



## **ATTACHMENT C.1: DISCHARGES AND MONITORING**



## Waste Water Discharge Authorisation

### Attachment C.1 – Discharges & Monitoring

**Applicant Name:\***

Uisce Éireann

**Application I.D.:\***

D0056-01

## SECTION C: DISCHARGES & MONITORING

This part of the application form collects information on the existing and proposed waste water discharges from the waste water works serving the agglomeration including proposed emission levels and monitoring results.

### Section C.1 Discharges & Monitoring

**Table C.1(a)** - Primary waste water discharge (complete the table for existing and proposed primary discharge where relevant)

Existing Primary Waste Water Discharge (as per D0056-01) *						
EDEN Code (where applicable)	Unique Point Code	Discharge Location	Monitoring Location	Receiving Water Name	WFD Code Receiving Water	Type of Receiving Water
TPEFF0500D0056SW001	SW01MIDL	186177, 69506	186603, 69729	North Channel Great Island at Rathcoursey Point	IE_SW_060_0300	Transitional

\* The existing primary discharge point SW01MIDL will become the secondary discharge point for the amalgamated agglomeration (SW001). There are no proposed changes to the discharge or monitoring location.

Proposed Primary Waste Water Discharge (note: Carrigtwohill (D0044-01) Existing Primary Discharge Point)						
EDEN Code (where applicable)	Unique Point Code	Discharge Location	Monitoring Location	Receiving Water Name	WFD Code Receiving Water	Type of Receiving Water
TBC	SW009	179911, 72583	180966, 72268	Lough Mahon (Harper's Island)	IE_SW_060_0700	Transitional

\* The existing primary discharge for Carrigtwohill (SW001) will become the new primary discharge for the amalgamated agglomeration (i.e., SW009). There are no proposed changes to the discharge or monitoring location.

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Proposed Discharges Emission Levels and Monitoring (Primary Discharge - Carrigtwohill - SW009)							
Discharges					Monitoring		
Parameter	Units	Interim emission level (or Interim % Reduction)	Proposed emission level	Emission level commencement date	Monitoring Frequency	Sampling Method	Analysis method/Technique
pH	pH Units	-	6-9	-	Monthly	Composite	pH Meter and recorder
cBOD	mg/l	-	25	-	Monthly	Composite	Standard Method
COD	mg/l	-	125	-	Monthly	Composite	Standard Method
Suspended Solids	mg/l	-	35	-	Monthly	Composite	Standard Method
Ortho-Phosphate (as P)	mg/l	-	0.5	-	Monthly	Composite	Standard Method
Total Phosphorous	mg/l	-	1	-	Monthly	Composite	Standard Method
DIN	mg/l	-	25	-	Monthly	Composite	Standard Method
Visual Inspection	Descriptive	-	-	-	Monthly	Grab	Standard Method
Temperature	°C	-	-	-	Monthly	Composite	Temperature probe

Proposed Discharges Emission Levels and Monitoring (Primary Discharge - Carrigtwohill - SW009)							
Discharges					Monitoring		
Parameter	Units	Interim emission level (or Interim % Reduction)	Proposed emission level	Emission level commencement date	Monitoring Frequency	Sampling Method	Analysis method/Technique
Flow	m <sup>3</sup> /24 hours	-	-	-	Continuous	Online	On-line flow meter with recorder
Enterococci (Intestinal)	cfu/100ml	-	-	-	Biannually	Grab	Standard Method
<i>E. Coli</i>	cfu/100ml	-	-	-	Biannually	Grab	Standard Method

Secondary Waste Water Discharge

Is a Secondary discharge associated with the agglomeration?	Yes
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If yes, complete the following table for each secondary waste water discharge.

**Table C.1(b)** - Secondary waste water discharge

Secondary Waste Water Discharge (existing primary discharge as per D0056-01)*						
EDEN Code (where applicable)	Unique Point Code	Discharge Location	Monitoring Location	Receiving Water Name	WFD Code Receiving Water	Type of Receiving Water
TPEFF0500D0056SW001	SW001	186177, 69506	186603, 69729	North Channel Great Island at Rathcoursey Point	IE_SW_060_0300	Transitional

\* The existing primary discharge as per D0056-01 (SW01MIDL) will be become the **secondary discharge for the proposed amalgamated agglomeration** and will be licensed under SW001. There are no proposed changes to the discharge or monitoring location.

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Proposed Discharges Emission Levels and Monitoring – (Secondary Discharge - Midleton - SW001)							
Discharges					Monitoring		
Parameter	Units	Interim emission level (or Interim % Reduction)	Proposed emission level	Emission level commencement date	Monitoring Frequency	Sampling Method	Analysis method/Technique
pH	pH Units	-	6 - 9	-	Monthly	Composite	pH electrode/meter and recorder
cBOD	mg/l	-	25	-	Monthly	Composite	Standard Method
COD	mg/l	-	125	-	Monthly	Composite	Standard Method
Suspended Solids	mg/l	-	35	-	Monthly	Composite	Standard Method
Ortho-Phosphate (as P)	mg/l	-	2	-	Monthly	Composite	Standard Method
E.Coli	no./100mls	-	GM ≤250 ec/100mls & 95%ile ≤ 1000 ec/100mls	-	Biannually	Grab	Standard Method
Total Nitrogen	mg/l	-	15	-	Monthly	Composite	Standard Method
Visual Inspection	Descriptive	-	-	-	Monthly	Composite	Sample and examine for colour, odour, and petroleum hydrocarbon film

Proposed Discharges Emission Levels and Monitoring – (Secondary Discharge - Midleton - SW001)							
Discharges					Monitoring		
Parameter	Units	Interim emission level (or Interim % Reduction)	Proposed emission level	Emission level commencement date	Monitoring Frequency	Sampling Method	Analysis method/Technique
Flow	m <sup>3</sup> /24 hours	-	-	-	Continuous	Composite	On-line flow meter with recorder
Temperature	°C	-	-	-	Monthly	Composite	Temperature probe



**Waste water discharges from Stormwater Overflows**

Are discharges from storm water overflows associated with the agglomeration?	Yes
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If yes, complete the following table for waste water discharges from storm water overflows.

**Table C.1(c)** - Storm Water Overflows (additional rows may be added as required)

Storm Water Overflow (SWO)							
EDEN Code (Where available)	Unique Code	Discharge Location (6E, 6N)	SWO Location (6E, 6N)	Name of Receiving Water	WFD Code Receiving Water	Meeting the criteria as set out in the DoEHLG *	Decommissioning date (where applicable)
<b>TPEFF0500D0044SW003</b>	SW003	181276, 72256	181255, 72261	Tibbotstown_010	IE_SW_19T250870	Meeting	Not Applicable
<b>TPEFF0500D0044SW004</b>	SW004	181133, 72310	181074, 72896	Tibbotstown_010	IE_SW_19T250870	Meeting	Not Applicable
-	SW005	179911, 72605	181117, 72240	Lough Mahon (Harper's Island)	IE_SW_060_0700	Meeting	Not Applicable
-	SW006	181544, 73040	182082, 73036	Tibbotstown_010	IE_SW_19T250870	Meeting	Not Applicable
-	SW007	181544, 73040	182718, 73087	Tibbotstown_010	IE_SW_19T250870	Meeting	Not Applicable
-	SW008	180594, 72283	181354, 72695	Lough Mahon (Harper's Island)	IE_SW_060_0700	Meeting	Not Applicable

Storm Water Overflow (SWO)							
EDEN Code (Where available)	Unique Code	Discharge Location (6E, 6N)	SWO Location (6E, 6N)	Name of Receiving Water	WFD Code Receiving Water	Meeting the criteria as set out in the DoEHLG *	Decommissioning date (where applicable)
<b>TPEFF0500D0056SW003</b>	SW010	187975, 73109	187986, 73109	Owennacurra Estuary	IE_SW_060_0400	Not Meeting	Part of Midleton Waste Water Networks Upgrade Project **
<b>TPEFF0500D0056SW004</b>	SW011	188047, 72518	188060, 72526	Owennacurra Estuary	IE_SW_060_0400	Not Meeting	Part of Midleton Waste Water Networks Upgrade Project **
<b>TPEFF0500D0056SW005</b>	SW012	188518, 71783	188511, 71769	Owennacurra Estuary	IE_SW_060_0400	Meeting	Not Applicable
<b>TPEFF0500D0056SW007</b>	SW014	187475, 72902	187481, 72921	Owennacurra_040	IE_SW_19O030500	Meeting	Not Applicable
-	SW016	188346, 73332	188329, 73378	Dungourney_020	IE_SW_19D070700	Meeting	Not Applicable
-	SW017	188265, 73232	188275, 73227	Dungourney_020	IE_SW_19D070700	Meeting	Not Applicable
-	SW018	188332, 73316	188332, 73312	Dungourney_020	IE_SW_19D070700	Meeting	Not Applicable
-	SW019	188703, 73401	188732, 73019	Dungourney_020	IE_SW_19D070700	Meeting	Not Applicable
-	SW020	187687, 73025	187666, 73117	Owennacurra Estuary	IE_SW_060_0400	Not Meeting	Part of Midleton Waste Water

Storm Water Overflow (SWO)							
EDEN Code (Where available)	Unique Code	Discharge Location (6E, 6N)	SWO Location (6E, 6N)	Name of Receiving Water	WFD Code Receiving Water	Meeting the criteria as set out in the DoEHLG *	Decommissioning date (where applicable)
							Networks Upgrade Project **
-	SW021	188346, 73332	188183, 73689	Dungourney_020	IE_SW_19D070700	Meeting	Not Applicable

\* Meeting the criteria as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows,' 1995.

\*\* Under the Midleton WW Network Project, all SWOs in the amalgamated agglomeration will be upgraded and will meet DoEHLG criteria

Note: This table includes previously unlicensed overflows from the Midleton and Carrigtwohill functional areas which will be regularised as part of this review.

**Emergency Overflow Point(s)**

Are discharges from emergency overflows associated with the agglomeration?	Yes
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If yes, complete the following table for waste water discharges from an emergency overflow.

**Table C.1 (d)** - Emergency Overflow (additional rows may be added as required)

Refer to **Table C.1(c)** – SW003, SW004, SW008, SW010, SW011, SW012, SW014, SW016, SW017, SW018, and SW019 are Dual Function Overflows – act as a SWO or EO depending on the circumstances. SW013, SW015, and SW022 are exclusively EOs.

Emergency Overflow Point					
Name of pumping station	Unique point code	Discharge Location (6E, 6N)	Emergency Overflow Location (6E, 6N)	Name of Receiving Water	WFD Code of Receiving Water
Barryscourt Pumping Station	SW003	181276, 72256	181255, 72261	Tibbotstown_010	IE_SW_19T250870
IDA Pumping Station No.1	SW004	181133, 72310	181074, 72896	Tibbotstown_010	IE_SW_19T250870
Old Cobh Road PS	SW008	180594, 72283	181354, 72695	Lough Mahon (Harper's Island)	IE_SW_060_0750
Bailick No. 1 Pumping Station	SW010	187975, 73109	187986, 73109	Owennacurra Estuary	IE_SW_060_0400
Bailick No. 2 Pumping Station	SW011	188047, 72518	188060, 72526	Owennacurra Estuary	IE_SW_060_0400
Ballinacurra No. 2 Pumping Station	SW012	188518, 71783	188511, 71769	Owennacurra Estuary	IE_SW_060_0400

Emergency Overflow Point					
Name of pumping station	Unique point code	Discharge Location (6E, 6N)	Emergency Overflow Location (6E, 6N)	Name of Receiving Water	WFD Code of Receiving Water
Bailick No. 3 Pumping Station	SW013	188272, 72060	188343, 72097	Owennacurra Estuary	IE_SW_060_0400
Dwyers Road Pumping Station	SW014	187475, 72902	187481, 72921	Owennacurra_040	IE_SW_190030500
Oakwood Pumping Station	SW015	188573, 73373	188765, 73166	Dungourney_020	IE_SW_19D070700
Roxboro Mews Pumping Station	SW016	188346, 73332	188329, 73378	Dungourney_020	IE_SW_19D070700
The Rock Pumping Station	SW017	188265, 73232	188275, 73227	Dungourney_020	IE_SW_19D070700
Roxboro Housing Estate Pumping Station	SW018	188332, 73316	188332, 73312	Dungourney_020	IE_SW_19D070700
Old Youghal Road Pumping Station	SW019	188703, 73401	188703, 73401	Dungourney_020	IE_SW_19D070700
Ballinacurra No.1 Pumping Station	SW022	188366, 71791	188366, 71772	Owennacurra Estuary	IE_SW_060_0400

## Waste water treatment plant monitoring data

In the case of an existing associated waste water treatment plant(s), provide a summary of the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application by completing the following table.

**Table C.1(e)** – Primary Discharge Effluent monitoring results – **Carrigwohill WwTP: Compliance Data Feb 2022 – Jan 2023 as per D0044-01 Monitoring Requirements<sup>1</sup>.**

Parameter:	pH pH units	cBOD mg/l	COD mg/l	SS mg/l	Ammonia mg/l	Ortho- Phosphate mg/l	Total Nitrogen mg/l	Total Oxidised Nitrogen (as N) mg/l	Total Phosphorus (as P) mg/l
Number of Samples:	12	12	12	12	12	12	12	12	12
Max result:	7.7	6.6	65	9	6.1	1.2	12.3	6.6	1.5
Min result:	7.1	1	14.8	1.8	0.075	0.06	2.2	0.95	0.13
Average result	7.4	4	40.8	3.9	2.2	0.3	6	2.9	0.43
Number of exceedances of ELV:	0	0	0	0	0	1	0	0	1
Overall compliance: (%)	100	100	100	100	100	92	100	100	92

<sup>1</sup> Where the concentration in the result is less than the limit of detection (LOD), a value of LOD/sqrt(2) was applied.

**Table C.1(e)** – Secondary Discharge Effluent monitoring results – **Midleton WwTP: Compliance Data Feb 2022– Jan 2023 as per D0056-01 Monitoring Requirements<sup>1</sup>.**

Parameter:	pH pH units	cBOD mg/l	COD mg/l	SS mg/l	Ammonia mg/l	Ortho- Phosphate mg/l	Total Oxidised Nitrogen (as N)	Total Nitrogen
Number of Samples:	27	26	27	27	27	27	27	27
Max result:	8.3	11	55	57	3.9	1.75	7.68	10.1
Min result:	7.5	1.2	14.8	1.77	0.041	0.096	0.68	5.3
Average result	7.95	2.3	21.9	5.1	0.43	0.43	4.5	6.79
Number of exceedances of ELV:	0	0	0	1	0	0	0	0
Overall compliance: (%)	100	100	100	96.3	100	100	100	100

<sup>1</sup> Where the concentration in the result is less than the limit of detection (LOD), a value of LOD/sqrt(2) was applied.