



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	A1.1 Non-Technical Summary

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)	D0437-01
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If A is applicable, provide the following information:

Grounds for review on which the application is being made:
<p>Boherbue is a village on the R577 regional road in northwest Co Cork. The R577 links Ballydesmond to the west and the N72 to the east. The village is roughly equidistant between the hub towns of Tralee, Killarney and Mallow.</p> <p>The Boherbue Waste Water Agglomeration is serviced by a partially combined drainage and foul sewerage network. The existing WwTP was commissioned in 1955 and originally designed for an 800 Population Equivalent (PE) organic capacity.</p> <p>The key findings of an Irish Water Asset Survey Report dated January 2019 for Boherbue WwTP noted:</p> <ul style="list-style-type: none"> • The existing process units have insufficient capacity to treat the estimated current winter population equivalent load in compliance with the existing EPA Wastewater Discharge License (WWDL) D0437-01 Emission Limit Values (ELVs).

- Recent discharge sampling analysis shows that Boherbue WwTP is not achieving the WWDL ELVs for Ammonia and Ortho-phosphate.

The proposed upgrade to Boherbue WwTP will provide for increased treatment capacity and for improved treatment to meet newly proposed ELVs.

A Flow and Load study at Boherbue was carried out in September 2020. Load data indicated that the average loading from the village agrees reasonably well with the current domestic population estimate of approximately 800PE. Data also indicated a load arriving at the WWTP downstream of the village connection, which is attributed to trade effluent. There is a single trade discharge in the village.

The organic capacity of the newly upgraded WwTP at Boherbue will be equivalent to 1,350PE. As a result, the Boherbue agglomeration will now move from the Waste Water Discharge Licence 500 to 1,000 PE equivalent category to become part of the 1,001 to 2,000 PE equivalent category. That is the basis of this WWDL Review Application.

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	

B.1.2 Applicant’s Details

Provide the following information:

Table 4 - Name and Address of Applicant

Name*:	Irish Water
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Address:	Colvill House 24-26 Talbot Street Dublin 1 D01 NP86
CRO Number:	530363
Tel:	01 892 5000
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*:	Sheelagh Flanagan
Address:	Irish Water, Colvill House, 24-26 Talbot Street, Dublin 1, D01 NP86
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:	Boherbue
Name of townland or townlands of the agglomeration served by a waste water works to which the application relates:	Boherbue Laharn West
Included on EPA Waste Water Priority List?	Yes
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><i>e.g. nature and extent of the network (length of pipeline, gravity flow, pumping stations, storm water overflow structures or devices, infiltration)</i></p> <p>The original WwTP (commissioned in 1955) was designed to cater for a population equivalent (PE) of 800. The influent to the wastewater treatment plant is primarily domestic wastewater. The sewage system in the Boherbue WW agglomeration is a partially combined system.</p> <p>There are 3 No pumping stations on the Waste Water Network, which pump to header manholes and from these, the wastewater gravitates to the WWTP. The existing flows to the WWTP are in the order of 150m³/day to 450m³/day.</p> <p>There is an Emergency Overflow on the Laharn East pump station. This is a 225mm dia pipe which runs in a northerly direction to the Brogeen River.</p> <p>Wastewater at the WWTP undergoes tertiary treatment. In summary the existing WwTP includes the following treatment stages:</p> <ul style="list-style-type: none"> • Inlet Works, including Storm separation by overflow chamber; • Preliminary treatment (Automatic Screen & Grit Trap)); • Primary treatment using Imhoff Tank; • Secondary treatment using trickling filters and humus tanks; • Tertiary treatment using an Integrated Constructed Wetland (ICW); • Sludge treatment using a sludge holding tank. <p>Influent gravitates to the Inlet Works which comprises a grit trap and automatic screen. Flow then gravitates to an Imhoff Tank for primary treatment and from there to 2 No Trickling Filters, which are followed by final settlement in 2 No Humus Tanks. Flow of the treated effluent is discharged to an ICW (added in 1998) for Tertiary Treatment. The outlet flow from the ICW is via an existing headwall with grid reference 126,750E, 101,936N, which is the Primary Discharge Point (SW001). There is an open channel between the headwall and River Brogeen (21m in length from headwall to river). The channel meets the river at grid reference 126,755E and 101,960N</p> <p>There are 2 No. existing Storm Water Overflows (SWOs) – SW002 and SW003 associated with the Boherbue Agglomeration. These SWOs are located upstream and downstream of the inlet works within the confines of the WwTP site namely Upstream SW002 and Downstream SW003. SW002 combines with the secondary treated effluent prior to discharging into the ICW. SW003 provides an overflow which bypasses the ICW on the east side, prior to discharge at the existing headwall/existing primary discharge point (SW001).</p>
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	<p>SW001, SW002 and SW003 all discharge at the same location – headwall - 126,750E, 101,936N.</p>
<p>Description of proposed development, if any, to which the application relates:</p>	<p>The proposed works associated with the upgrade at Boherbue WwTP will include phosphorous removal and improvements to reduce ammonia. The works will include the following:</p> <ul style="list-style-type: none"> • New Inlet Works; • New Stormwater Holding Tank • New Biological Treatment Process; • New Tertiary Treatment (i.e. Cloth Filters) including phosphorous removal; • Sludge Treatment Process, including Sludge Drying Reed Beds; • Decommissioning the existing primary Imhoff Tank, Trickling Filters and Humus Tanks.; • Ground mounted Solar PV. <p>The new plant will also include odour control plant, a control building, ESB Substation and standby generator.</p> <p>The 2 No existing Storm Water Overflows within the WwTP site (i.e SW002 & SW003) will be decommissioned as part of the proposed upgrade works. Two new SWOs will be constructed upstream of the new inlet works (SWO04) and at the new stormwater holding tank (SWO05). The location of these new SWOs are shown on Map 2.2.3 Discharge Points Proposed Plan included in Appendix B.2.2. The new SWOs (SW004 and SW005) will divert stormwater overflow into the existing ICW.</p> <p>Following secondary treatment, effluent will be passed onto tertiary treatment comprising cloth filters for final effluent polishing. This tertiary treatment stage will be more effective and consistent at removal of phosphorus, than currently provided by the integrated constructed wetlands. For this reason, final treated effluent will bypass the existing ICW and connect to the existing headwall and existing primary discharge point (SW001).</p> <p>The existing primary discharge point (SW001) will remain as the primary discharge point following the upgrade works.</p> <p>A Waste Assimilative Capacity (WAC) analysis was also carried out as part of the proposed upgrade works for Boherbue WwTP with an increased 1,350PE capacity. In addition, the most recent monitoring results for background concentrations in the River Brogeen as well as a Sensitivity Analysis were considered. This resulted in adjustments to the proposed ELVs to meet the ‘High’ ecological status requirement associated with a Freshwater Pearl Mussel designation in this river basin catchment (Munster Blackwater). The proposed ELVs associated with this review application are as follows:</p> <p>pH - 6-9 BOD - 12.5mg/l</p>

	<p>COD - 125mg/l TSS - 25mg/l Orthophosphate - 0.25 mg/l Ammonia - 0.5 mg/l</p> <p>These proposed ELV figures are based on an assessment of the existing ambient receiving concentrations, the projected WwTP PE load and receiving water EQS objectives.</p>
<p>Number and type of waste water discharges from the waste water works including proposed waste water discharges:</p>	<p><i>e.g. primary discharge, secondary discharges, storm water overflows, emergency overflows</i></p> <p>Primary Discharge - Existing: The existing secondary treated effluent discharges to the existing ICW for tertiary treatment. The outlet from the ICW is via an existing headwall with grid reference 126,750E, 101,936N, which is the primary discharge point (SW001)</p> <p>The headwall is located approximately 21m from the Brogeen River. From the headwall, the treated effluent flows through an open channel into the river. The open channel has a gradient of 5% approximately, is hydraulically connected with the river and has a consistent flow as evident from a site survey conducted during low flow conditions in July 2022.</p> <p>As noted in the NIS, the section of the Brogeen river into which the WwTP discharges is a second order watercourse, meanders considerably along its length and has a good riparian buffer zone. The riverbank at the primary discharge point of the WwTP (i.e. open channel downstream of the headwall) is characterised by wet grassland.</p> <p>Primary Discharge – Proposed: The final tertiary treated effluent from the newly upgraded WWTP will bypass the ICW (via new pipework) and discharge at the existing headwall/Primary Discharge location (SW001), as detailed above</p> <p>There will be no new or relocated discharge points to the river.</p> <p>Secondary Discharge: - Existing and Proposed: There are no secondary discharge points within the existing agglomeration, nor are there any proposed under the proposed upgrade works.</p> <p>Stormwater Overflows - Existing: There are 2 No. existing Storm Water Overflows (SWOs) – SW002 and SW003 associated with the Boherbue WW Agglomeration. These SWOs are located upstream and downstream of the inlet works within the confines of the WwTP site namely Upstream SW002 and Downstream SW003. SW002 combines with the secondary treated effluent prior to discharging into the ICW. SW003 provides an overflow which bypasses the ICW on the east side prior to discharge at the existing headwall/existing primary discharge point (SW001).</p>

	<p>Stormwater Overflows - Proposed:</p> <p>The proposed upgrade includes works to stormwater management.</p> <p>Flows arriving at the plant in excess of Formula A design flows will be diverted via an overflow chamber upstream of the proposed inlet works and flow directly to the ICW and from here discharge at the existing headwall into the surface water channel 126,750E, 101,936N (SW004).</p> <p>There will also be an overflow from a proposed stormwater holding tank. Flows in excess of flows to full treatment (FFT) will be diverted upstream of the proposed aeration tanks to a new stormwater holding tank. Flows in excess of the stormwater holding tank capacity will overflow to the ICW and from here discharge at the existing headwall into the surface water channel 126,750E, 101,936N (SW005).</p> <p>The two new SWOs (SW004 and SW005) will discharge from the ICW to the receiving environment at the exiting headwall. There will be no new or separate stormwater overflows at the WwTP direct to the river.</p> <p>Emergency Overflow: - Existing and Proposed:</p> <p>There is an Emergency Overflow on the Laharn East pump station. This is a 225mm dia pipe which runs in a northerly direction to the Brogeen River. There are no proposed changes to the existing Emergency Overflow.</p>
<p>Is the network assessment complete?</p>	<p>Yes</p>
<p>If the answer above is no, in what year is the assessment expected to be complete?</p>	<p>Not Applicable</p>

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

Site contact Name*:	Regional Wastewater Compliance Specialist
Address of waste water treatment plant (including Eircode):	Boherbue WwTP Laharan West Boherbue Co Cork
Telephone Number:	01 8925000
e-mail:	wastewatercompliancesouthern@water.ie
Grid ref (6E, 6N)	OS Coordinates 526618, 601783 (ING)
Description of the treatment process	<p>Secondary Treatment with Nitrogen and Phosphorus Removal</p> <p>Proposed Treatment: The proposed upgrade works and treatment will include the following components:</p> <p>Component 1: Preliminary Treatment:</p> <p>Inlet Works: Incoming flows will pass through the inlet works in order to be screened and for grit removal. Fine screening to 6mm in 2D and a manual bypass screen to 19mm will be provided. The screens will be designed to cope with a minimum of 150% of the design capacity for works.</p> <p>Stormwater Management: The proposed upgrade includes works for stormwater management.</p> <p>Prior to the Inlet Works, stormwater arriving at the plant in excess of Formula A will be directed through the ICW to discharge at existing headwall (SW001). Downstream of the inlet works, stormwater in excess of FFT will be diverted to a new stormwater holding tank. Overflows from the stormwater tank will also be directed through the ICW to discharge at the existing headwall (SW001).</p> <p>Component 2: New Treatment:</p> <p>Secondary Treatment - Biological Treatment Stage: Flows to full treatment will pass to a biological treatment stage, where carbonaceous oxidation, nitrification and suspended solids separation will be carried out in order to achieve the required treated effluent quality. Coagulant dosing will be carried out at the outlet of the biological treatment stage (but upstream of the secondary settlement stage) to promote chemical phosphorus removal.</p> <p>Secondary Treatment – Settlement Tanks:</p>

	<p>Following biological treatment, mixed liquor will be forwarded to a secondary settlement stage consisting of 2 No secondary settlement tanks.</p> <p>Biological and chemical sludge generated by the chemical phosphorus removal process will separate from secondary treated effluent by gravity, and will be collected in a central hopper for sludge return and wasting, whilst treated effluent will flow over a weir before undergoing tertiary treatment.</p> <p>Tertiary Treatment: Following settlement, secondary treated effluent will be passed onto a tertiary treatment stage for final effluent polishing prior to discharge from the WWTP. Tertiary treatment will consist of the installation of cloth filters for final treatment. Cloth filters are efficient in the removal of TSS, associated BOD, phosphorus and other pollutants.</p> <p>The tertiary treated effluent will bypass the existing ICW and discharge at the existing headwall which is the existing Primary Discharge Point SW001. There will be no change to the existing headwall or open channel between the headwall and the Brogeen River.</p>
<p>Primary discharge point reference ID:</p>	<p>(SW001) Existing</p> <p>Headwall to an Open Channel 126,750E 101,936N</p> <p>Note: There is an open channel between the headwall and River Brogeen (21m in length from headwall to river). The channel meets the river at grid reference 126,755E and 101,960N.</p>

**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	B2.1 Agglomeration Map
B.2-2 Site map including discharge and monitoring points.	B2.2.1 Site Location Map B2.2.2 Monitoring Sampling Points Location Map B2.2.3A WwTP Discharge Points B2.2.3B Emergency Overflow Discharge Points

B.2.3 Waste water process flow

B2.3 Waste Water Process Flow

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:	1350 PE ie Proposed Design Capacity
Maximum average weekly population equivalent of the agglomeration:	533 PE Ref: IW AER 2020
Existing Organic Capacity of the waste water treatment plant - As Constructed or nominal design (p.e.)	800 PE
Proposed Organic Capacity of the waste water treatment plant - As per planning permission or design (p.e.)	1350 PE (Organic Load)
Current Collected Load (p.e.):	533 PE Ref: IW AER 2020
Remaining Organic Capacity (p.e.):	267 PE
Is the plant overloaded – organic loading?	No
Current Peak Hydraulic Capacity of the waste water works–As Constructed or nominal design (m ³ /day):	540 m ³ /d
Proposed Peak Hydraulic Capacity of the waste water works–As per planning permission or nominal design (m ³ /day):	2,000 m ³ /d
Current and proposed dry weather flow (DWF) to the treatment plant (m ³ /day):	Current DWF = 180 m ³ /d Proposed DWF = 345 m ³ /d
Current average hydraulic loading to the treatment plant (m ³ /day):	329 m ³ /d Ref: IW AER 2020
Remaining Hydraulic Capacity (m ³ /day):	211 m ³ /d (ie Current Peak – Current Average)
Is the plant hydraulically overloaded?	Yes The annual max hydraulic load (980m ³ /d) is greater than peak treatment capacity (540m ³ /d).

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	1200 PE (proposed design loading)	Current: 98% Proposed: 89%
Industrial waste water load	17 PE (current licence Ingredient Solutions) Ref: MMD Technical Note 2021 150 PE (projected licence increase for Ingredient Solutions)	Current: 2% Proposed: 11%
Leachate	Not applicable	Not applicable
Waste water to be conveyed and discharged only (i.e.by pass the WWTP)	Not applicable	Not applicable
Total	1350 (proposed design loading)	

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?	Yes
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If 'No' was answered to A, provide details of the measures to be taken to comply:

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:	21/07443
Planning Appeal Reference Number (if relevant):	Not Applicable
Planning Authority Name / An Bord Pleanála:	Cork County Council
Date of Planning Decision (Final Grant):	29/03/2022
Brief description:	(1)Construction of new inlet works, new storm overflow and flow splitting chamber, new aeration tanks, new settlement tanks, and cloth filter structure, new storm tank, new sludge drying reed beds, new outfall pipeline together with associated tanks, chambers, pipelines, provisions of new admin and welfare modular kiosk, upgrade to boundary treatment to include 2.4m high weld mesh fence, new internal access road, public lighting and all associated site development works (2) Construction of new admin/welfare modular building. (3) decommissioning of the existing wastewater treatment plant, equipment and associated structures as part of the upgrade works. (4) Construction of 150kW photovoltaic (PV) solar panels on ground mounted frames on the south-east area of the site. The grid connected to PV panels will be arranged in 5 no. rows with an overall panel area of 745sqm approximately. Provision of

	a kiosk/modular unit for associated electrical equipment. (5) All associated site development works above and below ground.
EIAR required with Planning Application?	<i>No</i>
Confirm that the supporting documentation is provided:	<i>Yes</i>

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):	Not Applicable
Planning Authority Name / An Bord Pleanála:	Not Applicable
Date of application:	Not Applicable
Brief description:	Not Applicable
EIAR required with Planning Application?	Not Applicable
Confirm that the supporting documentation is provided:	Not Applicable

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)	B3.2 Final Grant and Planners Report Refer to page 2 of 8 of Cork County Council Snr Planners Report dated 23.02.2022
	- a copy of relevant grant of planning permission AND planners report	B3.2 Final Grant and Planners Report
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 under consideration by the planning authority concerned or An Bord Pleanála	Not Applicable
	- 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)	126,749E	101,326 N
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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:	B4.1 Newspaper Notice
Site notice:	B4.2 Site Notice
Map of site notice location:	B4.3 Map of Site Location Notice
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?	B5.1 EIAR Screening Report
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.

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	B5.1 EIAR Screening Report

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	B6 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?	No
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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?	Not Applicable
B	If no to A, is a Foreshore Act Licence application under consideration by the relevant competent authority?	Not Applicable
C	Was EIA carried out or will be carried out by the Foreshore Act Licence competent authority?	Not Applicable
D	If 'Yes' to C, confirm that the same EIAR was submitted to Foreshore competent authority as accompanied this WWDA application:	Not Applicable
E	If 'Yes' to A, provide: <ul style="list-style-type: none"> - Licence Reference Number; and - date of grant of consent: 	Not Applicable
G	If 'Yes' to B, provide application reference number	Not Applicable

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?	Yes
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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)	Schedule C.1 of WWDL D0437-01 - Specified Improvement Programme: 1. WWTP Phosphorous Removal 2. WWTP Any Infrastructural Improvements that may be necessary to reduce ammonia in the discharge to meet the emission limit value specified in Schedule A.1: Primary Wastewater Discharge and Monitoring
Date for completion of Improvement Programme in the licence:	1. 31/12/2014 2. 31/12/2014
Has the date for completion expired? (Enter N, N/A or Y)	Yes
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>	(iii) Work ongoing on site
Irish Water's expected timeframe for completing the work	March 2024

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:	Not Applicable
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>	Not Applicable
Status of works:	Not Applicable
Expected Completion date:	Not Applicable
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:	SW001
Type: (primary discharge / secondary discharge/ storm water overflow)	Primary Discharge
Improvement works description:	<p>The proposed process design and treatment stages associated with the plant upgrade will be modified to achieve the proposed ELVs that are compatible with HIGH status quality standard for receiving waters and support the conservation objectives of the Brogeen River. The proposed WwTP will include the following:</p> <ul style="list-style-type: none"> • New inlet works • New stormwater holding tank • New biological treatment process • New tertiary treatment (cloth filter) including phosphorous removal

	<ul style="list-style-type: none"> • Sludge treatment process, including sludge drying reed beds • Decommissioning the existing primary Imhoff tanks, trickling filters and humus tanks.
Expected completion date:	March 2024
Planning status: (grant of permission / exempted development)	Planning permission granted
Prioritised for funding:	Yes

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	B8.1 Programme of Improvements

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		€12,000
- 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	C1 Tabular Data on Discharge Points

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	Y	Applicable to WwTP & Network	Performance Management System (PMS)
Emergency Response Plan and Procedures:	Y	Y	Applicable to WwTP & Network	Performance Management System (PMS)
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:	Y	Y	Applicable to WWTP	Telemetry Alarm
Standby pumps at waste water treatment plant:	Y	Y	Process Pumping all Duty/standby with auto changeover	Telemetry Alarm
Standby equipment or provisions in the event of interruption of the power supply such as a portable	Y	Y	Connection for portable generator	Telemetry Alarm

generator or equipment with automatic switchover:			supply with manual change over switch.	
Storage capacity at intake to the waste water treatment plant (SWO tank):	N	Y	Storm Water Holding Tank to be provided.	Telemetry alarm
Groundwater monitoring:	N/A	N/A	N/A	N/A
Network				
Measures to prevent unintended discharges	Existing (Y/N)	Proposed (Y/N)	Applicability	Surveillance measure
Alarms / telemetry on pumping stations:	N	N	No alarms provided at Pump Stations – Daily operator visual checks and monitoring.	Daily Inspections
Alarms / telemetry on emergency overflows:	N/A	N/A	No overflow @ Pump Stations, pump to header manhole then gravity to WwTP.	Daily Inspections
Standby pumps at pumping stations:	Y	Y	All pumping stations	Daily Inspections
Standby equipment or provisions in the event of interruption of the power supply:	Y	Y	Portable generator available for deployment at all pumping stations in the event of a power failure	Daily Inspections
Storage capacity at pump stations:	Y	Y	Wet well capacity only	Daily Inspections
Monitoring telemetry on SWOs:	N/A	N/A	No SWOs from Pumping Stations	Daily Inspections
Additional measures:	N/A	N/A	N/A	N/A

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	C2 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:	Brogeen River (WFD Code: IE_SW_18_B060300) BROGEEN_020
WFD Risk:	Not at Risk
WFD Status & year:	Good (SW 2013 – 2018)
WFD Objective & timeframe for achievement:	<p>The WFD requires all EU member states to aim to achieve ‘Good’ status for all waters (surface and groundwater). The directive defines surface and groundwater types and outlines the legislative documents and other EU directives that should be used in order to ensure compliance.</p> <p>The regulations associated with WFD also regulate specific emission limit values for discharges with the aim of achieving good water quality status. The River Brogeen is projected to be ‘Not At Risk’.</p> <p>The Water Framework Directive (WFD) objective for the River Brogeen is to maintain Good Ecological Status. However, the Brogeen River is one of 27 No catchments designated as an SAC for Freshwater Pearl Mussel (FWPM). Because the Boherbue WwTP discharge is into a designated FWPM habitat, ‘High Status’ rather than ‘Good’ status is the relevant objective of the Water Framework Directive.</p>
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:	<p>The proposed tertiary treated effluent from the WWTP will discharge from the existing headwall (SW001) to a surface water channel which flows for 21m before discharging into the River Brogeen, a tributary of the River Allow and in turn a tributary of the River Blackwater. At the point of discharge, the River Brogeen forms part of the Blackwater River (Cork/Waterford) SAC (Site Code 002170).</p> <p>The Brogeen River and River Allow catchment is one of 27 No catchments designated as an SAC for Freshwater Pearl Mussel (FWPM). Because the WwTP discharge is into the River Brogeen, a</p>

	<p>designated a FWPM habitat, 'High Status' with regard to river quality was considered rather than 'Good' status as an objective of the Water Framework Directive.</p> <p>An Appropriate Assessment has been completed to assess the impact of the discharge from the Boherbue WWTP on the Blackwater River (Cork/Waterford) SAC.</p> <p>The AA demonstrated that the discharge will not adversely affect the Blackwater River (Cork/Waterford) SAC and the integrity of the European Site subject to the mitigation measures of phosphorus removal at the treatment plant and adherence to appropriate emission limit values (ELV) in the discharge.</p>
Are there drinking water abstraction points downstream of waste water discharge points?	No
European sites hydrologically connected:	Treated effluent from the WWTP discharges into River Brogeen. The River Brogeen forms part of the Blackwater River (Cork/Waterford) SAC (Site Code 002170).
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?	No
Status of adjacent waterbodies: (e.g. upstream and downstream of the receiving waterbody)	<p>Upstream – BROGEEN_010 Status = Good</p> <p>Downstream – BROGEEN_020 Status = Good</p> <p>Downstream –ALLOW_070 Status = Good</p>
95%ile River Flow upstream of primary discharge point: (if applicable)	0.028 m3/sec
Receiving water monitoring stations: (code and distance from primary discharge point)	<p>aSW1u RS18B060100 Br N of Islandav 1.4km upstream of SW001</p> <p>aSW1d RS18B060200 Brogeen Br 6.5km downstream of SW001</p>

Table 32 - Receiving waters of secondary discharges (Not Applicable)

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
Brogeen River (WFD Code: IE_SW_18_B060300) BROGEEN_020	Good (SW 2013 – 2018)	2	0	No	HIGH status objective for FWPM

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):	RS18B060100 Br N of Islandav		
Licence Code:	aSW1u		
Monitoring Location:	125366 E	102071 N	
Point Type:	River		
Name of Receiving Water	BROGEEN_20 (WFD Code: IE_SW_18_B060300)		

Table 35 - Ambient Monitoring – upstream monitoring results

NOTE: Data obtained from catchments.ie website for 12 month period May 2021 to May 2022

Parameter	BOD	Orthophosphate	Ammonia /
Number of Samples	4	4	4
Max result	2.2 mg/l	0.03 mg/l	0.16 mg/l
Min result	1.4 mg/l	0.014 mg/l	0.013 mg/l
Average result	1.85 mg/l	0.02 mg/l	0.083 mg/l
Overall compliance with relevant EQS (High status)	Pass	Pass	Pass

Reference Table 9 SI 272 SW Regs 2009 BOD 2.2mg/l Ortho 0.045mg/l Ammonia 0.09mg/l.

Table 36 - Ambient monitoring results – downstream

EDEN Code (where applicable):	RS18B060200 Brogeen Br	
Licence Code:	aSW1d	
Monitoring Location:	128762 E	102752 N
Point Type:	River	
Name of Receiving Water	BROGEEN_20 (WFD Code: IE_SW_18_B060300)	

Table 37 - Ambient Monitoring – downstream monitoring results

NOTE: Data obtained from catchments.ie website for 12 month period May 2021 to May 2022

Parameter	BOD	Orthophosphate	Total Ammonia
Number of Samples	4	5	7
Max result	3.4 mg/l	0.13 mg/l	0.065 mg/l
Min result	1.4 mg/l	0.024 mg/l	0.016 mg/l
Average result	1.9 mg/l	0.06 mg/l	0.049 mg/l
Overall compliance with relevant EQS (High Status)	Pass	Fail	Pass

Reference Table 9 SI 272 SW Regs 2009 BOD 2.2mg/l Ortho 0.09mg/l Ammonia 0.0459mg/l.

Table 38 - Proposed Receiving Water Monitoring

EDEN Code (where applicable)	Licence Code	Monitoring Location				Point Type	Name of Receiving Water
RS18B060100	aSW1u	125366	E	102071	N	Upstream	River Brogeen
RS18B060200	aSW1d	128762	E	102752	N	Downstream	River Brogeen

Table 39 - Proposed Monitoring Regime

Parameter	Units	Monitoring Frequency	Analysis method/Technique
pH	pH Units	Quarterly	Electrode
DO	%O2	Quarterly	Electrode
BOD	mg/L	Quarterly	Electrode
Temp	deg C	Quarterly	Standard Method
Orthophosphate (P)	mg/L	Quarterly	Colorimetric
Total Ammonia (N)	mg/L	Quarterly	Colormetric
Visual Inspection	Text	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?	Yes
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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	D2.1 WAC Assessment Report
Natura Impact Statement	D2.2 NIS
AA screening report	D2.3 AA Screening Report

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:

Boherbue WwTP was commissioned in 1955 to treat a PE of 800. Irish Water propose to upgrade the existing WwTP at Boherbue for an organic capacity of 1,350 PE.

The proposed process design and treatment stages associated with the plant upgrade have been designed to achieve proposed ELVs that are compatible with High status quality standard for receiving waters and support the conservation objectives of the Brogeen River as a receiving water with a Freshwater Pearl Mussel designation. The proposed ELVs are pH 6-9, cBOD 12.5mg/l, COD 125mg/l, TSS 25mg/l, Orthophosphate 0.25mg/l and Ammonia 0.5mg/l.

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	E1 Declaration

END