



OFFICE OF CLIMATE, LICENSING, RESOURCES & RESEARCH

INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To:	Dara Lynott, Director	
From:	Yvonne English, Michael Martin, Tara Higgins & Deirdre French	Environmental Licensing Programme
Date:	7 th September 2015	
RE:	Application for a Waste Water Discharge Licence from Irish Water , for the agglomeration named Clones and Environs , Reg. No. D0206-01.	

Application & Agglomeration Details

Agglomeration Name:	Clones & Environs (See Map Appendix 1)
County:	Monaghan
Schedule of discharge licensed:	Discharges from agglomerations with a population equivalent of 2,001 to 10,000
Licence application received:	13/11/2008
Notices under Regulation 18(3)(b) ¹ issued:	20/04/2010, 09/08/2010, 01/08/2012, 29/04/2015
Information under Regulation 18(3)(b) received:	07/08/2009, 18/06/2014, 04/06/2015
Site notice check:	24/11/2008
Site Visit:	12/05/2015
Submission(s) Received:	None
Design Population Equivalent:	4,500 p.e.
Actual Population Equivalent:	3,100 p.e.
Type of treatment:	Secondary
Wastewater treatment plant (WWTP) description:	The plant consists of inlet works, storm tank, primary settlement tanks, percolating filters and humus tank

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	Unnamed tributary of the Legarhill River
Type of receiving water	Freshwater
Normal flow	1,500 m ³ /day
Maximum flow	2,000 m ³ /day
Secondary discharge point(s)	
There are no secondary discharges	
Storm water overflow(s)	
Storm water overflow(s)	Yes - 3
Receiving water name(s)	Freshwater – Unnamed tributary of the Legarhill River
Emergency overflow(s)	
There are no secondary discharges	

Schedule A: Discharges & Discharge Monitoring of the recommended licence (RL) specifies the Emission Limit Values (ELVs) to which the discharge from the Clones 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 the receiving water which is an unnamed tributary of Legarhill River downstream of the primary discharge.

Table 2: Receiving waters

Characteristic	Classification	Comment
Receiving water name	Unnamed tributary of Legarhill River	Freshwater
Designations	Upper Lough Erne SPA	(Site Code: UK9020071)
	Upper Lough Erne SAC	(Site Code: UK0016614)
Receiving water monitoring stations	None	There are no monitoring stations in the vicinity of the WWTP
WFD status	Moderate	Restore 2021

The Erne East Water Management Unit Action Plan (WMUAP) identifies the WWTP in Clones as a point pressure on the Erne East catchment.

The 'notional clean river' approach (formulated by the Office of Environmental Assessment) has been taken, whereby other sources of upstream pollution will be dealt with separately. The purpose of the mass balance calculations is to show the

impact of the discharge with respect to water quality standards. The sources which give rise to the background concentrations are outside the control of this licence.

The North Western International River Basin District provides details of recommendations and planned measures to reduce pollution in water courses. The wastewater treatment plant discharge shall not cause deterioration in the water quality status. The mass balance calculations are based on the 95%ile flow in the receiving water, the notional clean river background concentrations, the normal effluent discharge rate and the maximum concentration of the parameter in the effluent (Table 3).

The 95%ile flow in the river at primary discharge point is 0.003 m³/s.

Table 3: Mass Balance Calculations.

Parameter	Notional Clean River Values (mg/l) ^{Note 1}	Proposed ELVs for discharge (mg/l)	Contribution from discharge (mg/l)	Predicted downstream concentration (mg/l)	Relevant standard (mg/l)
BOD	0.26	2	1.48	1.74	2.6 ^{Note 2}
Orthophosphate	0.005	0.075	0.0597	0.0647	0.075 ^{Note 2}
Total Ammonia	0.008	0.1	0.0784	0.0864	0.14 ^{Note 2}

Note 1: Notional clean river values for AC based on 1/5th of the mean "High Status" standard in the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended.

Note 2: European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended.

The European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended, set environmental quality objectives for the receiving water for orthophosphate (0.075 mg/l), ammonia (0.14 mg/l) and BOD (2.6 mg/l).

An emission limit value of 0.075 mg/l is recommended for orthophosphate, 0.1 mg/l for ammonia and 2 mg/l for BOD in the RL. The limits are set based on the mass balance calculations and are necessary for the receiving water to achieve the environmental quality standards set for good status in the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended.

The Clones WWTP consists of inlet works, storm tank, primary settlement tanks, percolating filters and humus tank which can achieve standards of 15-25 mg/l for BOD, 4.5-9 mg/l for orthophosphate and 5-10 mg/l for ammonia in the discharge. The proposed limits are necessarily stringent in order to achieve the requirement of the European Communities Environmental Objectives (Surface Water) Regulations, 2009, as amended and are unlikely to be achieved utilising existing infrastructure. The proposed ELVs for BOD, ammonia and orthophosphate will apply from 31/12/2019. An interim ELV for BOD of 25mg/l is proposed.

Condition 5.6 of the RL requires, within 12 months of date of grant of licence, the completion of a detailed assessment to determine the most appropriate measure for the achievement of 'good' status in the receiving water which demonstrates compliance with the Environmental Objectives (Surface Waters) Regulations 2009, as amended. Condition 5.6.1 requires that assessment should specifically identify:

1. improvements to the existing waste water works to achieve compliance with the emission limit values specified in *Schedule A.1: Primary Waste Water Discharge & Monitoring* of this licence, or
2. an alternative primary discharge point with sufficient assimilative capacity for the discharge, or
3. connection to another agglomeration.

Following the completion of the assessment the licensee shall notify the Agency of the proposed option for achieving 'good' status in accordance with Condition 5.6.2. Once this option has been chosen the licensee shall apply for a review of the waste water discharge licence to allow the Agency to examine the potential impacts of the proposal on the receiving water.

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 Clones provides secondary treatment for wastewater from the Clones 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 treatment plant will require improvement works to ensure that it can comply with the proposed ELVs for BOD, ammonia and orthophosphate. The ELVs for BOD, ammonia and orthophosphate will apply from 31/12/2019, in accordance with the requirement for the achievement of 'good' status by 31/12/2021.

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]	Not compliant in 2013.
Water Framework Directive [2000/60/EC]	Good status to be achieved by 2021.
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.
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 4.11 requires screening for priority substances.
Environmental Impact Assessment Directive [85/337/EEC]	An EIS was not required for Clones WWTP.

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

The Clones WWTP discharges to the Upper Lough Erne SAC² via the Leagarhill Stream and the River Finn. The site is also designated an SPA³, the Upper Lough Erne SPA, under the Birds Directive for the conservation of wild birds.

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 site(s) at the Upper Lough Erne SAC and the Upper Lough Erne SPA.

The Agency considered, for the reasons set out below, that the activity is not directly connected with or necessary to the management of the site as a European site and that it cannot 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 is required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination is based on the following:

- The 'moderate' water quality status assigned to the receiving water (Legarhill GBNI1NW363602097) under the Water Framework Directive,
- The absence of downstream water quality monitoring data.

An Appropriate Assessment has been completed and has determined based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 and 2013, pursuant to Article 6(3) of the Habitats Directive, that the activity, individually or in combination with other plans or projects, will not adversely affect the integrity of a European Site(s) in particular the Upper Lough Erne SAC and the Upper Lough Erne SPA, having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this licence and the

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.

³ 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.

conditions attached hereto for the following reasons:

- *Schedule A: Discharges & Discharge Monitoring* of the RL specifies the ELVs to which the discharge from the Clones and Environs agglomeration must conform. These ELVs will contribute to the receiving water achieving the environmental quality standards set in the *European Communities Environmental Objectives (Surface Water) Regulations 2009*, (as amended), which are aimed at providing a high degree of protection to the receiving water body.
- *Schedule C: Specified Improvement Programme* of the licence requires improvements to be undertaken at the treatment works.
- Condition 5.1 of the RL requires the submission of a programme of infrastructural improvement works to maximise the effectiveness and efficiency of the WWTP.
- Condition 3.4 of the RL requires the licensee to take such measures as necessary to ensure that no deterioration in the quality of the receiving waters shall occur as a result of the discharge.

In light of the foregoing reasons, no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of the Upper Lough Erne SAC and the Upper Lough Erne SPA.

7. 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.

8. Submissions

No submissions were received in relation to this application.

9. Transboundary consultation

In response to an information request by the Agency, the Department of Environment Northern Ireland (DOENI) on 26th May 2015 provided water quality data for the relevant area. The Agency has taken this water quality data into consideration during its assessment.

10. Charges

The RL sets an annual charge for the agglomeration at €4,395 and is reflective of the monitoring and enforcement regime being proposed for the agglomeration.

11. 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

Deirdre French

Yvonne English, Michael Martin, Tara Higgins & Deirdre French
Environmental Licensing Programme

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

