

This memo has been approved to go to the Director
 by the Senior Inspector, Pat Byrne.
 Signed *M.S.P.* Date: 2/12/13



INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To:	Dara Lynott, Director
From:	Loretta Joyce Environmental Licensing Programme
Date:	02 nd December 2013
RE:	Application for a Waste Water Discharge Licence from Cork County Council for the Drimoleague agglomeration, Reg. No. D0470-01.

Application Details	
Schedule of discharge licensed:	Discharges from agglomerations with a population equivalent of 500 to 1000
Licence application received:	22/06/2009
Notice under Regulation 18(3)(b) issued:	20/04/2010
Information under Regulation 18(3)(b) Received:	21/06/2010; 26/08/2010
Site notice check:	10/07/2009
Site visit:	17/10/2013
Submissions Received:	None received

1. Agglomeration

This application relates to the Drimoleague agglomeration in County Cork. The agglomeration had a population equivalent (p.e.) of 635 in 2011 and the design capacity of the WWTP is 500 p.e. A projected increase of 20% is used in the mass balance calculations below. There are no identified sources of industrial waste water in the agglomeration.

The WWTP consists of recently installed mechanical screening, a compact oxidation ditch, incorporating a settling tank, installed in the late 1980s and a sludge storage tank. There is no chemical dosing for phosphorus removal. There is no flow meter or final effluent composite sampler in place at the WWTP.

Drimoleague sewerage scheme was included at planning stage in Water Services Investment Programme (WSIP) 2010- 2012 but there is no funding currently allocated for a new Drimoleague WWTP.

2. Discharges to waters

Primary Discharge

The primary discharge (SW001) is the gravity outfall from the WWTP to the River Ruagagh, adjacent to the WWTP. At 95%ile flow in the river (0.06 m³/sec), there are approximately 17 dilutions available for the projected normal waste water discharge (0.0034m³/sec). The 95%ile river flow was provided by the Office of Environmental Assessment. The applicant's 2013 treated effluent monitoring results are shown in Table 1, along with the WWTP design standards.

Table 1. WWTP monitoring results 2013 (average based on 6 samples)

Parameter	BOD (mg/l)	COD (mg/l)	Suspended solids (mg/l)	Ammonia (mg/l)	Orthophosphate (mg/l)
Average effluent	20	71	28	-	-
WWTP Design standards	25	125	35	-	-

Secondary Discharges

There are no secondary waste water discharges from the agglomeration.

Storm water overflows

There is one storm water overflow at the WWTP which discharges to the River Ruagagh, 3m upstream of SW001.

Emergency overflows

There are no emergency overflows in the agglomeration.

3. Receiving waters and impact

The River Ruagagh forms part of the South Western River Basin District. The following table summarises the main considerations in relation to the receiving waters.

Table 2. Receiving waters

Characteristic	Description	Comment
Receiving water name and type	River Ruagagh IE_SW_20_876	Converges with the Ilen River, 3.3km d/s
Relevant designations within 10km	None	
Drinking water abstraction within 10 km d/s	None	
EPA monitoring stations & Biological quality rating (Q value)	No U/s station D/s station RS20I010160,4 km d/s (tributaries converge u/s of this station)	Q4-5 in 2012
WFD status	Good	2009
WFD Risk Category	1a, water body at significant risk of failing objectives	2008
WFD Objective	Maintain good status	No exemption from 2015
WFD protected areas	RPA drinking water groundwater	

Ambient water quality monitoring data for the River Ruagagh provided by the applicant, based on one sample, indicates that BOD levels deteriorate downstream of the primary discharge and do not comply with the good status water quality standards specified in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 as amended.

Table 3 below summarises the mass balance calculations which show the contribution from the primary discharge on the receiving water at a projected loading of 762 p.e. (635 p.e. plus 20%). The calculations use the 'notionally clean river' approach (a hypothetically clean stretch of river) provided by the Office of Environmental Assessment.

Table 3. Mass Balance Calculations

Parameter (mg/l)	Proposed ELVs for Primary discharge	Contribution from Primary discharge	Contribution from notionally clean background <small>Note 1</small>	Predicted Downstream concentration	Water Quality Standards <small>Note 2</small>
BOD	25 (interim)	1.35	0.25	1.60	≤ 2.6
	15 (2015)	0.81		1.06	
Orthophosphate (as P)	1 (2015)	0.054	0.005	0.059	≤ 0.075
Ammonia (as N)	2 (2015)	0.11	0.008	0.12	≤ 0.14

Note 1: The notionally clean background concentrations are 0.26 mg/l BOD, 0.005 mg/l ortho-phosphate (as P) and 0.008 mg/l ammonia (as N).

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

The calculations show that the predicted downstream concentrations of BOD, Orthophosphate as P and Ammonia as N would comply with the good status standards in the Environmental Objectives Regulations 2009, as amended, based on an ELV of 15mg/l BOD, 1mg/l Orthophosphate as P and 2mg/l Ammonia as N which apply from 22nd December 2015. However, plant upgrade will be required to meet these ELVs.

The RL proposes an interim ELV of 25mg/l BOD from date of grant of licence. Average BOD for the discharge was 20mg/l in 2013 indicating this ELV is achievable. The RL proposes an ELV of 15mg/l BOD from 22nd December 2015.

Interim emission limit values for Orthophosphate and Ammonia prior to 22nd December 2015 are not specified in the RL as the current WWTP is overloaded and no existing monitoring data is available. The RL proposes an ELV of 1mg/l Orthophosphate as P from 22nd December 2015. There is no chemical dosing for phosphorus removal at the WWTP. Plants with chemical dosing for P removal can achieve 0.5 to 0.8mg/l Orthophosphate as P.

The RL proposes an ELV of 2mg/l Ammonia as N from 22nd December 2015. Conventional activated sludge plants can achieve 2 to 5 mg/l Ammonia.

Drimoleague WWTP is listed as a point pressure in the Skibbereen Clonakilty Water Management Unit Action Plan. Insufficient existing and future capacity is identified as a risk in the plan.

4. Site Visit

I visited the Drimoleague agglomeration on 17/10/2013 and met with a representative of Cork County Council. I visited the WWTP and observed the primary discharge point and receiving waters.

5. Ambient Monitoring

Schedule B.2 Receiving Water Monitoring of the RL specifies quarterly monitoring of the River Ruagagh for a number of specified parameters.

- Upstream: The location identified by Cork County Council is aSW-1u (grid ref. 112686E 45898N) is approximately 650m upstream of SW001 but a tributary converges downstream of this station.
- Downstream: The location provided by Cork County Council aSW-1d, (grid ref. 112893E 44863N) is approximately 520m downstream of SW001 but a tributary converges upstream of this station.

There are no suitable National monitoring stations located on the River Ruagagh. Condition 4.20 of the RL requires the licensee to submit a proposal for suitable ambient upstream and downstream monitoring points to the Agency for agreement within three months of date of grant of licence.

6. Programme of Improvements

Drimoleague sewerage scheme was included at planning stage in the WSIP, however there is no funding currently allocated for a new Drimoleague WWTP. Plant upgrade will be required to meet ELVs of 15mg/l BOD, 1mg/l Orthophosphate as P and 2mg/l Ammonia as N from 22nd December 2015.

7. 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 was required by 31st December 2005.
Water Framework Directive [2000/60/EC]	Maintain Good Status
EC Environmental Objectives (Surface Water) Regulations 2009, S.I. No. 272 of 2009, as amended	Schedule A of RL sets ELVs to contribute towards good status water quality standards.
Drinking Water Abstraction Regulations	No drinking water abstractions present
EC Freshwater Fish Directive [2006/44/EC]	Not a designated salmonid river
Bathing Water Directive [2006/7/EC]	No bathing waters present
Shellfish Waters Directive [2006/113/EC]	No shellfish 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 for Drimoleague WWTP.
Environmental Liability Directive [2004/35/CE]	Condition 7.2 of RL satisfies the requirements of the Directive.

8. Habitats Directive (92/43/EC) & Birds Directive (79/409/EEC)

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). 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 can be excluded on the basis of objective scientific 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 not required.

It has been determined that the activity does not have the potential for significant effects on any European Site due to the limited volume of the discharge and its discharge from a European Site.

9. Submissions

No submissions were received in relation to this licence application.

10. Charges

The RL sets an annual charge for the agglomeration at € 4,152.18 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



Loretta Joyce
Inspector
Environmental Licensing Programme

Drimoleague Agglomeration D0470-01

