

## Section F

Existing Environment & Impact of the Discharge(s)

### **Knockraha Waster Water Discharge Certificate of Authorisation**

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**SECTION F: EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)**

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*Advice on completing this section is provided in the accompanying Guidance Note.*

Detailed information is required to enable the Agency to assess the existing receiving environment. This section requires the provision of information on the ambient environmental conditions within the receiving water(s) upstream and downstream of any discharge(s).

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

**F.1. Assessment of Impact on Receiving Surface or Ground Water**

- Give summary details and an assessment of the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.
- Details of all monitoring of the receiving water should be supplied via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). Tables F.1(i)(a) & (b) should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables F.1(i)(a) & (b). Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.
- For discharges from secondary discharge points Tables F.1(ii)(a) & (b) should be completed. Furthermore, provide summary details and an assessment of the impacts of any existing or proposed emissions on the surface water or ground (aquifers, soils, sub-soils and rock environment), including any impact on environmental media other than those into which the emissions are to be made.
- Provide details of the extent and type of ground emissions at the works. For larger discharges to groundwaters, e.g., from Integrated Constructed Wetlands, large scale percolation areas, etc., a comprehensive report must be completed which should include, inter alia, topography, meteorological data, water quality, geology, hydrology, and hydrogeology. The latter must in particular present the aquifer classification and vulnerability. The Geological Survey of Ireland Groundwater Protection Scheme Dept of the Environment and Local Government, Geological Survey of Ireland, EPA (1999) methodology should be used for any such classification. This report should also identify all surface water bodies and water wells that may be at risk as a result of the ground discharge.
- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body.

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Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving water.

- Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.
  - In circumstances where water abstraction points exist downstream of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., Cryptosporidium and Giardia, in the receiving water environment.
  - Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on –
    - (a) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) –
      - (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,
      - (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or
      - (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,
    - (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC<sup>1</sup> in accordance with the procedures laid down in Article 21 of that Directive,
    - (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or
    - (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC<sup>2</sup>,
- <sup>1</sup>Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ No. L 206, 22.07.1992)
- <sup>2</sup>Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (OJ No. L 103, 25.4.1979)
- Describe, where appropriate, measures for minimising pollution over long distances or in the territory of other states.

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- o This section should also contain full details of any modelling of discharges from the agglomeration. Full details of the assessment and any other relevant information on the receiving environment should be submitted as **Attachment F.1.**

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	<b>Y</b>	

**F.2 Tabular Data on Drinking Water Abstraction Point(s)**

Applicants should submit the following information for each downstream or downgradient drinking water abstraction point. The zone of contribution for the abstraction point should be delineated and any potential risks from the waste water discharge to the water quality at that abstraction point identified.

<b>ABS_CD</b>	<b>AGG_SERVED</b>	<b>ABS_VOL</b>	<b>PT_CD</b>	<b>DIS_DS</b>	<b>EASTING</b>	<b>NORTHING</b>	<b>VERIFIED</b>
Abstraction Code	Agglomeration served	Abstraction Volume in m <sup>3</sup> /day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

**Note:** Attach any risk assessment that may have been carried out in relation to the abstraction point(s) listed.

An individual record (i.e. row) is required for each abstraction point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at [www.epa.ie](http://www.epa.ie). This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and E.3.

**Attachment F.2** should contain any supporting information.

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## **F.1 ASSESSMENT OF IMPACT ON RECEIVING GROUNDWATER**

### **F.1.1 Environmental Impacts**

There are no known significant effects arising from the direct discharge of treated effluent from the waste water works to the receiving Groundwater.

### **F.1.2 Monitoring of Receiving Water**

The primary discharge in the Knockraha agglomeration is from the WWTP in the Chapelfield housing estate. The primary discharge point corresponds to the WWTP outfall.

### **F.1.3 Secondary Discharge Points**

The secondary discharge in the Knockraha agglomeration is from the septic tank serving a small cluster of houses located within the centre of the village. The secondary discharge point corresponds to the WWTP outfall.

### **F.1.4 Ground Emissions**

There is ground emissions from the waste water works serving the Knockraha Agglomeration.

### **F.1.5 Water Quality**

The two waste water works discharges through primary and secondary discharge points to percolation areas.

### **F.1.6 Dangerous Substances**

The Dangerous Substances Regulations S.I. No. 12 of 2001 set out the main polluting substances, such as pesticides, solvents and metals, which are likely to impair the environment.

The waste water in the Knockraha Agglomeration is domestic in nature. It is therefore unlikely to have significant quantities of dangerous substances.

The main polluting substances emitted from the waste water works serving the Carrignavar Agglomeration are BOD, SS and nutrients.

### **F.1.7 Downstream Water Abstraction Points**

There is no river or drinking water abstraction point located close to either the primary or secondary discharge points.

### **F.1.8 Effect of Emissions**

Emissions from the Knockraha Agglomeration, or any plant, methods, processes, operating procedures or other factors which affect such emissions, are not likely to have a significant effect on the following:

- A site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations;
- A site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive), details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations;
- A site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations;
- A site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive 92/43/EEC in accordance with the procedures laid down in Article 21 of that Directive,
- A special area of conservation within the meaning of the Natural Habitats Regulations;
- An area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC.

#### **F.1.9 Minimising Pollution over Long Distances**

Measures for minimising pollution over long distances or in the territory of other states are not applicable to the Knockraha Agglomeration.

#### **F.1.10 Modelling of Discharges**

Modelling of discharges from the Knockraha Agglomeration has not been undertaken.

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**Attachment F.2**

**Tabular Data on Drinking  
Water Abstraction Points**

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**WASTE WATER DISCHARGE  
CERTIFICATE OF AUTHORISATION  
FOR  
KNOCKRAHA, Co. CORK.**

**Section G**

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SECTION G

**PROGRAMMES OF IMPROVEMENTS**

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## SECTION G: PROGRAMMES OF IMPROVEMENTS

*Advice on completing this section is provided in the accompanying Guidance Note.*

### G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the;

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (79/923/EEC).

**Attachment G.1** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
	Y	

### G.2 Compliance with Water Quality Standards for Phosphorus Regulations (S.I. No. 258 of 1998)

Provide details on a programme of improvements, including any water quality management plans or catchment management plans in place, to ensure that improvements of water quality required under the Water Quality Standards for Phosphorous Regulations (S.I. No. 258 of 1998) are being achieved. Provide details of any specific measures adopted for waste water works specified in Phosphorus Measures Implementation reports and the progress to date of those measures. Provide details highlighting any waste water works that have been identified as the principal sources of pollution under the P regulations.

**Attachment G.2** should contain the most recent programme of improvements and any associated documentation requested under Section G.3 of the application.

Attachment included	Yes	No

	Y	
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**G.3 Impact Mitigation**

Provide details on a programme of improvements to ensure that discharges from the agglomeration will not result in significant environmental pollution.

**Attachment G.3** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	Y	

**G.4 Storm Water Overflow**

Provide details on a programme of improvements to ensure that discharges other than the primary and secondary discharges comply with the definition of 'storm water overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007.

**Attachment G.4** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		N

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**Attachment G.1**

**Compliance with Council Directives**

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## **G.1 COMPLIANCE WITH COUNCIL DIRECTIVES**

### **G.1.1 Dangerous Substances Directive 2006/11/EEC**

Refer to Section F.1. The Dangerous Substances Regulations S.I. No. 12 of 2001 give effect to the Dangerous Substances Directive 2006/11/EC. The Regulations set out the main polluting substances, such as pesticides, solvents and metals, which are likely to impair the environment.

The waste water in the Knockraha Agglomeration is domestic in nature. It is therefore unlikely to have significant quantities of dangerous substances.

The main polluting substances emitted from the WWW serving the Knockraha Agglomeration are BOD, SS and nutrients.

There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Dangerous Substances Directive 2006/11/EC.

### **G.1.2 Water Framework Directive 2000/60/EEC**

The Water Framework Directive 2000/60/EC seeks to ensure "high" status for all waters within member states by 2015.

Refer to Section F.1. The primary WWTP serving the Knockraha agglomeration discharges through the primary discharge point to a percolation area.

The secondary WWTP serving the Knockraha agglomeration discharges to a soakpit.

A draft river basin management plan has been prepared for the SWRBD. A copy of this report can be seen at Attachment F.1.

There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Water Framework Directive 2000/60/EC.

### **G.1.3 Birds Directive 79/409/EEC**

SPAs have been designated as a result of the Birds Directive 79/409/EEC in order to protect certain habitats. There are no SPAs affected by emissions from the Glenville Agglomeration.

There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Birds Directive 79/409/EEC.

#### **G.1.4 Groundwater Directives 80/68/EEC & 2006/118/EEC**

There is emissions to groundwater from the WWW's serving the Knockraha Agglomeration.

Presently there is no programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Groundwater Directives 80/68/EEC & 2006/118/EC.

#### **G.1.5 Drinking Water Directive 80/778/EEC**

Refer to Sections F.1 and F.2. There is no drinking water abstraction point location adjacent to the primary or secondary discharge points.

There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Drinking Water Directive 80/778/EEC.

#### **G.1.6 Urban Waste Water Treatment Directive 91/271/EEC**

The Urban Waste Water Treatment Directive 91/271/EEC requires that appropriate levels of waste water treatment are achieved by defined dates for municipalities of defined PE where the effluent discharges to freshwaters or estuaries. In the case of Knockraha, there is no discharge to freshwaters or estuaries.

There is therefore a requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Urban Waste Water Treatment Directive 91/271/EEC. However, this programme has been delayed due to lack of funding.

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### **G.1.7 Habitats Directive 92/43/EEC**

SACs have been designated as a result of the Habitats Directive 92/43/EEC in order to protect certain habitats.

Refer to Section F.1 where it is seen that both the primary and secondary discharge points serving the Knockraha Agglomeration are located within the Blackwater River (Cork/Waterford) SAC. However, emissions from the Knockraha Agglomeration, or any plant, methods, processes, operating procedures or other factors which affect such emissions, are not likely to have a significant effect on the SAC.

There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Habitats Directive 92/43/EEC.

### **G.1.8 Environmental Liabilities Directive 2004/35/EEC**

The Environmental Liabilities Directive 2004/35/EEC seeks to hold polluters liable for the cost of remedying their pollution.

Cork County Council attempts to limit pollution by the routine inspection and maintenance of the WWTP serving the Knockraha Agglomeration.

The maintenance, monitoring and replacement where required reduces risk of pollution.

### **G.1.9 Bathing Water Directive 76/160/EEC**

There are no designated bathing waters in the Knockraha agglomeration. There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Bathing Water Directive 76/160/EEC.

### **G.1.10 Shellfish Waters Directive 79/923/EEC**

There are no designated shellfish waters in the Knockraha agglomeration. There is therefore no requirement for a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the Shellfish Waters Directive 79/923/EEC.



**Attachment G.2**

**Compliance with  
Phosphorus Regulations**

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**G.2 PROGRAMME OF IMPROVEMENTS FOR COMPLIANCE WITH PHOSPHORUS REGULATIONS**

There is no discharge to watercourse from the WWW's in the Knockraha agglomeration.

There is therefore no requirement for a programme of improvements to ensure that improvements of water quality required under the Water Quality Standards for Phosphorous Regulations (S.I. 258 of 1998) are being achieved.

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# Attachment G.3 Impact Mitigation

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### **G.3 IMPACT MITIGATION**

Refer to Section F.1 where it is stated that there are no known significant effects arising from the direct discharge of treated effluent from the WWW serving the Knockraha Agglomeration. There is therefore no programme of improvements required to ensure that discharges from the Knockraha Agglomeration will not result in significant environmental pollution.

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**For Full Printout of Draft River Basin  
Management Plan for South Western River  
Basin District, Refer to Original**

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**WASTE WATER DISCHARGE  
CERTIFICATE OF AUTHORISATION  
FOR  
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**Section H**

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SECTION H

**DECLARATION**

**Knockraha Waster Water Discharge Certificate of  
Authorisation**

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**SECTION H: DECLARATION**

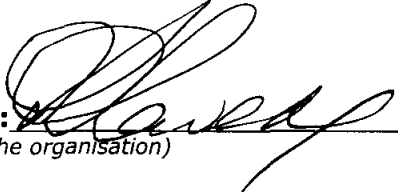
**Declaration**

I hereby make application for a waste water discharge Certificate of Authorisation/revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

Signed by :   
(on behalf of the organisation)

Date : 17th Dec 09

Print signature name: \_\_\_\_\_

P. POWER

Position in organisation: Director of Services \_\_\_\_\_

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