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Waste Water Discharge Authorisation

Application Form

EPA Ref. No: (Office use only)

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 <u>www.epa.ie</u>.

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.

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

The Application Form comprises sections A-E as follows:



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



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	\checkmark
В	New application for a licence in respect of which the Agency has previously granted a certificate	
С	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)	D0126-01	
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If A is applicable, provide the following information:

Grounds for review on which the application is being made:

The existing Wastewater Discharge Licence (WWDL) D0126-01 for the Macroom WW Agglomeration was issued to Uisce Eireann on 15th July 2013, with a Technical Amendment issued on 19th December 2016.

This WWDL Review Application is seeking the following alterations to the current WWDL D0126-01:

1) An alteration to *Schedule A: Discharges and Discharge Monitoring* to decrease the Ammonia ELV from 2mg/l to 1.7mg/l and Ortho-P from 1mg/l to 0.8mg/l, based on the findings of the Waste Assimilative Capacity (WAC) Assessment completed for the Primary Discharge from the agglomeration;



- 2) An alteration to the PE of the agglomeration, which will be increased from present 6,000PE to 8,300PE, when upgrade works are complete;
- 3) Update of the Storm Water Overflows Register recorded in Schedule A.3 of the WWDL.

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

Date on which the waste water works became /	N/A
becomes operational:	

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	\checkmark
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*:	Uisce Eireann
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.

Name*:	Waste Water Discharge Authorisation Specialist
Address:	Uisce Eireann, Colvill House, 24-26 Talbot Street, Dublin 1, D01 NP86
Tel:	01 8925000
e-mail:	WastewaterLicensingSouthern@water.ie

Table 5 – Name and Address for Correspondence

*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:	Macroom
Name of townland or townlands of the	Sleveen East
agglomeration served by a waste water works to	Sleveen West
which the application relates:	Gurteenroe
	Codrum
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)

Description of the existing waste water works:	Macroom is a small town located approximately 30km west of Cork City. The existing Macroom Sewerage Scheme consists mainly of a combined collection network. Flows from the east of the catchment gravitate directly to the existing Wastewater Treatment Plant (WWTP), while flows from the west gravitate to Masseytown Pumping Station (PS), from where they are pumped east to a high point, from which they gravitate to the WWTP. 4 No. further PS on the network also service residential developments.
	The existing Macroom WWTP which is accessed directly off the Saint Colman's Park residential development public road has a design capacity of 6,000 Population Equivalent (PE)
	 The existing WWTP includes the following treatment stages: Storm flow separation chamber using high level weir, with Storm Water Overflow (SW002) flowing to the Sullane River via the Primary Treated Effluent Outfall (Co-ords 134957E, 72953N); Preliminary treatment, consisting of a single 6mm automatic screen with a high-level bypass and 30mm manually raked screen downstream of the fine screen; Secondary treatment, consisting of the following: Biological treatment: 1,240m³
	 biological dedutient: 1,240m, 1.5m deep, single oxidation ditch fitted with 3no. vortex aerators and 1 No. original surface aerator; Secondary settlement: single 15.²m diameter settlement tank with half bridge scraper;

Table 7 - Waste Water Works



	• Ferric sulphate IBC dosing chemical at
	the outlet of the inlet works - currently
	not operational;
	Sludge treatment
	 26.5m³sludge
	holding/thickening tank;
	 Sludge dewatering provided by
	a single screw press with a
	capacity of 650kg/d and
	ancillary polymer make-up unit.
	 Following treatment, the secondary
	treated effluent from the WWTP is
	discharged by gravity to the Sullane river
	(which borders the WWTP site) through
	a 20m long outfall (SW001) (Co-ords
	134957E, 72953N).
Description of proposed development, if any, to	It is proposed to increase the capacity of the
which the application relates:	WWTP to cater for the 25 year design projections
	as follows:
	• 25-year Design Projection: 8,300 PE
	A Waste Assimilative Capacity (WAC) Assessment
	Report was carried out which, based on the
	above referenced design projections,
	determined that the River Sullane has sufficient
	assimilative capacity to accommodate the
	discharge from the upgraded WwTP. As such,
	following completion, the proposed Macroom
	WWTP upgrade will meet the ELVs as follows:
	• pH - 6-9
	• BOD - 25mg/l
	• COD - 125mg/l
	 Suspended Solids - 25mg/l
	 Ammonia - 1.7mg/l
	 Orthophosphate - 0.8mg/l
	The proposed upgrade works will comprise of the
	following:
	Preliminary treatment:
	 Preliminary treatment: Opgrade and replacement of
	the existing storm water
	overflow (SWO) immediately
	upstream of the inlet works

with new screened Dual SWO & EO (SW002);
• Decommissioning of the
existing preliminary treatment
works including the screen;
• Construction of a new inlet
works and screening system;
• Construction of a new grit
removal system;
 Construction of a new full flow
to treatment (FFT) pumping
station; and
 Construction of a new
stormwater storage tank,
equipped with storm water
pumps.
Secondary treatment:
o Decommissioning of the
existing oxidation ditch;
 Construction of a new flow
splitting chamber;
• Construction of 2 No new
integrated fixed-film activated
sludge (IFAS) reactor tanks
(Aeration Tanks);
 Decommissioning of the existing final settlement tank;
 Construction of 2 No. new final
settlement tanks;
• Construction of both return &
waste activated sludge
(RAS/WAS) pumping stations;
 Installation of a lime batching &
dosing facility, and;
 Installation of ferric sulphate
dosing system including
bunded chemical storage tank.
 Sludge management system:
 Decommission existing sludge
holding tank;
• Construction of a new sludge
picket fence thickener (PFT);
 Construction of an odour
control system;
 Installation of a new polymer
make-up system, to be located
within the existing building
which is to be retained;

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 Decommissioning existing dewater within the existin Installation of a dewatering equi (to be installed existing building, retained). Outfall: 	ring equipment ng building; and a new sludge ipment/system ed within the
 Construction of effluent sampling the existing ou within the WWTF Discharge of through the exist the River Sullane ords 134957E, 72 	ng manhole on utfall pipeline, 'P site; final effluent sting outfall to e – SW001 (Co-
Ancillary works: O Construction of a	a solar PV panel pable of a r generation of a new sheet ction wall. This istructed within ry to a level of he 0.1% Annual obability (AEP) flood level; nergy generator ank; le existing shed ern side of the le northern side existing sheds site entrance to ted area with a entrance to be County Council ent; a new control ion building; f new surface
interceptor and system, in acc Sustainable Drai (SuDS); and;	



	 Site landscaping and finishes.
Number and type of waste water discharges from	The following discharges will be present within
the waste water works including proposed waste	the upgraded Macroom sewage scheme:
water discharges:	Macroom WwTP: SW001:
	 SWOOL Primary Discharge Point
	 Location: 134957E, 72953N
	• SW002:
	 Dual Storm Water Overflow
	(SWO) & Emergency Overflow (EO)
	 From: High Level Overflow from
	upgraded Formula A Chamber
	(upstream of Inlet Works)
	o Location: 134957E, 72953N
	(discharges through Primary
	Discharge SW001 outfall pipe)
	SW004
	 Storm Water Overflow (SWO) From: Proposed Storm Water
	Holding Tank
	o Location: 134957E, 72953N
	(discharges through Primary
	Discharge SW001 outfall pipe)
	Masseytown Pumping Station:
	• SW003
	 Dual Storm Water Overflow
	(SWO) & Emergency Overflow (EO)
	o From: Masseytown Pumping
	Station
Is the network assessment complete?	O Location: 133877E, 73203N Yes
If the answer above is no, in what year is the	N/A
assessment expected to be complete?	



Site contact Name*:	Regional Wastewater Compliance Specialist
Address of waste water treatment plant (including Eircode):	Macroom Waste Water Treatment Plant Sleeven East, Macroom, Co. Cork
Telephone Number: 01 8925000	
e-mail: wastewatercompliancesouthern@water.ie	
Grid ref (6E, 6N)	134945E, 72932N
Description of the treatment process	A brief description of the proposed treatment process is as follows: Formula A Chamber: Flows entering the WWTP shall be directed through a Formula A Chamber which shall be split into 2 No. cells divided by a weir. Flows shall enter the foul side of the chamber and on normal conditions (up to Formula A) shall be forwarded to the inlet works. If flows surpass Formula A, they will overflow through the weir to the storm side before been directed through a screen and onto the storm tank. Should the storm tank be full to capacity, the effluent will overflow via SW002 directly to the river through Primary Discharge outfall pipe @ 134957E, 72953N. Inlet Works: The proposed inlet works shall consist of the following: Inlet Screening; Full Flow to Treatment Pumping (FFT) Pumping Station; Grit and Fat, Oils & Grease (FOG) Removal. The first stage of the inlet works, effluent shall be screened to remove any large debris and solids. This shall be carried out by 2 No. mechanical band screens which shall be capable of screening up to 6mm in 2D. A further bypass screen is also provided which shall be directed towards the FFT pumping station. Due to the existing ground profile at the Macroom WWTP, the gravity inlet sever and the requirement to discharge to the river, gravity flow through the WWTP will not be achievable and a pumping station will be required to forward flows up to FFT PS to the grit trap and onto the biological treatment process. The FFT PS shall consist of a wet well equipped with 2 No. pumps which shall operate on a duty / standby basis. The FFT shall include for an overflow pipeline which shall be directed towards the storm tank. Following influent pumping, a grit removal stage will be provided through a combination of air agitation (coarse bubble) and settling. The grit removal

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



unit should be capable of removing 95% of grit particles by weight of incoming grit, with grit being defined as all inorganic particles greater than 0.2mm diameter with a specific gravity equal to or greater than 2.65mm at a settling velocity of 0.3m/s. Additionally, due to the sensibility of the IFAS process with FOG, the unit has been designed to ensure 70% reduction of removable FOG and a maximum outlet concentration of 50mg/l, thus minimizing the risk potential impact on the downstream process units. Collected grit and FOG will be forwarded to a grit classifier and FOG concentrator respectively to provide further treatment of collected materials.

Secondary Treatment:

Secondary Treatment shall consist of the following:

- Alkalinity Dosing;
- Integrated Fixed-Film Activated Sludge (IFAS) Reactors;
- Secondary Settlement Tanks;
- Ferric Sulphate Dosing;
- Return and Waste Sludge Pumping Station;
- Scum Pumping Station.

Alkalinity dosing is included as part of the treatment process in order to maintain a stable pH more favourable to biological growth. In order to maintain the required alkalinity the following measures have been included as part of the treatment process:

- Provision of an anoxic zone within the IFAS reactor to recover of the alkalinity consumed by the nitrification reaction;
- Alkalinity boosting through the use of calcium hydroxide/hydrated lime.

IFAS process was selected as the preferred process for the upgraded Macroom WWTP. The proposed design includes for 2 No. IFAS reactors each sized for 50% of the incoming loads, which will facilitate maintenance of the plant when required without disrupting significantly the treatment process. Each of the proposed IFAS reactor will include 1 No. anoxic cell for denitrification, 2 No. aerobic cells for carbonaceous oxidation and 1 No. deaeration cell.

Ferric sulphate shall be added to the effluent discharging from each IFAS reactor in order to lower orthophosphate within the effluent to the required level.

Following biological treatment, the IFAS effluent will be forwarded to a secondary settlement stage, where both biological sludge and chemical sludge generated by the chemical phosphorus removal process will separate from secondary treated effluent by gravity. Settled sludge will then be collected into a central hopper for sludge return and wasting, whilst treated effluent will flow over a weir to the final effluent chamber before discharging to the River Sullane @ SW001 (Co-ords 134957E, 72953N).

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Return activated sludge (RAS) shall be collected within the secondary settlement tank and shall be returned to the IFAS to boost the biological process via 2 No. dry mounted pumps which shall operate on a duty / standby basis. Waste activated sludge shall be pumped to the picket fence thickener (PFT) via a further 2 No. dry mounted pumps which shall operate on a duty / standby basis. Scum collected in the secondary settlement tanks will gravitate to a common scum sump, where flows will be forwarded to the PFT

Stormwater Treatment:

As all flows to the storm tank via the Formula A Chamber & FFT Pumping Station will be screened by the inlet works 6mm fine screen or Formula A weir 6mm screen. Due to the profile of the existing sewer arriving to the WWTP, it will not be possible to discharge wastewater from the storm tank to the river by gravity without surcharging the upstream network, and discharge from the storm tank will therefore be through pumping under normal operation (SW004).

The storm pumps will be located in the storm tank itself, thus removing the need for an additional sump and facilitating constructability of the project. Pumped flows will be pumped to a high-level chamber where they will combine with the treated effluent prior to discharge through the existing Primary Discharge outfall to the River Sullane @ SW001 (Co-ords 134957E, 72953N).

In the event of a power failure, an actuated valve will fail in the closed position at the inlet to the storm tank to prevent localised flooding, and a separate overflow will discharge from the upstream Formula A Chamber weir directly to the river (SW002). It should be noted that this will require surcharging of the upstream network.

Once incoming flows subside below FFT, stormwater stored in the stormwater holding tank will be returned to the FFT PS by 2 No. pumps located in a sump within the tank.

Sludge Treatment Process:

Sludge treatment shall consist of the following:

- PFT;
- Sludge Dewatering;
- Mixed Liquor Returns (MLRs);
- Odour Abatement.

PFTs consist in circular roofed tank fitted with a bottom scraper and a conical collecting bottom. Sludge is fed through a central drum and released at a low velocity near the surface of the tank, allowing solids to settle to the bottom of the tank by gravity. The scrapers then slowly move the settled, thickened solids to a discharge pipe at the bottom of the tank to allow for their pump-out to the sludge dewatering system. A v-notch weir located at the top of the tank allow the supernatant to flow by gravity to the mixed liquor return pumping station. The proposed system will be



	able to achieve a thickened sludge concentration of at least 3% dried solids,	
	thereby minimising the required hydraulic capacity of the dewatering feed	
	pumps and dewatering system.	
	As part of the project, it is proposed to retain the existing sludge dewatering	
	system. To increase the robustness of the existing system, a second standby	
	dewatering feed pump be provided.	
	A new MLRs pumping system shall be provided in order to return MLRs	
	directly to the flow splitting chamber to the IFAS reactors.	
	Ancillary Works:	
	The following ancillary works are proposed to supplement the proposed	
	development:	
	• Standby Power Generator: Provision of a 440kVa generator and	
	associated bunded fuel tank able to power the entire WwTP during	
	prolonged power failure events;	
	• Solar Panels: Construction of 42 kWp photovoltaic (PV) solar panels	
	on ground mounted frames on the north western area of the site. The	
	PV panels shall be used to supplement the energy demands of the	
	proposed WWTP & will be arranged with a panel area of 185sqm	
	approximately.	
Drimany discharge	SW001	
Primary discharge		
point reference ID:	Headwall to the River Sullane at Grid reference: E134957 and N72953	

*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:

Document type	Document name
B.2 .1 Agglomeration map	Attachment B.2.1 - Agglomeration Boundary Map
B.2-2 Site map including discharge and monitoring points.	Attachment B.2.2.1 - Site Location Map Attachment B.2.2.2 - Proposed Site Layout Attachment B.2.2.3 - Discharge Points Location Map Attachment B.2.2.4 - Monitoring & Sampling Points Location Map
B.2.3 Waste water process flow	Attachment B.2.3 – Proposed Waste Water Process Flow

Table 9 - Supporting Document Names

B.2.4 Capacity of the waste water works

Population Equivalent of the agglomeration to	8,300 PE
which the application relates:	(Proposed Design Capacity of upgraded WWTP)
Maximum average weekly population equivalent of the agglomeration:	5,092 PE
Existing Organic Capacity of the waste water treatment plant - As Constructed or nominal design (p.e.)	6,000 PE
Proposed Organic Capacity of the waste water treatment plant - As per planning permission or design (p.e.)	8,300 PE
Current Collected Load (p.e.):	5,092 PE
Remaining Organic Capacity (p.e.):	908 PE
Is the plant overloaded – organic loading?	Νο
Current Peak Hydraulic Capacity of the waste water works–As Constructed or nominal design (m ³ /day):	1,318
Proposed Peak Hydraulic Capacity of the waste water works–As per planning permission or nominal design (m ³ /day):	5,607
Current and proposed dry weather flow (DWF) to the treatment plant (m ³ /day):	Current: 1,137 Proposed: 1,868
Current average hydraulic loading to the treatment plant (m ³ /day):	1,563
Remaining Hydraulic Capacity (m ³ /day):	-245
Is the plant hydraulically overloaded?	Yes

Table 10 - Capacity of the Waste water Works

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	7,557	91%
Industrial waste water load	743	9%
Leachate	0	0
Waste water to be conveyed and	0	0
discharged only (i.e.by pass the WWTP)		
Total	8,300	100%

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

Table 12 - Industrial waste water pre-treatment

1	A	Is the requirement for pre-treatment (Article 9 of the	Yes
		urban waste water treatment regulations 2001 as	
		amended) met?	

If 'No' was answered to A, provide details of the measures to be taken to comply: Not Applicable

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

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	Planning Authority name:	Cork County Council
A	Is planning permission required for development or proposed development to which the application relates?	Yes
В	If 'Yes', has planning permission been granted?	Yes
С	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:	22/4630
Planning Appeal Reference Number (if relevant):	Not Applicable
Planning Authority Name / An Bord Pleanála:	Cork County Council
Date of Planning Decision (Final Grant):	2 nd May 2023
Brief description:	Upgrade Works at the WWTP 1. Construction of a new storm overflow and flow splitting chamber, inlet works including grit removal system & full flow to treatment pumping station, 2 No. new integrated fixed-film activated sludge reactor tanks (Aeration Tanks), 2 No. final settlement tanks, final water sampling manhole while retaining the existing outfall to the River Sullane, return & waste activated sludge pumping stations, chemical building including lime & ferric sulphate dosing systems with bunded chemical storage tanks, 1 No. storm water storage tank equipped with storm water pumps, 1 no. sludge picket fence thickener, odour control system, a sheet pile flood protection wall within the site boundary, boundary treatment including a weld mesh



	security fence, new internal access road & public
	lighting.
	2. Construction of new control and administration
	building.
	3. Decommissioning of the existing wastewater
	treatment plant, equipment and associated structures
	as part of the upgrade works.
	4. Construction of 42 kWp photovoltaic (PV) solar
	panels on ground mounted frames on the north
	western area of the site. The PV panels shall be used
	to supplement the energy demands of the proposed
	WwTP & will be arranged with a panel area of 185sqm
	approximately.
	5. Establishment of a designated area to be utilized by
	Cork County Council Roads Department and
	construction of a new entrance point.
	6. All associated site development works above and
	below ground.
EIAR required with Planning Application?	No
NIS required with Planning Application	Yes
Confirm that the supporting documentation is provided:	Yes
	Attachment B.3.2.1 – 22/04630 Planning Permission
	Attachment B.3.2.2 - Planners Report 1
	Attachment B.3.2.3 - Planners Report 2



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
NIS 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

B.3.2 Supporting documents

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

	Document type	Document name
Planning granted	 planners letter confirming EIA is not required (if relevant) 	Attachment B.3.2.2 - Planners Report 1 (Refer to page 4 of 5)
	 a copy of relevant grant of planning permission AND planners report 	Attachment B.3.2.1 – 22/04630 Planning Permission Attachment B.3.2.2 - Planners Report 1 Attachment B.3.2.3 - Planners Report 2
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

Table 17 – Supporting Documents

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
		0.00		100001

Grid co-ordinates (6E, 6N)	134921E	72867N
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B.4.1 Supporting documents

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

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 - Location of Site Notice
Water Services Authority notice:	Attachment B.4.4 - Water Services Authority Notice
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.

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A	Having regard to B.3, is this application accompanied by an EIAR?	Attachment B.5.1 - EIA Screening Report
В	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 Water Treatment Directive	Νο
C	Are there other competent authorities conducting EIA for the development or proposed development to which this application relates?	Νο
D	If ' <i>Yes</i> ' 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:

Document type	Document name
EIAR	Not Applicable
Preliminary examination / EIA screening report	Attachment B.5.1 - EIA 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	Attachment B.6 - Compliance with EU Directives & National	
& National Regulations	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	No
proposed development the subject of this application?	

If yes, and the Foreshore Act Licence is relevant to this application, provide the following information:

	Foreshore Act Licence Competent Authority name:	Not Applicable	
A	Has a Foreshore Act Licence being granted?	Not Applicable	
В	If no to A, is a Foreshore Act Licence application under consideration by the relevant competent authority?	Not Applicable	
С	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: Licence Reference Number; and date of grant of consent: 	Not Applicable	
G	If 'Yes' to B, provide application reference number	Not Applicable	

Table 23 - Foreshore Act Licence

B.7.1 Supporting documents

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

Table B22 -	Supporting	documents
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	Document type	Document name
If <i>'Yes'</i> to A	Foreshore Act Licence:	Not Applicable
If 'Yes' to C	Foreshore Act Licence report:	Not Applicable

B.8 Programme of Improvements

epa

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	Yes
works in Schedule A and C of current licence?	

If 'Yes', the following table should be completed for each specified improvement works.

Table 23 - Schedule A & C I	mprovement Programme
-----------------------------	----------------------

Specified Improvement Programmes: (under Schedule A and C of WWDL)	Schedule C.1: 1. Recommence use of phosphorous removal
Date for completion of Improvement Programme in the licence:	01/08/2013
Has the date for completion expired? (Enter N, N/A or Y)	Yes
Status of works: e.g. (i) Not Started; (ii) At planning stage; (iii) Work ongoing on-site; (iv) Commissioning phase; (v) Completed; (vi) Delayed	It is anticipated that construction will commence Q4 2023 and will be completed by December 2025.
Irish Water's expected timeframe for completing the work	2025
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: (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)	Not Applicable
Status of works:	Not Applicable
Expected Completion date:	Not Applicable
Comments:	

Table 24 - Condition 5 Improvement Programme

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
Туре:	Primary Discharge
(primary discharge / secondary discharge/ storm	
water overflow)	
	The proposed upgrade works will comprise of the
	following:
Improvement works description:	 Preliminary treatment: Upgrade and replacement of the existing storm water overflow (SWO) immediately upstream of the inlet works with new screened Dual SWO & EO (SW002); Decommissioning of the existing preliminary treatment works including the screen;



 Construction of a new inlet works
and screening system;
 Construction of a new grit
removal system;
 Construction of a new FFT
pumping station; and
 Construction of a new stormwater
storage tank equipped with storm
water pumps.
 Secondary treatment:
 Decommissioning of the existing oxidation ditch;
 Construction of a new flow splitting chamber;
 Construction of 2 No new IFA) reactor tanks (Aeration Tanks);
 Decommissioning of the existing final settlement tank;
• Construction of 2 No. new final
settlement tanks;
• Construction of both RAS/WAS
pumping stations,
 Installation of a lime batching &
dosing facility, and;
• Installation of ferric sulphate
dosing system including bunded
chemical storage tank.
Sludge management system:
o Decommission existing sludge
holding tank;
 Construction of a new sludge PFT;
 Construction of an odour control
system;
\circ Installation of a new polymer
make-up system, to be located
within the existing building which
is to be retained;
 Decommissioning of the existing
dewatering equipment within the
existing building; and
 Installation of a new sludge
dewatering equipment/system
(to be installed within the existing
building, which is to be retained).
Outfall:
• Construction of a new final
effluent sampling manhole on the
existing outfall pipeline, within
the WWTP site;



	 Discharge of final effluent through the existing outfall to the River Sullane – SW001 (Co-ords 134957E, 72953N).
	Ancillary works:
	• Construction of a solar PV panel
	installation capable of a maximum power generation of 42.32kWp
	 Construction of a new sheet pile flood protection wall. This wall is
	to be constructed within the site boundary to a level of 300mm above the 0.1% AEP (1-in-1000 year) flood level.
	 New standby energy generator & bunded fuel tank.
	\circ Relocation of the existing shed
	from the southern side of the
	WWTP site to the northern side of
	the WWTP site;
	 Demolition of existing sheds adjacent to the site entrance to
	create a designated area with a separate site entrance to be used by Cork County Council Roads
	Department;
	 Construction of a new control and
	administration building, and;
	o Construction of new surface
	water drainage system with oil
	interceptor and attenuation system, in accordance with
	System, in accordance with Sustainable Drainage Systems
	(SuDS)
	 Site landscaping and finishes.
	December 2025
Expected completion date:	
Planning status:	Planning Permission granted
(grant of permission / exempted development)	
Prioritised for funding:	Yes

B.8.4 Supporting documents

epa

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	Attachment B.8 - 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
Discharges from agglomerations	(tick [✔] one as	application (in €)
with a population equivalent of:	appropriate)	(11.6)
- more than 10,000		
- 2,001 to 10,000	Х	
- 1,001 to 2,000		€20,000
- 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 (<u>www.epa.ie</u>), 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 & 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	Existing	Proposed	Applicability	Surveillance
discharges	(Y/N)	(Y/N)		measure
			Applicable to	Performance
Accident prevention procedure:	Y	Y	WWTP & Network	Management
				System (PMS)
Emergency Response Plan and			Applicable to	Performance
Procedures:	Y	Y	WWTP & Network	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 generator or equipment with automatic switchover:	Y	Y	On site generator provided with automatic change over switch.	Telemetry Alarm
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
	N	letwork	L	I
Measures to prevent unintended discharges	Existing (Y/N)	Proposed (Y/N)	Applicability	Surveillance measure
Alarms / telemetry on pumping stations:	N	N	No monitoring or alarms on existing SWO (SW003) within the network	Daily Inspections
Alarms / telemetry on emergency overflows:	N	N	No monitoring or alarms on existing SWO (SW003) within the network	Daily Inspections
Standby pumps at pumping stations:	Y	N/A	Pumps currently operate on a duty / standby basis	Daily Inspections
Standby equipment or provisions in the event of interruption of the power supply:	N	N	There is currently no standby power facilities at the site.	Daily Inspections
Storage capacity at pump stations:	N	N	There is currently no storage at the site.	Daily Inspections
Monitoring telemetry on SWOs:	N	N	No monitoring or alarms on existing SWO (SW003) within the network	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	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 I	Primary Discharge

Type (river, lake, groundwater, coastal, transitional):	River
Name and WFD reference:	River Sullane (WFD Code: IE_SW_19S020480) Sullane_60
WFD Risk:	Not at Risk
WFD Status & year:	Good (EPA) (2016 – 2021)
WFD Objective & timeframe for	Retain Good Status (2022-2027)
achievement: 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:	No
Are there drinking water abstraction points downstream of waste water discharge points?	 Yes There are 2 No. drinking water abstraction points located downstream of the Primary Discharge Point (SW001). The abstraction points are as follows: The raw water intake for the Inniscarra WTP is located on the Inniscarra Reservoir / River Lee circa 25km downstream of the Primary Discharge Point (SW001) of the Macroom WWTP. The raw water intake for the lee Road is located on the River Lee circa 39km downstream of the Primary Discharge Point (SW001) of the Macroom WWTP.
European sites hydrologically connected:	The Gearagh SAC [IE000108] & the Gearagh SPA are located circa 1.7km & 2.6km respectively to the south of the Primary Discharge Point (SW001) and are hydrologically connected. A Natura Impact Statement (NIS) was completed for the development and included within Attachment D.2.2 – NIS of

	this W/W/DL review application. The NUC sevel ideal that
	this WWDL review application. The NIS concluded that
	following an analysis and evaluation of the relevant
	information including, in particular, the nature of the
	proposed upgrade, characteristics of the qualifying interests,
	the potential link between the proposed upgrade and the
	Gearagh SAC, no significant adverse effect on the integrity of
	the European site during development and operation of the
	proposed upgrade at the Macroom WwTP is anticipated
	alone or in-combination with any other plans or projects.
Trophic status of transitional /	Not Applicable
coastal waters:	
Is there a groundwater protection	Yes
scheme in place or to be provided	The Cork South Ground Water Protection Plan
in the vicinity of such discharge?	
Status of adjacent waterbodies:	Upstream: SULLANE_050 =High (EPA 2016-2021)
(e.g. upstream and downstream of	Downstream: LEE (CORK)_060 = High (EPA 2016-2021)
the receiving waterbody)	
95%ile River Flow upstream of	0.839m ³ /sec
primary discharge point:	
(if applicable)	
	aSW1u
	R\$19S020450
	133805 E, 72977 N
	SULLANE River
Receiving water monitoring	cirrca 1.5km upstream of Primary Discharge Point (SW001)
stations:	
(code and distance from primary	aSW1d
discharge point)	RS19S020480
	135048E, 72709N
	SULLANE River - u/s Laney R confl
	circa 0.2km downstream of the Primary Discharge Point
	(SW001)

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 wa	aters of	discharges	from SWOs
	Neccenting we		ansentarges	10111 3 4 4 0 3

Receiving Waters	WFD	No. of	No. of SWOs	Is the SWOs	WFD objective and
name and code	status	compliant	under	identified as	date
		SWOs ¹	assessment or	a significant	
			remediation	pressure?	
River Sullane (WFD	Good	3	0	No	Retain Good Status
Code:					(2022-2027)
IE_SW_19S020480)					
Sullane_60					

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):	RS19S020450	
Licence Code:	aSW1u	
Monitoring Location:	E 133805	N 72977
Point Type:	River	
Name of Receiving Water	River Sullane (WFD Code: IE_S	W_19S020480) Sullane_60

Table 35 - Ambient Monitoring – upstream monitoring results

NOTE: Data obtained from catchments.ie website for 40 month period February 2020 to June 2023

Parameter	BOD	Total Phosphorous / Orthophosphate	Total Ammonia / DIN
Number of Samples	14	14	13
Max result	1.7	0.035	0.044
Min result	0.2	0.006	0.02
Average result	0.93	0.019	0.024
Overall compliance with relevant EQS	Pass	Pass	Pass

Reference Table 9 SI 272 SW Regs 2009 BOD 2.6mg/l Ortho 0.075mg/l Ammonia 0.065mg/l.

EDEN Code (where applicable):	RS19S020480			
Licence Code:	aSW1d			
Monitoring Location:	E 135048	N 72709		
Point Type:	River			
Name of Receiving Water	River Sullane (WFD Code: IE_S	W_19S020480) Sullane_60		

Table 36 - Ambient monitoring results – downstream

Table 37 - Ambient Monitoring – downstr	eam monitoring results
	cann morntoring results

Parameter	BOD	Total Phosphorous / Orthophosphate	Total Ammonia / DIN
Number of Samples	30	13	30
Max result	7.3	0.191	2.9
Min result	0.6	0.008	0.02
Average result	1.93	0.046	0.491
Overall compliance with relevant EQS	Pass	Pass	Pass

Reference Table 9 SI 272 SW Regs 2009 BOD 2.6mg/l Ortho 0.075mg/l Ammonia 0.065mg/l.

(where	Licence Code	Monitoring Location				Point Type	Name of Receiving Water
RS19S020450	aSW1u	133805	E	79277	N	Upstream	River Sullane (WFD Code: IE_SW_19S020450) Sullane_60
RS19S020480	aSW1d	135048	E	72709	N	Downstream	River Sullane (WFD Code: IE_SW_19S020480) Sullane_60

Table 38 - Proposed Receiving Water Monitoring

Table 39 - Proposed Monitoring Regime

Parameter	Units	Monitoring Frequency	Analysis method/Technique
рН	pH Unit	Quarterly	pH Meter and recorder
DO	%O2	Quarterly	Electrode
BOD	mg/l	Quarterly	Electrode
Temp	deg C	Quarterly	Standard Method
Orthophosphate (P)	mg/l	Quarterly	Colorimetric
Total Ammonia	mg/l	Quarterly	Colorimetric
Visual Inspection	Descriptive	Weekly	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
is this application accompanied by an WS.	

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.

Document type	Document name
Impact assessment report	Attachment D.2.1 - Assessment of Impact on Receiving Surface Water Report
Natura Impact Statement	Attachment D.2.2 - NIS
AA screening report	Attachment D.2.3 - AA Screening Report
Priority Substances Assessment	Attachment D.2.4 – Priority Substances Assessment

Table 40 - Assessment Reports.

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 original Macroom WWTP was designed to service a population equivalent (PE) of 6,000. The existing WWTP is hydraulically overloaded resulting in the WWTP failing to meet the specified ELV's as per WWDL D0126-01.

As such, it is proposed to upgrade the existing WWTP to cater for the future agglomeration load of 8,300 PE.

The proposed ELVs from the discharge from the new WWTP are:

- pH 6-9;
- cBOD 25mg/l;
- COD 125mg/l;
- Suspended solids 25mg/l;
- Ammonia 1.7mg/l (decreased from 2mg/l in existing WWDL D0126-01);
- Orthophosphate 0.8mg/l (decreased from 1mg/l in existing WWDL D0126-01);

Based on the Assessment of Impact on Receiving Surface Waters Report included within Attachment D.2.1, by implementing the above referenced ELV's, this will allow for the receiving waterbody to meet its objectives under the WFD to maintain Good Ecological Status.

E.1. Declaration

The Signed Declaration template should be downloaded from the EPA website (<u>www.epa.ie</u>), 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 - Declaration

END