ARKLOW MAIN DRAINAGE

Response to Wicklow County Council on EPA Report Request
under Section 63(1) of the EPA Acts 1992 to 2003

*Details on the wastewater loading from Arklow (population equivalent)*

The table below summaries the estimated Population Equivalent with the catchment of Arklow Town & Environs.

<table>
<thead>
<tr>
<th>Description</th>
<th>Northside (PE)</th>
<th>Southside (PE)</th>
<th>Total (PE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>3,460</td>
<td>10,341</td>
<td>13,801</td>
</tr>
<tr>
<td>Non-domestic</td>
<td>821</td>
<td>2,713</td>
<td>3,534</td>
</tr>
<tr>
<td>Total</td>
<td>4,281</td>
<td>13,054</td>
<td>17,335</td>
</tr>
</tbody>
</table>
ARKLOW MAIN DRAINAGE

Response to Wicklow County Council on EPA Report Request under Section 63(1) of the EPA Acts 1992 to 2003

Agglomeration Served by the Collecting System

Figure of Existing Drainage System

Legend
Green line – combined sewers
Blue line – storm sewers
Red line– foul sewers
Red arrowed – rising mains
Triangles – pumping station
Circles – outfalls to Avoca River
ARKLOW MAIN DRAINAGE

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Assessment of Impact of Current Discharges on the Receiving Waters

In July 2005 Irish Hydrodata Ltd. submitted the “Arklow Sewerage Scheme Marine Outfall Modelling Study”. The report was carried out in advance of an application for a Foreshore License. The present sewerage system discharges effluent to the Avoca River and harbour at 11 locations. Prior to completion of a new sewage treatment plant it is proposed to combine all discharges into a single pipeline and to discharge temporarily to one location in the harbour.

The water quality study compared the existing water quality of the Avoca River, with the situation where all discharges to the Avoca River continue to discharge to the river at one outfall location. This situation will arise where Contracts 1 & 2 of the Arklow Main Drainage project are constructed in advance of Contract 3 and is envisaged to be a short term measure. Refer to next section for details of the various contracts.

This study comprises field measurements and numerical simulations undertaken to assist with the evaluation of the relocation proposals in terms of effluent contamination impacts.

The study includes the results of water sampling at nine locations with the samples tested for levels of Total Coliform, BOD, Suspended Solids and Ammoniacal Nitrogen concentrations. The impacts of the existing discharges on the river were simulated with the use of a water quality model for the various water quality parameters. Impacts within the harbour and in the open sea were assessed. The impacts were compared with those for a single outfall discharging to the river.

Modelling of the harbour area has shown that combining the outfalls and discharging at a single location will lead to a slight increase in bacterial levels outside the harbour in the coastal waters. The increases will depend on river flows but are likely to be small, of the order of 10% greater than the existing situation. There will be no change in concentrations associated with slowly decaying contaminants. The models also show that the combined outfall will lead to local improvements within the harbour area and in particular reduce contamination levels in the dock.
ARKLOW MAIN DRAINAGE

Response to Wicklow County Council on EPA Report Request
under Section 63(1) of the EPA Acts 1992 to 2003

Schedule of Works for any Proposed Upgrades and Plans for the Provision of
Treatment

Contract 1 – Southside Works

Construction completion currently programmed for 2008

(i) Southside Interceptor Sewer;
(ii) The Alps CSO and associated works;
(iii) Harbour Road sewer improvements
(iv) South Green sewer improvements;
(v) Sewer Relining; and,
(vi) Any further identified sewerage works to south of Avoca
River.

Contract 2 – Northside Works

Construction completion currently programmed for 2007

(i) Northern Interceptor Sewer;
(ii) River Avoca siphon and associates sewer;
(iii) Stormwater rising main from North Quay Pumping
Station; and,
(iv) Any further identified sewerage works to north of Avoca
River.

Contract 3 – Pumping Station & WwTW

In operation currently programmed for 2013, assuming Judicial Review in the
Commercial Court scheduled December 2006 will be resolved at that time.

(i) North Quay Pumping Station;
(ii) Stormwater rising main from North Quay Pumping
Station; and,
(iii) Wastewater Treatment Works, including sea outfall.
Figure Indicating Proposed Works

Legend

Brown line – existing drainage network

Blue dashed line – proposed rising mains

Red square line – proposed pumping stations

Green line – proposed gravity sewers, interceptor sewers and river siphon

Blue dashed area – proposed treatment works site

Red dashed line – proposed long sea outfall
Comhairle Chontae Chill Mhantáin

Wicklow County Council

A Chara

I refer to Section 38 (3) of the above Regulations.

Wicklow County Council requests a reduction in the fees already paid in respect of the applications made in each of the following four agglomerations (PE more than 10,000 in each case): -

- Bray, - Your Ref: D0005-1 - €30,000 paid
- Greystones, - Your Ref: D0010-01 - €30,000 paid
- Wicklow Town - Your Ref: D0012-01 - €30,000 paid
- Arklow. - Your Ref: D00006-1 - €30,000 paid

The above were submitted to the Agency as multiple applications by the latest date for submission, which was 14th December 2007.

Wicklow County Council also requests a reduction in the fee to be paid in respect of the multiple applications to be submitted to the Agency by a date no later than 22nd September 2008 in respect of each of the following six agglomerations (PE more than 2,001 but less than 10,000 in each case): -

- Baltinglass, Blessington, Carnew, Enniskerry, Kilcoole, Rathdrum i.e. €25,000 per application which equates to €150,000.

I await hearing from you. If you have any queries please do not hesitate to contact the undersigned at 0404-20225.

Mise, le meas

MARTINA BYRNE
A/SENIOR EXECUTIVE OFFICER
WATER & ENVIRONMENTAL SERVICES

SCANNED
15 JUL 2008

All correspondence should be addressed to the Senior Executive Officer, Environmental Services

Seoltar gach comhfhreagras chuig Príomhfhéidireannaigh na Seirbhísí Comhshaoil
Re: Applications under Waste Water Discharge (Authorisation) Regulations 2007

Dear Ms. Byrne

I refer to your letter of 10th July, received by the Agency on 11th July 2008 in relation to your request for a reduction in the fees payable in respect of current and forthcoming applications to the Agency for waste water discharge licences.

I am to advise that the Agency will only consider your request for a reduction in the fees payable once a decision has been made by the Agency in respect of the applications.

In light of this, we look forward to receiving your applications accompanied by the full fees by 22nd September 2008.

Yours sincerely

[Signature]

And Bolger
Programme Officer
Licensing Unit
Office of Climate, Licensing & Resource Use

cc. Mr. Michael Geaney, Wicklow County Council, County Buildings, Wicklow Town, Co. Wicklow.
Mr Michael Geaney  
Wicklow County Council  
County Buildings  
Station Rd.  
Wicklow Town  

18 September 2008  
D0006-01  

re: Arklow town and environs:- Notice in accordance with Regulation 18(3)(b) of the Waste Water Discharge (Authorisation) Regulations 2007  

Dear Mr Geaney,  

I am to refer to the above referenced application for a waste water discharge licence relating to the above referenced agglomeration. Having examined the documentation submitted, I am to advise that the Agency is of the view that the documentation does not comply with Regulation 16 of the Waste Water Discharge (Authorisation) Regulations 2007.  

You are therefore requested, in accordance with Regulation 18(3)(b) of the regulations, to take the steps to supply the information detailed below:  

ARTICLE 16 COMPLIANCE REQUIREMENTS  

1. 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 a European site. This effect may occur either from direct or indirect discharge from the works to a European site. If the discharges are deemed likely to have a significant effect an appropriate assessment of the implications for the designated site in view of the site’s 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.  

Section F of the Agency’s ‘Waste Water Discharge Licensing, Application Guidance Note’ states that certain information must be submitted as part of a licence application, including:  

- The determination of the likely effect on a European site shall be carried out in consultation with the National Parks and Wildlife Service. Evidence of this consultation process shall be provided as part of the application documentation.
Any specific correspondence from the National Parks and Wildlife Service in relation to the European site, i.e., correspondence in relation to the extent of the designated area, the rationale for such a designation and details of the flora and fauna protected.

Where no EIS has been prepared for a waste water works it is necessary for Water Services Authorities to liaise with NPWS to determine whether an appropriate assessment is required for the site.

In the case where any drawings already submitted are subject to revision consequent on this request, a revised drawing should be prepared in each case. It is not sufficient to annotate the original drawing with a textual correction. Where such revised drawings are submitted, provide a list of drawing titles, drawing numbers and revision status, which correlates the revised drawings with the superseded versions.

Please supply the information in the form of a one original plus one copy within four weeks of the date of this notice. In addition please submit one copy of the requested information in electronic searchable PDF format on a CD-ROM to the Agency. Please note that all maps/drawings should not exceed A3 in size.

Please note that the application’s register number is D0006-01. Please direct all correspondence in relation to this matter to Administration, Environmental Licensing Programme, Office of Climate, Licensing & Resource Use, Environmental Protection Agency, Headquarters, PO Box 3000, Johnstown Castle Estate, County Wexford quoting the register number.

Yours sincerely,

Donal Grant,
Inspector, Office of Climate, Licensing & Resource Use
Comhairle Chontae Chill Mhantáin
WICKLOW COUNTY COUNCIL

Your Ref: 14th October 2008
Our Ref: 

Administration,
Environment Licensing Programme,
Office of Climate Licensing & Resource Use
Environmental Protection Agency
P.O. Box 3000
Johnstown Castle Estate
CO. WEXFORD.

Register Reference: D0006-01

A Chara

I refer to Notice dated 18th September 2008 issued by the Agency in accordance with Regulation 18(3)(b) of the waste Water Discharge (Authorisation) regulations 2007.

The Notice required Wicklow County Council to submit details to the Agency in respect of the effect of discharges from the above waste water works on any European Site. The Notice required the Council to submit details within four weeks of the date of the Notice.

Council officials met with Ms. Enna Mullen, District Conservation Officer of the National Parks and Wildlife Services, Brocagh, Laragh, Co. Wicklow on 30th October in order to discuss the Notice.

A European Site was defined at the meeting as a Special Protection Area (SPA) or a Special Area of Conservation (SPC). There is no European Site within 10 kilometres of the works and the closest European Site affected by the discharges is 20 kilometres away. A letter confirming that there is no affect on a European Site from the National Parks and Wildlife Services and will be forwarded to the Agency when available.

MICHAEL GEANEY
SENIOR ENGINEER
WATER & ENVIRONMENTAL SERVICES

EPA Export 30-10-2008:03:38:34
All correspondence should be addressed to the Senior Executive Officer, Water & Environmental Services, Wicklow County Council, County Buildings, Wicklow.
Mr. Michael Geaney
Wicklow County Council
County Buildings
Station Road
Wicklow Town
County Wicklow

19 January 2012

re: Notice in accordance with Regulation 18(3)(b) of the Waste Water Discharge (Authorisation) Regulations 2007, as amended.

Dear Mr. Geaney,

I am to refer to the above referenced application for a waste water discharge licence relating to agglomeration named Arklow. Having examined the documentation submitted, I am to advise that the Agency is of the view that the documentation does not comply with Regulation 16 of the Waste Water Discharge (Authorisation) Regulations 2007, as amended.

You are therefore requested, in accordance with Regulation 18(3)(b) of the regulations, to take the steps to supply the information detailed below:

REGULATION 16 COMPLIANCE REQUIREMENTS

1. In the application, reference is made to the proposed new waste water treatment works in Seabank, with a design capacity of 18,000 p.e. Please provide details of the proposed upgrade works to the sewer network and the construction of the new WWTP and outfall, including, but not restricted to, the following:

   a) A description of the proposed treatment works, including design parameters, and sewer upgrade,

   b) expected date of commencement of treatment at this works,

   c) timelines for the cessation of existing discharges as a result of the upgrade works,

   d) the location of any proposed/potential new discharge point(s) as a result of this works,

   e) an updated drawing to include the proposed location of the plant, outfall and any proposed amendments to the agglomeration boundary, as shown in Attachment B.1 of the application,
f) an assessment of the likelihood of significant effects of the waste water discharges from the Arklow Agglomeration on the relevant European site(s) 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, Community and Local Government. This assessment shall take account of the current situation in the agglomeration, and the proposed situation whereby secondary treated effluent shall discharge to the Irish Sea. Provide details of the results of this assessment within four weeks 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 6 weeks of the date of this notice.

2. Complete Section F of the application form to reflect the proposed changes to the sewer network and WWTP and outfall construction.

3. Where necessary, complete all tables in the application form to reflect the proposed changes to the sewer network and WWTP and outfall construction.

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.

In the case where any drawings already submitted are subject to revision consequent on this request, a revised drawing should be prepared in each case. It is not sufficient to annotate the original drawing with a textual correction. Where such revised drawings are submitted, provide a list of drawing titles, drawing numbers and revision status, which correlates the revised drawings with the superseded versions.

Please supply the information in the form of one original plus one copy within six weeks of the date of this notice. In addition please submit one copy of the requested information in electronic searchable PDF format on a CD-ROM (no file to exceed 10MB) to the Agency. Please note that all maps/drawings should not exceed A3 in size.

Please note that the application's register number is D0006-01. Please direct all correspondence in relation to this matter to Administration, Environmental Licensing Programme, Office of Climate, Licensing & Resource Use, Environmental Protection Agency, Headquarters, PO Box 3000, Johnstown Castle Estate, County Wexford quoting the register number.

Yours sincerely,

[Signature]

Donal Grant
Office of Climate, Licensing & Resource Use
APPENDIX E

PRELIMINARY WORKS PROGRAMME

For inspection purposes only. Consent of copyright owner required for any other use.
APPENDIX F

RISK ALLOCATION MATRIX

For inspection purposes only. Consent of copyright owner required for any other use.
### Arklow Sewerage Scheme

#### Risk Allocation Matrix

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Follow original route along South and North Quay with pipelines on land. This includes a pinch point for approx. 200m from the bridge in an easterly direction along South Quay.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 2</td>
<td>Follow original route along South and North Quay but with pipelines in the river at the above pinch point.</td>
</tr>
<tr>
<td>Option 3</td>
<td>Construct a new river crossing u/s of the bridge.</td>
</tr>
</tbody>
</table>

Adjust weightings to determine final risk
Do not adjust

<table>
<thead>
<tr>
<th></th>
<th>% Weighting</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>94.9%</td>
<td>100.0%</td>
<td>95.5%</td>
<td></td>
</tr>
<tr>
<td>Constructability</td>
<td>57.8%</td>
<td>32.6%</td>
<td>26.9%</td>
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</tr>
<tr>
<td>Environmental Issues</td>
<td>20.6%</td>
<td>38.1%</td>
<td>74.6%</td>
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</tr>
<tr>
<td>Flood relief Scheme</td>
<td>29.6%</td>
<td>33.3%</td>
<td>25.9%</td>
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<tr>
<td>Traffic Management</td>
<td>55.6%</td>
<td>52.4%</td>
<td>33.3%</td>
<td></td>
</tr>
<tr>
<td>Social/Commercial disruption</td>
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<td>66.7%</td>
<td>48.1%</td>
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</tr>
<tr>
<td>Delay Risk (Programme)</td>
<td>31.7%</td>
<td>31.7%</td>
<td>49.2%</td>
<td></td>
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<tr>
<td>Planning</td>
<td>11.1%</td>
<td>66.7%</td>
<td>11.1%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>% Weighting</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>0%</td>
<td>0.0%</td>
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<tr>
<td>Constructability</td>
<td>30%</td>
<td>17.4%</td>
<td>9.8%</td>
<td>8.1%</td>
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<td>Environmental Issues</td>
<td>20%</td>
<td>4.1%</td>
<td>7.6%</td>
<td>14.9%</td>
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<tr>
<td>Flood relief Scheme</td>
<td>3%</td>
<td>0.7%</td>
<td>0.8%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Traffic Management</td>
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<td>2.8%</td>
<td>2.6%</td>
<td>1.7%</td>
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<tr>
<td>Social/Commercial disruption</td>
<td>3%</td>
<td>1.9%</td>
<td>1.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Delay Risk (Programme)</td>
<td>35%</td>
<td>11.1%</td>
<td>11.1%</td>
<td>17.2%</td>
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<tr>
<td>Planning</td>
<td>5%</td>
<td>0.6%</td>
<td>3.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Subtotal (Average)</td>
<td>100%</td>
<td>39%</td>
<td>37%</td>
<td>44%</td>
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</table>