

Annual Environmental Report

2019



Foynes

D0502-01

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1 EXECUTIVE SUMMARY AND INTRODUCTION TO THE 2019 AER

This Annual Environmental Report has been prepared for D0502-01, Foynes, in Limerick 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.

None

1.2 TREATMENT SUMMARY

- Currently there is no treatment provided at Foynes . 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 Reference | Treatment Plant | Discharge Type | Compliance Status | Parameters failing if relevant |
|---------------------------|-----------------|----------------|-------------------|--------------------------------|
| TPEFF1900D0502SW001 | Foynes WWTP | Untreated | N/A | N/A |

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 (Schedule A) | ELV with Condition 2 Interpretation included Note 1 | Interim % reduction from influent concentration | Number of sample results | Number of exceedances | Number of with Condition 2 Interpretation included | Annual Mean | Overall Compliance (Pass/Fail) |
|--|-----------------------|---|---|--------------------------|-----------------------|--|-------------|--------------------------------|
| <p>There is no Effluent data included in the AER. There is currently no treatment at this agglomeration. ELVs do not come in to operation until 1st January 2020.</p> | | | | | | | | |

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):

Not applicable

Significance of Results:

There is currently no treatment at this agglomeration. ELVs do not come in to operation until 1st January 2020.

2.1.2 AMBIENT MONITORING SUMMARY FOR THE UNTREATED DISCHARGE TPEFF1900D0502SW001

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 Reference | River Station Code | Bathing Water | Drinking Water | FWPM | Shellfish | WFD Status |
|--|----------------------|--------------------|---------------|----------------|------|-----------|------------|
| TW03004128N2001 | 135844 | 157038 | No | No | No | No | Poor |
| TW36004124FH100 | 124635 | 15022 | No | No | No | No | Poor |

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

Significance of Results:

There is currently no treatment at this agglomeration. ELVs do not come in to operation until 1st January 2020.

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 environmental 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) |
|--|-------|-----------------------------|-----------------|--------------|
| There were no reportable incidents in 2019. | | | | |

3.2.2 SUMMARY OF OVERALL INCIDENTS

| Question | Answer |
|--|--------|
| Number of Incidents in 2019 | 0 |
| Number of Incidents reported to the EPA via EDEN in 2019 | 0 |
| 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 / 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 2019 (No. of events) | Total volume discharged in 2019 (m3) | Monitoring Status |
|---|-----------------|-------------------------------------|---|----------------------------------|--|--------------------------------------|-------------------|
| SW2 | 125122, 151376 | Yes | Low | Not Meeting | Unknown | Unknown | Not Monitored |

| SWO Summary | |
|---|---------|
| How much sewage was discharged via SWOs in the agglomeration in the year (m3)? | Unknown |
| Is each SWO identified as not meeting DoEHLG Guidance included in the Programme of Improvements? | Yes |
| The SWO Assessment included the requirements of relevant of WWDL schedules? | Yes |
| 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.

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) | Description | Licence Schedule | Licence Completion Date | Date Expired? (N/NA/Y) | Status of Works | Timeframe for Completing the Work | Comments |
|---|---|------------------|-------------------------|------------------------|-------------------|---|----------|
| D0502-SIP:01 | Discharges from SW000 to cease | A | 31/12/2020 | No | At Planning Stage | Date of commencement of discharges from SW001 | |
| D0502-SIP:04 | Installation of new waste water treatment plant and ancillary works | C | 01/01/2020 | No | At Planning Stage | 08/11/2024 | |
| D0502-SIP:02 | Discharges from SW002 to cease | A | 31/12/2020 | No | At Planning Stage | Date of commencement of discharges from SW003 | |
| D0502-SIP:03 | Installation of new rising mains and pumping station | C | 01/01/2020 | No | At Planning Stage | 08/11/2024 | |

| Specified Improvement Programmes (under Schedule A and C of WWDL) | Description | Licence Schedule | Licence Completion Date | Date Expired? (N/NA/Y) | Status of Works | Timeframe for Completing the Work | Comments |
|---|---|------------------|-------------------------|------------------------|-------------------|-----------------------------------|----------|
| D0502-SIP:05 | Installation of storm water storage tank. | C | 01/01/2020 | No | At Planning Stage | 08/11/2024 | |

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 / or any Operational Improvements | Improvement Source | Expected Completion Date | Comments |
|--|---|--------------------|--------------------------|----------|
| There are 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.

5.a Licence Specific Reports Summary Table

| 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 Annual Review. | | | | |

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 | No |

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

Signed: Date: 05/03/2020

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

Shannon Estuary Upstream Foynes Outfall.

| Location | | | | | | Parameter | | | | | | |
|--------------------|-------------------|-----------------|------------------|--------------------|-------------|---------------|--------------------------|-------------------------------|-----------------------|----------|-------------|------------------|
| Station | Station Reference | Station Easting | Station Northing | Sample Reference | Sample Date | Ammonia NH3-N | Biological Oxygen Demand | Dissolved Oxygen % Saturation | Ortho-Phosphate PO4-P | pH | Temperature | Total Nitrogen N |
| | | | | | | mg/l | mg/l | % O2 | mg/l | pH units | Degrees C | mg/l |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19370511 | 12-Feb-2019 | 0.038 | 1 | 100 | 0.028 | 8.1 | 7 | |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19370939 | 12-Mar-2019 | 0.044 | 1 | 98 | 0.028 | 8.1 | 7.4 | |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19371340 | 9-Apr-2019 | 0.024 | 1 | 76 | 0.026 | 8 | 11.9 | |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19371959 | 4-June-2019 | 0.023 | 1 | 90 | 0.017 | 8.1 | 13.5 | |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19372724 | 13-Aug-2019 | 0.068 | 1 | 91 | 0.024 | 8.1 | 17.9 | |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19373850 | 5-Nov-2019 | 0.046 | 1 | 91 | 0.044 | 8.1 | 9.5 | |
| u/s Foynes WDLW 18 | TW03004128SN200 | 135844 | 157038 | 19373960 | 12-Nov-2019 | 0.02 | 1 | 97 | 0.011 | 8 | 7.1 | |
| | | | EQS Std | individual value | | | | | | 6-9 | | |
| | | | EQS Std | good status mean | | ≤0.065 | ≤1.5 | | ≤0.035 | n/a | n/a | n/a |
| | | | EQS Std | good status 95%ile | | ≤0.14 | ≤2.6 | >80, <120 | ≤0.075 | n/a | n/a | n/a |
| | | | | mean | | 0.038 | 1.000 | 91.857 | 0.025 | 8.071 | 10.614 | #DIV/0! |
| | | | | 95%ile | | 0.061 | 1.000 | 99.400 | 0.039 | 8.100 | 16.580 | #NUM! |
| | | | | mean compliance | | yes | yes | | yes | yes | | |
| | | | | 95%ile compliance | | yes | yes | yes | yes | yes | -- | -- |

half of level of detection for statistical purposes
exceeds Surface Waters Regulations good status

Note: Individual results which exceed the good status mean are highlighted in red

Shannon Estuary Downstream Foynes Outfall.

| Location | | | | | | Parameter | | | | | | |
|--|-------------------|-----------------|------------------|--------------------|-------------|---------------|--------------------------|-------------------------------|-----------------------|----------|-------------|------------------|
| Station | Station Reference | Station Easting | Station Northing | Sample Reference | Sample Date | Ammonia NH3-N | Biological Oxygen Demand | Dissolved Oxygen % Saturation | Ortho-Phosphate PO4-P | pH | Temperature | Total Nitrogen N |
| | | | | | | mg/l | mg/l | % O2 | mg/l | pH units | Degrees C | mg/l |
| WDLW 19 Shannon Estuary d/s Foynes STP | TW36004124FH100 | 124635 | 152022 | 19371960 | 4-June-2019 | 0.018 | 1 | 92 | 0.01 | 8.1 | 13.2 | |
| WDLW 19 Shannon Estuary d/s Foynes STP | TW36004124FH100 | 124635 | 152022 | 19373851 | 5-Nov-2019 | 0.039 | 1 | 85 | 0.02 | 8.1 | 10.4 | |
| | | | EQS Std | individual value | | | | | | 6-9 | n/a | |
| | | | EQS Std | good status mean | | ≤0.065 | ≤1.5 | | ≤0.035 | n/a | n/a | n/a |
| | | | EQS Std | good status 95%ile | | ≤0.14 | ≤2.6 | >80, <120 | ≤0.075 | n/a | | n/a |
| | | | | mean | | 0.029 | 1.000 | 88.500 | 0.015 | 8.100 | | #DIV/0! |
| | | | | 95%ile | | 0.038 | 1.000 | 91.650 | 0.020 | 8.100 | | #NUM! |
| | | | | mean compliance | | yes | yes | yes | yes | yes | -- | |
| | | | | 95%ile compliance | | yes | yes | yes | yes | yes | -- | -- |

half of level of detection for statistical purposes
exceeds Surface Waters Regulations good status

Note: Individual results which exceed the good status mean are highlighted in red