

# Comhairle Contae Chorcaí Cork County Council

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**Environmental Protection Agency,  
P.O. Box 3000 Johnstown Castle Estate,  
County Wexford.**

27<sup>th</sup> June, 2008.

Re : Notice in accordance with Regulation 18(3)(b) of the Waste water Discharge  
(Authorisation) Regulations 2007

**Application : D0052-01 – Mallow Town & Environs**

For Attention : Ms. Maeve McHugh.

Dear Ms. McHugh,

Further to your letter of 4<sup>th</sup> April, 2008 I now enclose response to the queries raised in the correspondence.

For clarity, I have responded point by point to the queries raised in your letter, with my responses outlined in ***bold italics*** on the attached document.

I trust same is satisfactory.

Yours truly,

**Frank Cronin,  
Senior Engineer,  
WATER SERVICES Department.**

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**APPLICATION FOR WDWL FOR MALLOW TOWN & ENVIRONS**  
**REF NO. D0052-01**

Response to Notice in accordance with Regulation 18(3)(b) of the Waste Water Discharge (Authorisation) Regulation 2007-dated 04 April 2008

**Name of the Agglomeration**

**Response: Mallow Town & Environs.**

**Discharge Outfall**

**(c)**

- 1) Provide the location of the discharge point, in particular, the secondary discharge points, and a description of the outfall design and construction as specified in section B and C.2 of the application form.



**Figure 2 Secondary discharge point SW 2**

***Response : Secondary Discharge Point shown on Map Mallow 07 (Section B Attachment B.4) Outfall Design is 3DWF and Pipe Diameter 450mm.***





Figure 3 Primary Discharge Point

***Response:*** Primary discharge point is located 150m upstream from location point shown on the submitted drawings. Accordingly Revised Maps have been prepared for the following: Mallow 01 to 08 inclusive. These are now submitted along with an Index Table in Attachment 1.

- 2) Provide an estimation of the existing and the maximum proposed p.e. contribution from (1) domestic, (2) commercial and (3) trade effluent source.

***Response:*** Existing: Domestic contribution is estimated at 90%, commercial contribution at 7% and 3% for the trade effluent sources.

Maximum Proposed: Domestic anticipated at 80%, Commercial at 10%, and trade effluent at 10%. Note that Allocation of p.e. is development driven.

- 3) Clarify whether leachate and/or industrial sludge are treated at the waste water treatment plant. If so provide details of (1) the transfer and storage arrangement, (2) the location in the WWTP that the leachate/industrial sludge residues are introduced and (3) the quantity (volume and p.e.), frequency and rate of the addition to the WWTP.

***Response:*** No leachate or industrial sludge is treated currently at the WWTP. However, proposal has been developed for the acceptance of leachate into the inlet at the plant either by pumping or by tanker from the Bottlehill Landfill Site. Balance Tanks to be provided at inlet with the estimated loading at 85



*kgBOD/day or approximately 1430 p.e. Outline Drawing of Balance Tanks submitted as Attachment 2.*

- 4) Provide details of any additional wastewater or wastes accepted for treatment at the WWTP.

***Response:*** *A suburban Pub/Restaurant with an inadequate Treatment System discharges approximately 1000 litres/month to the WWTP.*

- 5) Confirm the details of the flow rate in the receiving waters.

***Response:*** *Blackwater River Flows*

*The following figures have been sourced from the Hydrometric EPA Data of June 2008 from Blackwater Station 15055.*

<i>Town</i>	<i>Mallow</i>
<i>Flows</i>	<i>m<sup>3</sup>/sec</i>
<i>Long Average</i>	<i>27.5</i>
<i>95%Flow</i>	<i>3.84</i>
<i>DWf</i>	<i>1.86</i>

## Population Equivalent

(d)

Reassess the information submitted in relation to the current size of the agglomeration in term of population equivalent, and capacity of the waste water works having regards to the definition of agglomeration provided in the regulation. Submit a revised drawing if necessary. Where planning permission has been granted for development, but said development has not been commenced or completed to date, within the boundary of the agglomeration and this development is being, or is to be, served by the waste works provide the following:

- 1) Information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permission granted.

***Response:*** *The current Residential Developments and house numbers for which Planning Permission has been granted in Mallow Town & Environs are listed below:-*

<i>AREA Development Name/ Developer</i>	<i>No. of Houses in Planning Application</i>	<i>No. of Houses Constructed in May 2008</i>	<i>To Be Constructed (&lt;2 Years)</i>	<i>Total (&lt;2 Years)</i>
<i>Ballivinter</i>				
<i>Brookfield</i>	<i>75</i>	<i>25</i>	<i>25</i>	<i>50</i>
<i>Hazelbrook</i>	<i>198</i>	<i>66</i>	<i>50</i>	<i>116</i>
<i>Clonmore</i>	<i>194</i>	<i>78</i>	<i>50</i>	<i>128</i>
<i>Ironmines</i>				

<i>The Old Course</i>	250	70	30	100
<i>St. Joseoh's Road</i>				
<i>Council Houses Scheme</i>	113		30	30
<i>Castlepark</i>	300	180	120	300
<i>Killavullen Road</i>				
<i>College Wood</i>	300	300		
<i>Kenny's Land (cork Rd.)</i>	211		100	100
<i>Mallow Old GAA Grounds</i>	220		50	50
<i>DairyGold Land to be Developed</i>	100 <i>equivalent</i>		10 Apt.	10
<i>Kennel Hill</i>				
<i>Cannon Bridge</i>	117		60	60
<i>Castlelands</i>	115		50	50
<b>Total</b>	<b>2,193</b>	<b>719</b>	<b>575</b>	<b>994</b>

*This would represent a PE additional requirement of  $(2193 - 719) \times 2.7 = 3980$*

*The Following is a list of the Commercial Developments for which Planning Permission has been granted :-*

<i>Location</i>	<i>Type</i>	<i>Estimated PE</i>
<i>The Wild Goose</i>	<i>50 Bed Hotel + Function Rm</i>	<i>180</i>
<i>Coca Cola</i>	<i>Distribution Centre</i>	<i>20</i>
<i>Dairygold (Domestic incl. Above)</i>	<i>Development</i>	<i>Incl. above</i>
<i>Mallow Business Park, Cork Rd,</i>	<i>Offices</i>	<i>50</i>
	<i>Medical Centre</i>	<i>100</i>
<i>Teagasc</i>	<i>Offices</i>	<i>50</i>
<i>Clyda Business Park</i>	<i>Offices</i>	<i>50</i>
<i>Bridhaven Nursing Home</i>	<i>Extension</i>	<i>50</i>
<i>Retail Park at Quartertown</i>	<i>Retail Warehousing</i>	<i>60</i>
<b>TOTAL</b>		<b>560</b>

*Overall Total of Domestic plus Commercial :  $3980 + 560 = 4540$ , say 4600 00 P.E.*

*Accordingly, as a result of those planning permissions granted the additional PE demand at the WWTP Plant could be estimated at 5000 p.e. According to the South West Regional Guideline the population of Mallow Town and its Environs are projected to grow to up to 20,000 persons, by the year 2020.*

2) The percentage of the projected p.e. to be contributed by the non-domestic activities,



**Response:** *Approx. 17% to 18%*

- 3) The ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving habitat.

**Response:** *The current contribution on the WWTP has been estimated between 12,000 and 13,000 p.e. The upgraded design capacity recently commissioned is 18,000 p.e. Accordingly, there is sufficient capacity at the WWTP to accommodate the likely increase in loading from above developments once they are complete.*

### **Discharge to the Aquatic Environment**

(f)

Reassess the data in the application in relation to the content and extent of the wastewater discharge and in particular the tables related to the emissions to surface water, for example provide the information required in the application form (Attachment D) regarding the volume of the flow from all secondary discharge point, having regard to the definition of secondary discharge points. Submit additional or revised tables where applicable.

**Response:** *There is no monitoring carried out on the overflows on the pipe network and accordingly no information is available on the flows/volume of discharge. Revised Section D Tables and Section E4 submitted in Attachment 3.*

### **Existing Environment**

(g)

Provide a further description of the existing environment in term of water quality with particular reference to environmental quality standards or other legislative standards. The response should include:

- 1) A copy of the most recent water quality management plan or catchments management plan in place for the receiving water body.

**Response :** *Draft Blackwater Water Quality Management Plan (Cork Co. Council, Dec. 1998) submitted in Attachment 9.*

- 2) Details of any designation under any Council Directive or Regulations that apply in relation to the receiving water.

**Response :** *Designated Sensitive Waters under the Urban Wastewater Directive and Salmonid River.*

- 3) Details of receiving water body, including its protected area status, if any, and details of any sensitive area, or both in the vicinity of the discharge point likely to be affected by the discharge concerned.

**Response :** *SAC, Proposed NHA (Parts) – See No. 4 below (Site Synopsis Report)*

- 4) For all site/areas identified under 3) above, provide:

- A copy of the site synopsis report.

**Response : *Site Synopsis Report along with relevant O.S. Maps submitted as Attachment 4.***

- Details of any relevant consultation with the National Park and Wildlife Service

**Response : *Consultation between Cork County Council Environmental Department and NP&WS ongoing and Council awaiting formal response.***

- Details of any likely significant impact of the discharge on the site/area(s) identified.

**Response : *No adverse impact identified in the receiving waters.***

- Details of the proposed mitigation measures, where impacts or potential impacts on the site/area(s) are identified.

**Response : *No mitigation measures.***

It should be noted that whether or not Regulation 17 applies, the application form should be completed in full. In the case of references made to the attached Environmental Impact Statement a table should be provided correlating the application form sections to the corresponding sections in the EIS. Given the date of the EIS the response should also include an assessment of whether the EIS information is still valid/up-to dated for example with regard to downstream uses/receptors and matters listed under (f) above.

**Response : *The predicted impacts of the discharges from the Mallow WWTP on the water quality in the Blackwater River are set out in Section 4 of the EIS. These are based on the maximum discharges / p.e. from the agglomeration / plant. It is considered that the assessments made in the EIS are valid still based on current background conditions in the river and on the designations applying to the river.***

## **Discharge**

(h)

Reassess the details submitted in the application to ensure that it fully addresses the likely consequences of discharge from the waste water works. Given the date of the EIS the response should also include an assessment of whether the EIS information is still valid/up-to-date for example with regard to legislative requirement. Provide details of the monitoring and sampling points as specified in Attachment B.3 and section E of the application form. Where provision of treatment or connection to Primary Discharge or Secondary Discharge is not proposed provide details for a



monitoring programme to demonstrate compliance with the requirement of the regulations.

**Response** : *While the EIS was carried out in 2000 it is still valid today. Since it's confirmation, no more stringent water quality designation of Standards than applied at the time are in force presently. The response in the previous section of this letter examines the EIS for Mallow relative to current EIS standards, however it should be noted that the EIS prepared for the scheme met all regulatory standards in force at the time and has been approved by the DOEHLG.*

### **Sampling Data**

(i)

- 1) Complete table E.1(i)

**Response** : *Council does not have records of discharges from SW 2.*

- 2) Provide a drawing showing the location of all monitoring and sampling points.

**Response** : *As detailed in Map Mallow 3A in Attachment 1.*

### **Operational Information**

(i)

Reassess the details submitted in the application to ensure that it fully describes the existing or proposed measures, including emergency procedures, to prevent unintended waste water discharge and to minimise the impact on the environment of any such discharges. The response should include:

- 1) Details of any existing, or proposed, storm water storage tanks located at the primary or secondary discharge points and details of the storage capacity and the storage time in hours.

**Response** : *None Existing. Storm Tank proposed at discharge point of storm pumps from main pumping station . This is recommended in the PR for Mallow S S which has been submitted to DOEHLG in February 2008.*

- 2) Details of any existing or proposed storm water storage tanks associated with the storm water overflows, including details of the storage capacity and the storage time in hours.

**Response** : *There is a Scheme for upgrading of Mallow Sewerage (Pipe Network) currently included in the Water Services Investment Programme (Mallow Sewerage Scheme). The Preliminary Report has been submitted to DOEHLG for Approval in Feb '08. The PR proposes that ultimately the storm overflow manholes will be eliminated from the collection network. On DOEHLG Approval, Contract Documents will be prepared for the works.*

- 3) An assessment of the identified storm water overflows having regard to the requirement of the DEHLG guidance and confirmation that the identified storm water overflows discharge in response to rainfall only.



**Response** : *The Storm Water Overflows discharge only in response to Rainfall events. However as in 2) above, the DOEHLG is currently assessing a proposal to upgrade the Network.*

- 4) Clarification as to whether there is a standby or mobile generator at any of the identified pumping stations.

**Response** : *There is a facility to connect a mobile Generator at the Pumping Station SW 2.*

- 5) Details of the storage capacity, and time in hours, which is available at each of the pumping stations (for example in the event of pump malfunction).

**Response** : *None at present. 2 Hours Storage Proposed at SW 2 (PR Mallow SS)*

- 6) Details of the pump configuration (e.g. duty, assist, and standby) at all identified pumping stations.

**Response** : *There are 3No. Pumps – 2 No. Duty and 1No. Standby at the Bearforest Pumping Station SW 2.*

- 7) Clarification as to whether the emergency overflow from any pumping station has activated in the last 12 months. If so, provide the reason for the activation and details of the frequency, duration and discharge volume.

**Response** : *There is a high percentage of combined sewers in the Mallow network. The emergency overflow is activated regularly at times of heavy rainfall. The Council does not monitor either frequency of events, duration or discharge volume.*

### **Drinking Water**

(j)

- 1) Reassess the information in the application with regard to the location of the nearest downstream drinking water abstraction point or points to the discharge point or points associated with the waste water works. Provide information on the provision of drinking water supply to communities situated along the Blackwater downstream of the discharge point or points associated with the waste water works.

**Response** : *Please note that there are no Drinking Water Abstraction Points on the River Blackwater, downstream of Mallow. Communities situated along the Blackwater downstream of the discharge points are listed below:*

<i>Village Name</i>	<i>Source</i>	<i>Population Served</i>
<i>Castletownroche</i>	<i>Two spring sources located on either side of the Awebeg River.</i>	<i>1867</i>
<i>Killavullen</i>	<i>Bored well at Ballymacmoy located at Nano Nagle Place</i>	<i>245</i>
<i>Ballyhooly</i>	<i>Extension of pipe network from Castletownroche scheme.</i>	<i>190</i>



- 2) Provide a copy of all Cryptosporidium Risk Assessment report that relate to discharges from the Mallow Agglomeration.

***Response :*** *As there are no Surface Water Drinking Water Abstraction points downstream of the WWTP, this does not arise. However Cork County Council is in the process of submitting Cryptosporidium Risk Assessment Reports for all schemes to the Agency. The Reports for P.E's in excess 20,000 and for those on the 5,000 to 10,000 range have already been submitted, while the remaining assessments for schemes up to 5,000 P.E. will be submitted by 30<sup>th</sup> June 2008.*

### **Assessment of Impact of Waste Water Discharge on Receiving Waters**

(k)

Provide further details and an assessment of the effects of any existing or proposed discharge on the environment, including any environmental medium other than into which the discharge take place or are to take place, and of proposed measures to prevent or eliminate, or where that is not practicable, to limit or abate any pollution caused by such discharges. The response should include:

- 1) Confirmation that, where applicable, assessments of the impact of discharge from waste water treatment works are based on maximum p.e. of the agglomeration to which the applicant relates. Submit revised assessments/maps where applicable.

***Response :*** *Assessments are based on maximum P.E. of agglomeration.*

- 2) Assimilative capacity calculations of the receiving water body and calculation of the resultant downstream concentration in relation to the various substances being discharged and monitored as part of the monitoring programme being undertaken.

***Response :*** *Submitted in Attachment 5.*

- 3) Provide details of any correspondence engaged in with the National Parks and Wildlife Service in relation to a determination as to the likelihood of discharges from the waste water works having a significant effect on European site. If the discharge is deemed likely to have a significant effect an appropriate assessment of the implication for the designated site in view of the site conservation objectives must be carried out. Any assessment, should it be deemed necessary, shall be submitted as part of the reasoned response to this notice.

***Response :*** *Consultation between Cork County Council Environmental Department and NP&WS ongoing and Council awaiting formal response.*

### **Compliance**

- 1) Review Section G of the application from to address compliance with Council Directives and other statutory regulations and submit additional information as necessary.



**Response : Compliance Letter and Test Results submitted in Attachment 6.**

**Further Works**

(m)

Provide further details of any works necessary to meet relevant effluent discharge standards and a time frame and schedule for such works. The response should include:

- 1) Details on the programme of improvement to ensure that discharges other than the primary and secondary discharges comply with the DEHLG guidance on storm water overflows.

**Response : Proposed WSIP Scheme for Upgrading – Mallow Sewerage Scheme.  
Current Status : Preliminary Report submitted to DOEHLG for Approval in Feb. '08 It recommends elimination of stormwater overflows.**

- 2) The time frame by which the discharges other than the primary and secondary discharges will comply with the definition of a 'storm water overflow' or alternatively will be diverted to the treatment plant for treatment.

**Response : Within 3 years, but dependent on funding.**

- 3) A copy of any approved funding for the programme of improvements.

**Response : Copy of Water Services Investment Programme 2007 – 2009 published by DOEHLG which lists the Major Water Services Schemes approved by the Department for Cork County submitted in Attachment 7.**

Your reply to this notice should include a revised non-technical summary which reflects the information you supply in compliance with the notice, insofar as that information impinges on the non-technical summary.

**Response : Revised non-technical summary submitted in Attachment 8.**

Signed :



Frank Cronin,  
SENIOR ENGINEER  
Water Services (North)

## List of Attachments

<b>Attachment No.</b>	<b>Contains</b>
<b>1</b>	<b>Index Table &amp; Revised Maps Mallow 01A – 08A inclusive</b>
<b>2</b>	<b>Drawing of Balance Tanks at WWTP Inlet – Mallow 09A</b>
<b>3</b>	<b>Revised Section D and Section E Tables</b>
<b>4</b>	<b>Site Synopsis Report with O.S. Maps</b>
<b>5</b>	<b>Assimilative Capacity Calculations &amp; Monitoring Results</b>
<b>6</b>	<b>Compliance Letter &amp; Test Results</b>
<b>7</b>	<b>WSIP Programme 2007-2009 for Cork County</b>
<b>8</b>	<b>Revised non-technical summary</b>
<b>9</b>	<b>Draft Blackwater Water Quality Management Plan 1998</b>

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