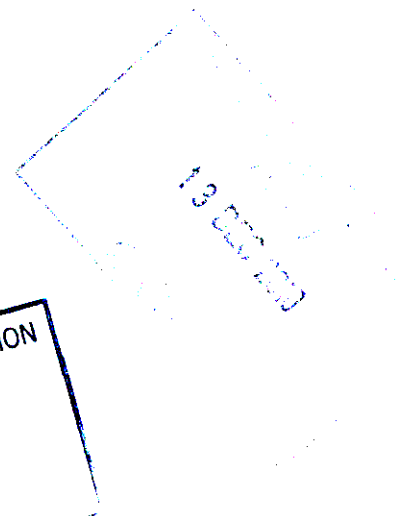




COMHAIRLE | CLARE
CONTAE AN CHLÁIR | COUNTY COUNCIL

Administration
Environmental Protection Agency
Office of Climate,
Licensing and Resource Use,
PO Box 3000
Johnstown Castle Estate,
Wexford



Your Ref D0324-01

9th December 2010

**RE: NOTICE IN ACCORDANCE WITH REGULATION 18(3)(B) OF THE
WASTE WATER DISCHARGE (AUTHORISATION) REGULATIONS 2007**

Dear Sir/Madam

Further to your letter re: Article 16 Compliance Requirements for Doonbeg Wastewater Treatment Plant please find attached:

Article 16 Compliance Requirements Response with the following attachments:

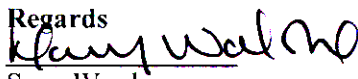
Attachment 1: Doonbeg WWTP Monitoring Results 2008 to date

Attachment 2: L8/08 Miltown Malbay WWTP with the following attached:

- Attachment 1: L8/08 Doonbeg WWTP
 - Attachment 1: Plant Description
 - Attachment 2: Whitstrand Bathing Water Results 2005 onwards
 - Attachment 3: Monitoring Results Doonbeg WWTP

The above has been submitted on one original + one copy + one CD-ROM

Regards

P.P. 
Sean Ward
Senior Engineer

Comhshaol agus Seirbhísí Uisce
Áras Contae an Chláir, Bothar Nua, Inis, Co. an Chláir
C:\Documents and Settings\mwalshe\Local Settings\Temporary Internet Files\OLK\A8\Cover Letter.doc
T: 065 6821616 F: 065 6821915

Environment & Water Services

Áras Contae an Chláir, New Road, Ennis, Co. Clare
E: waterservices@clarecoco.ie W: www.clarecoco.ie



Article 16 Compliance Requirements

The responses to this request are set out in the numerical order in which they occur in the original request

1. *Clarify the name of the agglomeration to which the Waste Water Treatment Discharge Licence application relates:*

The Agglomeration name is **DOONBEG**

2. *Provide an update of Section B.10 of the Application – Capital Investment Programme and Specify the proposed dates for completion of upgrade works:*

No further works are pending for Doonbeg in the current WSIP

3. *Submit updated monitoring data for the primary discharge:*

See **Attachment 3 of L8/08**

4. *Assessment of the impact of the discharge in relation to the requirements of the Environmental Quality Objectives Regulations (S.I. 272 of 2009)*

The treated effluent from the wastewater treatment plant discharges to Doonbeg Bay. The National Grid Reference for the Primary Discharge Point P(SW1) at the end of the outfall pipe is (E496,837 N667,339).

A full description of the treatment Plant and outfall location is set out in the licence application D0324-01, and shown in **Attachment 1 of L8/08**.

Bathing water quality is assessed on a fortnightly basis, during the bathing water season, by Clare County Council, at Whitestrand Beach located in the townland of Killard, as indicated in **Attachment 2 of L8/08**. The bathing water monitoring point is located less than 1.5 km from the effluent discharge point from Doonbeg WWTP. Monitoring data indicates 100% compliance with the guide limit values imposed for Blue Flag status bathing areas (significantly more stringent than the limit values of the Bathing Water Regulations 1992, as amended by the 2008 Regulations).

Licence Register Number: D0324-01

In addition effluent quality test results from the primary discharge point for BOD, COD and suspended solids have been satisfactory in 2008 and 2009 as indicated in **Attachment 3 of L8/08**.

5. *Appropriate Assessment*

See **Attachment 1**.

6. *Clarify whether the storm water overflows comply with the DoEHLG "Procedures and Criteria in relation to Storm Water Overflows, 1995"*

Please note that there is a stormwater overflow facility at the pumping station situated in the village of Doonbeg. There is no record as to the frequency or quantity of stormwater discharged at this pumping station

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**Waste Water Discharge Certificate of Authorisation for
Doonbeg Agglomeration D0-01**

Flow chart from Appendix 1 of Circular L8/08 from DoEHLG

**1. Is the development in a nature
conservation site**

No

**2a. (If the development involves a surface water discharge)
Is the development in the surface water catchment
of a nature conservation site (or part of such a
site)?**

No

**4. Is the development in the surface or
groundwater catchment of other water
dependent Annex II species, other rare or
protected species or salmonid waters?**

No

**No further action
required**

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WASTE WATER DISCHARGE LICENSING

Doonbeg L8/08 Assessment Licence Application D0324-01

Assessment of Significance of the discharge

Referring to the L8/08 Circular, the following queries are raised and answered:

1. Is the development in or on the boundary of an SAC/NHA etc **No**
2. Will nationally protected species be directly impacted? **No**
3. Is the development a surface water discharge or downstream of a conservation site with water dependent qualifying habitats/species? **Yes**
4. Is the development a groundwater discharge/abstraction? **No**
5. Is the development in the surface water or groundwater catchment of salmonid waters? **No**
6. Is the treatment plant in an active/former floodplain? **No**
7. Is the development a surface water discharge to/from marine waters and within 3km of a marine conservation site? **No**
8. Will the project in combination with other projects (existing and proposed) or changes to such projects affect the hydrology or water levels of sites of conservation interest or habitats of protected species? **No**

L8/08 states that if the conclusion of the screening process above is to “Assess Impacts” then the project must be referred to the DEHLG Developments Application Unit. As the conclusion of the screening process is that there is no discernable impact, the application has not been referred to the DEHLG Developments Application Unit.

The Doonbeg Wastewater Treatment Plant (WWTP) serves a population equivalent of 1500. A full description of the treatment plant and outfall location is set out in the licence application (D0324-01).

The Doonbeg Wastewater Treatment plant consists of an Activated Sludge Process. All sewage gravitates to the main pumping station situated in the village of Doonbeg. It is then pumped to the wastewater treatment plant located at Mc Graths Point in Doonbeg. The wastewater treatment plant consists of a Primary Settlement Tank, Aeration Tank, Clarifier, Sludge Holding Tank and Ultra Violet Treatment.

The treated effluent discharges to Doonbeg Bay. The National Grid Reference for the Primary Discharge Point P(SW1) at the end of the outfall pipe is (E496,837 N667,339).

A full description of the treatment Plant and outfall location is set out in the licence application D0324-01, and shown in **Attachment 1**.

Bathing water quality is assessed on a fortnightly basis, during the bathing water season, by Clare County Council, at Whitestrand Beach located in the townland of Killard, as indicated in the map. The bathing water monitoring point is located less than 1.5 km from the effluent discharge point from Doonbeg WWTP. Monitoring data indicates 100% compliance with the guide limit values imposed for Blue Flag status bathing areas (significantly more stringent than the limit values of the Bathing Water Regulations 1992, as amended by the 2008 Regulations). See **Attachment 2**.

In addition effluent quality test results from the primary discharge point for BOD, COD and suspended solids have been satisfactory in 2008 and 2009 as indicated in **Attachment 3**.

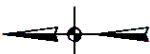
Therefore, based on the above data there is presently no discernable impact associated with water quality in Doonbeg Bay / Doonbeg Estuary from the wastewater treatment facility in Doonbeg.

Please note that during the preparation of the licence application, ambient sampling was undertaken at the locations, SW1u and SW1d, to determine the impact on water quality below the outfall of the primary discharge point. Refer to Map 1 attached. After a close examination of the test results it would appear that laboratory analysis did not take into account the saline nature of these ambient water samples. Unrepresentative test results have occurred due to interference by high levels of chlorine naturally present in the water samples. Therefore these results could not be used in the determining the final impact on water quality.

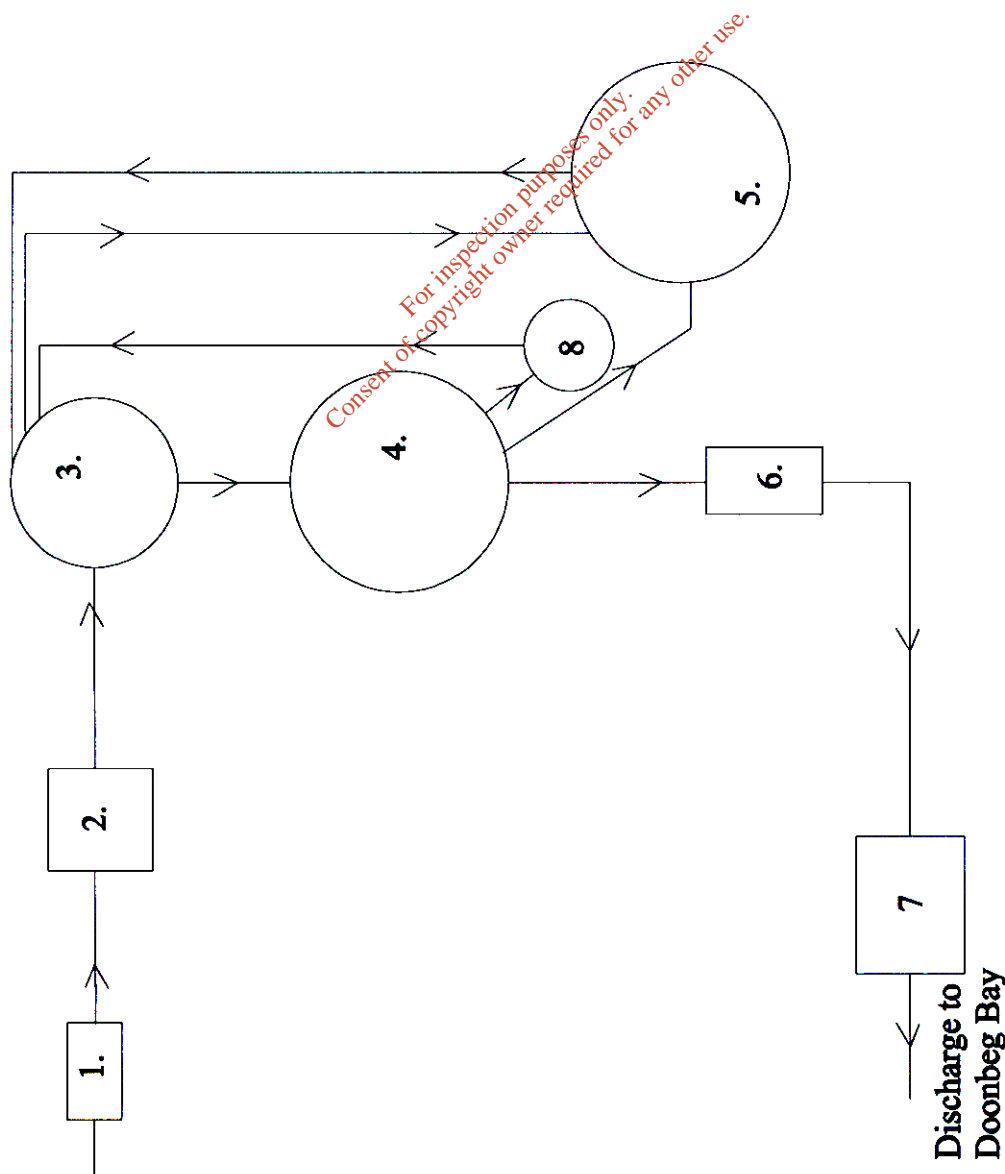
Attachment 1: Doonbeg WWTP Plant Description

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NORTH



- 1. Pumping Station
- 2. Primary Settlement Tank
- 3. Aeration Tank
- 4. Clarifier
- 5. Sludge Holding Tank
- 6. Ultra Violet Treatment
- 7. Final Effluent Chamber
- 8. RAS/WAS Pumps



FLOW DIAGRAM FOR DOONBEG WWTW

Revision	Description of Changes Made	By	Date
-	-	-	-

CLARE COUNTY COUNCIL
 Design Office, Area Control and Control, New Road, Ennis, Co. Clare
 T: 085 8821918 F: 085 88 21918 E: design@clarecoco.ie W: www.clarecoco.ie
 David L. Trellis, BE, BA, MEng, CEng, FIEI, Director of Services

Project Title: DOONBEG WASTEWATER TREATMENT PLANT
 EPA LICENCE APPLICATION

Drawing Title: FLOW DIAGRAM

Drawing No.: 09 Rev.: 00 Status: -- Scale: NTS

Design By: Joe Mc Guire Checked By: --
 Project No.: -- Drawn By: Joe Mc Guire Date: 17TH FEBRUARY 2009
 Server Location: --

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Attachment 2: Whitestrand Beach Results up to 2010

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Table 1

Bathing Water Quality Directive 76/160/EEC guideline limits	Microbiological analysis			Physico-chemical analysis						
	Coliform Bacteria per 100 ml sample	Faecal Coliforms per 100 ml sample	Faecal Streptococci per 100 ml sample	Colour	Mineral Oils	Phenols	Surfactants	Tarry Residues/ Floating Matter	Transparency	
5000	1000	100	300	No abnormal change	No film visible. No odour	No odour	No lasting foam	Absent	>2m	
100000	2000									
Quality of Bathing Water Regulations, 1992 Mandatory limits										
2005										
052201096	16/05/2005	1	0	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202036	31/05/2005	6	0	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202123	07/06/2005	17	0	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202198	14/06/2005	4	0	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202277	21/06/2005	6	2	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202366	28/06/2005	10	0	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202435	05/07/2005	28	0	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202847	27/07/2005	33	12	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202734	09/08/2005	179	20	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202820	16/08/2005	109	17	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052202822	23/08/2005	236	75	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052203000	30/08/2005	38	13	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
052203098	06/09/2005	179	27	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
05222498	12/07/2005	48	9	<5	No film visible. No odour	No odour	No lasting foam	Absent	>2	
2006										
062201027	16/05/2006	15	0	20	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201167	30/05/2006	44	0	20	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201216	07/06/2006	21	18	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201261	13/06/2006	411	65	2.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201331	20/06/2006	11	5	2.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201383	27/06/2006	159	10	2.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201445	04/07/2006	40	4	15	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201556	18/07/2006	43	18	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201620	25/07/2006	89	70	7.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201719	08/08/2006	228	52	15	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201776	15/08/2006	218	93	15	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201820	22/08/2006	113	48	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
062201876	29/08/2006	66	45	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
2007										
072200774	22/05/2007	1	0	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
07220825	28/05/2007	12	<1	7.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
07220908	05/06/2007	74	3	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
07220964	12/06/2007	93	88	7.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201053	26/06/2007	20	0	7.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201139	10/07/2007	6	0	7.5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201168	16/07/2007	105	5	15	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201244	23/07/2007	73	14	25	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201331	01/08/2007	17	17	15	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201377	08/08/2007	248	1	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201423	14/08/2007	272	29	25	No film visible. No odour	No odour	No lasting foam	Absent	>1	

Table 1

	Microbiological analysis			Physico-chemical analysis						
	Coliform Bacteria per 100 ml sample	Faecal Coliforms per 100 ml sample	Faecal Streptococci per 100 ml sample	Colour	Mineral Oils	Phenols	Surfactants	Tarry Residues/ Floating Matter	Transparency	
Bathing Water Quality Directive 76/160/EEC guideline limits	500	100	100	No abnormal change	No film visible. No odour	No odour	No lasting foam	Absent	>2m	
Quality of Bathing Water Regulations, 1992 Mandatory limits	5000	1000	300							
072201476	210	2	<10	30	No film visible. No odour	No odour	No lasting foam	Absent	>1	
072201533	20	20	10	15	No film visible. No odour	No odour	No lasting foam	Absent	>1	
2008										
082201325	20/05/2008	26	10	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201474	03/06/2008	14	<10	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201544	10/06/2008	69	10	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201636	16/06/2008	6	10	<5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201719	24/06/2008	26	10	<5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201796	01/07/2008	24	<10	<5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201883	08/07/2008	2	10	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201988	22/07/2008	0	10	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082202058	28/07/2008	9	<10	<5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082202131	06/08/2008	207	10	11	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082202190	12/08/2008	52	31	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082202267	18/08/2008	28	1	1	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082202346	26/08/2008	12	<1	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	
2009										
082201181	18/05/2009	1	<10	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201247	25/05/2009	488	20	13	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201328	02/06/2009	5	<10	13	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201431	09/06/2009	12	<10	17	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201475	15/06/2009	2	<10	22	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201615	29/06/2009	3	<1	13	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201723	13/07/2009	326	46	23	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201787	27/07/2009	435	20	10	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082201936	11/08/2009	68	30	7	No film visible. No odour	No odour	No lasting foam	Absent	>1	
082202032	24/08/2009	29	52	5	No film visible. No odour	No odour	No lasting foam	Absent	>1	

Attachment 3: Monitoring Data for the Primary Discharge

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Attachment 3

Doonbeg WWTP Monitoring Results 2008 to date

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Doonbeg WWTP Monitoring Results

Date	BOD		COD		Suspended Solids	
	Influent	Effluent	Influent	Effluent	Influent	Effluent
29/01/08	140	4	264	52	196	36
12/03/08	240	6	267	43	213	27
22/04/08	165	5	345	53	113	9
14/05/08	270	15	410	30	130	16
30/06/08	135	14	260	28	112	17
24/07/08	160	9	320	41	61	2
19/08/08	150	15	280	48	112	12
30/09/08	120	18	230	66	168	10
14/10/08	200	15	510	39	165	10
25/11/08	250	18	492	46	170	20
15/12/08	254	5	488	35	122	17

Date	BOD		COD		Suspended Solids	
	Influent	Effluent	Influent	Effluent	Influent	Effluent
12/01/09	132	6	230	48	189	20
27/02/09	210	10	326	32	198	15
30/03/09	189	5	290	42	121	9
15/04/09	310	15	510	26	130	12
13/05/09	188	12	296	21	132	15
22/06/09	145	5	276	34	68	2
08/07/09	159	8	310	45	98	5
09/09/09	118	6	319	15	136	12
31/10/09	73	4	220	8	113	16
30/11/09	50	26	82	49	44	16
14/12/09	152	12	198	31	78	12

Date	BOD		COD		Suspended Solids	
	Influent	Effluent	Influent	Effluent	Influent	Effluent
19/01/10	152	12	198	31	78	12
24/02/10	168	10	277	17	76	11
30/03/10	86	8	198	19	52	7
15/04/10	52	5	164	23	49	8
28/05/10	178	6	289	19	88	7