Comhairle Contae Chorcaí Cork County Council

Administration, Environmental Licensing Programme, Office of Climate, Licensing & Resource Use, Environmental Protection Agency, PO Box 3000. Johnstown Castle Estate, Co. Wexford.

4th February, 2011.

Halla an Chontae, Corcaigh, Éire.

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Re:

Waste Water Discharge Certificate of Authorisation Application for a new WWTP for the Agglomeration of Courtbrack, Co. Cork (Appliation Reg. NO. A0437-01) Notice in accordance with Regulation 35(c)iFof the Waste Water Discharge (Authorisation) Regulations 2007.

Dear Sir/Madam,

Regarding your letter on the above application dated 14th December 2010, please find enclosed responses to each request for clarification. As part of the response the following drawing has been revised;

Drawing Title Map 5

Drawing No.

Revision

C006808-C-Map 5

P2

In accordance with your letter, 2 no. hard copies of the response text and the revised drawing are enclosed along with 1 no. CD-ROM containing the response documents.

The content of the electronic files is a true copy of the original hard copy.

Yours faithfully,

PATRICIA POWER.

DIRECTOR OF SERVICES.

AREA OPERATIONS SOUTH.

FLOOR 5.

O'Leary/O'Sullivan and Cork County Council Courtbrack WWTP Discharge Certificate

Response to EPA RFI

Date: January 2011 Project No.: C006808 Document Issue: 1



Clarification 1:

Assess the likelihood of significant effects of the waste water discharge(s) from the above agglomeration on the relevant European sites by referring to Circular L8/08 'Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments' issued by the Department of Environment, Heritage and Local Government. In particular, the flow diagram in Appendix 1 should be completed and the results of each section recorded. Provide details of the results of this assessment within one month of the date of this notice.

If significant effects are likely then an appropriate assessment must be carried out and a report of this assessment forwarded to the Agency within one month of the date of this notice.

You are advised to provide the requested information in accordance with the 'Note on Appropriate Assessments to for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. 684 of 2007)' which is available at www.epa.ie/downloads/forms/lic/wwda/.

Response 1:

The closest conservation site to the proposed Courtbrack discharge location is the Shournagh River Valley proposed Natural Heritage Area (NHAN The proposed discharge is located approximately 2.5km upstream of the proposed NHA See attachment F1 of the original application for the site synopsis and location of the proposed NHA relative to the proposed discharge location.

The next closest site is the Lee Valley proposed NHA which is located approximately 14km downstream of the proposed discharge location. The site synopsis is included in attachment F1, included in the original application.

In accordance with Clause 5 of Groular L8/08, "In the case of potential impacts on Natura 2000 or European sites (SACC and SPAs, including any candidate sites), AA (appropriate assessment) is required under Article 6(3) of the Habitats Directive". This is not applicable to the proposed WWTP at Courtbrack as the conservation sites downstream of the proposed WWTP are not SACs or SPAs. Therefore, an appropriate assessment is not required under Clause 5.

Following the flow diagram included in Appendix 1 of Circular L8/08, no further action is required. The following is a summary of the steps taken when following the flow diagram:

- 1. The development is **not** in a nature conservation site Proceed to 2a.
- 2. The development **is** in the surface water catchment of a proposed nature conservation site (Shournagh River Valley proposed Natural Heritage Area) Proceed to 3.
- 3. The qualifying habitats and species of the NHA site downstream of the development are terrestrial woodlands and **not** water dependant Proceed to 4.
- The development is **not** in the groundwater catchment of other water dependant Annex II species, other rare or protected species or salmonid waters – Therefore no further action is required.

Although no further action is required, the impact of the development on water quality downstream was carried out in the form of assimilative capacity calculations. As detailed in the original application, the proposed discharge standards are based on assimilative capacity

O'Leary/O'Sullivan and Cork County Council Courtbrack WWTP Discharge Certificate

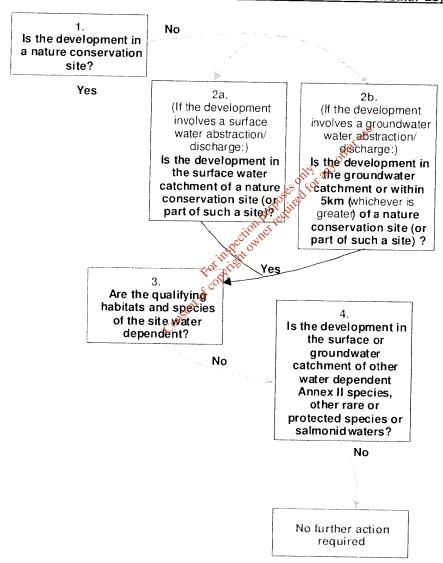
Response to EPA RFI

Date: January 2011 Project No.: C006808 Document Issue: 1



calculations carried out in accordance with the European Communities Environmental Objectives (Surface Waters) Regulations 2009. It has been demonstrated in the assimilative capacity calculations that with the proposed discharge standards, the River Shournagh has sufficient assimilative capacity to maintain "good" status in accordance with the Surface Water Regulations 2009 following the introduction of the WWTP effluent. It has therefore been demonstrated that the proposed WWTP will not have a significant impact on the Shournagh River and the proposed Natural Heritage Areas located downstream of the proposed discharge location.

Selected Flow Path from Flow Diagram from Appendix 1 of Circular L8/08:



Client: Project Title: O'Leary/O'Sullivan and Cork County Council Courtbrack WWTP Discharge Certificate

Title of Document: Response to EPA RFI

Date: January 2011 Project No.: C006808 Document Issue: 1



Clarification 2:

Confirm the proposed population equivalent (p.e.) to be treated at the plant on commissioning. Please confirm that the proposed p.e. will include the maximum average weekly loading for the agglomeration having taken account of local festivals, peak holiday seasons etc.

Response 2:

Upon commissioning, the proposed WWTP will treat the existing load of 48PE (45PE domestic and 3PE non-domestic). The WWTP will be capable of serving a load of up to 250PE to account for future development in the village. It is not envisaged that there will be a substantial increase in loading during holiday periods. However, there will be sufficient spare capacity in the WWTP to serve any short term increases.

Clarification 3:

Please submit all relevant details requested under Section C: Infrastructure & Operation, of the application form. Include information on the operation of the proposed Waste Water Treatment Works for the above named agglomeration.

Response 3:

The information included in attachment F1 in the original application has been amended as follows:

APPLICATION FORM ATTACHMENT C1 (Amended)

AGGLOMERATION OVERVIEW FOR THE

Courtbrack is located 14 km Northwest of Cork City and approximately 7 km Northeast of Blarney. The Village lies to the north of the Shournagh River, which flows along the floor of a steep valley. Courtbrack does not have a public sewerage scheme and has no surface water drainage scheme in place. The existing houses are served by private individual septic tanks. It is proposed to construct a foul sewer collection system in the town in the near future.

PROPOSED PLANT DESCRIPTION

The proposed WWTP will have a treatment capacity of 250PE and is to be located to the west of the village. The WWTP will outfall to the Shournagh River to the south of the village via a pumped and gravity outfall pipeline. Emergency storage will be provided in the WWTP and it is not proposed to have emergency or storm water overflows from the WWTP

The proposed plant is to be procured under a Design Build Operate form of Contract. Therefore, the layout plan of the plant and detailed design of same are yet to be confirmed. However, an indicative WWTP layout plan and flow diagram have been attached to this document.

O'Leary/O'Sullivan and Cork County Council Courtbrack WWTP Discharge Certificate

Response to EPA RFI

Date: January 2011 Project No.: C006808 Document Issue: 1



The indicative WWTP layout plan is based on a conventional activated sludge process plant, including the following:

- 1. Inlet works comprising forward feed pump sump and both coarse and fine screens
- 2. Emergency Storage Tank
- 3. Activated sludge unit
- 4. Clarifier
- 5. Treated Effluent Pumping Station
- 6. Control building complete with welfare facilities

All flows to the proposed WWTP will pass through the inlet works, where they will be screened through both coarse and fine screens. The inlet works will incorporate a forward feed pumping station, which will include 2 no pumps, operating in a duty/standby arrangement. Emergency storage (24 hours – $45m^3$) and provision for connection to a portable generator will be provided at the inlet works pumping station.

The flow will be pumped forward from the inlet works to the activated sludge unit before proceeding to the clarifier, where sludge will be drawn off and either wasted or returned upstream of the activated sludge unit. The activated sludge unit and clarifier will be designed to cater for both the incoming flows to the WWTP, plus the return activated sludge from the clarifier. The treated effluent from the clarifier will flow to the treated effluent pumping station where it will be pumped to the outfall discharge point SWI. The treated effluent pumping station will include 2 no pumps that will operate on a duty/standby basis.

The WWTP will not include an emergency overflow to the adjacent watercourse. The Employers Requirements for the works include that all essential treatment equipment will have duty and stand by units to ensure that no environmental damage will occur due to breakdown of any equipment.

The majority of the flow to the WWTP will comprise domestic effluent, with a relatively small portion of the flow originating at commercial businesses such as shops and hairdressers.

The design hydraulic load on the WWTP will be $45 \, \text{m}^3/\text{day}$, based on a 250PE design loading and $180 \, \text{l/PE/day}$. The following table summarises the treatment standards for the proposed WWTP.

WWTP Effluent Discharge Standards		
Parameter	Limit	Units
Biochemical Oxygen Demand (BOD ₅)	25	mg/l
Chemical Oxygen Demand	125	mg/l
Suspended Solids (SS)	35	mg/l
Total Ammonia	2	mg/l-N
Nitrate	15	mg/l-N
Orthophosphate	2	mg/I-PO ₄

O'Leary/O'Sullivan and Cork County Council Courtbrack WWTP Discharge Certificate

Response to EPA RFI

Date: January 2011 Project No.: C006808 Document Issue: 1



The WWTP will be constructed by the DBO Contractor. The DBO Contractor will also operate and maintain the plant in the short term, following which; the plant will be operated and maintained by Cork County Council.

The DBO Contractor will be responsible for carrying out sampling and analysis during the initial operation and maintenance (O&M) period, after which Cork County Council will be responsible for same. The purpose of the sampling and analysis is to monitor compliance with the proposed discharge standards. The DBO Contractor/Cork County Council shall arrange for regular independent laboratory analysis throughout the O&M Phase. Flow measurement of the final effluent shall be downstream of any extraction points for re-use of effluent. Flow proportional or time based 24 hour samples shall be collected at the same well defined point at the inlet and outlet of the treatment works in order to monitor compliance with the requirements.

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