Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

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Signed: N. Kearey Date: 08/05/13

INSPECTORS REPORT ON A WASTE WATER DISCHARGE LICENCE APPLICATION

To:	Dara Lynott, Director	
From:	Aoife Loughnane	Environmental Licensing Programme
Date:	8th May 2013	
RE:	Application for a Waste Water Discharge Licence from Meath County Council for the **Carlanstown** agglomeration, **Reg. No. D0488-01.**	

Application Details	
Schedule of discharge licensed:	Discharges from agglomerations with a population equivalent of 500 to 1000
Licence application received:	22/06/2009
Notices under Regulation 18(3)(b) issued:	None
Information under Regulation 18(3)(b) received:	None
Site notice check:	09/07/2009 (Patrick Morris, OCLR)
Site visit:	13/02/2013 (A. Loughnane & L. Joyce)
Submissions Received:	None

1. Agglomeration

This application relates to the Carlanstown agglomeration in County Meath. The agglomeration had a population equivalent (p.e.) of 604 in 2011. The p.e. is projected to increase to 731 by 2016. There are no identified sources of industrial waste water in the agglomeration.

Since 2002, the agglomeration has been served by a waste water treatment plant (WWTP) which provides secondary treatment with nutrient removal. The WWTP design capacity is 820 p.e. The plant consists of inlet works with storm water overflow, screening chamber, aeration tank, ferric sulphate dosing system, clarifier and a sludge holding tank. There is also an anoxic tank, however it has never been commissioned.

2. Discharges to waters

Primary Discharge

The primary discharge (SW001) is the outfall from the WWTP to the Moynalty River, adjacent to the WWTP. At 95%ile flow in the river (0.19 m^3/sec), there are approximately 126 dilutions available for the projected normal waste water discharge (0.0015 m^3/sec). The 95%ile river flow was provided by the Office of Environmental Assessment. The applicant's 2011 treated effluent monitoring results are shown in Table 1. The results show that the WWTP performs to a reasonable standard.

Table 1. WWTP monitoring results 2011 (average based on 6 samples)

Parameter	BOD (mg/l)	COD (mg/l)	Suspended solids (mg/l)	Total Nitrogen (mg/l)	Total Phosphorus (mg/l)
Average effluent	9	86	19	32.6	5.5

Secondary Discharges

There are no secondary waste water discharges from the agglomeration.

Storm water overflows

There is one storm water overflow (SWO) from the WWTP inlet works which discharges to the Moynalty River via the primary discharge point. Condition 4 of the RL requires the SWO to comply with DoECLG criteria for SWOs.

Emergency overflows

There are no pumping stations or emergency overflows in the agglomeration.

3. Receiving waters and impact

The receiving water is the Moynalty River which is located in the Eastern 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	Moynalty River IE_EA_07_940	Enters the Blackwater (Kells) 6.8km d/s of SW001.
Relevant designations within 10km	River Boyne and River Blackwater SAC (site code 002299)	6.8 km d/s of SW001
Drinking water abstraction within 10 km d/s	None identified	
EPA monitoring stations & Biological quality rating (Q value)	U/s station RS07M030800 located 200m u/s D/s station RS07M030900 located 5km d/s	Upstream Q3 in 2012 Downstream Q3 in 2012
WFD status	Poor	2010
WFD Risk Category	1a – at risk	
WFD Objective	Restore good status by 2021	Extended deadline in Blackwater North Water Management Unit Plan
WFD protected areas	RPA drinking water groundwater	

Ambient water quality monitoring data for the Moynalty River provided by the Local Authority in accordance with the Water Framework Directive is summarised in Table 3 below. The results show that BOD and ammonia levels upstream and downstream of the primary discharge comply with the good status water quality standards in the Environmental Objectives Regulations 2009, as amended. However, orthophosphate levels upstream and downstream of the primary discharge do not comply with the good status standard.

Table 3. Water Quality in Moynalty River (2010-2011, average based on 6 samples)

Parameter (mg/l)	RS07M030800 200 m u/s of SW001	RS07M030900 5 km d/s of SW001	Water Quality Standards Note 1
BOD	1.36	1.45	≤ 1.5 mg/l (mean)
Orthophosphate (as P)	**0.04**	**0.04**	≤ 0.035 mg/l (mean)
Ammonia (as N)	0.02	0.04	≤ 0.065 mg/l (mean)

Note 1: Good status under the European Communities Environmental Objectives (Surface Waters) Regulations 2009, as amended.

Table 4 below summarises the mass balance calculations which show the impact of the primary discharge on the receiving water at the projected loading of 731 p.e. in 2016. The calculations use the 'notionally clean river' approach (a hypothetically clean stretch of river) provided by the Office of Environmental Assessment.

Table 4. Mass Balance Calculations

Parameter (mg/l)	Proposed ELVs for Primary discharge	Contribution from primary discharge	Contribution from notionally clean background Note 1	Predicted Downstream concentration	Water Quality Standards Note 2
BOD	25	0.2	0.258	0.458	≤ 2.6
Orthophosphate (as P)	2	0.016	0.005	0.021	≤ 0.075
Ammonia (as N)	5	0.04	0.0079	0.048	≤ 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 and ammonia will comply with the good status standards in the Environmental Objectives Regulations 2009 as amended, at the proposed ELVs of 25 mg/l BOD, 2 mg/l orthophosphate (as P) and 5 mg/l ammonia (as N). These ELVs are considered achievable based on the operational performance of the WWTP.

4. Site Visit

Inspector Loretta Joyce and I visited the Carlanstown agglomeration on 13th February 2013 and met with representatives of Meath County Council. We visited the WWTP and viewed the location of the primary discharge and storm water overflow into the Moynalty River.

5. Ambient Monitoring

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

- Upstream: The location identified by Meath County Council is aSW-1u (grid ref. 276470E, 279239N) approximately 200 m upstream of SW001. This is also an EPA monitoring station (EDEN code RS07M030800) and has been included in the RL.
- Downstream: The location identified by Meath County Council is aSW-1d (grid ref. 277093E, 279106N) approximately 370 m downstream of SW001. It has

been included in the RL as a new national monitoring station and has been assigned EDEN code RS07M030820.

6. Programme of Improvements

There are no planned improvements proposed by the applicant and the RL does not require any improvements at Carlanstown WWTP.

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 5. Compliance with EU Directives / Regulations

Compliance with Directives/Regulations	Description and Conditions in RL
Urban Waste Water Treatment Directive [91/271/EEC]	Carlanstown WWTP provides 'appropriate treatment'
Water Framework Directive [2000/60/EC]	Good status to be restored by 2021
EC Environmental Objectives (Surface Water) Regulations 2009, S.I. No. 272 of 2009	Schedule A of RL sets ELVs to contribute towards achieving 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.
Birds Directive [79/409/EEC] & Habitats Directive [92/43/EEC]	Screening for Appropriate Assessment (AA) demonstrates that the discharges, individually or in combination with other plans or projects, are not likely to have significant effects on any European Sites due to the scale of the discharges and the results of ambient monitoring which shows no deterioration in the water quality of the River Boyne and River Blackwater SAC upstream and downstream of the confluence with the Moynalty River, into which the primary discharge outfalls. AA was not required.
Environmental Impact Assessment Directive [85/337/EEC]	An EIS was not required for Carlanstown WWTP.
Environmental Liability Directive	Condition 7.2 of RL

8. Submissions

No submissions were received in relation to this application.

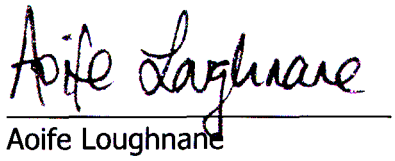
9. Charges

The RL sets an annual charge for the agglomeration at €2,962.77 and is reflective of the monitoring and enforcement regime being proposed for the agglomeration.

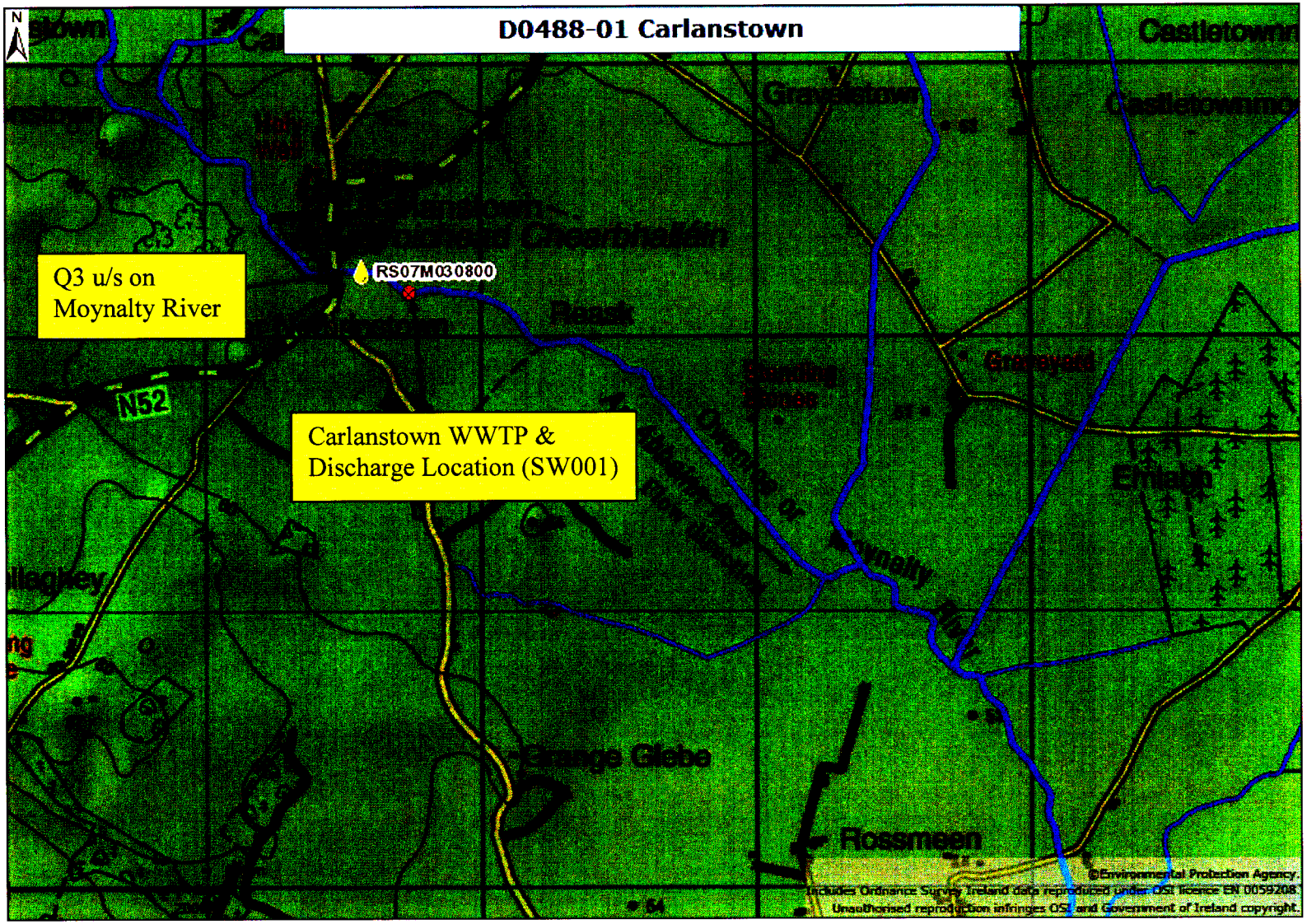
10. Recommendation

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



Aoife Loughnane
Inspector
Environmental Licensing Programme


D0488-01 Carlanstown
Q3 u/s on Moynalty River
RS07M030800
Carlanstown WWTP & Discharge Location (SW001)
N52
Rossmeen
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