



**WASTE WATER DISCHARGE LICENCE
APPLICATION FOR THE GRENAGH WASTE
WATER TREATMENT WORKS**

SEPTEMBER 2022



Waste Water Discharge Authorisation

Application Form

EPA Ref. N^o: <i>(Office use only)</i>	<input type="text"/>
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Environmental Protection Agency

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ABOUT THIS APPLICATION FORM

This Application Form is for the purpose of making an application for a Waste Water Discharge Authorisation under the European Union (Waste Water Discharge) Regulations 2007 to 2020, or for the review of an existing Waste Water Discharge authorisation. It should be completed in accordance with the Guidance Document which is available on www.epa.ie.

A valid application for a Waste Water Discharge Authorisation must contain the information prescribed in the European Union (Waste Water Discharge) Regulations 2007 to 2020. Regulations 16 and 24 set out the statutory information requirements for a Waste Water Discharge licence (WWDL) and a Certificate of Authorisation (CoA) application respectively.

Neither this Application Form nor the guidance document purport to be and should not be considered a legal interpretation of the provisions and requirements of the European Union (Waste Water Discharge) Regulations 2007 to 2020.

While every effort has been made to ensure the accuracy of the material contained in this Application Form, the EPA assumes no responsibility and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up-to-date nature of the information provided herein and does not accept any liability whatsoever arising from any errors or omissions.

Should there be any contradiction between the information requirements set out in this Application Form and any clarifying explanation contained in the Guidance Note, then the requirements in this Application Form should take precedence. The requirements of the Regulations shall take precedence over any considerations mentioned in this Application Form, the guidance document or on the website.

The Application Form comprises sections A-E as follows:

Section A:	Non-Technical Summary
Section B:	General
Section C:	Discharges & Monitoring
Section D:	Impact Assessment
Section E:	Declaration

SECTION A: NON-TECHNICAL SUMMARY

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

A.1 Non-Technical Summary

This part of the Application Form collects a Non-Technical Summary which identifies all environmental impacts of significance associated with the discharge of waste water from the waste water works.

A1.1 Supporting documents

Complete the following table and submit the relevant supporting document as Attachment A1 in accordance with the guidance.

Table 1 - Non-Technical Summary Document Name

Document type	Document name
Non-technical summary	Attachment A.1.1: Non-Technical Summary Attachment A.1.2: Map 1 - Area of Interest

SECTION B: GENERAL

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

B.1 Application Details

This part of the form collects contact details, the type of application, and the location and size of the agglomeration.

B.1.1 Application Type

This part of the form collects details of the type of application being made.

Table 2 – Application Type

		Tick as appropriate (✓)
A	Application for the review of an existing authorisation	
B	New application for a licence in respect of which the Agency has previously granted a certificate	✓
C	New application for a licence for discharges (>500 P.E)	
D	New application for a certificate for discharges (< 500 P.E.)	

If A or B are applicable, provide the following information:

Current EPA Authorisation Register Number(s)	A0524-01
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If A is applicable, provide the following information:

Grounds for review on which the application is being made:
Not applicable.

If C or D are applicable, provide the following information:

Date on which the waste water works became / becomes operational:	Not applicable
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In the case of an application for a licence (review), confirm the agglomeration population equivalent (p.e.):

Table 3 - Agglomeration p.e. thresholds

Discharges from agglomerations with a p.e. of	Tick as appropriate (✓)
more than 10,000	
2,001 to 10,000	
1,001 to 2,000	
500 to 1,000	✓*

* The loads generated in the agglomeration will not exceed 1,000 p.e for the duration of the licence. At the time of submitting this WWDL application, based on existing collected loads (2021), the projected 10-year load is 750 p.e. Therefore, the agglomeration p.e. threshold is <1000 p.e.

B.1.2 Applicant’s Details

Provide the following information:

Table 4 - Name and Address of Applicant

Name*:	Irish Water
Address:	Colvill House 24-26 Talbot Street Dublin 1
CRO Number:	530363
Tel:	+353 1 8925000
e-mail:	WasteWaterLicensingSouthern@water.ie

**This should be the name of the water services authority in whose ownership or control the waste water works is vested.*

Note that only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Table 5 – Name and Address for Correspondence

Name*:	Peter Keegan (Environmental Licensing Specialist)
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Address:	Colvill House 24-26 Talbot Street Dublin 1
Tel:	01 8925000
e-mail:	WasteWaterLicensingSouthern@water.ie

**This should be the name of person nominated by the water services authority for the purposes of the application.*

B.2. Agglomeration Details

This part of the form collects details of the agglomeration, the waste water works and any associated waste water treatment plant, capacity details and waste water inputs.

B.2.1 Agglomeration name and Geographical Location

Table 6 - Agglomeration Name and Location

Name of Agglomeration:	Grenagh
Name of townland or townlands of the agglomeration served by a waste water works to which the application relates:	Grenagh North, Grenagh South and Rathduff
Included on EPA Waste Water Priority List?	No
Included on European Commission infringement list?	No

B.2.2 Waste water works and associated Waste Water Treatment Plant(s)

Table 7 - Waste Water Works

<p>Description of the existing waste water works</p>	<p>The Grenagh agglomeration consists largely of a village with a substantial residential element. The agglomeration is located approximately 16 km north of Cork City and west of the N20 Cork-Mallow road and railway line.</p> <p>The effluent from the agglomeration arises mainly from domestic sources. There are no IPC or waste licensed activities in the vicinity with significant discharges to the agglomeration.</p> <p>The WwTP is located at NGR 158817E, 084754N and is currently operated by EPS Ltd. for Irish Water.</p> <p>The design capacity of the WwTP is 1,200 p.e. The current p.e. based on 2021 collected loads is 561 p.e. Based on the existing collected loads (2021), the projected 10-year load is 750 p.e.</p> <p>The agglomeration is served by a combined gravity sewer. The plant provides secondary treatment to reduce the biological load to the standards required by the Urban Wastewater Treatment (UWWT) Regulation (S.I. No. 254 of 2001). There is no chemical dosing for P removal onsite.</p> <p>The treatment plant consists of the following:</p> <ul style="list-style-type: none"> • Mechanical Inlet Screening. • Gravity overflow to underground storm water storage with pumped return. • A secondary treatment process based on dual stream activated sludge. • Fine bubbled diffused aeration system. • Dual secondary clarifiers complete with rotating half bridge scrapers systems. • Single sludge storage tank. • Block built control building. <p>The Grenagh WwTP currently does not have chemical dosing for P-removal.</p> <p>Sludge is stored in a sludge holding tank and is removed once a month to various WWTs and composting farms.</p> <p>There are no pumping stations within the agglomeration.</p>
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	<p>Treated effluent from the WwTP discharges <i>via</i> gravity to the Martin River at NGR 158833E, 084980N which is part of the Lee, Cork Harbour and Youghal Bay catchment area (HA 19). There is no composite sampling or continuous flow monitoring in place at present on the discharge point.</p> <p>The design and current flows and effluent standards are provided below:</p> <table border="1" data-bbox="791 589 1390 882"> <thead> <tr> <th>Parameter</th> <th>Design Flow Rate</th> </tr> </thead> <tbody> <tr> <td>Dry Weather Flow (Design based 180 I/PE/day DWF)</td> <td>216m³/d</td> </tr> <tr> <td>Peak Hydraulic Capacity (Design - 3 DWF)</td> <td>648 m³/d</td> </tr> <tr> <td>Dry Weather Flow (DWF) (Current based on 225 I/PE/day)</td> <td>101 m³/d</td> </tr> </tbody> </table> <table border="1" data-bbox="791 920 1385 1216"> <thead> <tr> <th>Parameter</th> <th>Proposed Standards</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>6.0 – 9.0</td> </tr> <tr> <td>BOD</td> <td>25mg/l</td> </tr> <tr> <td>COD</td> <td>125mg/l</td> </tr> <tr> <td>Total Suspended Solids</td> <td>35mg/l</td> </tr> <tr> <td>Total Ammonia (as N)</td> <td>3mg/l</td> </tr> <tr> <td>Ortho-P (as P)</td> <td>1.65mg/l</td> </tr> </tbody> </table> <p>It is considered that on average the plant is capable of meeting the above standards. Based on an IW review of the 2021 and 2022 influent and treated effluent concentrations, the maximum Ammonia and Ortho-P concentrations of treated effluent recorded (<i>i.e.</i>, those above the standards proposed) were associated with influent concentrations which were well in excess of the influent concentrations expected for a Low – Medium strength influent. The cause of the recorded high strength influent is unknown.</p>	Parameter	Design Flow Rate	Dry Weather Flow (Design based 180 I/PE/day DWF)	216m ³ /d	Peak Hydraulic Capacity (Design - 3 DWF)	648 m ³ /d	Dry Weather Flow (DWF) (Current based on 225 I/PE/day)	101 m ³ /d	Parameter	Proposed Standards	pH	6.0 – 9.0	BOD	25mg/l	COD	125mg/l	Total Suspended Solids	35mg/l	Total Ammonia (as N)	3mg/l	Ortho-P (as P)	1.65mg/l
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Total Ammonia (as N)	3mg/l																						
Ortho-P (as P)	1.65mg/l																						
<p>Description of proposed development, if any, to which the application relates:</p>	<p>Not applicable</p>																						
<p>Number and type of waste water discharges from the waste water works including proposed waste water discharges:</p>	<p><u>Primary Discharge (SW001):</u> The primary discharge (SW001), which operates 24hrs a day and 365 days a year, discharges to the Martin River (Martin_010) primary discharge outfall pipe at NGR 158833E, 084980N. There is no composite sampling or continuous flow monitoring in place at present on the discharge point.</p>																						

	<p><u>Secondary Discharges:</u> There are no secondary discharge points associated with the waste water works.</p> <p><u>Dual Function Overflow:</u> There is one Dual Function Overflow (SW002) at the WwTP <i>i.e.</i>, overflow which can act as a Storm Water Overflow or as an Emergency Overflow depending on the event.</p> <p>The Dual Function Overflow at the WwTP is located after the grit trap and before the inlet screen.</p> <p>During a storm event, stormwater passes through a mesh screen with an approximate spacing of 20-25mm. Wastewater overflows <i>via</i> a 300mm weir channel at a depth of 150mm and is diverted to a Storm Water Overflow tank (<i>ca.</i> 115.1m³). There are two pumps within the storage tank which return stormwater to the inlet chamber. Return pumped flows are operated by a level sensor. Should the capacity of the storage tank be exceeded a high-level Storm Water Overflow from the storm tank discharges to the primary outfall and combines with the treated effluent before being discharged to the Martin River.</p> <p>This SWO operates in compliance with the definition of ‘Storm Water Overflow’ as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG ‘Procedures and Criteria in Relation to Storm Water Overflows’, 1995.</p> <p>In the event of an emergency (<i>i.e.</i>, power failure or a failure of the submersible storm tank pumps), wastewater will discharge to the Martin River <i>via</i> the primary discharge outfall pipe.</p>
Is the network assessment complete?	Not applicable
If the answer above is no, in what year is the assessment expected to be complete?	Not applicable

Table 8 - Waste water treatment plant associated with the waste water works

Site contact Name*:	Anthony Hickey (Regional Compliance Specialist)
Address of waste water treatment plant (including Eircode):	Grenagh WwTP, Grenagh North, Co. Cork (No Eircode)
Telephone Number:	01 - 8925000
e-mail:	WasteWaterComplianceSouthern@water.ie
Grid ref (6E, 6N)	158817, 084754
Description of the treatment process	Secondary
Primary discharge point reference ID:	SW001

**This should be the name of the person responsible for the supervision of the waste water treatment plant.*

B.2.3 Supporting documents

Complete the following table and submit the relevant supporting documents in accordance with the Guidance Document:

Table 9 - Supporting Document Names

Document type	Document name
B.2 .1 Agglomeration map	Attachment B.2.1: Map 2 – Agglomeration Plan
B.2-2 Site map including discharge and monitoring points.	Attachment B.2.2: Map 3 – WwTP Site Location Plan Attachment B.2.2: Map 4 – Location of Primary Discharge & Sampling Point Attachment B.2.2: Map 5 – Location of Dual Function Overflow Attachment B.2.2: Map 6 – Location of Ambient Monitoring Points
B.2.3 Waste water process flow	Attachment B.2.3: Waste Water Process Flow Diagram

B.2.4 Capacity of the waste water works

Table 10 - Capacity of the Waste water Works

Population Equivalent of the agglomeration to which the application relates:	750 p.e. (10-year projected p.e.)
Maximum average weekly population equivalent of the agglomeration:	561 p.e. (2021 collected loads)
Existing Organic Capacity of the waste water treatment plant - As Constructed or nominal design (p.e.)	1,200 p.e.
Proposed Organic Capacity of the waste water treatment plant - As per planning permission or design (p.e.)	As above.
Current Collected Load (p.e.):	561 p.e.
Remaining Organic Capacity (p.e.):	639 p.e.
Is the plant overloaded – organic loading?	No
Current Peak Hydraulic Capacity of the waste water works–As Constructed or nominal design (m ³ /day):	648m ³ /day (Design - FFT as 3DWF)
Proposed Peak Hydraulic Capacity of the waste water works–As per planning permission or nominal design (m ³ /day):	648 m ³ /day (Design - FFT as 3DWF)
Current and proposed dry weather flow (DWF) to the treatment plant (m ³ /day):	101m ³ /day – Current (561 p.e x 180/p.e/Day) 216m ³ /day – Design (1,200 p.e X 180 l/p.e/Day) 135m ³ /day - Projected 10 Year (750 p.e x 180/p.e/Day)
Current average hydraulic loading to the treatment plant (m ³ /day):	35m ³ /day (Source: EPS – Operators, 2021 Average) *
Remaining Hydraulic Capacity (m ³ /day):	721 m ³ /day
Is the plant hydraulically overloaded?	No

* Refer to **Attachment B.2.4** for the 2021-2022 hydraulic loadings per day (m³/d) to the WwTP.

B.2.5 Waste Water Inputs

Table 11 - Waste Water Inputs to Waste Water Works

Inputs	P.E.	% of total PE
Domestic waste water load (including commercial and fast-food establishments)	561	100%
Industrial waste water load	0	0%
Leachate	0	0%
Waste water to be conveyed and discharged only (i.e.by pass the WWTP)	0	0%
Total	561	100%

Where industrial waste water is relevant to this application, provide the following information:

Table 12 - Industrial waste water pre-treatment

A	Is the requirement for pre-treatment (Article 9 of the urban waste water treatment regulations 2001 as amended) met?	Not applicable
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If 'No' was answered to A, provide details of the measures to be taken to comply:

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B.3 Planning documentation

B.3.1 Planning information

This part of the application form collects planning information relating to development or proposed development relevant to which the application relates.

Table 13 - Planning Status

	Planning Authority name:	Cork County Council
A	Is planning permission required for development or proposed development to which the application relates?	Yes
B	If 'Yes', has planning permission been granted?	Yes
C	If planning permission is not required at A above, is the proposed development, if any, to which the application relates exempted development?	Not Applicable

If 'Yes' was answered to A and B, above, the following 'Planning Granted' table should be completed.

Table 14 - Planning granted

Planning File Reference Number:	983907
Planning Appeal Reference Number (if relevant):	Not Applicable
Planning Authority Name / An Bord Pleanála:	Cork County Council
Date of Planning Decision (Final Grant):	Decision Date: 26/02/1999 (Grant Date: 16/04/1999)
Brief description:	In September 1998 D. & J. BUILDERS (CORK LTD) applied to Cork County Council for residential development of 56 no. dwellinghouses & sewage treatment plant.
EIAR required with Planning Application?	No
Confirm that the supporting documentation is provided:	An official record of planning permission granted by Cork County Council for residential development and the WWTP is included in Attachment B.3 of this application.

If 'Yes' was answered to A and 'No' was answered to B, above, the following Planning under Consideration table should be completed.

Table 15 - Planning under Consideration

Planning File Reference Number:	Not applicable
Planning Appeal Reference Number (if relevant):	
Planning Authority Name / An Bord Pleanála:	
Date of application:	
Brief description:	
EIAR required with Planning Application?	
Confirm that the supporting documentation is provided:	

If ‘No’ was answered to A and ‘Yes’ was answered to C, the following Exempted Development table should be completed.

Table 16 - Exempted Development

Reason for exemption:	Not applicable
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B.3.2 Supporting documents

The document names for all supporting documentation should be provided in the following table.

Table 17 - Supporting Documents

	Document type	Document name
Planning granted	- planners letter confirming EIA is not required (if relevant)	Not applicable
	- a copy of relevant grant of planning permission AND planners report	Attachment B.3
Planning under consideration	- confirmation from a planning authority or An Bord Pleanála (as applicable) that an application for permission comprising or for the purposes of the waste water discharge to which the application relates, is currently	Not applicable

	under consideration by the planning authority concerned or An Bord Pleanála	
	- Planners letter confirming EIA not required (if relevant)	Not applicable
Exempted development	- Planners letter confirming development is exempted or reference to the specific legislation for exemption	Not applicable

B.4 Notices and Advertisements

This part of the form collects evidence of stakeholder engagement prior to making this application. The location of the site notice should be provided in the following table.

Table 18 - Site notice location

Grid co-ordinates (6E, 6N)	158745E	084939N
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B.4.1 Supporting documents

The document names for all supporting documentation should be provided in the following table:

Table 19 - Names of Supporting Document(s) on Notices and Advertisements

Document type	Document name
Newspaper notice:	Attachment B.4.1: Newspaper Notice
Site notice:	Attachment B.4.2: Site Notice
Map of site notice location:	Attachment B.4.3: Map 7 – Site Notice Location
Water Services Authority notice:	Not applicable
EIA Portal Confirmation notice:	Not applicable

B.5 Preliminary examination/EIA Screening/EIAR

This part of the application form collects information in relation to EIA and the development /proposed development comprising or for the purposes of the waste water discharge.

Table 20 - EIA related information.

A	Having regard to B.3, is this application accompanied by an EIAR?	No
B	Is the application in respect of the waste water discharge from a waste water treatment plant with a capacity of greater than 10,000 population equivalents as defined in Article 2, point (6), of the Urban Water Treatment Directive	No
C	Are there other competent authorities conducting EIA for the development or proposed development to which this application relates?	No
D	If 'Yes' to C, provide the name of the competent authority and consent reference	Not Applicable

If the answer to either A or B is 'Yes', the EIAR must accompany the application.

Environmental Impact Assessment (EIA) Screening:

Based on the information as contained in the EIA Screening Report (**Attachment B.5**), there is no significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the operational discharges from the Grenagh WwTP in so far as they relate to the risk of environmental pollution of the receiving waters, the Martin River) and it is considered that an EIA is not required for the authorisation to which this application relates by virtue of its nature, size and location.

B.5.1 Supporting documents

The names assigned to the documents should be provided in the following table:

Table 21 - Names of Supporting Document(s) on EIA

Document type	Document name
EIAR	Not applicable
Preliminary examination / EIA screening report	Attachment B.5: EIA Screening Report, August 2022

B.6. Compliance with EU Directives & National Regulations

This part of the application form collects details on compliance with relevant EU Directives and national Regulations.

B.6.1 Supporting document

The EPA template provided should be completed. The name assigned to the document should be provided in the following table:

Table 22 - Names of Supporting Document on Compliance with EU Directives and National Regulations

Document type	Document name
Compliance with EU Directives & National Regulations	Attachment B.6: Compliance with EU Directives & National Regulations

B.7 Foreshore Act Licences.

This part of the application form collects information relating to Foreshore Act Licences where relevant.

Is Foreshore Act Licence required for development or proposed development the subject of this application?	Not applicable
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If yes, and the Foreshore Act Licence is relevant to this application, provide the following information:

Table 23 -Foreshore Act Licence

	Foreshore Act Licence Competent Authority name:	Not applicable
A	Has a Foreshore Act Licence being granted?	
B	If no to A, is a Foreshore Act Licence application under consideration by the relevant competent authority?	
C	Was EIA carried out or will be carried out by the Foreshore Act Licence competent authority?	
D	If 'Yes' to C, confirm that the same EIAR was submitted to Foreshore competent authority as accompanied this WWDA application:	
E	If 'Yes' to A, provide: <ul style="list-style-type: none"> - Licence Reference Number; and - date of grant of consent: 	
G	If 'Yes' to B, provide application reference number	

B.7.1 Supporting documents

The name(s) assigned to all supporting documentation should be provided in the following table:

Table B22 - Supporting documents

	Document type	Document name
If 'Yes' to A	Foreshore Act Licence:	Not applicable
If 'Yes' to C	Foreshore Act Licence report:	Not applicable

B.8 Programme of Improvements

For licence review applications, provide information on current licence requirements with respect to specified improvement works (B.8.1) and Condition 5 improvement programme (B.8.2).

For all applications, provide information on planned improvements (B.8.3). Supporting information can be uploaded / attached to this part of the application form.

B.8.1 Specified Improvement Programme

In the case of a licence review are there specified improvement works in Schedule A and C of current licence?	Not applicable
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If 'Yes', the following table should be completed for each specified improvement works.

Table 23 - Schedule A & C Improvement Programme

Specified Improvement Programmes: (under Schedule A and C of WWDL)	Not applicable
Date for completion of Improvement Programme in the licence:	
Has the date for completion expired? (Enter N, N/A or Y)	
Status of works: <i>e.g. (i) Not Started; (ii) At planning stage; (iii) Work ongoing on-site; (iv) Commissioning phase; (v) Completed; (vi) Delayed</i>	
Irish Water's expected timeframe for completing the work	
Comments:	

B.8.2 Condition 5 Improvement programme

Provide details of the Condition 5 improvement programme by completing the following table:

Table 24 - Condition 5 Improvement Programme

Improvement identifier:	Not applicable
Improvement description:	
Improvement source: <i>(e.g. WWTP assessment, Sewer assessments, Secondary discharges assessment SWO assessment, Drinking Water Abstraction Risk Assessment, Shellfish Impact Risk Assessment, Pearl Mussel Impact Assessment, Improved Operational Control, Incident Reduction, Elimination/Reduction of Priority Substances, Process Optimisation)</i>	
Status of works:	
Expected Completion date:	
Comments:	

B.8.3 Planned programme of improvements

Provide information on planned programme of improvements by completing the following table:

Table 25 -Planned Programme of Improvements

Waste water discharge reference code:	Not applicable
Type: <i>(primary discharge / secondary discharge/ storm water overflow)</i>	
Improvement works description:	
Expected completion date:	
Planning status: <i>(grant of permission / exempted development)</i>	
Prioritised for funding:	

B.8.4 Supporting documents

Attachment B8 should be submitted in accordance with the Guidance Document as supporting information and the name assigned to it provided in the following table:

Table 26 - Supporting documents

Document type	Document name
Improvement programme	There are no improvement works scheduled for the agglomeration.

B.9 Fees

State the appropriate fee as per Columns 2 or 3 of the Third Schedule of the European Union (Waste Water Discharge) Regulations 2007 to 2020.

Table 27 - Fee

Class of Waste Water Discharge		Fee accompanying application / review application (in €)
Discharges from agglomerations with a population equivalent of:	(tick [✓] one as appropriate)	
- more than 10,000		10,000
- 2,001 to 10,000		
- 1,001 to 2,000		
- 500 to 1,000	✓	
- less than 500		

SECTION C: DISCHARGES & MONITORING

C.1. Discharges & Monitoring

The Discharges & Monitoring template should be downloaded from the EPA website (www.epa.ie), completed and submitted in accordance with the Guidance Document.

C.1.1 Supporting document

Attachment C.1 should be submitted in accordance with the Guidance Document as supporting information and the name assigned to it provided in the following table:

Table 28 - Discharges & Monitoring

Document type	Document name
Discharges & Monitoring	Attachment C.1: Discharges and Monitoring

C.2. Measures to Prevent Unintended Discharges

Existing and proposed measures should be identified in the table below. Additional measures may be added to this table as required.

Table 29 -Prevention Measures & Monitoring

Measures to prevent unintended discharges	Existing (Y/N)	Proposed (Y/N)	Applicability	Surveillance measure
Accident prevention procedure:	Y	-	WwTP Only.	Wastewater levels are monitored manually at storm tank. The plant is inspected at a minimum of once a week where pumps are switched over and checked. Blowers have maintenance carried out on them every three months.
Emergency Response Plan and Procedures:	Y	-	WwTP Only	In the event of an Emergency <i>i.e.</i> in the event of a power failure, operators will be notified and will attend site to manually check wastewater levels on site. As power is lost, flows will begin to fill the storm water tank. Should the

				<p>capacity of the storm water tank be exceeded wastewater will discharge from the tank <i>via</i> a high-level overflow which is connected to the primary outfall.</p> <p>The Emergency Response Plan is reviewed every 12 months.</p> <p>The EPA will be notified whenever there is a discharge <i>via</i> the Dual Function Overflow.</p>
Waste water treatment plant				
Measures to prevent unintended discharges	Existing (Y/N)	Proposed (Y/N)	Applicability	Surveillance measure
Alarms / telemetry on waste water treatment plant:	N	N	Not Applicable	
Standby pumps at waste water treatment plant:	Y	-	-	Pumps are switched over and checked at a minimum of once a week to keep operating hours consistent across all pumps.
Standby equipment or provisions in the event of interruption of the power supply such as a portable generator or equipment with automatic switchover:	N	N	Not Applicable	No backup generator or automatic switch over of equipment.
Storage capacity at intake to the waste water treatment plant (SWO tank):	Y	-	-	115.1m ³
Groundwater monitoring:	N	-	Not Applicable	
Network – Not Applicable				
Measures to prevent unintended discharges	Existing (Y/N)	Proposed (Y/N)	Applicability	Surveillance measure
Alarms / telemetry on pumping stations:				

Alarms / telemetry on emergency overflows:				
Standby pumps at pumping stations:				
Standby equipment or provisions in the event of interruption of the power supply:				
Storage capacity at pump stations:				
Monitoring telemetry on SWOs:				
Additional measures:				

C.2.1 Supporting documents

Attachment C2 should be submitted (in accordance with the Guidance Document) as supporting information and the name assigned to it provided in the following table:

Table 30 - Supporting documents

Document type	Document name
Measures to prevent unintended discharges	Attachment C.2: Measures to Prevent Unintended Discharges

SECTION D: IMPACT ASSESSMENT

D.1. Receiving Waters

Complete the tables, below, as appropriate, for primary discharge, secondary discharge and storm water overflow(s) (SWO).

Table 31 - Receiving waters of Primary Discharge

Type (river, lake, groundwater, coastal, transitional):	River
Name and WFD reference:	MARTIN_010 (IE_SW_19M010200)
WFD Risk:	At Risk
WFD Status & year:	Poor (2013-2018)
WFD Objective & timeframe for achievement:	Good Status (2027)
Is the agglomeration identified as a significant pressure?	No
Has the discharges contributed to a deterioration in the quality of the water body?	No
Protected areas in the vicinity of the discharges:	Ardamadane Wood pNHA is located <i>ca.</i> 8km downstream of the primary discharge. Blarney Castle Woods pNHA is located <i>ca.</i> 11km downstream of the primary discharge. The Lee [Cork] Salmonid River is located <i>ca.</i> 19km downstream of the primary discharge. The Lee Estuary / Lough Mahon Nutrient Sensitive Area is located <i>ca.</i> 23.5 km downstream of the primary discharge.
Are there drinking water abstraction points downstream of waste water discharge points?	The nearest drinking water abstraction point is located at the Lee Road Waterworks in Cork City, <i>ca.</i> 22 km downstream.
European sites hydrologically connected:	Cork Harbour SPA and Great Island Channel SAC are located greater than 30 km downstream of the discharge location.
Trophic status of transitional / coastal waters:	Not Applicable
Is there a groundwater protection scheme in place or to be provided in the vicinity of such discharge?	Not Applicable

Status of adjacent waterbodies: (e.g. upstream and downstream of the receiving waterbody)	Upstream: None Downstream: Martin_020 (Good)
95%ile River Flow upstream of primary discharge point: (if applicable)	0.045m ³ /d (as provided by the EPA on the 24 th August 2022)
Receiving water monitoring stations: (code and distance from primary discharge point)	<p><u>U/S</u> aSW001u - NGR 158824E, 084996N which is located directly u/s (<i>ca.</i> 20m) of the WwTP and <i>ca.</i> 1.6km d/s of RS19M010100.</p> <p><u>D/S</u> aSW001d – NGR 158952E, 084741N which is located <i>ca.</i> 260m d/s of the primary discharge and <i>ca.</i> 4km u/s of RS19M010300.</p> <p>Note: There are no station codes available on EDEN at the above agreed ambient monitoring locations. Therefore, for EDEN uploading purposes, the closest National Monitoring Stations are used for uploading purposes <i>i.e.</i>, RS19M010100 (u/s) and RS19M010300 (d/s).</p>

Refer to **Attachment D.1: Map 8** which displays the receiving water designations in proximity to the discharges from the new WwTP

Table 32 - Receiving waters of secondary discharges

Type (freshwater, lake etc.)	Not applicable
Name and WFD Ref.	Not applicable
WFD Risk	Not applicable
WFD Status (year)	Not applicable
WFD Objective (year)	Not applicable
Is the agglomeration identified as a significant pressure?	Not applicable
Have the discharges contributed to a deterioration in the quality of the water body?	Not applicable
Protected areas downstream	Not applicable
Are there drinking water abstraction points downstream of waste water discharge points?	Not applicable

European sites hydrologically connected	Not applicable
Trophic status of transitional / coastal waters	Not applicable
Is there a groundwater protection scheme in place or to be provided in the vicinity of such discharge?	Not applicable
Status of adjacent waterbodies (e.g. upstream and downstream of the receiving waterbody)	Not applicable
95%ile River Flow upstream of secondary discharge point (if applicable)	Not applicable
Receiving water monitoring stations upstream and downstream (code and distance from secondary discharge point)	Not applicable

Table 33- Receiving waters of discharges from SWOs

Receiving Waters name and code	WFD status	No. of compliant SWOs ¹	No. of SWOs under assessment or remediation	Is the SWOs identified as a significant pressure?	WFD objective and date
MARTIN_010	Poor	1	0	No	Good Status (2027)

¹ Compliant with DoECLG criteria set out in 'Procedures and Criteria in Relation to Storm Water Overflows'.

Table 34 - Ambient monitoring – upstream monitoring point

EDEN Code (where applicable):	RS19M010100 (nearest u/s National Monitoring Station to current Grenagh u/s monitoring location)	
Licence Code:	aSW001u	
Monitoring Location: *	158824	084996
Point Type:	River	
Name of Receiving Water	MARTIN_010	

*ca. 1.6km d/s of RS19M010100 and directly u/s of WwTP discharge.

Table 35 - Ambient Monitoring – upstream monitoring results¹ (Data Source: IW/CCC)

Parameter	BOD (mg/l)	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (% sat)	Suspended Solids (mg/l)	Temp (°C)
Number of Samples	2	2	2	2	2	2
Mean Result	1.9	0.024	0.048	99.75	8	9.15
Mean EQS – Good status	≤1.5	≤0.035	≤0.065			
95%ile EQS – Good status	≤2.6	≤0.075	≤0.14			

Note: Where data was reported as less than the limit of detection, LOD/2 was applied

Table 36 - Ambient monitoring results – downstream

EDEN Code (where applicable):	RS19M010300 (nearest d/s operational National Monitoring Station to current Grenagh u/s monitoring location)	
Licence Code:	aSW001d	
Monitoring Location: *	158952E	084741N
Point Type:	River	
Name of Receiving Water	MARTIN_020	

*ca. 4km u/s of RS19M010300 and ca. 260m d/s of WwTP discharges

Table 37 - Ambient Monitoring – downstream monitoring results¹ (Data Source: IW/CCC)

Parameter	BOD (mg/l)	Ortho-P (mg/l)	Total Ammonia (mg/l)	DO (% Sat)	Suspended Solids (mg/l)	Temp (°C)
Number of Samples	2	2	2	2	2	2
Mean Result	1.5	0.023	0.056	97.5	6.625	9.3
Mean EQS – Good status	≤1.5	≤0.035	≤0.065			
95%ile EQS – Good status	≤2.6	≤0.075	≤0.14			

Note: Where data was reported as less than the limit of detection, LOD/2 was applied

Table 38 - Proposed Receiving Water Monitoring

EDEN Code (where applicable)*	Licence Code	Monitoring Location		Point Type	Name of Receiving Water
RS19M010100	aSW001u	158824E	084996N	River	MARTIN_010
RS19M010300	aSW001d	158952E	084741N	River	MARTIN_010

* Nearest operational National Monitoring Stations u/s and d/s of Grenagh WwTP's operational discharges.

Table 39 - Proposed Monitoring Regime

Parameter	Units	Monitoring Frequency	Analysis method/Technique
pH	pH Unit	Quarterly	pH meter and recorder
BOD	mg/l	Quarterly	Standard Method
Suspended Solids	mg/l	Quarterly	Standard Method
Ortho-phosphate (as P)	mg/l	Quarterly	Standard Method
Ammonia (as N)	mg/l	Quarterly	Standard Method
DO	% O2	Quarterly	Standard Method
DO	mg/l	Quarterly	Standard Method
Visual Inspection	Descriptive	Quarterly	Standard Method

D.2 Assessment of impact on receiving waters

This part of the application form collects reports on the assessment of the impact of existing and proposed waste water discharges on the environment including any environmental medium other than that into which the discharges take place or are to take place. The impact assessment reports address at least the impact on the quality of receiving waters (surface water or groundwater) and may, as appropriate, address European sites.

Where a Natura Impact Statement (NIS) does not accompany the application, you are required to provide an Appropriate Assessment (AA) screening report.

Is this application accompanied by an NIS?	No
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D.2.1 Supporting document

The impact Assessment Report should be submitted (as Attachment D2) in accordance with the guidance and the name assigned to the attachment(s) provided in the table below.

Table 40 - Assessment Reports.

Document type	Document name
Impact assessment report	Attachment D.2.1: Impact Assessment Report, August 2022
AA Screening Report	Attachment D.2.2: AA Screening Report, August 2022
Waste Assimilative Capacity	Attachment D.2.3: Waste Assimilative Capacity, August 2022
Priority Substance Assessment Report	Attachment D.2.4: Priority Substance Assessment Report, August 2022
Small Stream Risk Score Report	Attachment D.2.5: Small Stream Risk Score Report April 2018
Hydrological Estimation	Attachment D.2.5: Hydrological Estimation Report, July 2022

D.3 Closing Remarks

This part of the application form is a short statement summarising the environmental outcome of your application and assessment.

State the environmental outcome of your application and assessment and reasons for same:

The Grenagh WwTP operates in a manner to ensure that emissions from the plant will not result in the contravention of EU Directives and National Regulations.

The proposed effluent standards (*i.e.*, COD 125 mg/l, TSS 35mg/l, BOD 25mg/l, Total Ammonia 3mg/l and Ortho-P 1.65mg/l) for the Grenagh WwTP give effect to the principle of the Combined Approach as defined in Waste Water Discharge (Authorisation) Regulations, 2007 to 2020 in that they accommodate the Urban Waste Water Regulations and the status of the receiving waterbody, the Martin River (Martin_010) and downstream waterbodies.

The 1 no. SWO at the WwTP operates in compliance with the definition of 'Storm Water Overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007, as amended and the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995.

The Grenagh WwTP is not listed as a significant pressure in At Risk waterbodies in the 2nd and draft 3rd cycle catchment assessments. The significant pressure for the Martin_010 has been determined as Hydromorphology (embankments) and illegal dumping activity, both of which are outside of the control of Irish Water.

The WFD status of the Martin_010 is "Poor" and At Risk of not achieving Good water quality status during 2022-2027. Further downstream the Martin_010 flows to the Martin_020 and then to the Martin_030, both of which are classed as "Good" WFD Status.

The EPA undertake biological monitoring of the Martin River at various locations. Upstream of the WwTP at RS19M010100 (*ca.* 1.6 km upstream), the 2020 monitoring reported a Q value of 3-4 (Moderate). Downstream of the WwTP at RS19M010200 and RS19M010300 (*ca.* 1.3 km and 4.3 km downstream, respectively) the 2020 monitoring reported a Q value of 4 (Good). Further downstream at RS19M010400 (*ca.* 7.1 km downstream of the WwTP), the 2020 monitoring reported a Q value of 4-5 (High).

Based on the above, along with the conclusions of the AA Screening Report, Priority Substances Assessment Report, WAC calculation, SSRS Assessment, and the Impact Assessment Report, which support this application, it is considered that the operational discharges from the Grenagh agglomeration are having no significant effect on the receiving aquatic environment, alone or in combination with other plans and projects.

Irish Water consider that the proposed effluent discharge standards and the design of the Dual Function Overflow from the WwTP, will ensure that the operational discharges proposed in this application will (i) assist in achieving Good status of the Martin_010, (ii) ensure that the Good status of the downstream Martin_020 and Martin_030 is maintained and (iii) will ensure that there is no environmental risk posed to the receiving water environment as a result of the discharges from the agglomeration.

In summary, Irish Water is committed to ensuring that the Grenagh WwTP operates in a manner that supports the achievement of the water body objectives under the Water Framework Directive,

and their obligations under the Birds and Habitats Directives and all applicable Directives and National Regulations.

SECTION E: DECLARATION

E.1. Declaration

The Signed Declaration template should be downloaded from the EPA website (www.epa.ie), completed and submitted in accordance with the Guidance Document.

E.1.1 Supporting documentation

The name assigned to the Signed Declaration document should be provided in the following table:

Table 41 - Signed Declaration document name

Document type	Document name
Declaration	Attachment E.1: Signed Declaration

END