

Irish Water

First Fix Leak Repair Scheme

For Domestic Water Customers

Quarterly Report

Q3 2016



1. Introduction

Leakage of water from the network is a serious problem on a national scale. Lost water is estimated nationally at approximately 45% of the water produced for supply, well above international norms.

In May 2014 the Government announced funding of €51m for a scheme to address water leakage on pipework within customer property under a “First Fix” scheme. Following a public consultation the Commission for Energy Regulation (CER) approved Irish Water’s proposed First Fix Leak Repair Scheme on 5th August 2015. Under the First Fix Leak Repair scheme, Irish Water is assisting customers by notifying them where suspected leakage is occurring within the boundary of the property. Leaks which are identified on the external supply pipe serving a property are offered a free leak repair. The First Fix Leak Repair scheme does not apply to leaks within a dwelling.

Utilising meter read data to identify the most significant leaks has proven key to operating the First Fix Leak Repair scheme efficiently. Previously, the key barrier to addressing leakage was the identification of where leakage arose. The vast majority of leaks remain underground and, as such, they are not visible and largely go un-noticed and un-detected. Prior to the introduction of the First Fix Leak Repair scheme, leakage programmes have been primarily based around time-consuming and labour intensive sampling of areas in order to seek to detect anomalies on pipework. The Irish Water domestic metering programme provides a technology based solution to address this challenge. Data obtained from meters highlights unusual water usage patterns and allows Irish Water to isolate the source of leaks to a particular property, thereby reducing the time required for leak investigation. Operating the First Fix Leak Repair scheme on the basis of meter read data allows Irish Water to systematically identify significant water wastage at individual properties and focus resources on locating the source of wastage within individual properties.

Given the need to prioritise water conservation, under the First Fix Leak Repair scheme Irish Water prioritises repairs by size, based on the volume of water lost. A constant flow of water, that is 6 litres per hour over a 48 hour period, will trigger a constant flow alarm on the meter, indicating a potential leak. The largest leaks, which are wasting the most water, are fixed first. At the end of Q3 2016, over 95% of properties with a continuous flow alarm have been notified of a potential leak.

Irish Water estimates that over 77 million litres of water per day have been saved as a result of this scheme to the end of Q3 2016.

2. How to avail of the scheme

Relevant customers for whom a current constant flow alarm is recorded are issued with a letter from Irish Water, indicating a potential leak on their property. This letter is triggered where a constant flow of water to the property is identified. A customer will need to have received this letter from Irish Water, and meet the eligibility requirements¹ in order to avail of the scheme. Customers with a visible leak on their property can also contact Irish Water to confirm if they are eligible to participate in the scheme.

Customers who receive a constant flow advice letter are asked to contact Irish Water to request a free leak investigation. If the leak investigation indicates a leak on the external supply pipe serving the property, the customer will be offered a free leak repair. Irish Water will issue the customer with a First Fix Leak Repair Scheme offer, detailing the terms and conditions of providing the repair. To avail of the repair the customer will need to sign and return the offer document to Irish Water.

If you would like further information on the scheme, please see the ***First Fix Leak Repair Scheme for Domestic Water Customers*** policy document which is available on www.water.ie

3. Reporting on the scheme

In April 2015, the Commission for Energy Regulation (CER) consulted on Irish Water's proposed First Fix Leak Repair Scheme for Domestic Water Customers and received eight responses. The CER's decision on the policy, issued on 5 August 2015, was based on a review of the eight submissions received during the consultation period. Amongst its recommendations, the CER expects Irish Water to strongly promote the scheme in order to increase customer awareness of the scheme and to encourage customers to engage with Irish Water on the scheme.

The CER is monitoring the ongoing implementation of the scheme to ensure that the costs allowed are efficiently incurred and that benefits are achieved for customers. In line with the CER Decision CER/15/178 Irish Water is to report on a quarterly basis on the progress of the First Fix Leak Repair scheme, the following section outlines the progress of the scheme to the end of Q3 2016.

¹ For eligibility requirements and detailed information about the administration of the scheme, please see the ***First Fix Leak Repair Scheme for Domestic Water Customers*** policy document which is available on www.water.ie

4. Quarterly Summary

Table 1 provides a detailed breakdown of the scheme deliverables up to the end of Q3 2016.

4.1. Constant Flow Advice Letters and Customer Response Rates and Engagement Levels

The total number of constant flow advice letters issued at the end of Q3 2016 is 100,479 resulting in 39,780 customers requesting a free leak investigation survey. In addition, 70,425 first reminder, 48,660 subsequent second reminder and 27,485 final reminders have also been issued to households where a response has not been received. Over 95% of the properties with a continuous flow alarm have now been notified of a potential leak.

Irish Water has continued to promote the scheme through Q3 2016 with the ongoing targeted SMS and call campaign and a number of national and local media campaigns. The SMS and call campaign has targeted properties to which a constant flow advice and reminder letters were issued, where no response was received and where verified contact details were available. The purpose is to help increase customer awareness and customer engagement levels with the scheme.

Irish Water undertook a series of local media campaigns promoting the scheme and requesting customers to engage, including a number of press releases and radio interviews throughout August and September 2016. In addition, Irish Water continued the outbound call and SMS campaign in the period to over 5,300 properties with confirmed contact details and where a response was not received. Customers contacted were encouraged to partake in the scheme.

Irish Water has also continued contractor engagement on site with the customer, initially by phone and subsequently followed by a visit to their property. The study focused on properties where a customer response was not received following the issuing of an initial and three reminder notifications. In Q3 the contractor attempted to contact 200 properties. For these properties, the contractor engaged directly on site with the customer to offer a free leak investigation survey. The contractor successfully contacted the customer in 65% of properties. A further 300 properties were identified for survey in Q4 2016.

A summary of the customer response is provided in Table 1 below.

Summary Description	% Properties
Leak repaired by customer	34%
Customer Request for a free First Fix leak investigation	14%
Customer to undertake Internal Checks	7%
Customer unwilling to engage	7%

Other e.g out of scope	3%
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Table 1. Summary of Customer Response to end of Q3 2016 (200 nr)

In addition in Q3 2016 Irish Water engaged directly on site with the customer to collect unreturned leak repair offers and to answer any queries from the customer. As a result, the volume of outstanding leak repair offers reduced from 908 in Q2 2016 to 606 at the end of Q3 2016. .

Overall for Q3 2016 the percentage of customers that requested a leak investigation was 40% of those issued with a constant flow advice letter. However, the customer engagement level with the scheme has increased to 59% from 55% in Q2 2016. A total of 58,980 customers have engaged with the scheme to date, representing 59% of the 100,479 constant flow advice letters issued. Customer engagement is measured under the following three categories (see Chart 1 below):-

1. Customers requesting a free leak investigation survey (as reported in section 4.2).
2. Customer repairs completed from data collected from the meter (as reported in section 4.4).
3. Customers contacting Irish Water to advise of an un-qualifying leak.

Each number underlined in the chart represents the total number of customers who engaged by that category. In cases where the customer engagement is common to two of these categories, it is noted in the overlapping area in white text. The total number of customers who engaged is outlined below.

$$\text{Total Customer Engagement (\%)} = \frac{39,780 + 21,608 + 9,245 - (9,649 + 2,004)}{100,479}$$

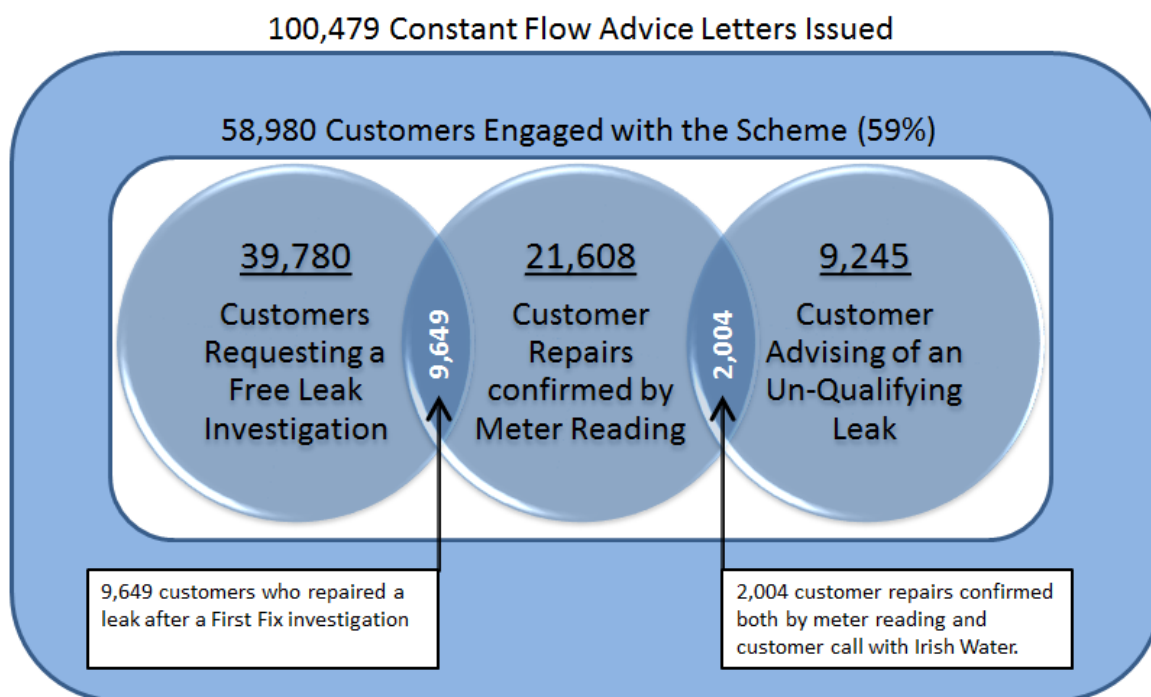


Chart 1. Summary of Customer Engagement with the Scheme

The issuance of reminder letters will continue in Q4 2016 where a response has not yet been received. Irish Water will also continue the outbound SMS and call campaign and further promote the scheme through national and local media channels.

4.2. Leak Investigations

A total of 39,780 customers contacted Irish Water to avail of the free leak investigation under the scheme. A total of 41,349 investigations were requested, which include repeat visits where customers installed an Internal Stop Valve (ISV) after an initial leak investigation visit.

Irish Water contacts customers within 10 business days to arrange a convenient time for an appointment to carry out the free leak investigation at a property. A total of 39,511 leak investigations had been undertaken by the end of Q3 2016. For the remaining 1,838 customers that had requested a leak investigation to the end of Q3 2016, they either had appointments scheduled with the contractor or were in the process of having appointments scheduled.

From the 39,511 completed leak investigations 8,502 leaks on external supply pipes were identified. Irish Water has offered these customers with leaks on their external supply pipe a free leak repair under the scheme. The remaining 31,009 leak investigations identified non-qualifying leaks.

There were three main reasons why these leaks were non-qualifying:

- 1) A total of 8,905 properties surveyed did not have an operational Internal Stop Valve (ISV) and the survey could not be progressed. In many cases, the ISV was present but not operational.

Customers are advised of the need to have a working ISV installed in order for the leak investigation to be completed.

- 2) In addition, a total of 634 properties have been identified through the First Fix process where the property does not qualify or the survey could not progress as it is served through a shared or backyard service.
- 3) The remaining leak investigations identified internal plumbing and other issues, which come under the remit of the home owner. As with all internal repair and maintenance in a customer's home, if a leak is confirmed internal to the house then it should be repaired. A lot of household leaks e.g. dripping taps, running cisterns can be repaired easily for a modest price.

4.3. Leak Repairs

Customers are asked to review the terms and conditions of the leak repair offer and sign the offer documentation after which Irish Water will contact the customer to schedule the leak repair at a suitable time. On receipt of the documentation Irish Water contacts customers within 10 working days to arrange a convenient time for an appointment to carry out the free leak repair at a property. At the end of Q3 2016 Irish Water had completed 6,666 free leak repairs under the First Fix Leak Repair scheme. Of the remaining 1,836 customers to whom Irish Water offered a free leak repair, 445 no longer qualified for repair (e.g. repaired by the customer or found to be non-qualifying after further detailed investigation), 785 repairs were scheduled or were in the process of being scheduled, while 606 customers had yet to accept the leak repair offer.

4.4. Customer Repairs

From the data collected through meter reading we know that 21,608 customers have repaired leaks on their property after receiving a constant flow advice letter. Irish Water would like to thank all customers who repaired leaks on their property which have made a significant contribution to water conservation.

4.5. Water Savings

The issuance of constant flow advice letters has targeted at the largest leaks first and the result of this can be seen from the estimated savings of 77.03 million litres of water per day achieved to the end of Q3 2016. A cumulative estimated total of 40.81 million litres per day has been saved through First Fix repairs and a further estimated 36.24 million litres from customer repairs. Savings are calculated from a comparison of meter data collected prior to and after the repair work being undertaken. For customer repairs, the constant flow alert is no longer active and the meter data shows a supporting drop in water usage over two read periods.

4.6. Project Expenditure

The project expenditure is reported quarterly in arrears. The cumulative total expenditure up to the end of Q3 2016 (end of September 2016) is €18,675,047 consisting of €9,120,889, for leak investigations, €6,419,375 for repairs and €3,134,783 for additional costs.

5. Next Steps

Irish Water will continue to implement the First Fix Leak Repair scheme and will issue the next quarterly report, for Q4 2016, to the CER at the end of Q1 2017.

Table 2: Project Summary

1	Number of Continuous Flow Alarms Detected	Total	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
			52,292			54,498			52,723			51,950		
2	Number of Customer Notifications Issued (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	22,005	24,529	25,533	27,296	31,436	34,497	35,728	38,735	39,479	40,908	42,816	43,138
		North and West	6,256	7,920	8,445	8,955	10,997	12,839	13,100	14,847	15,390	16,098	16,927	17,104
		Southern	15,282	19,317	21,465	22,232	23,936	28,638	29,925	34,272	36,073	37,911	39,991	40,237
		Grand Total	43,543	51,766	55,443	58,483	66,369	75,974	78,753	87,854	90,942	94,917	99,734	100,479
		A total of 100,479 constant flow advice letters issued to the end of Q3 2016. 70,425 first reminder, 48,660 second reminder and 27,845 final reminder letters have also been issued to households where a response has not been received.												
3	Customer Responses requesting a Free Leak Investigation (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	7,892	9,060	10,332	11,584	12,884	13,765	15,076	15,840	16,559	17,004	17,590	18,076
		North and West	1,863	2,351	2,845	3,285	3,772	4,315	4,856	5,241	5,705	5,987	6,244	6,433
		Southern	4,970	6,129	7,381	8,608	9,653	10,505	11,781	12,553	13,500	14,157	14,822	15,271
		Grand Total	14,725	17,540	20,558	23,477	26,309	28,585	31,713	33,634	35,764	37,148	38,656	39,780
		39,780 customers contacted Irish Water to request a free leak investigation. A total of 41,349 leak investigations have been raised to the end of Q3 2016 (second leak investigation where a customer installs an ISV after advice from first leak investigation survey).												
4	Leak Investigations Completed (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	5,868	7,851	9,016	10,403	11,827	12,792	13,778	14,989	15,957	16,450	17,030	17,360
		North and West	1,492	2,025	2,476	2,963	3,502	4,098	4,638	5,092	5,565	5,962	6,352	6,551
		Southern	3,824	5,615	6,598	7,948	9,107	10,051	11,063	12,060	13,091	14,116	14,985	15,600
		Grand Total	11,184	15,491	18,090	21,314	24,436	26,941	29,479	32,141	34,613	36,528	38,367	39,511
		39,511 leak investigations were carried out to the end of Q3 2016. The remaining 1,838 customers that requested a leak investigation had appointments scheduled or were in the process of having appointments scheduled.												
4a	Leak Repairs Created (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	1,872	2,258	2,504	2,796	3,103	3,324	3,523	3,733	3,913	3,985	4,098	4,157
		North and West	383	454	529	604	679	790	871	937	1,016	1,086	1,149	1,188
		Southern	1,058	1,332	1,483	1,718	1,902	2,091	2,286	2,465	2,657	2,867	3,050	3,157
		Grand Total	3,313	4,044	4,516	5,118	5,684	6,205	6,680	7,135	7,586	7,938	8,297	8,502
		Of the 41,349 completed leak investigations carried out at the end of Q3 2016, 8,502 were found to be on the external supply pipe.												
5	Leak Repairs Completed (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	1,036	1,333	1,579	1,807	2,107	2,357	2,633	2,906	3,120	3,278	3,394	3,518
		North and West	163	241	306	357	407	456	505	588	695	734	765	810
		Southern	535	695	848	1,021	1,243	1,424	1,619	1,752	1,921	2,081	2,165	2,338
		Grand Total	1,734	2,269	2,733	3,185	3,757	4,237	4,757	5,246	5,736	6,093	6,324	6,666
		In respect of the 8,502 qualifying leaks, 6,666 free leak repairs were carried out. For the remaining 1,836 leaks, 445 no longer qualify for repair (e.g repaired or found to be non-qualifying after further detailed investigation), 833 were awaiting acceptance of the leak repair offer by the customer and the remaining 558 were scheduled or in the process of being scheduled.												

Table 2: Project Summary (continued)

6	Estimated Water Savings from First Fix Repairs (ML/day - Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	8.45	9.97	11.31	12.68	13.95	15.17	16.65	18.03	18.84	19.68	20.19	20.55
		North and West	1.47	1.94	2.50	2.81	3.06	3.27	3.76	4.15	4.57	4.83	5.11	5.31
		Southern	4.97	6.02	6.84	7.73	8.95	9.94	11.16	11.98	12.64	13.50	13.98	14.96
		Grand Total	14.90	17.93	20.65	23.22	25.96	28.37	31.57	34.16	36.06	38.01	40.81	
		A cumulative estimated total of 40.81 million litres per day has been saved through First Fix Scheme repairs. Savings are calculated from a comparison of meter data collected prior to and after the repair work being undertaken.												
7	Customer Repairs Completed (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	4,683	5,586	6,185	6,899	7,577	8,223	8,842	9,569	10,195	10,413	10,522	10,543
		North and West	1,141	1,379	1,536	1,696	1,954	2,186	2,444	2,740	2,938	3,028	3,055	3,063
		Southern	2,915	3,586	4,114	4,678	5,389	5,908	6,571	7,283	7,756	7,943	7,994	8,002
		Grand Total	8,739	10,551	11,835	13,273	14,920	16,317	17,857	19,592	20,889	21,384	21,571	21,608
		Customer repairs are those repairs arranged by the customer for leaks occurring within their property. The customer repair is counted only when two confirmed meter readings are collected after the repair. 21,608 of these repairs were undertaken by customers following a First Fix notification.												
8	Estimated Savings from Customer Repairs (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	9.89	11.50	12.55	13.61	14.60	15.49	16.30	17.09	17.63	17.95	18.19	18.27
		North and West	2.58	2.87	3.04	3.25	3.64	3.90	4.23	4.51	4.66	4.80	4.83	4.87
		Southern	6.71	7.60	8.28	9.15	9.90	10.80	11.65	12.34	12.70	13.01	13.09	13.10
		Grand Total	19.17	21.96	23.88	26.00	28.14	30.19	32.18	33.95	34.99	35.77	36.24	
		An estimated 36.24 million litres of water per day has been saved from customer repairs. Savings are calculated from a comparison of meter data collected prior to and after the repair work being undertaken. The completion of a repair is indicated when the leak alarm is no longer active, with a supporting drop in water usage. The estimated savings from customer repairs are confirmed once two meter readings are collected after the repair.												
9	Known Properties Without an Operational ISV (Cumulative)	Period	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
		Region	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03	2016-07	2016-08	2016-09
		East and Midlands	992	1,460	1,714	2,012	2,284	2,476	2,732	2,857	3,008	3,129	3,217	3,270
		North and West	362	525	649	718	818	929	1,066	1,143	1,270	1,368	1,455	1,487
		Southern	811	1,326	1,652	2,155	2,538	2,894	3,232	3,403	3,628	3,849	4,024	4,148
		Grand Total	2,165	3,311	4,015	4,885	5,640	6,299	7,030	7,403	7,906	8,346	8,905	
		A total of 8,905 properties did not have an operational Internal Stop Valve (ISV) and the leak investigation could not be progressed. In many cases the ISV was present but not operational.												
10	Number of Non-Qualifying Properties Served Through a Shared or Backyard Pipe (Cumulative)	Total	Q4 2015			Q1 2016			Q2 2016			Q3 2016		
			252			415			560			634		
		634 properties were identified as not qualifying for the scheme as they are served through a shared or backyard pipe and cannot have their supply isolated.												
11	Counties in Each Region	East and Midlands	Dublin City, County Dublin, Kildare, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wicklow											
		North and West	Cavan, Donegal, Galway, Leitrim, Mayo, Monaghan, Roscommon, Sligo											
		Southern	Carlow, Clare, Cork, Kerry, Kilkenny, Limerick, Tipperary, Waterford, Wexford											

Note: Meter read data is used to confirm that a customer repair has been carried out. Number of customer repairs and estimated savings will be included in the report once two confirmed meter readings are collected after the repair date. As such, the number of customer repairs noted above for each month is expected to increase in the next report as more confirmed readings are collected.