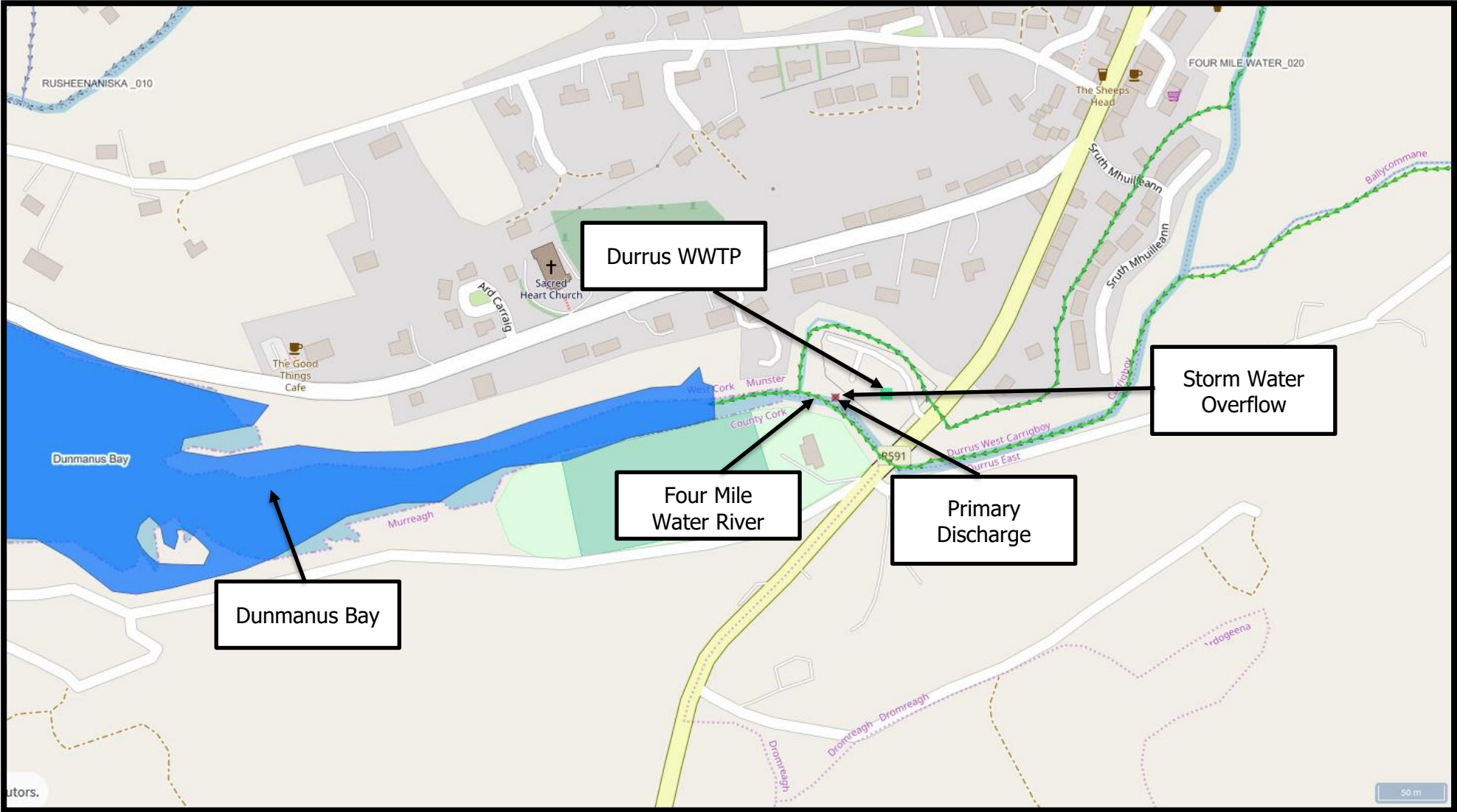
A handwritten signature in cursive script, reading "Deirdre French", is written over a horizontal line.

Deirdre French

Inspector

Environmental Licensing Programme

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



Appendix 2: List of European Sites assessed, their associated qualifying interests and conservation objectives.

Site Code	Site Name	Qualifying Interests (* denotes a priority habitat)	Conservation Objectives
002280	Dunbeacon Shingle SAC	Habitats 1220 Perennial vegetation of stony banks	NPWS (2017) Conservation Objectives: Dunbeacon Shingle SAC 002280. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
000102	Sheep's Head SAC	Habitats 4010 Northern Atlantic wet heaths with Erica tetralix 4030 European dry heaths Species 1024 Kerry Slug (<i>Geomalacus maculosus</i>)	NPWS (2018) Conservation objectives for Sheep's Head SAC [000102]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.
002281	Reen Point Shingle SAC	Habitats 1220 Perennial vegetation of stony banks	NPWS (2017) Conservation Objectives: Reen Point Shingle SAC 002281. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
000101	Roaringwater Bay and Islands SAC	Habitats 1160 Large shallow inlets and bays 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths 8330 Submerged or partially submerged sea caves Species 1364 Grey Seal (<i>Halichoerus grypus</i>) 1351 Harbour Porpoise (<i>Phocoena phocoena</i>) 1355 Otter (<i>Lutra lutra</i>)	NPWS (2011) Conservation Objectives: Roaringwater Bay and Islands SAC 000101. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
002189	Farranamanagh Lough SAC	Habitats 1150 Coastal lagoons* 1220 Perennial vegetation of stony banks	NPWS (2018) Conservation Objectives: Farranamanagh Lough SAC 002189. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
004156	Sheep's Head to Toe Head SPA	Birds A103 Peregrine (<i>Falco peregrinus</i>) A346 Chough (<i>Pyrrhocorax pyrrhocorax</i>)	NPWS (2018) Conservation objectives for Sheep's Head to Toe Head SPA [004156]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.