



Waste Water Discharge Authorisation

Application Form

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

Environmental Protection Agency
PO Box 3000, Johnstown Castle Estate, Co. Wexford
Lo Call: 1890 335599 Telephone: 053-9160600 Fax: 053-9160699
Web: www.epa.ie Email: info@epa.ie

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.

The non-technical summary should address the following, as appropriate:

- The population equivalent to which this application relates
- A description of the waste water discharges from the waste water works serving the agglomeration
- A description of the wastewater works and associated waste water treatment plant
- A description of the features and measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset the significant adverse effects on the environment
- The proposed technology and other techniques for preventing or, where this is not possible, reducing discharges from the wastewater works
- A description of the receiving waterbody
- A description of the likely significant effects of the discharges on the environment
- Measures planned to monitor discharges into the environment
- The hours during which the wastewater works is supervised or manned and days per week of this supervision
- In the event of a review application, state the grounds for which this review application is being made

A1.1 Supporting documents

Supporting information for the non-technical summary is titled as per below table and can be found in attachment A1.

Table 1 - Non-Technical Summary Document Name

Document type	Document name
Non-Technical Summary	A.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)	D0134-01
--	-----------------

If A is applicable, provide the following information:

Grounds for review on which the application is being made:
<p>The grounds for review of the existing Waste Water Discharge Licence (WWDL) (D0134-01) is that the upgraded WWTP will increase the Organic Loading on the WWTP from 2,000PE to 3,400PE. As a result, the Castlemartyr agglomeration will now move from the Waste Water Discharge Licence 1,001 – 2,000 PE category to become part of the 2,001 - 10,000 PE category. The Specified Improvement Programme (SIP) in the current WWDL D0134-01 notes that upgrades will be required to ensure that licence ELV's are met.</p> <p>Uisce Éireann have purchased additional adjacent lands to the west and south of the current WWTP site for its expansion. The upgrade works will include a new preliminary treatment plant (fine screens and grit removal), stormwater storage, complete with storm return pumps, new extended aeration secondary treatment plant (including two anoxic tanks, two aeration tanks & two new clarifiers), and tertiary treatment for phosphorus removal (comprising chemical dosing and filtration, including 1 no. disc filter) to allow compliance with proposed ELVs (6.63mg/L BOD, 125mg/L COD, 35mg/L SS, 0.68mg/L Total Ammonia and 0.22mg/L Ortho-P). A</p>

new sludge management system will consist of a picket fence thickener and sludge storage. There will also be a new Final Treated Effluent outfall to the Kiltha River (i.e. Primary Discharge Location SW001). The proposed storm water storage system will include a new storm water overflow to the Kiltha River from the WwTP – SW004.

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

Date on which the waste water works became / becomes operational:	Not Applicable
---	----------------

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*:	Uisce Éireann
Address:	Colvill House, 24 – 26 Talbot Street, Dublin 1, D01 NP86
CRO Number:	530363
Tel:	01 89 25000
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:	Uisce Éireann Colvill House, 24 – 26 Talbot Street, Dublin 1, D01 NP86
Tel:	01 89 25000
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:	Castlemartyr
Name of townland or townlands of the agglomeration served by a waste water works to which the application relates:	Castlemartyr, Bridgetown, Grange, Gortnahomna Beg, Gortnahomna More
Included on EPA Waste Water Priority List?	No
Included on European Commission infringement list?	No

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

Table 7 - Waste Water Works

<p>Description of the existing waste water works: <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 existing WWTP consists of inlet works, an inlet pumping station housing two pumps (one duty, the other standby), aeration tanks with fine-bubble aeration, a clarifier with half bridge scraper, a RAS/SAS pump, outlet chamber, sludge thickening tank with picket fence thickener (including a submersible pump for dewatering) and associated buildings, including a control kiosk and mess room / storage building. The wastewater in Castlemartyr is collected in a partially combined drainage network and moved through sewers to a terminal pumping station on the Main Road – known as Castlemartyr Bridge Pumping Station. Two submersible pumps (one duty, the other assist) which are housed in the pumping station, pump the wastewater forward to the WWTP at a rate between 5m³/h and 120m³/hr (8DWF). Flows in excess of 120m³/hr entering the pumping station are overflowed into the adjacent Kiltha River – Storm Water Overflow - SW003</p>
<p>Description of proposed development, if any, to which the application relates:</p>	<p>Uisce Éireann propose to upgrade the existing WWTP at Castlemartyr, and to carry out improvement works to ensure compliance with the proposed ELVs. The proposed ELV's are 6.63mg/L BOD, 125mg/L COD, 35mg/L SS, 0.68mg/L Total Ammonia and 0.22mg/L Ortho-P. The current WWTP was designed to treat a PE of 2,000 and the upgrade works are proposed to allow the plant to treat predicted PE of 3,400.</p> <p>The proposed WWTP upgrade works are designed to meet the above proposed ELVs, hence allowing the receiving watercourse to comply with WFD 'Good' status.</p> <p>The newly upgraded WWTP will consist of:</p> <ul style="list-style-type: none"> • New storm water overflow chamber; • Inlet works complete with combined screens and grit plant; • FFT / storm overflow pumping station; • Storm Water Holding Tank; • Biological Process Units (including a selector tank, anoxic tanks, aeration tanks, final settlement tanks (clarifiers); • 2-point ferric sulphate dosing for orthophosphate precipitation; • Tertiary Treatment for Phosphorus Removal (comprising chemical dosing and filtration including 1 no. disc filter); • Sludge Pumping Station; • Conversion of the existing settlement tank into a Picket Fence Thickener; • Return Liquors Pumping Station; • Wash Water Pumping Station; • Supplementary Alkalinity Provision, using sodium hydroxide dosing plant; • Odour Control Plant; • Control Building; • ESB Sub-Station and Standby Generator.
<p>Number and type of waste</p>	<p>There will be 3 No. discharges from the upgraded WWTP, but all will discharge at the same point. The unique point code for the three WWTP discharges are as follows:</p>

<p>water discharges from the waste water works including proposed waste water discharges:</p>	<p>SW001 (Primary Discharge), SW002 (Storm Water Overflow) & SW004 (Storm Water Overflow from new Storm Water Holding Tank). All three will discharge to the Kiltha River from coordinate location 196235E, 72891N.</p> <p>Treated effluent (SW001) at WWTP: At design capacity, the plant will discharge 765 m³/d (DWF) up to 2295m³/d (3DWF) (FFT) of Final Treated Effluent to the Kiltha River.</p> <p>Storm Water Holding Tank Overflow (SW004) at WWTP: This is new as there are no storm tanks onsite presently. Following extended rainfall and after Inlet Works screening to 6mm and after two hours of storage, the overflow from the stormwater holding tank at maximum Formula A – FFT = 127.5m³/h may discharge to the Kiltha River.</p> <p>Stormwater Overflow (SW002) at WWTP: The facility for an overflow in excess of Formula A is provided. Castlemartyr WWTP currently receives flows from a combined gravity sewer network and a single pumped inlet from an adjacent privately owned/operated PS located in the Castlemartyr Hotel grounds.</p> <p>Flows from the Village catchment are pumped and gravitate to a single header manhole located at the top of the access lane into Castlemartyr wood. Flows then gravitate along the woodland path via three manholes before turning right across the path into the existing WWTP. The maximum gravity sewer flows are limited to 59L/s.</p> <p>Flows from the privately owned/operated Castlemartyr Hotel PS are pumped to a terminal manhole located at the entrance gate to the WWTP. The maximum pumped flows from the Hotel PS are 8.4L/s.</p> <p>These flows will gravitate to the WWTP. Flows greater than Formula A will overflow from the new Storm Water Overflow Chamber via existing SW002.</p> <p>Stormwater Overflow (SW003) at Castlemartyr Bridge Pumping Station: The pumping station on Main Road, known as Castlemartyr Bridge Pumping Station outside of the WwTP has a stormwater overflow (SW003) that discharges to the Kiltha River.</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>N/A</p>

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

Site contact Name*:	Anthony Hickey
Address of waste water treatment plant (including Eircode):	Castlemartyr Waste Water Treatment Plant Bridgetown Castlemartyr Co. Cork
Telephone Number:	01 89 25000
e-mail:	WasteWaterComplianceSouthern@water.ie
Grid ref (6E, 6N)	196303E, 72884N
Description of the treatment process	<p>Proposed Treatment Process: Secondary Treatment (ASP), with Tertiary Phosphorus Removal.</p> <p>The newly upgraded WWTP will consist of:</p> <ul style="list-style-type: none"> • New storm water overflow chamber; • Inlet works complete with combined screens and grit plant; • FFT / storm overflow pumping station; • Storm Water Holding Tank; • Biological Process Units (including a selector tank, anoxic tanks, aeration tanks, final settlement tanks (clarifiers)); • 2-point ferric sulphate dosing for orthophosphate precipitation; • Tertiary treatment for phosphorus removal (comprising chemical dosing and filtration including 1 no. disc filter); • Sludge Pumping Station; • Conversion of the existing settlement tank into a Picket Fence Thickener; • Return Liquors Pumping Station; • Wash Water Pumping Station; • Supplementary Alkalinity Provision, using sodium hydroxide dosing plant; • Odour Control Plant; • Control Building; • ESB Sub-Station and Standby Generator.
Primary discharge point reference ID:	SW001 Pipe to river 196 235 E; 72 891 N

**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
Agglomeration map	B.2.1 - Agglomeration Map
Site map including discharge and monitoring points	B.2.2 - Site Map Including Discharge and Monitoring Points
Waste water process flow	B.2.3 - Waste Water Process Flow
Existing Site Layout	B.2.4 - Existing Site Layout
Proposed Site Layout	B.2.5 - Proposed Site Layout

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:	3,400 P.E.
Maximum average weekly population equivalent of the agglomeration:	3,400 P.E.
Existing Organic Capacity of the waste water treatment plant - As Constructed or nominal design (p.e.)	2,000 P.E.
Proposed Organic Capacity of the waste water treatment plant - As per planning permission or design (p.e.)	3,400 P.E.
Current Collected Load (p.e.):	1,868 P.E. (Collected load 2020 AER – Peak Week)
Remaining Organic Capacity (p.e.):	132 P.E. (Design P.E. 2000 – Current Loading P.E. 1868)
Is the plant overloaded – organic loading?	No
Current Peak Hydraulic Capacity of the waste water works – As Constructed or nominal design (m ³ /day):	1200m ³ /day (Peak Hydraulic Design Capacity)
Proposed Peak Hydraulic Capacity of the waste water works – As per planning permission or nominal design (m ³ /day):	FFT: 2,295m ³ /day (3DWF) (full tertiary treatment) Formula A: 5,357m ³ /day (screening and sedimentation)
Current and proposed dry weather flow (DWF) to the treatment plant (m ³ /day):	Current: 360 m ³ /day Proposed: 765 m ³ /day
Current average hydraulic loading to the treatment plant (m ³ /day):	393 m ³ /day (2021 AER)
Remaining Hydraulic Capacity (m ³ /day):	Maximum inflow to works: 686m ³ /day (Maximum flow observed across a 7-day monitoring period during peak season) Remaining capacity: 1200 - 686m ³ /day = 514m ³ /day
Is the plant hydraulically overloaded?	No

B.2.5 Waste Water Inputs

Table 11 - Waste Water Inputs to Waste Water Works

Inputs	P.E. ¹		% of total PE	
	Current	Proposed	Current	Proposed
Domestic waste water load	1455	3,400	78%	100%
Tourism load	152		8%	
Commercial load	261		14%	
Industrial waste water load	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Leachate	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Waste water to be conveyed and discharged only (by pass the WWTP)	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Total	1868	3400 ²	100%	100%

¹ Summer P.E.

² 2758 P.E. + 10% headroom (276 P.E.) + allowance for temporarily absent dwellings (366 P.E. from RPS assessment)

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

Table 12 - Industrial waste water pre-treatment

A	Is the requirement for pre-treatment (Article 9 of the urban waste water treatment regulations 2001 as amended) met?	Not Applicable
---	--	----------------

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

	Planning Authority name:	Cork County Council
A	Is planning permission required for development or proposed development to which the application relates?	<i>Yes</i>
B	If 'Yes', has planning permission been granted?	<i>No</i>
C	If planning permission is not required at A above, is the proposed development, if any, to which the application relates exempted development?	<i>Not Applicable</i>

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

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:	22/06416
Planning Appeal Reference Number (if relevant):	N/A
Planning Authority Name / An Bord Pleanála:	Cork County Council
Date of application:	26.10.2022
Brief description:	The development will consist of: The expansion and upgrade of the existing Castlemartyr Wastewater Treatment Plant (WwTP) to facilitate an increased treatment capacity and capability. The proposed works will comprise of: provision of c.32m of below ground inlet sewer; a stormwater overflow chamber; upgrade of the existing inlet works including 2 no. fine screens and grit removal; a 19m ³ forward feed pumping station; secondary / biological treatment facilities (include: 1 no. anoxic / aeration tank and 2 no. 8m diameter settlement tanks); tertiary treatment for phosphorus removal (comprising chemical dosing and filtration including 1 no. disc filter); sludge management system including the re-purpose of the existing clarifier tank to new picket fence thickener; above-ground storm tank with 255m ³ storage, provision of c.15m of below ground outfall pipeline to discharge flows to the existing outfall location at the River Kiltha; new treated effluent outfall headwall to River Kiltha – discharging to existing outfall location; control building; terminal sub-station, upgrade of the existing access road within the WwTP boundary; boundary fencing and treatments; and all associated site development works above and below ground on a site of c.0.34 hectares.
EIAR required with Planning Application?	No
Confirm that the supporting documentation is provided:	Yes

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

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

Table 17 - Supporting Documents

	Document type	Document name
Planning granted	- planners letter confirming EIA is not required (if relevant)	Not Applicable
	- a copy of relevant grant of planning permission AND planners report	Not Applicable
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	Attachment B.3 – Planning Application 22/06416 Receipt
	- Planners letter confirming EIA not required (if relevant)	Not Yet Received
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)	196303	72884
----------------------------	--------	-------

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:	B.4.1 - Newspaper Notice
Site notice:	B.4.2 - Site Notice
Map of site notice location:	B.4.3 - Map of Site Notice Location
Water Services Authority notice:	Not Applicable
EIA Portal Confirmation notice:	Not Applicable

B.5 Preliminary examination/EIA Screening/EIAR

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

Table 20 - EIA related information.

A	Having regard to B.3, is this application accompanied by an EIAR?	No
B	Is the application in respect of the waste water discharge from a waste water treatment plant with a capacity of greater than 10,000 population equivalents as defined in Article 2, point (6), of the Urban Water 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	B.5.1 - Environmental Impact Assessment 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	B.6 - Compliance with EU Directives & National Regulations

B.7 Foreshore Act Licences.

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

Is Foreshore Act Licence required for development or proposed development the subject of this application?	No
--	----

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

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:	<i>Not Applicable</i>
If 'Yes' to C	Foreshore Act Licence report:	<i>Not Applicable</i>

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
---	-----

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)	D0134-01 - Schedule C.1 – Specified Improvement Programme: Improvement works to ensure compliance with the emission limit values as set out in Schedule A: Discharges & Discharge Monitoring
Date for completion of Improvement Programme in the licence:	31/12/2019
Has the date for completion expired? (Enter N, N/A or Y)	Y
Status of works: <i>e.g. (i) Not Started; (ii) At planning stage; (iii) Work ongoing on-site; (iv) Commissioning phase; (v) Completed; (vi) Delayed</i>	At Planning Stage
Uisce Éireann's expected timeframe for completing the work	November 2025
Comments: Not applicable	

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:	WwTP Upgrade and Treatment Process Improvement
Improvement description:	See attachment: B.8-1 Details of Improvement Works for Current Licence
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>	WwTP Assessment, SWO Assessment
Status of works:	At planning stage
Expected Completion date:	November 2025
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>Uisce Éireann propose to upgrade the existing WWTP at Castlemartyr, and to carry out improvement works to ensure compliance with the proposed ELVs. The proposed ELV's are 6.63mg/L BOD, 125mg/L COD, 35mg/L SS, 0.68mg/L Total Ammonia and 0.22mg/L Ortho-P. The current plant was designed to treat a PE of 2,000 and the upgrade works are proposed to allow the plant to treat predicted PE of 3,400.</p> <p>The proposed WWTP upgrade works are designed to meet the above proposed ELVs hence allowing the receiving watercourse to comply with WFD 'Good' status.</p> <p>The newly upgraded WWTP will consist of:</p> <ul style="list-style-type: none"> • New storm water overflow chamber; • Inlet works complete with combined screens and grit plant; • FFT / storm overflow pumping station; • Storm Water Holding Tank; • Biological Process Units (including a selector tank, anoxic tanks, aeration tanks, final settlement tanks (clarifiers)); • 2-point ferric sulphate dosing for orthophosphate precipitation; • Tertiary treatment for phosphorus removal (comprising chemical dosing and filtration including 1 no. disc filter); • Sludge Pumping Station; • Conversion of the existing settlement tank into a Picket Fence Thickener; • Return Liquors Pumping Station; • Wash Water Pumping Station; • Supplementary Alkalinity Provision, using sodium hydroxide dosing plant; • Odour Control Plant; • Control Building; • ESB Sub-Station and Standby Generator.
Expected completion date:	November 2025

Planning status: (grant of permission / exempted development)	At Planning Stage
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	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 - Fees

Class of Waste Water Discharge		Fee accompanying application / review application (in €)
Discharges from agglomerations with a population equivalent of:	(tick [<input checked="" type="checkbox"/>] one as appropriate)	
- more than 10,000		<u>€20,000</u>
- 2,001 to 10,000	<input checked="" type="checkbox"/>	
- 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	C.1 – Discharges and Monitoring

C.2. Measures to Prevent Unintended Discharges

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

Table 29 -Prevention Measures & Monitoring

Measures to prevent unintended discharges	Existing (Y/N)	Proposed (Y/N)	Applicability	Surveillance measure
Accident prevention procedure:	Y	Y	Applicable to WWTP & WW Network	Performance Management System (PMS)
Emergency Response Plan and Procedures:	Y	Y	Applicable to WWTP & WW Network	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	FFT/Storm Pumping Station	Telemetry Alarm
Standby equipment or provisions in the event of interruption of the power supply such as a portable	Y	Y	Applicable to WWT Stand-by Generator to be provided	Telemetry Alarm

generator or equipment with automatic switchover:				
Storage capacity at intake to the waste water treatment plant (SWO tank):	N	Y	Storm Water Holding Tank	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:	Y	Y	Alarms and telemetry provided on the network pumping station	Telemetry Alarm
Alarms / telemetry on emergency overflows:	Y	Y	Alarms and telemetry provided on the network pumping station which is the only emergency overflow	Telemetry Alarm
Standby pumps at pumping stations:	Y	Y	Standby Pumps at the network pumping station	Telemetry Alarm
Standby equipment or provisions in the event of interruption of the power supply:	Y	Y	Portable generator available for deployment at the network pumping station in the event of a power failure	Telemetry Alarm
Storage capacity at pump stations:	Y	Y	Wet well capacity only	N/A
Monitoring telemetry on SWOs:	N	N	There is only 1 SWO on the network SW003. Monitoring telemetry is not provided	N/A
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	C.2 - Measures to Prevent Unintended Discharges

SECTION D: IMPACT ASSESSMENT

D.1. Receiving Waters

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

Table 31 - Receiving waters of Primary Discharge

Type (river, lake, groundwater, coastal, transitional):	River
Name and WFD reference:	Kiltha River (WFD Code: IE_SW_19_1909)
WFD Risk:	1a (at risk of not achieving good status)
WFD Status & year:	Moderate (Period for WFD Status: 2013 – 2018)
WFD Objective & timeframe for achievement:	Restore “Good Status” by 2021
Is the agglomeration identified as a significant pressure?	No
Has the discharges contributed to a deterioration in the quality of the water body?	<p>Yes (If ‘Yes’ provide explanation)</p> <p>EPA monitoring station at Castlemartyr Bridge has consistently recorded Q3-4 slightly polluted biological quality ratings since 1997.</p> <p>Castlemartyr WWTP discharge is not compliant with the ELV’s set in the existing WWDL D134-01. The ambient monitoring results do not meet the required EQS. The 2021 AER concludes that a deterioration in water quality has been identified, however it is not known if it is or is not caused by the WWTP and if the discharge from the WWTP does have an observable negative impact on the Water Framework Directive status. It was noted in the Feasibility Study Report, prepared by RPS in Jan 2019 (Cork WWTP Upgrades (CIP 17-21)) that the discharge of wastewater from WwTP with IED Licence P0817-01 in Mogeely is the likely cause of the deterioration in water quality. The EPA also notes that the existing discharge from the WWTP at Castlemartyr is negatively affecting water quality downstream at Ballyhonock.</p>

Protected areas in the vicinity of the discharges:	Yes – Details of all protected areas within the vicinity of the proposed development are provided in the Appropriate Assessment Screening Report. D2.3 Appropriate Assessment Screening Report
Are there drinking water abstraction points downstream of waste water discharge points?	No - <i>Not used for supply of drinking water</i>
European sites hydrologically connected:	Castlemartyr WWTP discharges indirectly via the Kiltha River and Womagh River into the Ballymacoda (Clonpriest and Pillmore) SAC. The site is protected for priority habitats listed under Annex 1 of the Habitats Directive [92/43/EEC]. It is also selected for protection of species listed under Annex II of the same directive. The site is also designated an SPA (Ballymacoda Bay) under the Birds Directive [79/409/EEC] for the conservation of wild birds.
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)	Upstream (EPA RS Code: RS19W01100): Moderate - Period for WFD Status: 2013 – 2018 Downstream (EPA RS Code: RS19W011040): Moderate - Period for WFD Status: 2013 – 2018
95%ile River Flow upstream of primary discharge point: (if applicable)	0.09442m ³ /s (Derivation of this value is set out in Attachment D2.1 - Impact Assessment Report)
Receiving water monitoring stations: (code and distance from primary discharge point)	Bridge in Castlemartyr – EPA RS Code: RS19W011000, 400m upstream of Primary Discharge Point SW001 (aSW1u) South of Ballyhonock Lough – EPA RS Code: RS19W011040, 3.47km downstream of Primary Discharge Point SW001 (aSW1d)

Table 32 - Receiving waters of secondary discharges

Type (freshwater, lake etc.)	Not Applicable
Name and WFD Ref.	
WFD Risk	
WFD Status (year)	
WFD Objective (year)	
Is the agglomeration identified as a significant pressure?	

Have the discharges contributed to a deterioration in the quality of the water body?	
Protected areas downstream	
Are there drinking water abstraction points downstream of waste water discharge points?	
European sites hydrologically connected	
Trophic status of transitional / coastal waters	
Is there a groundwater protection scheme in place or to be provided in the vicinity of such discharge?	
Status of adjacent waterbodies (e.g. upstream and downstream of the receiving waterbody)	
95%ile River Flow upstream of secondary discharge point (if applicable)	
Receiving water monitoring stations upstream and downstream (code and distance from secondary discharge point)	

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
Kiltha River IE_SW_19_1909	Moderate	3	0	No	Restore "Good Status" by 2021

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):	RS19W011000	
Licence Code:	aSW1u	
Monitoring Location:	196366E	73253N
Point Type:	Ambient	
Name of Receiving Water	Kiltha River	

Table 35 - Ambient Monitoring – upstream monitoring results

NOTE: Data obtained from EPA Maps Website over a one-year period from August 2021 to July 2022

Parameter	pH	BOD	Ortho-phosphate (as P)	Ammonia Total (as N)
Number of Samples	21	21	21	21
Max result	8.4	5.6	0.297	0.12
Min result	7.5	0.5	0.019	0.01
Average result	7.9	1.5	0.06	0.031
Overall compliance with relevant EQS	100%	86%	86%	100%

Table 36 - Ambient monitoring results – downstream

EDEN Code (where applicable):	RS19W011040	
Licence Code:	aSW1d	
Monitoring Location:	196154E	72688N
Point Type:	Ambient	
Name of Receiving Water	Kiltha River	

Table 37 - Ambient Monitoring – downstream monitoring results

NOTE: Data obtained from EPA Maps Website over a one-year period from August 2021 to July 2022

Parameter	pH	BOD	Ortho-phosphate (as P)	Ammonia Total (as N)
Number of Samples	10	10	10	10
Max result	8.5	7.4	0.229	0.165
Min result	7.5	1	0.019	0.01
Average result	7.82	2.87	0.074	0.06
Overall compliance with relevant EQS	100%	70%	80%	90%

Table 38 - Proposed Receiving Water Monitoring

EDEN Code (where applicable)	Licence Code	Monitoring Location				Point Type	Name of Receiving Water
RS19W011000	aSW1u	196366	E	73253	N	Upstream	Kiltha River
RS19W011040	aSW1d	196154	E	72688	N	Downstream	Kiltha River

Table 39 - Proposed Monitoring Regime

Parameter	Units	Monitoring Frequency	Analysis method/Technique
pH	pH units	Ten samples per year	Standard Method
DO	% O ₂	Ten samples per year	Standard Method
Temperature	°C	Ten samples per year	Standard Method
Chemical Oxygen Demand	mg/l	Ten samples per year	Standard Method
BOD	mg/l	Ten samples per year	Standard Method
Suspended Solids	mg/l	Ten samples per year	Standard Method
Orthophosphate (as P)	mg/l	Ten samples per year	Standard Method
Total Ammonia (as N)	mg/l	Ten samples per year	Standard Method
Visual Inspection	Descriptive	Weekly	N/A

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 D.2.2 - Natura Impact Statement
--	--

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	D.2.1 - Assessment of Impact on Receiving Surface or Ground Water
Natura Impact Statement	D.2.2 - Natura Impact Statement
AA Screening Report	D.2.3 - Appropriate Assessment Screening
Ecological Impact Assessment Report	D.2.4 - Ecological Impact Assessment

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 Castlemartyr WwTP has been designed to ensure that the proposed emissions from the upgraded WWTP will not result in the contravention of EU Directives and National Regulations. The proposed effluent standards for the new WWTP, will give effect to the principle of the Combined Approach to ensure the discharges are not impacting on the ability of the water body to achieve its environmental objectives. The current WWTP has a design PE of 2000, while the newly upgraded WWTP will have a design PE of 3400. It is stated in Womagh Water Management Unit Action Plan that the Kiltha River (Womagh_010) is classified as having 'Moderate' status with 'High' physio-chemical and 'Moderate' ecological status. The action required for Kiltha River (SW_19_1909) is to restore a "Good Status" by 2021. The 2021 AER concludes that a WWTP upgrade is required for existing ELV's to be met.

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	E.1 – Declaration

END