

This memo has been cleared for submission to the Board by Senior Inspector, Dr Karen Creed
 Signed: Sonia Smith Date: 23/02/11



OFFICE OF CLIMATE,
 LICENSING & RESOURCE USE.

INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To:	DIRECTORS		
From:	Gavin Clabby	Environmental Programme	Licensing
Date:	6 th December 2010		
RE:	Application for a Waste Water Discharge Licence from Cork County Council for the Union Hall Agglomeration, Reg. No. D0469-01		

Application Details	
Schedule of discharge licensed:	Discharges from agglomerations with a population equivalent of 500 to 1,000
Licence application received:	22 nd June 2009
Notices under Regulation 18(3)(b) issued:	20 th April 2010
Information under Regulation 18(3)(b) received:	21 th June 2010, 26 th August 2010
Site notice check:	10 th July 2009
Site visit:	20 th December 2010
Submission(s) Received:	None

1. Background

1.1 Agglomeration

The Union Hall Agglomeration constitutes the urban development of Union Hall; a small fishing village located by Glandore Harbour. In addition to fishing, the village is also a popular tourist destination, which results in large increases in population during the summer months. The area is used for bathing and boating during these summer months.

This licence application was made by Cork County Council (Western Division) which is the Water Services Authority (WSA) for the Union Hall agglomeration.

1.2 Waste Water Collection System

The agglomeration's collection system conveys a minimal amount of storm water; a separate storm sewer runs through the village, which conveys most of the storm water. It incorporates two pumping stations. The first pumping station is located adjacent to the rowing club at the east of the village. The second pumping station is adjacent to Keelbeg Pier. There are no EPA licensed facilities within the agglomeration. No significant fish processing occurs in the

agglomeration. The applicant considers that the wastewater collected by this system is domestic and that the industrial contribution is negligible.

1.3 Waste Water Treatment

The existing wastewater treatment system is a septic tank providing primary treatment. It is located 200 metres east of the village. The effective capacity of the tank is 63m³.

In the application it states that a new wastewater treatment plant (WWTP) is proposed for Union Hall. It is not included in the Water Services Investment Programme 2010-2012. Likewise, the scheme is not included in Cork County Council's Assessments of Needs for 2013-2015. Consultation with the DoEHLG Water Services Section indicates no likely commissioning date in the near future.

1.4 Population Equivalent – Agglomeration

The population equivalent (p.e.) of the agglomeration was, at the time of application, estimated at 615. (The 2006 census stated that 192 people lived in Union Hall. The figure of 615 is based on a house count and would, therefore, be a good estimate of the increased population during the tourist season.) The p.e. for the purposes of this application is 745; being, at the time of application, the estimated maximum p.e. at the end of the licence's statutory review period. As the application is for 500 to 1,000 p.e. a review of the licence will be required to accommodate a loading of over 1,000 p.e.

1.5 Design Population Equivalent - WWTP

The design p.e. of the septic tank is 400. No details were given in the application for the design p.e. of any proposed new WWTP. Due to the overloading of the plant, it is a requirement of planning that any development that is currently taking place in the village must provide its own treatment prior to discharge to the public sewer. It should be noted that whilst this requirement addresses the problem of additional organic load to the WSA's WWTP, it does not prevent additional hydraulic load entering the plant, thereby further reducing its efficiency.

1.6 Site Visit

A site inspection was undertaken as part of the site notice check in March 2009. A further site inspection was carried out the 20th December 2010. Further correspondence with Niall O'Mahony of Cork County Council, Skibbereen, Co. Cork, clarified issues arising from this licence application assessment, with particular regards to the status of any proposed works, as well as monitoring requirements.

2. Discharges to waters

2.1 Existing Discharges.

The primary discharge, SW01, discharges primary treated effluent into Glandore Harbour below the low water mark. There are no secondary discharges or storm water overflows within the agglomeration.

2.2 Proposed Discharges.

No details were given, in the application or during the assessment process, of any proposed discharges within the agglomeration.

2.3 Discharges - Urban Waste Water Treatment Regulations

The existing discharges are to transitional waters from an agglomeration which is less than 2,000 p.e. (745 p.e.). Under Article 7 of the Urban Waste Water Treatment Regulations (UWWT), 2001, the WSA is, for this agglomeration type and size, required to provide, what is defined therein as, 'Appropriate Treatment'. The WSA is not necessarily required to provide secondary treatment, and therefore, the discharge limits listed in part one of the second schedule in the above regulations do not automatically apply. Glandore Harbour is not designated a Sensitive Water, as listed in UWWT Regulations, as amended. Therefore, the requirements of Part Two of the Second Schedule do not apply.

'Appropriate Treatment' is defined in the UWWT Regulations 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"*. The relevant directives, as transposed into Irish law, for this receiving water, are the Surface Waters Regulations 2009. Therefore, the discharge shall be regarded as appropriately treated provided the quality of the receiving waters is in compliance with Surface Waters Regulations. Appropriate Treatment, therefore, may include secondary or tertiary treatment. *Conditions 3.1, 3.3 and 5.2* of the Recommended Licence (RL) requires the licensee to identify appropriate improvements to the sewerage system, including the waste water treatment plant, that are necessary to ensure all discharge(s) from the agglomeration contribute towards achieving at least good status in accordance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as well as any other relevant water quality objectives.

3. Receiving waters and impact

The waters of Glandore Harbour are designated as Transitional by the South Western River Basin District (SWRBD). Based on conductivity measurements of the receiving water supplied with the application, the assessment of the quality of the receiving water will be in the context of full seawater salinity (35 psu). The following table summarises the main considerations in relation to Glandore Harbour of the primary discharge.

Table 3.0 Receiving waters

Characteristic	Classification	Comment
Receiving water name and type (for primary discharge)	Glandore Harbour, West Cork	Transitional Water (~35 psu). IE_SW_110_0300 Sheltered harbour opening to exposed coastal bay.
Resource use	Fishing	Small commercial fishing fleet.
Amenity value	Tourism	Swimming and other water contact sports, pleasure boating, whale watching excursions.
Applicable Regulations	Urban Waste Water Treatment Regulations 2001 (as amended) S.I. 254 of 2001 and S.I. 440 of 2004, SI 48 of 2010 EC Environmental Objectives (Surface Water) Regulations 2009 S.I. 272 of 2009	No Sensitive Water designation. Key Coastal Water Parameters: DO, MRP, BOD
Designations	None	No SAC, SPA, Bathing Water, Shellfish Water designations.
WFD status	Moderate	-
WFD Objective	Restore	Status Year: 2008
Pressures/ Risks	at risk	Point Source: WWTP (2005)

3.1 Quality of Receiving Waters

According to the Transitional and Coastal Action Plan (TraC) published by the South Western River Basin District (SWRBD) in 2010, the overall status of the Glandore Harbour Transitional Waters is 'Moderate', with the overall objective set as 'Restore by 2021' This overall status is not based on monitoring results, but is instead an extrapolated status. The TraC identifies the UWWT discharge in the harbour as a Pressures/Risk (Risk Assessment 2005).

Monitoring data supplied by the applicant was based on two samples taken on a single date in May 2008; one at a point 700 metres nominally 'upstream' of the discharge, the other at a point 400 metres nominally 'downstream' of the discharge point (see appendix). The freshwater inputs to this transitional water body are from a series of small streams located around the harbour. There is no discernible riverine flow in this harbour, and therefore, in the absence of any modelling, the notion of upstream and downstream locations within the harbour body is not, in this report, regarded as valid. The flow of water in the harbour is determined by a tidal regime. Furthermore, the samples were taken prior to the major influx of tourists to the agglomeration, and therefore, do not represent peak loads to the harbour. Nevertheless the data gives some indication of the quality of water in the region of the discharge. The results for the key transitional General Condition parameter of Biological Oxygen Demand (BOD) indicate compliance with the Surface Waters Regulations. The limit of detection for Molybdate Reactive Phosphorous is not sufficiently low to indicate compliance, but does nonetheless demonstrate good water quality. There was no result for the other key General Condition parameter, Dissolved Oxygen.

3.2 Impact of Discharge on Receiving Waters

The value of the WSA monitoring data set is somewhat limited by virtue of the single sampling date. However, both locations show low values for all parameters, and the locations show little variance between their values, which give some indication that the effluent is being effectively dispersed and having little impact on the harbour. This conclusion is backed up by the Skibbereen/Clonakilty Water Management Unit Report, 2010 (WMU), which states that, while the WWTP is identified as a pressure, there is no evidence of impact on the receiving waters. For the longer term the WSA need to establish, in agreement with Agency, a suitable monitoring regime to more accurately determine the impact of the discharge, as provided for by Condition 4.14.

4. Monitoring

4.1 Discharge

Due to the onerous nature of sampling and analysing primary treated effluent, as well as considering the relatively low value of the subsequent analysis data, there is no requirement in the RL for monitoring the current primary discharge. As provided for, in principle, in *Conditions 1.7.2 and 3.3*, proper maintenance of a septic tank which is working within capacity, should be sufficient to ensure optimum primary treatment. Upon completion of any proposed WWTP, monitoring shall be in accordance with *Schedule B.1* of the RL.

4.2 Ambient

An improved level of ambient monitoring may be beneficial for the harbour for the remainder of the current WWTP's lifetime, as well as for any proposed WWTP and discharge. This may not only be helpful in ensuring the WFD objective of 'no deterioration', but also helpful in establishing the actual quality of the receiving water. (As previously mentioned, the 'moderate status' by the SWRBD to the harbour is based on extrapolated data from a similar waterbody; the limited monitoring done for the purposes of this application suggests the water quality may be worthy of 'good' status.) *Schedule B: Monitoring* of the Recommended Licence requires the WSA to agree with the Agency, the requirements (location and frequency) for ambient monitoring.

5. Assessment Summary and Conclusion

The SWRBD (TraC) reports the water quality status of Glandore Harbour as 'moderate' and at risk from the WWTP discharges in the area. However the Skibbereen/Clonakilty WMU specifically states that there is no evidence of impact from the Union Hall discharge. This reflects the limited evidence from the applicant monitoring which suggests the waters in the vicinity of the discharge are of 'good' status. An improved ambient monitoring regime, as provided for in Condition 4.14 of the licence, will help give a more accurate assessment of the Union Hall discharge on Glandore Harbour.

Notwithstanding the requirements of the UWWT Regulations, detailed in Section 2.3 above, it would seem prudent, in the longer term, to improve the level of treatment for UWWT discharges to Glandore Harbour; especially considering its use for water contact sports and activities. The RL sets emission limit values (ELVs) in accordance with Part One of Schedule Two of the above regulations. In line with Waste Water Discharge Authorisations for similar discharges, the RL also sets ELVs for Total Oxidised Nitrogen, Ammonia, and Orthophosphate. These ELVs will apply after the 31st December 2020 or upon completion of the proposed WWTP; whichever is the sooner. This date has been chosen to ensure that, within a pragmatic timeframe, the WFD objective of 'Restore by 2021' is met.

6. Combined Approach

The Waste Water Discharge Authorisation Regulations, 2007 (S.I. No. 684 of 2007) 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 (S.I. No. 254 of 2001) 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 S.I. No. 684 of 2007.

7. Programme of Improvements

A proposed wastewater treatment plant (WWTP) is to be constructed, although no completion date was given by the applicant or DoEHLG. This proposed WWTP will provide preliminary and secondary treatment or their equivalent, to achieve the discharge standards set in Schedule One of the Urban Waste Water Treatment Regulations, 2001. (S.I. No. 254/2001) as amended. The Recommended Licence specifies that the WWTP and ancillary works shall be complete by 31st December 2020, to help Glandore Harbour achieve 'good status' by the TraC Action Plan deadline of 2021.

8. Compliance with EU Directives

In considering the application, regard was held for the requirements of Regulation 6(2) of the Waste Water (Discharge) Authorisation, Regulations, 2007 (S.I. No. 684 of 2007) notably:

Drinking Water Abstraction Regulations

Union Hall agglomeration discharges to transitional waters. Therefore, there are no water abstraction points and the above regulations do not apply.

Sensitive Waters

Glandore Harbour is not designated as a Sensitive Water under the UWWT Regulations (Amendment) 2004. Therefore, the UWWT Regulations, 2001 limits for Total Phosphorous and Total Nitrogen limits do not apply.

Water Framework Directive [2000/60/EC]

The RL, as drafted, transposes the requirements of the Water Framework Directive. In particular, *Condition 3. Discharges*, provides conditions regulating discharges to water, while *Schedule A: Discharges*, specifies limit values for those substances contained within the wastewater discharge. Those limits specified in the RL are determined with the aim of restoring to good water quality status.

European Communities Environmental Objectives (Surface Water) Regulations 2009, S.I. No. 272 of 2009

Condition 5 and the ELV's set in *Schedule B* of the RD satisfy the requirements of the above regulations, in particular, Article 7 and the relevant parameters listed in Schedule 5 of said regulations.

Urban Waste Water Treatment Directive [91/271/EEC]

The Union Hall agglomeration complies with the requirements of the Urban Waste Water Treatment Directive in terms of the level of treatment provided. The RL, as drafted, has regard to the requirements of the Urban Waste Water Treatment Directive.

The current and proposed WWTP, as required by Annex 1.D of the Urban Waste Water Treatment Directive, are required to provide appropriate treatment for the agglomeration. Union Hall currently complies with the requirements of the Urban Waste Water Treatment Directive, in terms of the level of treatment provided (i.e. Appropriate Treatment as defined therein). No ELV's or monitoring frequencies are specified in the Directive for an agglomeration of this type and size. The RL, as drafted, has regard to the requirements of the Urban Waste Water Treatment Directive.

Bathing Water Directive [2006/7/EC]

Glandore Harbour is not designated as a Bathing Water, although there is some water contact activity in the vicinity of the existing and proposed discharges. However, no further measures are required to comply with the above directive.

EC Freshwater Fish Directive [2006/44/EC]

The Union Hall agglomeration discharges to transitional waters. Therefore, the above directive does not apply.

Shellfish Waters Directive [2006/113/EC]

There are no designated Shellfish Waters in the vicinity of the Union Hall agglomeration discharge. Therefore, the above directive does not apply.

Dangerous Substances Directive [2006/11/EC]

The applicant has provided sampling results for 19 of the 19 dangerous substances in the primary discharge for the purposes of the licence application. The measured concentrations are not considered significant. The initial screen for the application is therefore considered sufficient and the agglomeration is compliant with the Dangerous Substances Directive.

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

There are no water dependent SAC's or Special protected Areas (SPA's), in the vicinity of the harbour. Therefore, the above directives do not apply.

Cross Office Liaison

I consulted with Shane O'Boyle of the EPA's Office of Assessment in relation to the quality of the receiving waters. Advice and guidance issued by the 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.

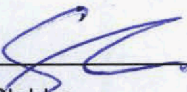
10. Charges

The RL sets an annual charge for the agglomeration at €1,896.72 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



Gavin Clabby

Office of Climate, Licensing and Resource Use

Appendix

