# Annual Environmental Report





Ramelton

D0341-01

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# **1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2019 AER**

This Annual Environmental Report has been prepared for D0341-01, Ramelton, in Donegal in accordance with the requirements of the wastewater discharge licence for the agglomeration. Specified reports where relevant are included as an appendix to the AER.

## **1.1 ANNUAL STATEMENT OF MEASURES**

A summary of any improvements undertaken is provided where applicable.

There was no major capital or operational changes undertaken.

## **1.2 TREATMENT SUMMARY**

• Currently there is no treatment provided at this agglomeration. Please refer to section 4 for details of the Programme of Improvements.

## **1.3 ELV OVERVIEW**

The overall compliance of the final effluent with the Emission Limit Values (ELVs) is shown below. More detailed information on the below ELV's can be found in Section 2.

| Discharge Point<br>Reference | Treatment Plant                 | Discharge<br>Type | Compliance<br>Status | Parameters failing if relevant                                                                                                 |
|------------------------------|---------------------------------|-------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| TPEFF0600D0341SW001          | Ramelton Untreated<br>Discharge | Untreated         | Non-Compliant        | BOD, 5 days with Inhibition (Carbonaceous BOD)<br>mg/l<br>COD-Cr mg/l<br>Suspended Solids mg/l<br>Total Phosphorus (as P) mg/l |

## **1.4 LICENCE SPECIFIC REPORTING INCLUDED IN AER**

| Assessment / Report                                        | Included in AER |
|------------------------------------------------------------|-----------------|
| There are no Licence Specific Reports included in the AER. |                 |

# **2 TREATMENT PLANT PERFORMANCE AND IMPACT SUMMARY**

## 2.1.1 EFFLUENT MONITORING SUMMARY -

| Parameter                                                    | WWDL ELV<br>(Schedule<br>A) | ELV with<br>Condition 2<br>Interpretation<br>included Note 1 | Interim %<br>reduction from<br>influent<br>concentration | Number<br>of<br>sample<br>results | Number of<br>exceedances | Number of with<br>Condition 2<br>Interpretation<br>included | Annual<br>Mean | Overall<br>Compliance<br>(Pass/Fail) |
|--------------------------------------------------------------|-----------------------------|--------------------------------------------------------------|----------------------------------------------------------|-----------------------------------|--------------------------|-------------------------------------------------------------|----------------|--------------------------------------|
| COD-Cr mg/l                                                  | 125                         | 250                                                          | N/A                                                      | 6                                 | 4                        | 4                                                           | 1260.5         | Fail                                 |
| Suspended Solids mg/l                                        | 35                          | 87.5                                                         | N/A                                                      | 6                                 | 4                        | 3                                                           | 321.5          | Fail                                 |
| BOD, 5 days with<br>Inhibition<br>(Carbonaceous<br>BOD) mg/l | 25                          | 50                                                           | N/A                                                      | 6                                 | 4                        | 4                                                           | 107.5          | Fail                                 |
| pH pH units                                                  | 9                           | 9                                                            | N/A                                                      | 6                                 | 0                        | 0                                                           | 7.78           | Pass                                 |
| Total Phosphorus<br>(as P) mg/l                              | 2                           | 2.4                                                          | N/A                                                      | 6                                 | 1                        | 1                                                           | 2.55           | Fail                                 |
| Enterococci<br>(Intestinal)<br>cfu/100ml                     | N/A                         | N/A                                                          | N/A                                                      | 2                                 | N/A                      | N/A                                                         | 4450           |                                      |
| Faecal coliforms<br>cfu/100ml                                | N/A                         | N/A                                                          | N/A                                                      | 2                                 | N/A                      | N/A                                                         | 156300         |                                      |
| Dissolved<br>Inorganic Nitrogen<br>(as N) mg/I               | N/A                         | N/A                                                          | N/A                                                      | 6                                 | N/A                      | N/A                                                         | 22.95          |                                      |

| Parameter                                       | WWDL ELV<br>(Schedule<br>A) | ELV with<br>Condition 2<br>Interpretation<br>included Note 1 | Interim %<br>reduction from<br>influent<br>concentration | eduction from of<br>influent sample |     | Number of with<br>Condition 2<br>Interpretation<br>included | Annual<br>Mean | Overall<br>Compliance<br>(Pass/Fail) |
|-------------------------------------------------|-----------------------------|--------------------------------------------------------------|----------------------------------------------------------|-------------------------------------|-----|-------------------------------------------------------------|----------------|--------------------------------------|
| E. Coli MPN/100ml                               | N/A                         | N/A                                                          | N/A                                                      | 2                                   | N/A | N/A                                                         | 354400         |                                      |
| Nitrate (as N) mg/l                             | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 0.46           |                                      |
| ortho-Phosphate<br>(as P) -<br>unspecified mg/l | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 2.23           |                                      |
| Ammonia-Total (as<br>N) mg/l                    | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 22.44          |                                      |
| Nitrite (as N) mg/l                             | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 0.03           |                                      |
| Total Nitrogen mg/l                             | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 29.67          |                                      |
| Total Oxidised<br>Nitrogen (as N)<br>mg/l       | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 0.51           |                                      |
| Conductivity 20 C<br>µS/cm                      | N/A                         | N/A                                                          | N/A                                                      | 6                                   | N/A | N/A                                                         | 9566.83        |                                      |

Notes: 1 – This represents the Emission Limit Values after the Interpretation provided for under Condition 2 of the licence is applied

#### **Cause of Exceedance(s):**

Refer to the incident section of the report.

#### Significance of Results:

The WWTP is non-compliant with the ELV's set in the Wastewater Discharge Licence. The impact on receiving waters is assessed further in Section 2.

#### 2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF0600D0341SW001

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.

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<br>Reference | River Station<br>Code | Bathing<br>Water | Drinking<br>Water | FWPM | Shellfish | WFD<br>Status |
|------------------------------------------------------------|-------------------------|-----------------------|------------------|-------------------|------|-----------|---------------|
| The ambient monitoring results are included in t           | he Appendix 7.1 - A     | mbient monitoring     | summary          |                   |      |           |               |

#### Significance of Results:

The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence.

The ambient monitoring results do not meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.

The discharge from the wastewater treatment plant does not have an observable impact on the water quality.

A deterioration in water quality has been identified, however it is not known if it is caused by the WWTP.

Other causes of deterioration in water quality in the area are unknown.

The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.

# **3 COMPLAINTS AND INCIDENTS**

## **3.1 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 |
|----------------------------------|---------------------------|------------------------|--------------------------|
| There were no relevant environme | ental complaints in 2019. |                        |                          |

## **3.2 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. 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.

#### **3.2.1 SUMMARY OF INCIDENTS**

| Incident Type | Cause                             | No. of incident occurrences | Recurring (Y/N) | Closed (Y/N) |
|---------------|-----------------------------------|-----------------------------|-----------------|--------------|
| Breach of ELV | WWTP upgrade required to meet ELV | 1                           | Yes             | No           |

## **3.2.2 SUMMARY OF OVERALL INCIDENTS**

| Question                                                       | Answer |
|----------------------------------------------------------------|--------|
| Number of Incidents in 2019                                    | 1      |
| Number of Incidents reported to the EPA via EDEN in 2019       | 1      |
| Explanation of any discrepancies between the two numbers above | N/A    |

# **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

| WWDL Name /<br>Code for Storm<br>Water Overflow | lrish<br>Grid<br>Ref. | Included in<br>Schedule A4 of<br>the WWDL | Significance of the<br>overflow(High /<br>Medium / Low) | Assessed<br>against<br>DoEHLG<br>Criteria | No. of times<br>activated in 2019<br>(No. of events) | Total volume<br>discharged in<br>2019 (m3) | Monitoring<br>Status |
|-------------------------------------------------|-----------------------|-------------------------------------------|---------------------------------------------------------|-------------------------------------------|------------------------------------------------------|--------------------------------------------|----------------------|
| твс                                             | ТВС                   | No                                        | Unknown                                                 | Not yet<br>Assessed                       | Unknown                                              | Unknown                                    | Not<br>Monitored     |

| SWO Summary                                                                                           |         |  |  |  |  |
|-------------------------------------------------------------------------------------------------------|---------|--|--|--|--|
| How much sewage was discharged via SWOs in the agglomeration in the year (m <sup>3</sup> )?           | Unknown |  |  |  |  |
| Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements?      |         |  |  |  |  |
| The SWO Assessment included the requirements of relevant of WWDL schedules?                           |         |  |  |  |  |
| Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7? | No      |  |  |  |  |

# 4.2 REPORT ON PROGRESS MADE AND PROPOSALS BEING DEVELOPED TO MEET THE IMPROVEMENT PROGRAMME REQUIREMENTS.

### 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<br>Improvement<br>Programmes (under<br>Schedule A and C of<br>WWDL) | Description                                                        | Licence<br>Schedule | Licence<br>Completion<br>Date | Date<br>Expired?<br>(N/NA/Y) | Status of<br>Works      | Timeframe for<br>Completing<br>the Work | Comments                                                                                                           |
|-------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------|-------------------------------|------------------------------|-------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| D0341-SIP:03                                                                  | Upgrade of waste water<br>collection network                       | С                   | 31/12/2015                    | Yes                          | At<br>Planning<br>Stage | 31/12/2023                              |                                                                                                                    |
| D0341-SIP:01                                                                  | Provision of Waste Water<br>Treatment Plant and ancillary<br>works | С                   | 31/12/2015                    | Yes                          | At<br>Planning<br>Stage | 31/12/2023                              | Ramelton, Milford &<br>Rathmullan will be<br>served by 1 No.<br>Secondary WWTP and<br>have one discharge<br>point. |
|                                                                               |                                                                    |                     |                               |                              |                         |                                         |                                                                                                                    |

| D0341-SIP:04 Upgrading of Storm Water<br>Overflows to comply with the<br>criteria outlined in the<br>DoECLG 'Procedures and<br>Criteria in relation to Storm<br>Water overflows, 1995' |  | 31/12/2015 | Yes | At<br>Planning<br>Stage | 31/12/2023 |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------|-----|-------------------------|------------|--|
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------|-----|-------------------------|------------|--|

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

## 4.2.2 IMPROVEMENT PROGRAMME SUMMARY

| Improvement                                                 | Improvement Description / or any Operational | Improvement | Expected Completion | Comments |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------|----------------------------------------------|-------------|---------------------|----------|--|--|--|--|--|--|--|--|
| Identifier                                                  | Improvements                                 | Source      | Date                |          |  |  |  |  |  |  |  |  |
| There are no Improvement Programmes 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.



# **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 modification to the existing WWDL with respect to condition 4 changes to monitoring location, frequency etc.                                            | 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                                                                                                       | Yes    |

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

Signed: Date: 14/04/2020

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,

Katherine Walshe

Acting Head of Environmental Regulation.

## **7** APPENDIX

### Appendix

Appendix 7.1 - Ambient monitoring summary

#### Ramelton: Ambient Points

| Ambient                                                     |                         |                                 | <b>Receiving V</b> | WFD Status        |      |           |          |  |
|-------------------------------------------------------------|-------------------------|---------------------------------|--------------------|-------------------|------|-----------|----------|--|
| Monitoring Point<br>from WWDL (or<br>as agreed with<br>EPA) | Irish Grid<br>Reference | EPA Feature Coding<br>Tool code | Bathing<br>Water   | Drinking<br>Water | FWPM | Shellfish |          |  |
| Upstream                                                    | 222905,<br>421443       | TPEFF0600D0341SW001             | Yes                | No                | No   | Yes       | Moderate |  |
| Downstream                                                  | 223010,<br>421440       | TPEFF0600D0341SW001             | Yes                | No                | No   | Yes       | Moderate |  |

#### Coastal Monitoring Report Master\_to end December 2019

|              |                         |           |                    | 1         |           |                |      |             |     | Dissolved Inorganic | Dissolved Oxygen % |        | Intestinal  | Faecal Coliforms (E. |                |      |                  |             |                  |          |                           |
|--------------|-------------------------|-----------|--------------------|-----------|-----------|----------------|------|-------------|-----|---------------------|--------------------|--------|-------------|----------------------|----------------|------|------------------|-------------|------------------|----------|---------------------------|
| Entity       | Category                | MONTH     | Location           | Lab Ref   | Date      | Ammonia (as N) | BOD  | Chlorophyll | COD | Nitrogen (as N)     | Saturation         | E coli | Enterococci | coli)                | Orthophosphate | pH   | Suspended Solids | Temperature | Total Nitrogen N | Salinity | Total Oxidised Nitrogen N |
| Lough Swilly | Transitional Water Body | April     | Ramelton - Point 1 | 192502325 | 11-Apr-19 | 0.04           | 1    | <4          | NT  | <0.02               | 95.7               | NT     | NT          | NT                   | <0.02          | 7.55 | NŤ               | NT          | 0.6              | NT       | NT                        |
| Lough Swilly | Transitional Water Body | April     | Ramelton - Point 2 | 192502326 | 11-Apr-19 | 0.02           | <1   | <4          | NT  | <0.02               | 95.9               | NT     | NT          | NT                   | <0.02          | 7.56 | NT               | NT          | 0.5              | NT       | NT                        |
| Lough Swilly | Transitional Water Body | June      | Ramelton - Point 1 | 192503671 | 06-Jun-19 | 0.04           | 2.74 | 5.37        | NT  | <0.2                | 102.1              | NT     | NT          | NT                   | <0.02          | 7.42 | NT               | NT          | 0.7              | NT       | NT                        |
| Lough Swilly | Transitional Water Body | June      | Ramelton - Point 2 | 192503672 | 06-Jun-19 | 0.06           | 2.68 | 19.61       | NT  | < 0.2               | 101.8              | NT     | NT          | NT                   | 0.04           | 7 73 | NT               | NT          | 0.8              | NT       | NT                        |
| Lough Swilly | Transitional Water Body | September | Ramelton - Point 1 | 192505408 | 03-Sep-19 | 0.03           | 2.2  | <4          | NŤ  | <0.3                | 99.2               | NT NT  | NT          | NT                   | <0.02          | 8.18 | NT               | 16.8        | 1                | NT       | NT                        |
| Lough Swilly | Transitional Water Body | September | Ramelton - Point 2 | 192505409 | 03-5ep-19 | 0.03           | 2.2  | <4          | NT  | < 0.3               | 99.5               | NT     | NT          | NT                   | <0.02          | 8.2  | NT               | 16.7        | 0.8              | NT       | NT                        |
| Lough Swilly | Transitional Water Body | November  | Ramelton - Point 1 | 192505426 | 19-Nov-19 | 0.02           | 2.3  | <4          | NT  | <0.2                | 96.7               | NT     | NT          | NT                   | 0.79           | 7.41 | NT               | NT          | 1                | NT       | NT                        |
| Lough Swilly | Transitional Water Body | November  | Ramelton - Point 2 | 192505427 | 19-Nov-19 | E0.0           | 2.37 | <4          | NT  | <0.2                | 96.1               | NT     | NT          | NT                   | 0.04           | 7.45 | NT               | NT          | 2:1              | NT       | NT                        |