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| Guidance on the Preparation & Submissionof the Annual Environmental Report (AER)for Waste Water Discharge Licences for 2016 |

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# A. Introduction

**Condition 6** of EPA Waste Water Discharge Licences (WWDL) requires a licence holder to prepare and submit an Annual Environmental Report (AER) for the previous reporting year that is to the satisfaction of the EPA. The AER must be submitted to the EPA by the **28th February**. This requirement applies to all WWDL’s issued on or before **31st December** of the previous year. This guidance document is provided to assist Irish Water with the preparation of theirAER for the **2016 reporting year**.

*“The licensee shall submit to the Agency, by the 28th of February of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in Schedule D: Annual Environmental Report of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.”*

The annual reporting of environmental information is a legal requirement for the operators of all EPA Waste Water Discharge Licences. The annual reporting obligation comprises of **3 separate tasks**. These are:

1. **Full PDF AER**. Submission of an electronic PDF copy of your Full AER.
2. **Urban Waste Water Treatment Data**: Reporting of Urban Waste Water Treatment data via EDEN and **the summary excel spread sheet for plant, agglomeration and receiving water**
3. **PRTR Emissions Data**: Reporting of emissions and waste transfers information via the EPA’s AER / PRTR Emissions Data Reporting Workbook. **Please note that for 2016 a PRTR is only required from licensed agglomerations above 100000 p.e.**

**Tasks 1 and 3** are carried out online via the EPA’s AER / PRTR reporting website at the link:

<http://aer.epa.ie/reporting/pgLogon.aspx>,

**Task 2** is achieved by submission of the Urban Waste Water Treatment data via EDEN at the following link; <https://www.edenireland.ie/> and the excel spreadsheet issued to Irish Water in early 2017.

In addition to the 3 tasks above, the EPA will be requesting the submission of collated information on all AER’s directly from Irish Water. This step of the AER reporting process will be covered in separate correspondence directly with Irish Water

The reporting obligation will not be satisfied until all relevant steps are completed and the EPA has confirmed that it has accepted the information.

Guidance documentation for WWDL facilities is provided on the EPA website at the following link: <http://www.epa.ie/pubs/advice/wastewater/>

# B. Preparation of the AER for 2016

Condition 6 and Schedule D of the WWDL licence sets out the contents required of the AER. The range of contents required may differ from one licence to another so it is important to check the AER requirements of each licence (conditions and schedules).

The AER requirements and format may be considered under the following seven categories;

1. Executive summary and introduction to 2016 AER
2. Monitoring reports summary
3. Operational reports summary
4. Infrastructural Assessment and Programme of Improvements
5. Licence specific reports
6. Certification and Sign Off
7. Appendix

The AER submitted should be prepared under the 7 different sections listed above. The remainder of this guidance document will briefly set out what is expected under each of these headings. Irish Water should ensure that the AER contains all the information that is required under the licence and is presented as outlined in this guidance document.

**Important Note: From 2012 Environmental Liabilities Risk Assessment and Financial Provisions are no longer required from all Waste Water Discharge Authorisations (WWDL and COA).** Irish Water is required to prepare and submit an Annual Statement of Measures as part of the AER. This must contain the measures taken or adopted by the Irish Water to prevent environmental damage anticipated following events or accidents/incidents associated with discharges or overflows from the waste water works. This should include including cessation / decommissioning of any discharge associated with the works if expected within 3 years. **This should address the list of impacts /improvements identified in the Condition 5 assessment of the existing works, the storm water overflow identification and assessment and licence specific reports (e.g. drinking water abstraction risk assessment, shellfish impact risk assessment).**

Where outstanding assessments and/or reports that were due in the 2015 or earlier AERs are being provided their findings should be included in the relevant summary report section of the AER. Where relevant the main reports on which the summary is based can be attached as an appendix to the AER.

It is a WWDL requirement that each AER report is **certified** as accurate and is representative by a nominated suitably qualified and experienced person.

Where the AER relies on colour coding to illustrate findings the pdf copy must be in colour. If you have further queries in relation to this guidance document or regarding the content of the AER please contact Brendan Kissane at [b.kissane@epa.ie](mailto:b.kissane@epa.ie).

# Section 1. Executive Summary and Introduction to the 2016 AER

## Summary report on 2016

In this section, which should be two pages maximum, provide an introduction to what is included in the AER and key findings from 2016. This should include a brief description of the works, details of any compliance issues such as ELV exceedances and incidents, water quality and any significant improvements works or projects carried out during the year (or plans for such with timeframes). This can be presented in tabular format but must include an interpretation of the significance of the findings and improvements in relation to licence requirements.

Where relevant this section should identify if the agglomeration is on the European Commission Infringement list and/or meets any of the EPA’s waste water priorities.  These priorities are summarised on page 17 of the [Urban Waste Water Treatment in 2015](https://www.epa.ie/pubs/reports/water/wastewater/2015%20urban%20waste%20water%20report_Web%20Version.pdf) report. This section should also include a brief discussion on which of these priorities it meets and a summary and timeframe of actions planned or underway to resolve the priority issue(s).

# Section 2. Monitoring Reports Summary

## 2.1 Summary report on monthly influent monitoring

Include a summary presentation of waste water treatment plant influent monitoring results for BOD, COD, Suspended solids, Total Nitrogen and Total Phosphorus (where required by the licence). This can be presented in tabular format but **must include an interpretation of the significance of the results** in relation to licence requirements. These results are used to determine the mass loading and removal efficiencies of the works required by Condition 4 and the Organic and Hydraulic Capacities required under Condition 1.7.

Please note that the Influent Monitoring Summary Table is available as a dashboard on EDEN via Code Management/Returns and Scheme Management. This provides an up to date report based on the amount of data uploaded at the time. Please ensure that all sample data is uploaded to EDEN to ensure it is included in the dashboard

Preferred format for the Influent Monitoring Summary Table:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **BOD (mg/l)** | **COD (mg/l)** | **SS (mg/l)** | **TP (mg/l)** | **TN (mg/l)** | **Hydraulic Loading (m3/d)** | **Organic Loading (PE/day)** |
| **Number of Samples** |  |  |  |  |  |  |  |
| **Annual Max.** |  |  |  |  |  |  |  |
| **Annual Mean** |  |  |  |  |  |  |  |

## 2.2 Discharges from the agglomeration

A summary presentation of monitoring results for primary and secondary discharge point monitoring results as set out in Schedule B of the licence. The emission limit values (where applicable) should be included. This can be presented as a summary table with ELV exceedances clearly highlighted.

**This section must include an interpretation of the significance of the results** (i.e. a discussion on compliance with the ELVs and monitoring frequency specified in the licence). Where exceedances are reported they can be grouped by cause. Significance should be assessed in terms of their impact on receiving water quality/designation and frequency and duration of the exceedance. This should also summarise the cause of the elv exceedance as well as the measures taken or to be taken to eliminate/minimise the recurrence of the exceedance. Note: if grab samples are taken compliance is determined using different criteria in Condition 2 to those for a sample from a composite sampler on a discharge.

Preferred format for the Effluent Monitoring Summary Table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **BOD (mg/l)** | **COD (mg/l)** | **TSS (mg/l)** | **Total P (mg/l)** | **Total N (mg/l)** | **Other Parameters specified in the WWDL** | **Comment** |
| **WWDL ELV (Schedule A)** |  |  |  |  |  |  |  |
| **ELV with Condition 2 Interpretation included** |  |  |  |  |  |  |  |
| ***Interim* % reduction from influent concentration1** |  |  |  |  |  |  |  |
| **Number of sample results** |  |  |  |  |  |  |  |
| **Number of sample results above WWDL ELV** |  |  |  |  |  | Insert an additional column for each extra parameter | Include any relevant explanatory notes |
| **Number of sample results above ELV with Condition 2 Interpretation included** |  |  |  |  |  |  | e.g. grab / composite taken |
| **Annual Mean (for parameters where a mean ELV applies)** |  |  |  |  |  |  |  |
| **Overall Compliance (Pass/Fail)** |  |  |  |  |  |  |  |

Notes:

1. % reductions apply in certain licences only and are based on the minimum % reduction relative to the influent load for each sample. Lines can be deleted for clarity if not used

## 2.3 Ambient monitoring summary

A summary presentation of ambient monitoring results as set out in Schedule B of the licence.  **This must include an interpretation of the impact of the discharge(s) from the agglomeration on the receiving water** i.e comparison of results against any designation of the receiving water (e.g. EQS, Pearl Mussel, Shellfish, Bathing Water Regulations).

If Irish Water is not satisfied with the location of the licensed ambient monitoring points, they must apply to the EPA for a change to the location using Condition 4 (typically 4.13). Similarly if the ambient monitoring locations are not specified in the licence and are to be agreed by the Agency, the licensee should apply to the EPA for approval of these locations. A [form for agreeing ambient monitoring locations](http://www.epa.ie/pubs/advice/wastewater/wwdlchangerequestform.html) is available on the [WWDL guidance](http://www.epa.ie/pubs/advice/wastewater/) section of the EPA website.

Irish Water is advised to consider using any relevant and reliable ambient monitoring conducted by other organisations when completing their ambient monitoring programme or deciding on a relevant monitoring location. Irish Water is required to submit all ambient monitoring from licenced and approved monitoring locations electronically via EDEN at <https://www.edenireland.ie/>. The codes for ambient monitoring locations to achieve this upload can only be created using the EPA’s Feature Coding Tool on EDEN.

Preferred format for the Ambient Monitoring Report Summary Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Ambient Monitoring Point from WWDL (or as agreed with EPA)** | ***Irish Grid Reference*** | **EPA Feature Coding Tool code** | **Does assessment of the ambient monitoring results indicate that the discharge is impacting on water quality?** |
| Insert a line for each ambient monitoring location |  |  | Yes / No  List parameters causing impact(s) for each Yes answer |

To improve assessment of the ambient impact and to direct investigation the following assessment process the following should be carried out in cases where the receiving water quality is not achieving the target status in the downstream and or the upstream sample. The purpose of this is to comment on the contribution to the receiving water from the waste water works by comparison with the relevant EQS as follows:

* d/s sample - u/s sample = waste water works contribution for each compound with an EQS.
* Contribution from the works / EQS = Ratio of input to EQS
* Where the ratio of input to EQS is >1 this indicates that the discharge from the works is giving rise to a breach of EQS in the receiving water regardless of status.
* Where the ratio of input to EQS is >0.75 this indicates that the discharge from the works is a significant pressure on the receiving water.
* Where the ratio of input to EQS is >0.5 this indicates that the discharge from the works is a pressure on the receiving water.

For each parameter where Irish water identify their discharge is having an impact they should prepare an improvement programmes to ensure that the discharge does not cause pollution.

Preferred format for the Ambient impact assessment table:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **u/s sample** | **d/s sample** | **Contribution**  **(d/s – u/s)** | | **EQS** | | **Contribution from works relative to EQS** |
|  | A | B | C = B-A | | EQS | | C / EQS |
| BOD |  |  |  | |  | |  |
| o-Phosphate |  |  |  | |  | |  |
| Ammonia |  |  |  | |  | |  |
| Nitrogen |  |  |  | |  | |  |
|  |  |  |  | |  | |  |
| Include additional lines for each compound with an EQS where comparison is required/made | | | | | | | |
|  |  |  |  |  | |  | |

The results for the upstream and downstream monitoring should be included as an appendix to the AER.

## 2.4 Data collection and reporting requirements under the Urban Waste Water Treatment Directive

The monitoring data is to be submitted electronically via EDEN at <https://www.edenireland.ie/> and the plant and agglomeration data is to be submitted using the excel spread sheet circulated to Irish Water in early 2017.  As with previous years the EPA will separately make a request to Irish Water requiring the submission of the annual urban waste water information for agglomerations and treatment plants for the previous year.  This request will set out the reporting deadlines, which include submission of all monitoring results to EDEN by the end of February (to allow for confirmation of submission in the AER on the 28th February). It will be sufficient for the purposes of AER reporting to confirm the date the electronic submission was completed.  Note that data can be uploaded to EDEN once it is available and there is no need to wait to commence uploading until the EPA issues the formal request for data.  If you have any queries on the preparation or submission of this data please contact [wastewaterreturns@epa.ie](mailto:wastewaterreturns@epa.ie).

## 2.5 Pollutant Release and Transfer Register (PRTR) - report for previous year

**The requirement to submit a PRTR only applies to Waste Water Discharge Licences granted to agglomerations greater than 100000 p.e**.

Agglomerations greater than 100000 p.e. have to report their annual mass emissions to Air and Water, and their Waste Transfers using the AER/PRTR Emissions Reporting Workbook.  Agglomerations less than 100000 p.e. have no PRTR reporting requirement.  Sector Specific Guidance is provided for UWWTP operators on how to complete the AER / PRTR Emissions Reporting Workbook at the following link:

[AER PRTR UWWTP Guidance V6.0 January 2013](http://www.epa.ie/pubs/advice/aerprtr/uwwtpaerprtrguidance/aerprtruwwtpguidancev60january2013.html)

The AER/PRTR Emissions Reporting Workbook can be downloaded from the AER reporting website using the site specific login details and when completed it should be submitted electronically via the AER reporting website at the following link: <http://aer.epa.ie/reporting/pgLogon.aspx>

Reporting Guidance on the: [UWW PRTR Electronic Toolset V5.0](http://www.epa.ie/pubs/advice/aerprtr/uwwtpaerprtrguidance/newuwwprtrelectronictoolsetv50.html) is also available on the EPA website at the following link:  [Reporting Guidance for the UWW PRTR Electronic Toolset V5.0 Nov 2012](http://www.epa.ie/pubs/advice/aerprtr/uwwtpaerprtrguidance/newguidancenoteonuwwprtrelectronictoolsetv50.html)

A reminder email regarding the AER/PRTR reporting requirements will be issued to Irish Water early in the New Year. WWTPs that were newly licensed in the last quarter of the reporting year (**1St October to 31st December)** are not required to complete a PRTR Emissions Report for that reporting year but will be required to do so in subsequent years.

The AER/PRTR Emissions Reporting Workbook is designed to allow the information to be printed out and inserted directly into the AER without any additional formatting. When creating the pdf AER, the PRTR Emissions Reporting Workbook can be converted to pdf and merged with the pdf copy of the AER using Adobe Acrobat, or it can be scanned and added to the AER.

If you have any queries which are not addressed in the[AER PRTR UWWTP Guidance V6.0 January 2013](http://www.epa.ie/pubs/advice/aerprtr/uwwtpaerprtrguidance/aerprtruwwtpguidancev60january2013.html))  or the other documents please contact the AER/PRTR Helpdesk at the following e-mail address [aerreturns@epa.ie](mailto:aerreturns@epa.ie).

# Section 3 Operational Reports Summary

## 3.1 Treatment Efficiency Report

A summary presentation of the efficiency of the treatment process including information for all the parameters specified in the licence (typically Condition 4.19, check individual licence).

Preferred format for the Treatment Efficiency Report Summary Table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **cBOD (kg/yr)** | **COD (kg/yr)** | **SS (kg/yr)** | **Total P (kg/yr)** | **Total N (kg/yr)** | **Comment** |
| **Influent mass loading (kg/year)** |  |  |  |  |  |  |
| **Effluent mass emission (kg/year)** |  |  |  |  |  |  |
| **% Efficiency**  **(% reduction of influent load)** |  |  |  |  |  |  |

## 3.2 Treatment Capacity Report

Condition 1 of the licence requires Irish Water to complete an annual assessment of the remaining organic and hydraulic treatment capacities within the waste water works (design capacity of plant, less flow-load calculation for representative period).

This must include a summary of the annual assessment of the remaining treatment capacity of the works expressed in terms of:

1. Hydraulic treatment capacity i.e. is the works sufficient to manage the volumetric flows in the agglomeration to licence requirements.
2. Organic treatment capacity i.e. is the works sufficient to treat the organic loading in the agglomeration to licence requirements.

Preferred format for the Treatment Capacity Report Summary Table:

|  |  |
| --- | --- |
| **Hydraulic Capacity – Design / As Constructed (m3/year) Peak** |  |
| **Hydraulic Capacity – Design / As Constructed (m3/year) DWF** |  |
| **Hydraulic Capacity – Current loading (m3/year)** |  |
| **Hydraulic Capacity – Remaining (m3/year)** |  |
| **Is the plant overloaded – hydraulic loading?** | Yes /no |
| **Organic Capacity - Design / As Constructed (PE)** |  |
| **Organic Capacity - Current loading (PE)** |  |
| **Organic Capacity – Remaining (PE)** |  |
| **Is the plant overloaded – organic loading?** | Yes / no |
| **Will the capacity be exceeded in the next three years? (Yes / No)**  If answer is Yes note the Condition 1.7 notification to EPA requirement re: licence review / technical amendment. |  |

A copy of the detailed assessment can be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 3.3 Extent of Agglomeration Summary Report

In this section Irish Water is required to report on the amount of urban waste water generated within the agglomeration. It does not include any waste water collected and treated in a private system and discharged to water under a Section 4 Licence issued under the Water Pollution Acts 1977 (as amended):

Preferred format for Extent of Agglomeration Summary Report

|  |  |  |
| --- | --- | --- |
|  | **Load generated in the agglomeration p.e.** | **Load generated in the agglomeration m3** |
| **Load generated in the agglomeration that is collected in the sewer network** |  |  |
| **Load collected in the agglomeration that enters treatment plant** |  |  |
| **Load collected in the sewer network but discharged without treatment (includes SWO, EO and any discharges that are not treated)** |  |  |

**Load generated in the agglomeration that is collected in the sewer network** is the total load generated and collected in the municipal network within the boundary of the agglomeration.

**Load collected in the agglomerations that enters treatment plant** is that portion of the previous figure which enters the waste water treatment plant.

**Load collected but discharged without treatment** is that portion of the first figure which is discharged without treatment**.**

**Agglomeration** is as defined in the Glossary and Condition 1 of each Waste Water Discharge Licence. It is an area where the population or economic activities or both are sufficiently concentrated for a waste water works to have been put in place.

**Agglomeration Load** is as per in Article 4.4 of **Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment which states that:** The load expressed in p.e. shall be calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain.

Irish Water should comment on the source and quality of this data i.e. is it based on actual measurements, estimates and /or a combination of both.

## 3.4 Complaints Summary

Condition 6 of the WWDL requires that:

“The licensee shall record all complaints of an environmental nature related to the discharge(s) to waters from the waste water works in accordance with the national environmental complaints procedure. Each record shall give details of the date and time of the complaint, the name of the complainant (if provided), and the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.”

Note this refers to complaint about discharges from the works and not odour and noise complaints which are dealt with under separate reporting requirements. Please find below a suggested format for reporting this information. Irish Water is advised to consider their obligations under the Data Protection Act (as amended) when submitting data in the complaints summary.

Preferred format for the Complaints Summary Table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number** | **Date & Time** | **Nature of Complaint** | **Cause of Complaint** | **Actions taken to resolve issue** | **Closed (Y/N)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## 3.5 Reported Incidents Summary

Condition 6 of the WWDL requires that:

*“The licensee shall make a record of any incident. This record shall include details of the nature, extent and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, to minimize the effects on the environment, and to avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record including clean up and recurrence prevention measures.”*

The Glossary of Terms in the introduction of each licence defines an incident as follows:

*“The following shall constitute an incident (as defined in the licence) for the purpose of this licence*

* *any discharge that does not comply with the requirements of this licence;*
* *any incident with the potential for environmental contamination of surface water, or groundwater, or posing an environmental threat to land, or requiring and emergency response by the relevant Water Services Authority.”*

Preferred format for the Summary of Incidents table:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Incident Type (e.g. Non-compliance, Emission, spillage, Emergency Overflow Activation)** | **Incident Description** | **Cause** | **Recurring incident**  **Y/N** | **No. of incident occurrences** | **Corrective Action** | **Authorities Contacted Note 1** | **Reported to EPA (Yes/No)** | **Closed (Y/N)** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

Note 1: For shellfish waters notify the Marine Institute (MI) Sea Fisheries Protection Authority (SFPA) Food Safety Authority (FSAI) and An Bord Iascaigh Mhara (BIM). This should also include any other authorities that should be contacted arising from the findings of any Licence Specific Reports also e.g. Drinking Water Abstraction Impact Risk Assessment, Fresh Water Pearl Mussel Impact Assessments etc..

In addition the following details must be provided:

|  |  |
| --- | --- |
| **Number of Incidents in 2016** | No. of |
| **Number of Incidents reported to the EPA via EDEN in 2016** | No. of |
| **Explanation of any discrepancies between the two numbers above** | Explanatory comment for any deviations between the above two numbers |

## 3.6 Sludge / Other inputs to the WWTP

All agglomerations are required to provide a report detailing all ‘other inputs’ to the waste water treatment plant.

Other Inputs include; septic tank sludge, industrial /commercial sludge, landfill leachate and any other sludge that is collected and added to the treatment plant.

Do not include any sludge that is added to a dedicated sludge reception facility at a waste water treatment plant. Only include sludge which is added to the waste water treatment process stream. Enter zero where there are no inputs

Preferred format for Other Inputs table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Input type | m3/year | PE/year | % of load to WWTP | Is there a leachate/sludge acceptance procedure for the WWTP?  (Y/N) | Is there a dedicated leachate/sludge acceptance facility for the WWTP? (Y/N) |
| Domestic /Septic Tank Sludge |  |  |  |  |  |
| Industrial / Commercial Sludge |  |  |  |  |  |
| Landfill Leachate (delivered by tanker) |  |  |  |  |  |
| Landfill Leachate (delivered by sewer network) |  |  |  |  |  |
| Other (specify) |  |  |  |  |  |

# Section 4. Infrastructural Assessments and Programme of Improvements

## 4.1 Storm water overflow identification and inspection report

Condition 4 of the licence details the specific information required in this report. The Storm Water Overflow Identification & Inspection report findings should be summarised in the 2nd AER and reviewed every three years thereafter. **The AER should contain an update for the years between full reviews** (e.g. years 3, 4, 6, 7, 9, 10, 12). The report should detail progress at achieving compliance with criteria. A copy of the detailed assessment can be included as an appendix to the AER.

Additional SWOs and/or changes to Schedule A3: Discharges to be discontinued or, Schedule C: Specified Improvement Programme, requirements (including compliance dates) must be notified to the EPA under Condition 1.7 as a Technical Amendment or Licence Review may be required to accommodate the change. A report in the AER does not satisfy this requirement.

Irish Water is requested to **provide the following information for all storm water overflows in each agglomeration regardless of whether the SWO Identification & Inspection Report is required.**

Preferred format for the SWO Identification and Inspection Summary Report Table A:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WWDL Name / Code for Storm Water Overflow** | **Irish Grid Ref.** | **Included in Schedule A4 of the WWDL** | **Significance of the overflow (High / Medium / Low)** | **Compliance with DoEHLG Criteria** | **No. of times activated in 2016**  **(No. of events)** | **Total volume discharged in 2016 (m3)** | **Total volume discharged in 2016 (P.E.)** | **Estimated /Measured data** |
| Insert rows as required |  | Yes / No |  | Compliant /  Not Compliant /  Not yet assessed | No. |  |  | M / E |
|  |  |  |  |  |  |  |  |  |

Preferred format for the SWO Identification and Inspection Summary Report Table B:

|  |  |
| --- | --- |
| **How much sewage was discharged via SWOs in the agglomeration in the year (m3/yr)?** |  |
| **How much sewage was discharged via SWOs in the agglomeration in the year (p.e.)?** |  |
| **What % of the total volume of sewage generated in the agglomeration was discharged via SWOs in the agglomeration in 2016?** | List the % of load generated that does not enter the WWTP |
| Is each SWO identified as non-compliant with [DoEHLG Guidance](http://www.epa.ie/pubs/advice/wastewater/UrbanWasteWater2.pdf) included in the Programme of Improvements? | Yes/No  List the relevant Section of the Programme of Improvements |
| The SWO assessment includes the requirements of Schedule A3 & C3 | List the relevant section of the SWO Report |
| Have the EPA been advised of any additional SWOs / changes to Schedule C3 and A4 under Condition 1.7? | Yes/No  Provide details where relevant |

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

Condition 5 of the licence requires the licensee to prepare and implement an Improvement Programme to maximise the effectiveness and efficiency of the works as specified in Condition 5.1.

The Improvement Programme must be prepared for inclusion in the second AER and reviewed every three years thereafter. A summary of the Improvement Programme report must be included in the 2nd AER and reviewed every 3 years. **An update on the Improvement Programme is required for the years between reviews.** A copy of the detailed report should be included as an appendix to the AER.

The Improvement Programme report must address the **Specified Improvement Programmes** as detailed in Schedules A3 and C of the WWDL. It should also catalogue other improvements identified through assessments required under the licence The EPA will track improvements specified by waste water discharge licenses. Each specific improvement required under the license should be reported on in the AER.

When preparing the Improvement Programme Irish Water must also consider the requirements of:

* Condition 5.2.1 for the Waste Water Treatment Plant
* Condition 5.2.2 for the Works,
* Condition 5.2.3 for Secondary Discharges (including Emergency Overflows)
* Condition 5.2.4 for Storm Water Overflows,
* The findings of other investigations and assessments required under the WWDL e.g. Drinking Water Abstraction Risk Assessment, Shellfish Impact Assessment, etc.
* Operation (e.g. improved process control) and maintenance improvements (e.g. development of the maintenance programme for the works).

**Preferred format for Specified Improvement Programme (Schedule A and C) summary report, to be submitted annually:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Specified Improvement Programmes (under Schedule A and C of WWDL)** | **Licence Schedule (A or C)** | **Licence Completion Date** | **Date Expired? (N/NA/Y)** | **Status of Works ((i) Not Started; (ii) At planning stage; (iii) Work ongoing on-site; (iv) Commissioning Phase; (v) Completed; (vi) Delayed;)** | **% Construction Work Completed** | **Irish Water Timeframe for Completing the Work** | **Comments** |
|  |  |  |  |  |  |  |  |

A summary of the status of any improvements identified by Irish Water under Condition 5.2 must also be included. The suggested format for reporting this information is outlined below.

**Preferred format for Improvement Programme summary table:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Improvement Identifier** | **Improvement Description** | **Improvement Source** | **Progress (% completed)** | **Expected Completion Date** | **Comments** |
|  |  | *WWTP assessment (Condition 5.2).* |  |  |  |
|  |  | *Sewer Integrity Tool (Condition 5.2).* |  |  |  |
|  | *Insert rows as required* | *Secondary discharges assessment (Condition 5.2).* |  |  |  |
|  |  | *SWO assessment (Condition 4 & 5.2).* |  |  |  |
|  |  | *Drinking Water Abstraction Risk Assessment (Condition 4)* |  |  |  |
|  |  | *Shellfish Impact Risk Assessment (Condition 5)* |  |  |  |
|  |  | *Pearl Mussel Impact Assessment (Condition 4)* |  |  |  |
|  |  | *Improved Operational Control* |  |  |  |
|  |  | *Incident Reduction* |  |  |  |
|  |  | *Elimination/Reduction of Priority Substances* |  |  |  |
|  |  | *Process Optimisation* |  |  |  |

The EPA has developed the [Sewer Integrity Risk Assessment Tool](http://www.epa.ie/pubs/advice/wastewater/sewerintegrity.html) and associated [guidance document](http://www.epa.ie/pubs/advice/wastewater/sewerintegritytoolguidance.html) to facilitate completion of the Condition 5.2.2 assessment of the existing works. This should be used by all agglomerations when completing the assessment of the existing works. Any outstanding assessments from previous years should also be completed using the risk assessment tool. Where the sewer integrity tool is used the relevant summary table must be completed and included in the AER. Copies of the completed risk assessment tool should be included as an appendix to the AER.

In the event that Irish Water do not believe that the score achieved is a true reflection of their experience with the network in question. This may be attributable, for example, to a large number of unknowns which will tend to generate a higher risk score. On the Summary sheet space is provided for Irish Water to input a brief commentary if they believe that the risk score achieved is not a true reflection of the reality. This should set out the reasons for the perceived discrepancy between the risk score and experience and should, if possible, reference any reports, records or other documents that would support this view.

**Sewer Integrity Risk Assessment Tool Improvement Programme (Works) summary table:**

|  |  |  |  |
| --- | --- | --- | --- |
| **The Improvement Programme should include an assessment of the integrity of the existing wastewater works for the following:** | ***Risk Assessment Rating (High, Medium, Low)*** | ***Risk Assessment Score*** | ***Reference to relevant section of AER (e.g. Appendix 2 Section4.*** |
| Hydraulic Risk Assessment Score |  |  |  |
| Environmental Risk Assessment Score |  |  |  |
| Structural Risk Assessment Score |  |  |  |
| Operation & Maintenance Risk Assessment Score |  |  |  |
| Overall Risk Score for the agglomeration |  |  |  |

# Section 5. Licence Specific Reports

Some or all of the following reports may be required, check each licence for specific requirements.

These assessments should be completed in accordance with EPA guidance (where published). Irish Water is advised to review each WWDL to ensure that these reports are submitted where specified in the licence. Irish Water should include and complete the table below in the AER indicating whether any of these reporting requirements apply and listing where they are contained in the report.

* ***Where a licence specific report is overdue from a previous AER or has been submitted separately to the EPA a copy of this report should be included as an appendix to the 2016 AER.***

**Where actions arising from a report previously submitted have not been completed the relevant table should be updated on the current status of the actions and necessary improvement works.**

Preferred format for the Licence Specific Reports Summary Table:

|  |  |  |  |
| --- | --- | --- | --- |
| **Licence Specific Report** | **Required in 2016 AER or outstanding from previous AER** | **Included in 2016 AER** | *Reference to relevant section of AER (e.g. Appendix 2 Section4.* |
| **Priority Substances Assessment** | Yes / No | Yes / No | Summary of finding on page XX. Full report in Appendix XX |
| **Drinking Water Abstraction Point Risk Assessment** |  |  |  |
| **Habitats Impact Assessment** |  |  |  |
| **Shellfish Impact Assessment** |  |  |  |
| **Fresh Water Pearl Mussel Report** |  |  |  |
| **Toxicity/Leachate Management** |  |  |  |
| **Toxicity of Final Effluent Report** |  |  |  |

## 5.1 Priority Substances Assessment

Condition 4 of the licence details the specific information required in this report. This assessment must include an assessment of the significance of the discharge on the receiving water (e.g. assessment against the EQS Regulations). The EPA has published guidance on how to complete this assessment on their website at: [Priority Substance Assessment Guidance](http://www.epa.ie/pubs/advice/wastewater/100guidanceforscreeningofprioritysubstances.html)

Preferred format for Priority Substance Assessment summary table:

|  |  |
| --- | --- |
|  | *Licensee self- assessment checks to determine whether all relevant information is included in the Assessment.* |
| **Does the assessment use the Desk Top Study Method or Screening Analysis to determine if the discharge contains the parameters in Appendix 1 of the EPA guidance** | Desk Top Study *and/or* Screening Analysis |
| **Does the assessment include a review of Trade inputs to the works?** | Yes / No |
| **Does the assessment include a review of other inputs to the works?** | Yes / No |
| **Does the report include an assessment of the significance of the results where a listed material is present in the discharge? (e.g. impact on the relevant EQS standard for the receiving water)** | Yes / No |
| **Does the assessment identify that priority substances may be impacting the receiving water?** | Yes / No |
| **Does the Improvement Programme for the agglomeration include the elimination / reduction of all priority substances identified as having an impact on receiving water quality?** | Yes / No |

A copy of the detailed assessment should be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 5.2 Drinking Water Abstraction Point Risk Assessment.

Condition 4 of the licence details the specific information required in this report. This assessment must be carried out where discharges from the agglomeration have the potential to impact on a drinking water abstraction. This assessment must include all discharges as well as periods of normal and abnormal operation. The EPA guidance on [Drinking Water Safety Plans](http://www.epa.ie/pubs/advice/drinkingwater/Advice%20Note%20No8.pdf) and the [Disinfection Manual](http://www.epa.ie/pubs/advice/drinkingwater/Disinfection2_web.pdf) provide background information that Irish Water must consider when carrying out this assessment.

Preferred format for Drinking Water Abstraction Point Risk Assessment summary table:

|  |  |
| --- | --- |
|  | *Licensee self- assessment checks to determine whether all relevant information is included in the Assessment.* |
| **Is a Drinking Water Abstraction Risk Assessment required in the 2016 AER (or outstanding from a previous AER)** | Yes / No |
| **Does the Drinking Water Abstraction Risk Assessment identify whether any of the discharges in Schedule A of the licence pose a risk to a drinking water abstraction** | Yes / No |
| **Does the assessment identify if any other discharge(s) from the works pose a risk to a drinking water abstraction (includes emergency overflows)** | Yes / No |
| **What is the overall risk ranking applied by the licensee** | H / M / L |
| **Does the risk assessment consider the impacts of normal operation** | Yes / No |
| **Does the risk assessment consider the impacts of abnormal operation (e.g. incidents /overflows)** | Yes / No |
| **Does the risk assessment include control measures for each risk identified** | Yes / No |
| **Does the risk assessment consider operational control measures e.g? waste water incident notification to drinking water abstraction operator** | Yes / No |
| **Does the risk assessment include infrastructural control measures** | Yes / No |
| **Does the Improvement Programme for the agglomeration include control measures / corrective actions to eliminate / reduce priority substances identified as having an impact on receiving water quality?** | Yes / No |

A copy of the detailed assessment should be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 5.3 Shellfish Impact Assessment Report.

Condition 5 of the licence details the specific information required in this report. This assessment must include an assessment of the significance of discharges from the waste water works on shellfish in the adjacent designated shellfish water and where relevant identify a plan for the installation of an appropriate disinfection system on the discharge. The EPA has published guidance on how to complete this assessment on their website at: [Shellfish Assessment Guidance Document](http://www.epa.ie/pubs/advice/wastewater/shellfishassessment.html)

Preferred format for Shellfish Impact Assessment summary table:

|  |  |
| --- | --- |
| **Is a Shellfish Impact assessment required in the 2016 AER (or outstanding from a previous AER)?** | Yes / No |
| **List prescribed organisations consulted when preparing the assessment (BIM, SFPA, MI)** |  |
| **Does the assessment consider the impact of all discharges from the works?** | Yes / No |
| **Does the assessment identify that any of the discharges from the works are impacting on the microbiological quality of the shellfish?** | Yes / No |
| **Does the assessment recommend that there is a requirement to install UV/other disinfection equipment on any of the discharges?** | Yes / No |
| **Provide details on disinfection system to be employed** |  |
| **Has this been completed?** | Yes / No |
| **If not yet complete what is the expected date for completion?** |  |
| **Where disinfection is required, is there a programme in place to demonstrate the efficiency of any disinfection system in place?** | Yes / No |
| **What is the demonstrated efficiency of the disinfection system?** |  |
| **Is there a shellfish monitoring programme in place?** | Yes / No |
| **Does the shellfish or shellfish water monitoring programme include results generated by other organisations** | Yes / No |
| **List organisations contributing data to the assessment** |  |
| **Does the Improvement Programme for the agglomeration include the findings and recommendations of the shellfish impact risk assessment?** | Yes / No |

A copy of the detailed assessment should be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 5.4 Toxicity / Leachate Management

Condition 4 of the licence details the specific information required in this report. This requirement is typically applied where there is a potential for the discharge to contain priority/dangerous substances and/or accepts landfill leachate for treatment at the WWTP.

Preferred format for Toxicity / Leachate Management Report summary table:

|  |  |
| --- | --- |
| **Is a Toxicity / Leachate Management Report required in the 2016 AER (or outstanding from previous AER)** | Yes / No |
| **What % of the total influent for the year is leachate?** | **% of annual load (volume)** |
| **Does leachate addition exceed 4% ((volume) of the influent load at any time?** | Yes / No |
| **Maximum leachate loading rate** | **% of daily load (volume)** |
| **Does the leachate study identify any constituents of the material that present an environmental risk?** | Yes / No |
| **List leachate constituent identified and impact** *(insert a row for each constituent)* |  |
| **Has the WWTP suitability to treat the leachate been assessed?** | Yes / No |
| **What are the results of the assessment** (Suitable / Not Suitable / Suitable subject to improvement programme works completion) |  |
| **Has the study identified the max and operational loadings (mass, volume and rate of addition) for leachate to the WWTP?** | Yes / No |
| **Is there a monitoring programme for the priority substances identified above?** | Yes / No |
| **Have trigger and action levels for the concentration of identified leachate constituents been established to prevent impact on the receiving water?** | Yes / No |
| **Does the Improvement Programme for the agglomeration include any procedural and/or infrastructural works to reduce the impacts of leachate acceptance on the operation of the wwtp?** | Yes / No |

A copy of the detailed assessment should be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 5.5 Toxicity of the Final Effluent Report

In a small number of waste water discharge licences there is a requirement to determine the toxicity of the final effluent. Typically this requires assessment of toxicity on 4 species in 3 trophic levels.

Preferred format for Toxicity of the final effluent assessment summary table:

|  |  |
| --- | --- |
| **Is a Toxicity report required? (Condition 4)** | Yes / No |
| **Has the study been carried out against 4 species in 3 trophic levels?** | Yes / No |
| **Does the report identify that the discharge is toxic to any of the species in the study?** | Yes / No |
| **List species impacted** |  |
| **Does the Improvement Programme for the agglomeration include any procedural and/or infrastructural works to reduce the toxicity of the final discharge?** | Yes / No |

A copy of the detailed assessment can be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 5.6 Pearl Mussel Measures Report

Condition 4 of the licence requires Irish Water to either (check licence condition for specific details):

* Report on progress at achieving the measures relevant to the WWDL identified in the Pearl Mussel Protection Measures Report for the receiving water body.

Or in a number of licences

* Report on an ecological assessment of the significance of discharges from the waste water works on the pearl mussel habitat following consultation with National Parks & Wildlife Service. The report must consider if any of the discharges from the works are impacting on the pearl mussel habitat and where relevant prepare and report on implementation of plans to minimise any negative impacts on the pearl mussel population

Preferred formats for Pearl Mussel Measure Report summary table (check licence condition to see which format is appropriate):

|  |  |
| --- | --- |
| **Is a progress report on implementation of the findings of Pearl Mussel Protection Measures report required in the 2015 AER (or outstanding from previous AER)** | Yes / No |
| **Is there a Pearl Mussel Protection Measures Report for the receiving water body?** | Yes / No |
| **Include hyperlink to internet location of report** |  |
| **Does this report identify measures relevant to discharges from the waste water works as having a potential impact on the Pearl Mussel habitat?** | Yes / No |
| **List measures relevant to discharges from the waste water works** |  |
| **Does the Improvement Programme for the agglomeration include any procedural and/or infrastructural works to reduce the impacts of discharge on pearl mussel habitat / populations?** | Yes / No |
| **List Condition 5 Improvement Programme reference** |  |

A copy of the detailed assessment should be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

## 5.7 Habitats Impact Assessment Report

Condition 4 of the licence details the specific information required in this report. This assessment must be carried out where discharges from the agglomeration have the potential to impact on a sensitive species or habitats. Where required this assessment must be specified and carried out in accordance with any guidance provided the National Parks and Wildlife Service (NPWS).

Preferred format for Habitats Impact Assessment summary table:

|  |  |
| --- | --- |
|  | *Licensee self- assessment checks to determine whether all relevant information is included in the Assessment.* |
| **Is a Habitats Assessment required in the 2015 AER (includes outstanding assessments from previous years)?** | Yes / No |
| **Was the scope of the study agreed in advance with NPWS** | Yes / No |
| **Does the report include a Stage 1 screening assessment?** | Yes / No |
| **Does the screening identify that discharges are causing an impact on listed sites?** | Yes / No |
| **Does the report require a Stage 2 Appropriate assessment?** | Yes / No |
| **Does the report identify any European Sites (e.g. SPA, SAC, NHA) that discharges from the works could have an impact on?** | Yes / No |
| **List European sites identified (insert a line for each site identified)** |  |
| **Does the report include mitigation measures for each identified impact?** | Yes / No |
| **Does each measure explain how the adverse impact will be avoided/reduced?** | Yes / No |
| **Does the Improvement Programme for the agglomeration include any procedural and/or infrastructural works to reduce the impacts of discharges on the a listed site (NHA, SAC, SPA)?** | Yes / No |

A copy of the detailed assessment should be included as an appendix to the AER. Where relevant, findings from this assessment should be considered under the Programme of Improvements required under Condition 5.

# Section 6. Certification and Sign Off

As part of the requirements of the WWDL, Irish Water shall ensure that the AER report is certified as accurate and is representative by a nominated and suitably qualified person.

The AER must contain the following;

* Introduction and background to 2016 AER
* Monitoring reports summary.
* Operational reports summary.
* Infrastructural Assessment and Programme of Improvements.
* Licence specific reports.
* Certification and Sign Off
* Appendix

Also the reporting obligation will not be satisfied until all relevant steps are completed as listed on page 3 of this guidance.

|  |  |
| --- | --- |
| **Does the AER include an executive summary?** | Yes / No |
| **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 / No |
| **Is there a need to advise the EPA for consideration of a technical amendment / review of the licence?** | Yes /No |
| **List reason e.g. additional SWO identified** *(insert lines as required)* |  |
| **Is there a need to request/advise the EPA of any modifications to the existing WWDL? Refer to Condition 1.7 (changes to works/discharges) & Condition 4 (changes to monitoring location, frequency etc.)** | Yes / No |
| **List reason e.g. failure to complete specified works within dates specified in the licence, changes to monitoring requirements** *(insert lines as required)* |  |
| **Have these processes commenced? (i.e. Request for Technical Amendment / Licence Review / Change Request)** | Yes / No / N/A |
| **Are all outstanding reports and assessments from previous AERs included as an appendix to this AER?** | Yes / No / N/A |
| **List outstanding reports** *(insert lines as required)* | Appendix XX of 2016 AER |

Reference to all the above must be included in the certification and sign off page submitted by Irish Water.

The Final page of each AER should be signed by the nominated official.

# 

# Section 7. Appendix

In the appendix include all the detailed or site specific reports that are relevant to the AER. Reports omitted from previous AERs should also be appended here.