

Annual Environmental Report

2018



Rush

D0119-01

TABLE OF CONTENTS

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2018 AER

- 1.1 LICENCE SPECIFIC REPORTING INCLUDED IN AER
- 1.2 TREATMENT TYPE
- 1.3 ELV OVERVIEW
- 1.4 SLUDGE REMOVAL

2 MONITORING REPORTS SUMMARY

- 2.1 SUMMARY REPORT ON MONTHLY INFLUENT MONITORING
 - 2.1.1 INFLUENT MONITORING SUMMARY
- 2.2 DISCHARGES FROM THE AGGLOMERATION
 - 2.2.1 EFFLUENT MONITORING SUMMARY
- 2.3 AMBIENT MONITORING SUMMARY
 - 2.3.1 AMBIENT MONITORING REPORT SUMMARY
 - 2.3.2 AMBIENT MONITORING PARAMETER SUMMARY

3 OPERATIONAL REPORTS SUMMARY

- 3.1 TREATMENT EFFICIENCY REPORT
 - 3.1.1 TREATMENT EFFICIENCY REPORT SUMMARY
- 3.2 TREATMENT CAPACITY REPORT SUMMARY
- 3.3 COMPLAINTS SUMMARY
- 3.4 REPORTED INCIDENTS SUMMARY
 - 3.4.1 SUMMARY OF INCIDENTS
 - 3.4.2 SUMMARY OF OVERALL INCIDENTS
- 3.5 SLUDGE / OTHER INPUTS TO THE WWTP

4 INFRASTRUCTURAL ASSESSMENTS AND PROGRAMME OF IMPROVEMENTS

- 4.1 STORM WATER OVERFLOW IDENTIFICATION AND INSPECTION REPORT
 - 4.1.1 SWO IDENTIFICATION AND INSPECTION SUMMARY REPORT
 - 4.1.2 SWO IDENTIFICATION AND INSPECTION SUMMARY REPORT
- 4.2 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MEET THE IMPROVEMENT PROGRAMME REQUIREMENTS
 - 4.2.1 SPECIFIED IMPROVEMENT PROGRAMME SUMMARY
 - 4.2.2 IMPROVEMENT PROGRAMME SUMMARY

4.2.3 SEWER INTEGRITY RISK ASSESSMENT TOOL SUMMARY

5 LICENCE SPECIFIC REPORTS

6 CERTIFICATION AND SIGN OFF

6.1 SUMMARY OF AER CONTENTS

6.2 DECLARATION BY IRISH WATER

7 APPENDIX

7.1 AMBIENT MONITORING SUMMARY

1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2018 AER

This Annual Environmental Report has been prepared for D0119-01, Rush in Country Dublin (Fingal) in accordance with the requirements of the wastewater discharge licence for the agglomeration.

1.1 Licence specific reporting included in AER

There are no Licence Specific Reports included in the AER.

1.2 Treatment Type

The collected load from the Rush agglomeration has been diverted and is currently being treated in the new 65,000 Portrane WWTP. Irish Water has applied for a Review of the Portrane Donabate WWDL No D0114-01. This Review proposes an expanded agglomeration to encompass the area served by the new Portrane Donabate Rush Lusk Sewage Scheme, which includes the area covered by the existing Rush Agglomeration Licence D0119-01.

Annual Statement of Measures

The Specified Improvement Programme required by the licence, addressed by means of the Rush Wastewater Collection Project was completed in 2018. Rush Wastewater Collection Project involves the connection of Rush agglomeration in its entirety to the new Portrane WWTP under the "Portrane/ Donabate/ Rush/ Lusk Sewerage Scheme". The scheme involved the construction of 3 new pumping stations, and 6 km of new sewers.

2 MONITORING REPORTS SUMMARY

2.1 Summary report on monthly influent monitoring

A summary of influent monitoring for the treatment plant is presented below. This monitoring is primarily undertaken in order to determine the overall efficiency of the plant in removing pollutants from the raw wastewater.

2.1.1 Influent Monitoring Summary

No influent monitoring was carried out in this agglomeration.

2.2 Discharges from the agglomeration

2.2.1 Effluent Monitoring Summary

No monitoring of discharges was carried in this agglomeration.

2.3 Ambient monitoring summary

A summary of monitoring from ambient monitoring points associated with the wastewater discharge is provided in the sections below. For discharges to rivers upstream (U/S) and downstream (D/S) location data is provided. For other ambient points in lakes, coastal or transitional waters, monitoring data from the most appropriate monitoring station is selected.

2.3.1 Ambient Monitoring Report Summary

The table below provides details of ambient monitoring locations and details of any designations as sensitive areas.

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	EPA Feature Coding Tool code	Bathing Water	Drinking Water	FWPM	Shellfish	Current WFD Status
Shore Monitoring Point (South Beach)	326489, 253608	IE_EA_020_0000					

Ambient Monitoring Point from WWDL (or as agreed with EPA)	Irish Grid Reference	EPA Feature Coding Tool code	Bathing Water	Drinking Water	FWPM	Shellfish	Current WFD Status
Coastal Water Monitoring (Northwestern Irish Sea - DR770)	327326, 253044	IE_EA_020_0000	Yes	No	No	No	Good

2.3.2 Ambient Monitoring Parameter Summary

The results for ambient results and / or additional monitoring data sets are included in the **Appendix 7.1 - Ambient Monitoring Summary**.

Significance of Results:

The discharge from the agglomeration does not have an observable negative impact on the water quality of the Northwestern Irish Sea.

The discharge from the agglomeration has no observable negative impact on the Water Framework Directive status.

Based on the 2018 EPA Annual water quality rating, the discharge from the agglomeration may periodically impact the Rush South Beach bathing area.

3 OPERATIONAL REPORTS SUMMARY

3.1 Treatment Efficiency Report

This is not required for this agglomeration.

3.2 Treatment Capacity Report Summary

This is not required for this agglomeration.

3.3 Complaints Summary

A summary of complaints of an environmental nature is included below.

Number of Complaints	Nature of Complaint	Number Open Complaints	Number Closed Complaints
1	Blocked Sewer	0	1

3.4 Reported Incidents Summary

Environmental incidents that arise in an agglomeration are reported on an on-going basis in accordance with our waste water discharge licences. Where an incident occurs and it is reportable under the licence, it is reported to the Environmental Protection Agency through their Environmental Data Exchange Network, or in some instances by telephone or fax. Some incidents which arise in the agglomeration are recorded by Irish Water but may not be reportable under our licence for example where the incident does not have an impact on environmental performance.

A summary of reported incidents is included below.

3.4.1 Summary of Incidents

Incident Type	Cause	No. of incident occurrences	Recurring (Y/N)	Closed (Y/N)
Uncontrolled release	Other	1	No	Yes
Spillage	Other	1	No	Yes
Uncontrolled release	Inadequate Operational Procedures	1	No	Yes
Uncontrolled release	Plant or equipment breakdown at WWTP	1	No	Yes
Uncontrolled release	SWO exceptional rainfall	1	No	Yes
Uncontrolled release	EO caused by power failure	1	No	Yes
Uncontrolled release	Other	1	No	Yes
Uncontrolled release	EO caused by power failure	1	No	Yes

3.4.2 Summary of Overall Incidents

Question	Answer
Number of Incidents in 2018	8
Number of Incidents reported to the EPA via EDEN in 2018	8
Explanation of any discrepancies between the two numbers above	N/A

3.5 Sludge / Other inputs to the WWTP

'Other inputs' to the waste water treatment plant are summarised in table below

Input type	Quantity	Unit	P.E.	% of load to WWTP	Included in Influent Monitoring (Y/N)?	Is there a leachate/sludge acceptance procedure for the WWTP?	Is there a dedicated leachate/sludge acceptance facility for the WWTP?(Y/N)
There is no Sludge and Other Input data for the Agglomeration included in the AER.							

4 INFRASTRUCTURAL ASSESSMENTS AND PROGRAMME OF IMPROVEMENTS

4.1 Storm Water Overflow Identification and Inspection Report

A summary of the operation of the storm water overflows and their significance where known is included below:

4.1.1 SWO Identification and Inspection Summary Report

WWDL Name / Code for Storm Water Overflow	Irish Grid Ref.	Included in Schedule A4 of the WWDL	Significance of the overflow (High / Medium / Low)	Assessed against DoEHLG Criteria	No. of times activated in 2018 (No. of events)	Total volume discharged in 2018 (m ³)	Monitoring Status
SW002	326936, 253560	Yes	Unknown	Meeting			Not Monitored
SW003	324764, 252835	Yes	Unknown	Meeting			Not Monitored

4.1.2 SWO Identification and Inspection Summary Report

SWO Summary	
How much sewage was discharged via SWOs in the agglomeration in the year (m ³)?	Not Monitored
Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?	N/A
The SWO Assessment included the requirements of relevant of WWDL schedules?	N/A
Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7?	N/A

4.2 Report on progress made and proposals being developed to meet the improvement programme requirements.

The Improvement Programme summaries in the Tables below address the Specified Improvement Programmes as detailed in Schedules A3 and C of the WWDL. They also detail other improvements identified through assessments required under the licence.

4.2.1 Specified Improvement Programme Summary

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides list of the various reports required for this agglomeration and a brief summary of their recommendations.

Specified Improvement Programmes (under Schedule A and C of WWDL)	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
SW1 (primary discharge) to cease	A	31/12/2014	No	Works Completed		
Infrastructural works necessary to cease primary discharge (SW 1)	C	31/12/2014	No	Works Completed		
Installation of new pump station at Whitestown	C	31/12/2012	No	Works Completed		
Upgrading of SWO to comply with the criteria outlined in the DoEHLG "Procedures and criteria in relation to storm water overflows, 1995". SW2	C	31/12/2014	No	Works Completed		
Upgrade of sewer network, upgrade of 'South Shore' and 'Rogerstown' pump stations, including the provision of 24 hour storm water storage, and connection to new Portrane WWTP	C	31/12/2014	No	Works Completed		
Upgrading of SWO to comply with the criteria outlined in the DoEHLG "Procedures and criteria in	C	31/12/2014	No	Works Completed		

Specified Improvement Programmes (under Schedule A and C of WWDL)	Licence Schedule	Licence Completion Date	Date Expired? (N/NA/Y)	Status of Works	Timeframe for Completing the Work	Comments
relation to storm water overflows, 1995". SW3.						

A summary of the status of any improvements identified by under Condition 5.2 is included below.

4.2.2 Improvement Programme Summary

Improvement Identifier	Improvement Description	Improvement Source	Expected Completion Date	Comments
There is no Improvements Programme for this Agglomeration.				

4.2.3 Sewer Integrity Risk Assessment

The utilisation of multiple capital maintenance programmes and the outputs of the workshops with the Local Authority Operations Staff held under the programme can be used to satisfy the requirements of Condition 5 regarding network integrity. Improvement works identified by way of these programmes and workshops will be included in the Improvements Summary Table.

5 LICENCE SPECIFIC REPORTS

A wastewater discharge licence may require a number of reports on specific subject areas to be prepared for the agglomeration in question. These reports are submitted to the EPA as part of the Annual Environmental Report. This section provides list of the various reports required for this agglomeration and a brief summary of their recommendations.

Licence Specific Report	Required by licence	Year included in AER	Included in this AER	Reference to relevant section of AER
There is no Licence Specific Report Required in this AER.				

6 CERTIFICATION AND SIGN OFF

6.1 Summary of AER Contents

Parameter	Answer
Does the AER include an Executive Summary?	Yes
Does the AER include an assessment of the performance of the Waste Water Works (i.e. have the results of assessments been interpreted against WWDL requirements and or Environmental Quality Standards)?	Yes
Is there a need to advise the EPA for consideration of a Technical Amendment / Review of the licence?	No
List reason e.g. additional SWO identified	N/A
Is there a need to request/advise the EPA of any modifications to the existing WWDL?	No
List reason e.g. changes to monitoring requirements	N/A
Have these processes commenced?	N/A
Are all outstanding reports and assessments from previous AERs included as an appendix to this AER	N/A

I certify that the information given in this Annual Environmental Report is truthful, accurate and complete:

Date: 19/03/2019

This AER has been produced by Irish Water's Environmental Information System (EIMS) and has been electronically signed off in that system for and on behalf of:

Eleanor Roche

Acting Head of Environmental Regulation

7 APPENDIX

Appendix

Appendix 7.1 - Ambient Monitoring Summary

Appendix 7.1 Ambient Monitoring Report Summary

2018 Ambient Monitoring Summary

Sampling Point Description	Sample Date	Ammonia	BOD	Chlorophyll	DIN	DO	pH	Ortho Phosphate	Salinity	Temp	Ammonia	TN
		mg/l as N	mg/l O ₂	µg/m ³	mg/l	% Sat.		mg/l P	PSU	°C	mg/l N	mg/l as N
Rush (DR770)	29/06/18	0.37	<1	<4.00	<1.15	107.4	8.24	-	32.00	15	-	<0.2
Rush (DR770)	13/09/18	<0.02	<1	<4.00	<0.23	104	8.09	-	34.5	14.1	<0.02	<0.2

Bathing Water Results 2018

Rush South Beach

Date	Escherichia coli	Intestinal enterococci	Sample Quality Status
05/09/2018	20	<1	Excellent
20/08/2018	41	26	Excellent
07/08/2018	<10	1	Excellent
23/07/2018	10	4	Excellent
09/07/2018	<10	<1	Excellent
25/06/2018	<10	<1	Excellent
11/06/2018	20	<1	Excellent
06/06/2018	<10	1	Excellent
23/05/2018	<10	<1	Excellent

(Source: Beaches.ie)

In order to assess these results, the Bathing Water Quality Regulations, 2008 (S.I No 79 of 2008), was consulted. It was found that in 9 cases, Rush South Beach, achieved “*Excellent*” results in all cases for the Bathing Water season 2018.

Rush South Beach is classified as having Sufficient Water Quality in 2018 based on the assessment of bacteriological results for the period 2015 to 2018. Due to a Poor Water Quality classification in 2017 an Advice Not To Swim restriction will apply at the beach for the 2019 season. Rush South Beach achieved Sufficient Water Quality rating in 2016 and had Poor Water Quality ratings in 2015 and 2014.

FCC Bathing Water Monitoring Data

Location	Sampled Date	E. coli MPN/100ml	Enterococci (CFU/100ml)	Floating Materials	Mineral Oil	pH	Phenols (Olfactory)	Salinity (PSU)	Surfactants	Visual Inspection
(49912) Portrane Beach, The Brook	23/05/2018	<10	4	Absent	Absent	8.2	Absent	32.2	Absent	Normal
(49912) Portrane Beach, The Brook	06/06/2018	52	13	Absent	Absent	8.1	Absent	34.2	Absent	Normal
(49912) Portrane Beach, The Brook	11/06/2018	52	59	Absent	Absent	8.1	Absent	32.5	Absent	Normal
(49912) Portrane Beach, The Brook	25/06/2018	<10	<1	Absent	Absent	8.1	Absent	32.8	Absent	Normal
(49912) Portrane Beach, The Brook	09/07/2018	10	590	Absent	Absent	8.1	Absent	33.4	Absent	Normal
(49912) Portrane Beach, The Brook	23/07/2018	98	20	Absent	Absent	8.1	Absent	34.3	Absent	Normal
(49912) Portrane Beach, The Brook	07/08/2018	10	4	Absent	Absent	8.1	Absent	34.1	Absent	Normal
(49912) Portrane Beach, The Brook	20/08/2018	145	44	Absent	Absent	8	Absent	33.8	Absent	Normal
(49912) Portrane Beach, The Brook	23/05/2018	31	8	Absent	Absent	8.1	Absent	34.3	Absent	Normal
(49911) Rush South Beach	06/06/2018	<10	<1	Absent	Absent	8.2	Absent	33.9	Absent	Normal
(49911) Rush South Beach	23/05/2018	<10	1	Absent	Absent	8.2	Absent	33.7	Absent	Normal
(49911) Rush South Beach	06/06/2018	20	<1	Absent	Absent	8.1	Absent	32.6	Absent	Normal

Location	Sampled Date	E. coli MPN/100ml	Enterococci (CFU/100ml)	Floating Materials	Mineral Oil	pH	Phenols (Olfactory)	Salinity (PSU)	Surfactants	Visual Inspection
(49911) Rush South Beach	11/06/2018	<10	<1	Absent	Absent	8.1	Absent	33.6	Absent	Normal
(49911) Rush South Beach	25/06/2018	<10	<1	Absent	Absent	8.2	Absent	33.7	Absent	Normal
(49911) Rush South Beach	09/07/2018	10	4	Absent	Absent	8.1	Absent	33.4	Absent	Normal
(49911) Rush South Beach	23/07/2018	<10	1	Absent	Absent	8.1	Absent	33.8	Absent	Normal
(49911) Rush South Beach	07/08/2018	41	26	Absent	Absent	8.1	Absent	33.8	Absent	Normal
(49911) Rush South Beach	20/08/2018	20	<1	Absent	Absent	8.1	Absent	33.7	Absent	Normal