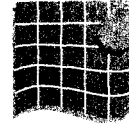


ENVIRONMENTAL PROTECTION  
AGENCY  
08 OCT 2009

The Environmental Protection  
Agency  
- 9 OCT 2009  
CORK

Administration  
Environmental Licensing Programme  
Office of Climate, Licensing & Resource Use  
PO BOX 3000  
Johnstown Castle Estate  
County Wexford



Marine Institute  
Foras na Mara

07 October 2009

**Re: Application for Waste Water Discharge Licence – Agglomeration of  
Middleton (Register Number D0056-01)**

Dear Sir / Madam

Please find enclosed submission form from the Marine Institute in relation to the above waste  
water discharge licence applications.

Yours sincerely

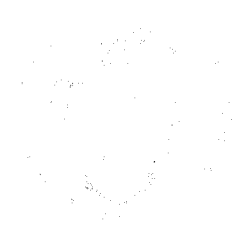
Dr. Terry McMahon

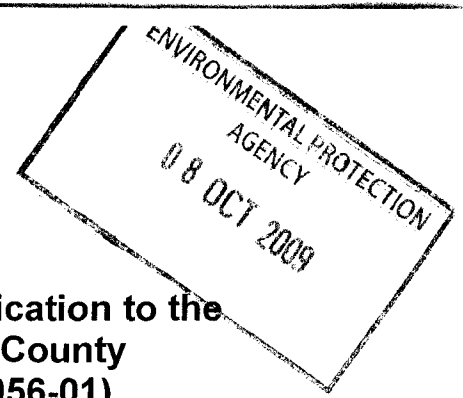
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Dr. Terry McMahon





## **Submission from the Marine Institute on the application to the EPA for a waste water discharge licence by Cork County Council, Southern Division (Register Number D0056-01)**

### **General considerations**

The Marine Institute makes the following submission with regard to the waste water discharge licence application from Cork County Council, Southern Division for the agglomeration of Midleton. In making this submission the primary concerns for the Marine Institute is to have regard to any potential impact on shellfish production and harvesting, principally by aquaculture operations, in the receiving environment.

The waste water discharges for the Midleton agglomeration discharge in close proximity to the North Channel area of Cork Harbour. The Great Island North Channel area is a designated shellfish water under the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. 268 of 2006 as amended).

It is the view of the Marine Institute that appropriate licence conditions must be set that ensure no deterioration of water quality as judged by the parameters and standards laid down in S.I. 268 of 2006, as amended, in any shellfisheries impacted by the discharge. In addition where practical, conditions should be set that require the applicant to endeavour to meet the guideline values set for parameters in regulations.

Waste water discharges that impact on shellfisheries may cause seafood safety issues when such shellfish are consumed. The major risk arises from contamination of the shellfish by human viruses. Therefore the Marine Institute further believes that licence conditions for waste water discharges must take account of the impact on shellfisheries which may have implication for public health when such shellfish are harvested for consumption. Any discharge must not increase, and should preferably decrease, the public health risk associated with the consumption of impacted shellfish.

The Marine Institute considers that licence conditions for the discharge must allow for compliance for the whole fishery rather than the designated sampling point.

The Marine Institute notes the Government's policy as laid out in the Programme for Government 2007 - 2012. In particular the commitment that "*Over the next 5 years this Government will work to ensure that Ireland's waters are the most pristine in Europe*" and that the Government will "*Continue to invest in waste water schemes to ensure that discharges into our rivers, lakes and coastal waters meet the highest international standards*".

## **Specific Comments**

### **Shellfish production and classification**

Oysters (*C. gigas*) are the main bivalve shellfish produced and harvested in the North Channel area

Oysters produced in inner the North Channel area are currently (July 2009) classified as category B under the shellfish hygiene regulations ( see <http://www.sfpa.ie/>). It is noted, however, that a prohibition on the harvesting of oysters in this area has been in place since 2002 due to viral contamination.

### **Infiltration / illegal surface water connections**

It is noted that Cork County Council has observed that the influent flow to the Midleton WWTP ranges from between 2 DWF (Dry Weather Flow) and 3DWF even during dry weather periods. Typical influent flow to the plant is 60 -100% of the design flow and the reasons for this are assumed by the Council to be significant infiltration / illegal surface water connections within the Midleton catchment. Specific provisions should be made by the Local Authority to address these issues and ensure excessive overflow discharges are significantly reduced.

### **Shellfish waters designation**

The Marine Institute believes that;

- The standards for the WWTP discharges must be set on the basis of the receiving water being a designated shellfish water and a requirement to comply with all the standards in the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. 268 of 2006).
- The standards for the WWTP should meet the guideline value for faecal coliforms in the whole shellfishery.

### **Primary discharge**

The Marine Institute believes that;

- The impact of the continuous discharge on the designated shellfish waters should be determined in conjunction with existing discharges and contamination sources that may impact the shellfishery and the overall

impact aggregated. Failure to do so could lead non compliance with environmental standards.

- The licence conditions should be set that ensure that water quality standards in the designated shellfish water must not cause deterioration as judged by the water quality parameters and standards set out in the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. 268 of 2006).
- Cork County Council should identify efforts to endeavour to meet guideline standards as required by the regulations. An evaluation of requirements to meet the guideline values should be laid out and built into the design for future improvements to the waste water works. Where an assessment is made that it is not possible to meet the required guideline values the reasons should be clearly identified.

### ***Storm overflow discharges***

The discharge of untreated effluent into shellfisheries can have a significant impact on the microbiological quality of shellfish. Contamination of shellfish by untreated effluent has been associated with outbreaks of illness where such shellfish have been consumed.

The Marine Institute believes that;

- The WWTP should be operated such that discharge of untreated effluent due to storm events is kept to a minimum.
- The frequency, duration and volume of significant overflow events must be recorded and reported as soon as practical to relevant bodies (Sea-Fisheries Protection Authority, Marine Institute, Food Safety Authority of Ireland and the Irish Shellfish Association) and on an annual basis.
- A programme of ongoing improvements to the network should developed with the aim of reducing, and if practical eliminating, the frequency and volume of untreated discharges to the receiving environment.

### ***Emergency Overflows***

The Marine Institute believes that;

- A system for detecting and recording the duration and volume of any emergency overflows must be in place. Such overflows must be reported

immediately to the Sea-Fisheries Protection Authority, Marine Institute and Food Safety Authority of Ireland.

### **Microbiological Monitoring**

The Marine Institute believes that;

- As a minimum, regular (fortnightly) monitoring of faecal coliform and *E. coli* levels in the influent and final effluent should be undertaken. Once a body of data showing compliance with the design standard criteria is in place there is scope to reduce the frequency of testing.

### **Public health**

The consumption of sewage contaminated shellfish can represent a significant public health risk. The principle risk associated with consumption of such shellfish arising from contamination with human viruses.

The Marine Institute believes that;

- The discharge must not cause an increased risk to public health by causing further contamination of bivalve shellfish harvested for consumption.
- It is noted that the designated shellfishery in the North the North Channel area of Cork harbour is currently closed because of virus contamination. Specific consideration should be given to the extent (if any) that the continuous or intermittent discharges associated with the WWTP contribute to the virus contamination found in the shellfish in this designated area.
- If the discharges are found to make a significant contribution to the viral load found in shellfish from the designated water consideration should be given to the provision of additional measures to reduce the viral load discharged.