Irish Water Performance Assessment:

CER commentary on Irish Water report

No.1

August 2017

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Date Published: 22/08/2017
1. Introduction

The Commission for Energy Regulation (CER) is the independent economic regulator of Irish Water. As part of its role, the CER sets appropriate revenue allowances which Irish Water can then recover in order to finance its regulated activities.

An important aspect of the CER’s work is ensuring that Irish Water’s revenue is spent appropriately to improve services for customers. To facilitate this, in November 2016\(^1\), the CER outlined a framework of 19 key performance metrics against which it would monitor Irish Water’s performance and progress over time. The metrics cover customer service, environmental performance, quality of service for water supply, security of water supply and sewerage service.

Monitoring Irish Water’s performance relative to these metrics will facilitate an evaluation by the CER of the utility’s performance. It also ensures that transparent data becomes available to customers through the publication of performance data.

Irish Water has now provided the CER with the first report on its performance against these metrics (published alongside this CER document). The purpose of this accompanying CER document is to provide a summary of, and observations, on Irish Water’s performance in relation to the metrics.

Please note that in some cases Irish Water data is not yet available, in which case a timeline for reporting is discussed. This is consistent with experience in other jurisdictions, as it can take utilities a significant length of time to put in place the systems and processes needed to report on certain metrics. Introducing this monitoring framework ensures that this data will become available over time.

For further details on Irish Water’s timelines and plans towards full metric implementation, please refer to Irish Water’s report.

1.1 Structure of this paper

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\(^1\) Irish Water Performance Assessment – Framework of reporting metrics
1.2 Background and Context

Monitoring by the CER – The performance metrics outlined in this report are not the only way in which the CER monitors Irish Water’s performance. Other examples include the CER’s revenue control decision paper (which focus on costs and what is delivered for those costs), a handbook developed by the CER (which sets out customer service standards), and monitoring of Irish Water’s capital programme.

Incentives and Targets – When regulating energy utilities the CER in some cases sets targets which have led to, for example, substantial reductions in the number and duration of interruptions to customer’s electricity supply. Similar targets may be relevant for the metrics in this report, but the focus is currently on the collection of verifiable robust data, which will facilitate assessment of how the utility is currently performing. A robust baseline would facilitate the setting of appropriate targets against which, in time, the CER may apply financial penalties or rewards.

Colour Coding – This report, similar to Irish Water’s report, uses colour coding (green, amber or red) to reflect Irish Water’s progress towards collection and reporting of data on each metric. The colour does not indicate that the CER is satisfied or otherwise with Irish Water’s performance levels or reporting timelines. Observations by the CER are then provided in the text below each metric.

Irish Water’s Timelines – The CER has noted the timelines (regarding the provision of data) provided by Irish Water within its report. In the interest of transparency the CER decided to publish the information available at this point. This does not mean that the CER has accepted the timelines put forward by Irish Water. The CER will continue to engage with and challenge Irish Water to ensure that data becomes available as quickly as possible.

Environmental Regulation – Irish Water reports to the Environmental Protection Agency (EPA), its environmental regulator, on environmental matters. The CER is Irish Water’s economic regulator who ensures Irish Water is delivering value for money for its customers. To reduce regulatory burden, where possible the environmental metrics outlined here are aligned with those required by the EPA. The CER also meets with the EPA on a quarterly basis and a Memorandum of Understanding has been put in place between the two bodies.

Why choose these metrics? – These metrics are generally consistent with those measured by economic regulators of water and wastewater utilities in neighbouring jurisdictions to ensure utilities spend revenue appropriately to improve service. They were chosen following a public consultation process and may evolve over time.

Next steps – The CER intends to publish another version of the Irish Water report and CER document in approximately six months. If interested, parties should provide comments tofbeirne@cer.ie and the CER will endeavour to address those comments in the next version of this publication.
## 2. Current Status of Metrics

The report provided by Irish Water is the first data report following the CER’s decision on the Irish Water Performance Assessment. The table below indicates the current status for each metric with regards to whether data is available (green – 8 in total), work to allow reporting of data is in progress (amber – 9 in total), or the data is not available and work to allow reporting of the data is pending (red – 2 in total).

The colour coding is an indication of availability. It does not indicate that the CER is satisfied or otherwise with Irish Water’s performance levels or reporting timelines.

<table>
<thead>
<tr>
<th>Irish Water Performance Assessment metrics:</th>
<th>Status</th>
<th>Available</th>
<th>In Progress</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Customer Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(See Section 3.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Response to billing contacts</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Response to complaints</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Billing of metered customers</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Ease of telephone contact: the call abandonment rate</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Ease of telephone contact: a customer call-back survey</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ease of telephone contact: speed of telephone response</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Ease of telephone contact: first contact referral</td>
<td>✓</td>
<td></td>
<td></td>
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<tr>
<td><strong>Environmental Performance</strong></td>
<td></td>
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<tr>
<td>(See Section 3.2)</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8. Pollution incidents relating to wastewater</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9. Sludge disposal</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>10. Wastewater treatment works meeting requirements</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Water Supply Quality of Service</strong></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>(See Section 3.3)</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>11. Properties subject to unplanned interruptions</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Water quality</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
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<tr>
<td>13. Water supplies on boil water notices and/or water restrictions</td>
<td>✓</td>
<td></td>
<td></td>
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<tr>
<td><strong>Security of Water Supply</strong></td>
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<td></td>
<td></td>
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<tr>
<td>(See Section 3.4)</td>
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<td></td>
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<tr>
<td>14. Leakage</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>15. Security of supply – Absolute performance</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>16. Security of supply – Performance against target</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
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<tr>
<td><strong>Sewerage Service</strong></td>
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<td></td>
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<tr>
<td>(See Section 3.5)</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>17. Sewer incidents (overload)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>18. Sewer incidents (other causes)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
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<tr>
<td>19. Sewer incidents (at risk)</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
3. **Data Report**

This section looks at the five categories covered by this performance assessment: customer service, environmental performance, quality of service for water supply, security of water supply and sewerage service. Each category is discussed in turn below.

### 3.1 Customer Service

#### 3.1.1 Response to Billing Contacts

**Definition and Objective:**
*This metric is defined as the number of billing contacts answered and closed out within five working days as a percentage of total billing contacts received.*

Monitoring this metric will lead to improvements in customer satisfaction through faster response times for customers who contact Irish Water regarding billing.

<table>
<thead>
<tr>
<th>Metric 1</th>
<th>Status - <em>Amber</em> <em>(In Progress)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Response to Billing Contacts</td>
<td>Report by Q4 2017</td>
</tr>
</tbody>
</table>

**Key Observations/Progress Update**
- Irish Water expects to report on this metric for non-domestic customers from Q4 2017. Migration of all non-domestic customers from the Local Authorities’ systems to Irish Water’s systems was only recently completed at the end of Q2 2017.
- It had originally been intended that this metric would also apply to domestic customers. However, as domestic water charges are currently suspended until 31 December 2017, the relevance of this metric for domestic customers will be reconsidered once there is certainty regarding domestic charges.

#### 3.1.2 Response to Complaints

**Definition & Objective:**
*This metric is defined as*

1. *The number of complaints responded to within five working days with either a resolution or an outline plan for proposed resolution.*
2. *The number of complaints to which a final decision was issued within two months.*

Monitoring this metric will encourage appropriate response times when customers contact Irish Water with a complaint.
### Metric 2

**Response to Complaints**

<table>
<thead>
<tr>
<th>Status - Amber (In Progress)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Report by Q4 2017</td>
</tr>
<tr>
<td>b) Report by Q4 2017</td>
</tr>
</tbody>
</table>

### Key Observations/Progress Update

- Irish Water expect to report on this metric by Q4 2017.
- While the exact data as required by the metric is not yet available, Irish Water does submit complaints data to the CER as part of its reporting requirements under the CER Irish Water Customer Handbook.
- In Irish Water’s Water Services Strategic Plan October 2015, under a heading entitled ‘Customer Complaint Handling’, Irish Water state that the utility aims to resolve (or have outlined steps taken towards resolving a complaint) 100% of complaints within five working days.

### 3.1.3 Billing of Metered Customers

**Definition and Objective:**

*The metric is defined as the number of bills based on a meter reading as a percentage of metered accounts.*

Monitoring this metric will encourage the utility to ensure, where a customer has a meter, that this meter is used to provide accurate bills (based on meter readings). This reduces the fluctuations that customers could be subject to if bills are based on estimated as opposed to actual metered consumption.

### Metric 3

**Billing of Metered Customers**

<table>
<thead>
<tr>
<th>Status - Amber (In Progress)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report by Q3 2018</td>
</tr>
</tbody>
</table>

### Key Observations/Progress Update

- Irish Water expect to report on this metric for non-domestic customers from Q3 2018 onward, following migration of non-domestic customers from the Local Authorities’ systems to Irish Water’s systems (full migration completed during Q2 2017).
- Irish Water state that the one year period between migration and reporting is required to develop a stable baseline of billing data to facilitate reliable reporting. The CER will engage with Irish Water regarding this timeline to determine if robust information can be provided at an earlier date.

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2 *Irish Water’s Water Services Strategic Plan* - October 2015
3 In other words, the total number of bills issued based on a meter reading (as opposed to an estimate) as a percentage of the total number of bills generated for customers who have a meter installed.
- It had originally been intended that this metric would also apply to domestic customers. However, as domestic water charges are currently suspended until 31 December 2017, the relevance of this metric to domestic customers will be reconsidered once there is certainty regarding domestic charges.

### 3.1.4 Ease of Telephone Contact - Call Abandonment Rate

**Definition and Objective:**

*This metric is defined as the percentage of calls that are abandoned while a caller is waiting in the queue to speak to a customer service agent, having been directed through the IVR (Interactive Voice Recognition) system.*

Monitoring this metric will enable the CER to track Irish Water’s performance in serving customers that contact its call centre.

<table>
<thead>
<tr>
<th>Metric 4</th>
<th>Status – Green (Data Available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Abandonment Rate</td>
<td>2015 - 13%</td>
</tr>
<tr>
<td></td>
<td>2016 - 1%</td>
</tr>
</tbody>
</table>

**Key Observations/Progress Update**

- The data provided by Irish Water indicates an improvement in the call abandonment rate from 13% in 2015 to 1% in 2016.
- The figures should be viewed in the context of large spikes in calls in 2015 coinciding with enquires relating to the Irish Water registration campaign, water charging commencement and queries regarding the water conservation grant.
- In its business plan² Irish Water stated that it planned, by 2021, to be able to answer 80% of calls within 20 seconds and have an abandonment rate lower than 5%.
- To provide some context to Irish Water’s performance, the CER placed a target of 5% on ESB Networks for an equivalent metric for 2011 to 2015.

### 3.1.5 Ease of Telephone Contact - Customer Call Handling Survey

**Metric Definition and Objective**

*This metric is defined as Irish Water’s performance in a Customer Survey conducted by an independent research company engaged by Irish Water.*

Monitoring this metric will give the CER a clear view of customers’ opinions on how Irish Water operates its call centre. This will also encourage Irish Water to continue to improve its customer service levels.

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² [Irish Water Business Plan](#) - Transforming Water Services in Ireland to 2021
Key Observations/Progress Update

- Irish Water’s CSat scores improved slightly by two percentage points between 2015 and 2016 and are based on surveyed customers who rated Irish Water’s services as satisfactory (7-10) on a 10 point scale.
- The CER would expect to see an increase in Irish Water’s CSat scores as the utility continues to mature. For example, Gas Networks Ireland (GNI) state that call back monitoring for 2014 yielded an overall satisfaction score of 92%\(^5\). The CER notes that it could be argued that the difference between the types of calls handled by these two utilities (i.e. GNI does not issue customer bills and its score is based on operations calls only) would in itself lead to differences in the likely response to these surveys. However, when setting targets for ESB’s supply and distribution network businesses in 2006 the CER did not set a different target to allow for differences between the type of calls dealt with by ESB’s supply and distribution network businesses\(^6\).

3.1.6 Ease of Telephone Contact - Speed of Telephone Response

Definition and Objective

The metric is defined in two parts as follows:

\[ a) \quad TSF1 = \frac{\text{Total number of calls answered by an agent within 20 seconds of entering the queue to speak to an agent}}{\text{total number of calls that enter the queue to speak to an agent}} \]

\[ b) \quad TSF2 = \frac{\left( \text{Total number of calls picked up by the IVR}^7 \text{ and do not progress to the queue} + \text{Calls answered by an agent within 20 seconds of entering the queue to speak to an agent} \right)}{\text{total number of calls received}} \]

Monitoring these metrics will enable the CER to track Irish Water’s performance in relation to the service it provides to customers that contact its call centre. This will help to ensure that calls that are in the queue are answered in an appropriate length of time, and that Irish Water continues to improve the quality of service in the IVR system.

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\(^6\) Quality of Service Incentive Mechanisms during the 2006-2010 price control period for ESB PES & ESB DSO, CER/06/107, 2006

\(^7\) Interactive Voice Recognition system
### Key Observations/Progress Update

- The data provided by Irish Water indicates an improvement in these metrics from 2015 to 2016, as displayed above.
- It is noted that the level of calls received in 2015 was substantially higher than 2016, which is likely to have contributed to the difference in performance between 2015 and 2016\(^8\).
- In Irish Water’s Business Plan\(^9\) and its Water Services Strategic Plan\(^10\), Irish Water committed to answering 80% of calls within 20 seconds.
- To provide context to Irish Water’s performance, the CER placed a target of 83% (combined across both metrics) on ESB Networks for a broadly equivalent metric for 2011 to 2015, although it is worth noting that the target required from ESB Networks (for TSF1) allowed for a longer 30 second answering time for calls that are in the queue waiting to speak to an agent, rather than the more difficult 20 seconds for Irish Water.

### 3.1.7 Ease of Telephone Contact: First Contact Referral (FCR)

#### Definition and Objective

*The metric is defined as the percentage of phone calls that are dealt with in one phone call (without Irish Water needing to call the customer back).*

Monitoring this metric will encourage Irish Water to improve the service it provides to the customers by ensuring calls are, where appropriate, dealt with in one phone call. This would improve the customer experience and improve efficiency.

### Key Observations/Progress Update

- The exact metric detailed in the CER’s decision paper is not currently in place in Irish Water; instead Irish Water have substituted a metric called ‘First Call Resolution’ or FCR\(^11\). The above figure means that 22% of customers called back a second time.

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\(^8\) Irish Water received 1.8 million calls from customers in 2015 compared to 700,000 calls in 2016.  
\(^9\) [Irish Water Business Plan - Transforming Water Services in Ireland to 2021](#)  
\(^10\) [Irish Water’s Water Services Strategic Plan - October 2015](#)  
\(^11\) Under FCR, for any given calendar month (based on a 30 day rolling lookback period) the first call from a given phone number (or account number if captured by the IVR system) is recorded as the initial call and all subsequent calls received from that phone number are classified as repeat calls.
• This FCR metric provided by Irish Water includes calls to the domestic billing and operations lines. The metric has only recently been put in place by Irish Water, hence Irish Water state that data is only available for Q4 2016. The next Irish Water performance report will provide data on Q1 2017, and shall also capture calls to the non-domestic billing lines (non-domestic accounts completed full migration to Irish Water’s systems in Q2 2017).
• The CER will accept this metric substitute for this current report, and is considering whether it is an appropriate long term substitute.

3.2 Environmental Performance

3.2.1 Introduction

In some cases there are differences between the data provided by Irish Water (and repeated in this CER note) and information published by the EPA. In most cases the differences are relatively minor.

The CER understands that this is for reasons such as:
• some reclassification of environmental incidents following consideration of the impact of those incidents,
• some reporting on assets where there is not complete agreement that the assets are under Irish Water’s responsibility, and,
• the methodology used to count/group individual boil water notices, etc.

For this reason, while the information provided here is useful for the purposes of monitoring trends in Irish Water’s performance, parties that are interested in individual environmental metrics should refer to the published EPA reports which cover these items.

3.2.1 Pollution Incidents relating to Wastewater

Definition and Objective

This metric is defined as:

\[ a) \text{ The number of pollution incidents resulting from wastewater collection and treatment activities, broken down by category and,} \]
\[ b) \text{ The number of recurring incidents closed out within this metric} \]

Monitoring these metrics will enable the CER to track Irish Water’s performance in reducing the number of pollution incidents\textsuperscript{12} occurring/recurring over time.

\textsuperscript{12} Pollution incidents are described as discharges that do not comply with the requirements of a wastewater discharge authorisation. They can also be any occurrence at a wastewater works with the
### Metric 8 Status – Green *(Data Available)*

**Metric a)** Incidents are categorised from 1-5 having regard to the potential impact to the receiving environment and/or human health

<table>
<thead>
<tr>
<th>Category</th>
<th>Classification</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor</td>
<td>1,099</td>
<td>1,274</td>
</tr>
<tr>
<td>2</td>
<td>Limited</td>
<td>193</td>
<td>179</td>
</tr>
<tr>
<td>3</td>
<td>Serious</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Very Serious</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Catastrophic</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Number of Incidents** 1,295 1,454

**Metric b) – Recurring incidents**

Information has been provided by Irish Water on this metric. The CER’s observation is discussed in the third bullet below.

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### Key Observations/Progress Update

- The data provided by Irish Water shows an increase in minor incidents between 2014 and 2015, with a decrease or continued non-occurrence in the other four incident classification categories.

- Irish Water state that it identified incident reporting as a key area of concern in 2014. It stated that the provision of additional incident training, together with the development of an Irish Water incident management system, were identified as important requirements to enable improved incident reporting practices. Irish Water stated that it has taken action to address both and as a result the overall number of incidents reported to the EPA increased. This means that the increases from 2014 to 2015 are not necessarily an indication of a decrease in network performance; rather it could reflect Irish Water’s improved reporting practices. While this provides a rationale for the increase from 2014 to 2015, the CER would expect to see improved performance under these metrics over time.

- Information has been provided by Irish Water within its report on metric (b). However, the CER understands that updated EPA reporting procedures, which impact how recurring issues are reported, were put in place during 2015. This change is not reflected within the 2015 figures provided to the CER, but will be reflected for 2016 onwards. If interested parties use the data potential either for environmental contamination or requiring an emergency response by Irish Water and/or relevant authorities.
provided to compare figures, then it is important to be aware that these differences exist.

3.2.2 Sludge Disposal
Definition and Objective:
*This metric measures the percentage of (a) drinking water and (b) wastewater sludge that is disposed of in an unsatisfactory manner.*

Monitoring this metric will encourage Irish Water to ensure that sludge produced during the treatment of water and wastewater is disposed of appropriately.

<table>
<thead>
<tr>
<th>Metric 9</th>
<th>Status - Amber (In Progress)</th>
</tr>
</thead>
</table>
| Sludge Disposal | a) Report by Q2 2019 (drinking water sludge)  
|             | b) Report by Q4 2021 (wastewater sludge) |

**Key Observations/Progress Update**
- Irish Water does not currently report on these metrics but is currently developing the capability to do so by Q2 2019 and Q4 2021 respectively.
- The Irish Water report details work that will be carried out in the interim.
- The CER notes the significant period of time outlined by Irish Water before it will be in a position to report on these metrics. The CER will engage with Irish Water regarding this timeline to ensure that data is provided as early as possible. The CER will also engage with Irish Water regarding the specifics of how this metric is to be defined.
- Irish Water currently report to the EPA on the amount of wastewater sludge produced by Irish Water activities, which amounted to 58,387 tonnes in 2015.

3.2.3 Wastewater Treatment Works Meeting Requirements

Definition and Objective
This metric measures the following:
- **a)** *Number of agglomerations*\(^\text{13}\) *with no wastewater treatment or preliminary treatment only.*
- **b)** *Number of agglomerations not meeting the Urban Wastewater Treatment Directive Standards.*

The CER notes the EPA’s role as the environmental regulator of Irish Water, but considers that monitoring this environmental metric within the CER’s performance assessment will further encourage Irish Water to work to ensure that wastewater is treated appropriately.

\(^{13}\) Agglomeration - an agglomeration can be defined as an area where the population and/or economic activities are sufficiently concentrated for wastewater to be collected and conducted to a Waste Water Treatment Plant or final discharge point.
### Key Observations/Progress Update

- The data provided by Irish Water shows that the total number of agglomerations with no wastewater treatment or preliminary treatment only has reduced by two from 2013 to 2016. Within this, five locations were removed, but as a result of better information, three locations were added, giving a figure of 42 in 2016. The CER understands that there are another three additional plants which will be included by Irish Water in the 2017 figures.
- The data also shows that the number of agglomerations not meeting the Urban Wastewater Treatment Directive has reduced from 34 to 32 from 2014 to 201515.
- It is recognised that significant improvement is required in this area.
- Further detail is provided in the Irish Water report, including reference to how the list and number of agglomerations subject to assessment vary from year to year. If comparing the above figures to other data/publications, please refer to the Irish Water report where the basis for these figures is explained further.
- In its report Irish Water proposed focusing on the number of agglomerations that are compliant (and the associated population equivalent), rather than the number that are non-compliant. It notes that this would align with references within its Water Services Strategic plan and its Capital Investment Plan. The CER will consider this point further prior to publication of the next data report.

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14 Irish Water has noted that the figures quoted in b) refer to agglomerations not meeting the Urban Wastewater Treatment Directive (UWWTD) (Council Directive 91/271/EEC). The utility noted that monitoring TSS (Total Suspended Solids) is optional under this directive while monitoring TSS is mandatory under Urban Wastewater Treatment Regulations (S.I No. 254/2001). The results for 2014 and 2015 if TSS is considered are 41 and 39 respectively.

15 This has been calculated by Irish Water for 2014 by adding three agglomerations (Ennis North, Dundalk and Tralee) that failed to have more stringent treatment (i.e. tertiary treatment) to the 31 agglomerations that failed effluent quality standards.
• The above parameters, alongside many others, are reported to and monitored by the EPA.

3.3 Water Supply – Quality of Service

3.3.1 Properties subject to unplanned interruptions

Metric Definition and Objective:
This metric measures the number of properties experiencing unplanned interruptions to their water supply in excess of 4, 12 and 24 hours.

Monitoring this metric will enable the CER to track Irish Water’s performance in reducing the number (and duration) of interruptions to customer’s water supplies.

<table>
<thead>
<tr>
<th>Metric 11</th>
<th>Status – Amber (Metric In Development)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Properties subject to Unplanned Interruptions</td>
<td>Report Q2 2019</td>
</tr>
</tbody>
</table>

Key Observations/Progress Update
• Irish Water cannot currently report on this metric, but is developing systems, including procuring Geographic Information System (GIS) software, that will allow it to report on this metric by Q2 2019.
• The CER will engage with Irish Water over the coming period regarding this timeline to ensure that data is provided as early as possible.

3.3.2 Water Quality

Definition and Objective:
Under this metric the CER will monitor the level of water quality compliance (percentage) with regard to a) Microbiological b) Chemical c) Trihalomethane d) Lead and e) E.coli.

The CER notes the EPA’s role as the environmental regulator of Irish Water, but considers that monitoring this environmental metric within the CER’s performance assessment will further encourage Irish Water to continue to work to ensure the water provided to customers is of appropriate quality.

<table>
<thead>
<tr>
<th>Metric 12</th>
<th>Summary</th>
<th>Status – Green (Data Available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Quality</td>
<td>a) Microbiological compliance</td>
<td>99.91% 99.95%</td>
</tr>
<tr>
<td></td>
<td>b) Chemical compliance</td>
<td>99.35% 99.38%</td>
</tr>
<tr>
<td></td>
<td>c) Trihalomethane (THM) compliance</td>
<td>91.32% 91.22%</td>
</tr>
<tr>
<td></td>
<td>d) Lead compliance</td>
<td>97.68% 98.59%</td>
</tr>
<tr>
<td></td>
<td>e) E.coli Compliance</td>
<td>99.93% 99.96%</td>
</tr>
</tbody>
</table>
Key Observations/Progress Update

- The data provided by Irish Water indicates that, in general, compliance levels have improved, particularly those relating to lead compliance. Irish Water in May 2017 issued ‘The Lead in Water Mitigation Plan’ (Lead Plan) which relates to this area.

- There was a slight decrease in compliance for THMs which are a by-product of the water disinfection process. Irish Water recognise this and state that they are developing a THM Strategy to mitigate THM exceedances.

- The above parameters, alongside many others, are reported to and monitored by the EPA. As mentioned and explained in Section 3.2.1, in some cases there are differences between the data provided here and information published by the EPA. Parties that are interested in individual environmental metrics should refer to the published EPA reports which cover these items.

3.3.3 Boil Water Notices and Water Restrictions

Definition and Objective
Under this metric the CER will monitor:

a) The number of public supplies on Boil Water Notices (BWNs) for greater than 200 days.

b) The number of public supplies on Water Restrictions (WRs) for greater than 200 days.

c) The population served by public supplies on BWNs and WRs, for greater than 200 days.

Monitoring this metric will encourage Irish Water to continue work to reduce the number of public water supplies and the total population impacted by these BWNs and WRs.

<table>
<thead>
<tr>
<th>Metric 13</th>
<th>Status - Green (Data Available)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>a) Number of public water supplies on BWNs for greater than 200 days</td>
<td>20</td>
</tr>
<tr>
<td>Population Served by a)</td>
<td>21,729</td>
</tr>
<tr>
<td>b) Number of public water supplies on WRs for greater than 200 days</td>
<td>2</td>
</tr>
<tr>
<td>Population served by b)</td>
<td>360</td>
</tr>
</tbody>
</table>

---

16 Number of Boil Water Notices that were 200 days old (or over) at the start of the calendar year or reached their 200 day milestone at any point during the calendar year.

17 Number of Water Restriction Notices that were 200 days old (or over) at the start of the calendar year or reached their 200 day milestone at any point during the calendar year.

18 The figures provided by Irish Water only cover water restrictions relating to the public side of the network, not those relating to the customers’ side. The CER will engage with Irish Water on this, as it may be appropriate to include all 200 day WRs in the next version of this report.
Key Observations/Progress Update

- The above figures highlight the significant number of customers that were affected by long term BWNs and WRs in 2014 and 2015.
- Final figures have not yet been provided for 2016, but the CER understands that 2016 figures will reflect substantial improvements in this area.
- The number of WRs in place for greater that 200 days increased from 2 to 10 between 2015 and 2016 affecting a population of 4,224. The majority (8) of the 10 WRs related to the presence of lead. Further information is available in the Irish Water report18.
- If comparing the above figures to other data/publications, please note that these figures are on a 200-day basis as outlined above. While it was important to initially focus on customers impacted by these long term notices, in the future the CER is likely, under this Performance Assessment, to monitor BWNs/WRs that are in place for a shorter period.

3.4 Security of Water Supply

3.4.1 Leakage

Definition and Objective:

This metric is defined as the leakage rate relating to the Irish Water Network.

Monitoring this metric will enable the CER to track Irish Water’s performance in reducing leakage rates. This is important as a high leakage rate accounts for significant wastage of water as a resource, and can result in low water pressure for consumers.

<table>
<thead>
<tr>
<th>Metric 14</th>
<th>Status - Amber (In Progress)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leakage</td>
<td>To be completed in Q4 2018</td>
</tr>
</tbody>
</table>

Key Observations/Progress Update

- While previous estimates of leakage rates have been made available and published by Irish Water, these figures were based on limited data. A precise figure has not been reported by Irish Water for the purposes of this Performance Assessment. Irish Water intend to be in a position to provide this information by Q4 2018.
- Prior to Irish Water’s establishment, local authorities across the country used different methods of leakage calculation, with a heavy reliance on manual reporting. Irish Water is introducing a National Leakage Management System (LMS) which is due to be operational by Q4 2018. Irish Water has stated that at that point it will have greater capability to accurately report on leakage performance.
As per the First Fix Free Leak Repair Scheme Report Q4 2016\textsuperscript{19} leakage was estimated at approximately 45\% (an improvement from 2014 where the leakage rate was estimated at 49\%).

Irish Water, in its business plan\textsuperscript{20} committed to reducing the level of leakage to below 38\% by 2021 with the overall goal of reaching a sustainable economic level of leakage by 2040.

The CER will engage with Irish Water regarding this timeline and the specifics of how this metric is to be defined and reported.

3.4.2 Security of Supply

Definitions and Objectives:
These metrics are defined as:

- The overall Security of Supply Index (SoSI) and that changes in this SoSI over time (metric 15).
- How the SoSI compares against a target agreed by the CER (metric 16).

Monitoring these metrics will enable the CER to track Irish Water’s performance in improving the security of the supply provided to customers. The security of water supply metrics measure Irish Water’s ability to meet the water service (e.g. managing supply and demand of water) needs for all customers in both the short and long term.

<table>
<thead>
<tr>
<th>Metrics 15 &amp; 16</th>
<th>Summary - Red (Development Pending)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security of Supply</td>
<td>Metric 15 - Report and Implementation Q1 2019</td>
</tr>
<tr>
<td></td>
<td>Metric 16 - TBC, Await implementation of metric 15</td>
</tr>
</tbody>
</table>

Key Observations/Progress Update

- Irish Water does not currently have a SoSI in place but is working to develop this metric.

- The CER accepts that this is one of the most complex metrics of the performance assessment and notes that this is not yet in place in some neighbouring jurisdictions due to data collation difficulties. Work to establish this metric in Ireland includes establishing Water Resource Zones across the country and completing headroom analysis for each zone.

- The CER will continue to engage with Irish Water with regard to precisely defining metric 15, on the timeline outlined above, and to seek regular updates from Irish Water on work to expedite data reporting.

- Once metric 15 has been developed, the CER also shall engage with Irish Water with regard to establishing timelines against which metric 16 can be measured.

\textsuperscript{19} First Fix Free Leak Repair Scheme – Q4 2016  
\textsuperscript{20} Irish Water Business Plan – Transforming Water Services in Ireland to 2021
3.5 Sewerage Service

Definitions and Objectives:
These metrics are defined as:

- The number of properties affected by an incident whereby wastewater enters a building due to the overload of a sewer (metric 17).
- The number of properties affected by an incident whereby wastewater enters a building due other causes\(^{21}\) (metric 18).
- The number of properties considered to be at risk of having wastewater enter their premises, caused by overload\(^{22}\) (metric 19).

Monitoring these metrics will enable the CER to track Irish Water’s performance in reducing the number of properties that are affected, or are at risk of being affected, by incidents where wastewater enters the premises.

<table>
<thead>
<tr>
<th>Metrics 17, 18 and 19</th>
<th>Status - Amber (In Progress)</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Sewer Incidents (Overload)</td>
<td>Report Q4 2019</td>
</tr>
<tr>
<td>18. Sewer Incidents (Other Causes)</td>
<td>Report Q4 2019</td>
</tr>
<tr>
<td>19. Sewer Incidents (At Risk)</td>
<td>Report Q4 2019</td>
</tr>
</tbody>
</table>

Key Observations/Progress Update

- Irish Water is not currently measuring the three metrics listed above and advises that its confidence in historical data with regard to flooding incidents (prior to Irish Water’s establishment) is low. Irish Water states that accurate measurement will involve further surveying of existing wastewater assets, significant data collation and the development of representative hydraulic models.
- The CER recognises that it will take time to gather data regarding the sewer network and implement modelling systems in order to assess the metrics above.
- The CER will engage with Irish Water regarding the timeline outlined above and the specifics of how this metric is to be defined and reported.

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\(^{21}\) These include incidents caused by equipment failure, a blockage, or collapse of a sewer.

\(^{22}\) Irish Water has stated that this should refer to the number of properties considered to be at risk of having wastewater enter their premises, caused by overload, more frequently than once in 10 years. Irish Water has stated that these properties should be defined as properties that have suffered or are likely to suffer incidents due to wastewater from public or combined sewers.
4. Conclusion and Next Steps

Conclusion

This CER document provides observations on the first report provided by Irish Water on key metrics against which the CER will monitor Irish Water’s performance.

Monitoring these metrics will facilitate an evaluation by the CER of the utility’s performance, and ensures that transparent data becomes available to customers through the publication of performance data.

Currently, the focus is on collection of data to develop robust baselines against which performance can be tracked. The CER will continue to engage with Irish Water to ensure that data becomes available as quickly as possible.

Next publication

The CER will engage with Irish Water with the intention of publishing another report in approximately six months.

Queries or comments

If interested parties have any queries or comments regarding this CER document or the Irish Water report published alongside it, please contact fbeirne@cer.ie

The CER will endeavour to ensure that any queries or comments are addressed within the next version of this publication.

Engagement on timelines for reporting and detail of outstanding metrics

For some metrics data is not yet available. The CER has noted the timelines (regarding the provision of data) provided by Irish Water within its report. In the interest of transparency the CER decided to publish the information available at this point. This does not mean that the CER has accepted the timelines put forward by Irish Water. The CER will continue to engage with Irish Water to ensure that data becomes available as quickly as possible.

Where further specific definitions are required for any outstanding metrics, the CER will engage with Irish Water to ensure that these are defined appropriately.