

Irish Water

First Fix Leak Repair Scheme

For Domestic Water Customers

Quarterly Report

Q2 2016



1. Introduction

Leakage of water from the network is a serious problem on a national scale. Lost water is estimated nationally at approximately 47% 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 intends to assist customers by notifying them where suspected leakage is occurring within the boundary of the property. It is intended that leaks which are identified on the external supply pipe serving a property will be offered a free leak repair. The First Fix Leak Repair scheme will not apply to leaks within a dwelling.

Utilising meter read data to identify the most significant leaks is the 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.

Irish Water estimates that over 65 million litres of water per day have been saved as a result of this scheme to the end of Q2 2016.

2. How to avail of the scheme

Relevant customers for whom a current constant flow alarm is recorded will be 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. In Q2 2016, Irish Water continued the national SMS and call campaign to provide information and assistance to customers where a constant flow advice letter was issued and to offer a free leak investigation survey.

Irish Water has also commenced a number of direct engagements² on site with customers in Q2 2016. A direct engagement study was undertaken and focused on 200 properties in an area where a customer response was not received subsequent to issuing initial and reminder notifications. For these properties, the contractor engaged directly on site with the customer to offer a free leak investigation survey. Details of this study will be provided in the Q3 2016 progress report. A second direct engagement campaign focused on unreturned leak repair offers. In this case, the contractor called out to the customer to collect the signed leak repair offer where one was issued by Irish

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

² A direct engagement is where an IW contractor calls out to the customer's property.

Water. The contractor also provided a reprinted leak repair offer for signing where requested by the customer.

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 Q2 2016.

4. Quarterly Summary

Table 1 provides a detailed breakdown of the scheme deliverables up to the end of Q2 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 Q2 2016 is 90,942 resulting in 35,764 requests for a free leak investigation survey. In addition, 59,816 first reminder, 42,343 subsequent second reminder and 22,001 final reminders have also been issued to households where a response has not been received.

Overall for Q2 2016 the percentage of customers that requested a leak investigation was 39% of those issued with a constant flow advice letter. It is anticipated that as more members of the public become familiar with the scheme and develop an understanding of their water consumption, these response rates will increase.

Irish Water has continued to promote the scheme through Q2 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.

The customer engagement level with the scheme has increase to 55% from 48% in the last report. A total of 50,025 customers have engaged with the scheme to date, representing 55% of the 90,942 constant flow advice letters issued. The 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.

In cases where the customer engagement is common to two of these categories, it is noted in the chart below.

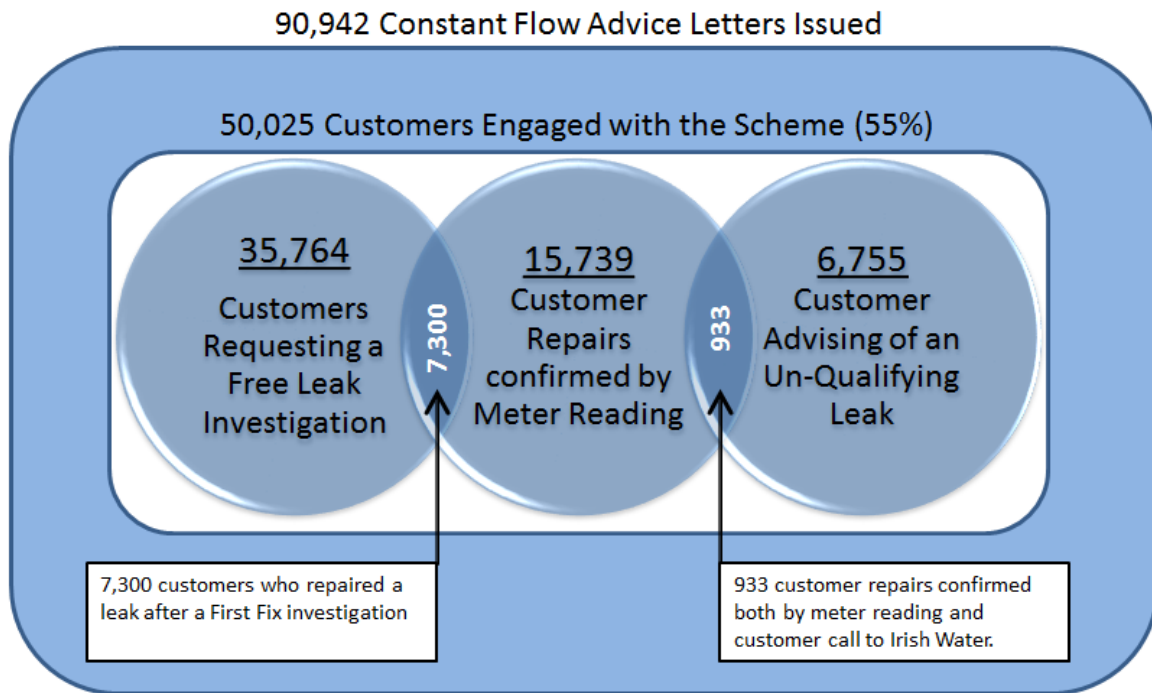


Chart 1. Summary of Customer Engagement with the Scheme

The issuance of reminder letters will continue in Q3 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 campaigns.

4.2. Leak Investigations

A total of 35,764 customers contacted Irish Water to avail of the free leak investigation under the scheme. A total of 37,086 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 34,613 leak investigations had been undertaken by the end of Q2 2016. For the remaining 1,151 customers that had requested a leak investigation to the end of Q2 2016, they either had appointments scheduled with the contractor or were in the process of having appointments scheduled.

From the 34,613 completed leak investigations 7,586 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 27,027 leak investigations identified non-qualifying leaks.

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

- 1) A total of 7,906 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 560 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 Q2 2016 Irish Water had completed 5,610 free leak repairs under the First Fix Leak Repair scheme. Of the remaining 1,976 customers to whom Irish Water offered a free leak repair, 360 no longer qualified for repair (e.g. repaired by the customer or found to be non-qualifying after further detailed investigation), 708 repairs were scheduled or were in the process of being scheduled, while 908 customers had yet to accept the leak repair offer.

4.4. Customer Repairs

From the data collected through meter reading we know that 15,739 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 was initially targeted at the largest leaks first and the result of this can be seen from the estimated savings of 65.39 million litres of water per day achieved to the end of Q2 2016. A cumulative estimated total of 35.33 million litres per day has been saved through First Fix repairs and a further estimated 30.05 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 Q2 2016 (end of June 2016) is €16,079,277 consisting of €8,005,760, for leak investigations, €5,385,218 for repairs and €2,668,300 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 Q3 2016, to the CER at the end of Q4 2016.

Table 2: Project Summary

1	Number of Continuous Flow Alarms Detected	Total	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
			50,801			52,292			54,498			52,723		
2	Number of Customer Notifications Issued (Cumulative)	Period	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	11,294	15,369	17,764	22,005	24,529	25,533	27,296	31,436	34,497	35,728	38,735	39,479
		North and West	2,514	3,603	5,288	6,256	7,920	8,445	8,955	10,997	12,839	13,100	14,847	15,390
		Southern	7,874	9,717	11,786	15,282	19,317	21,465	22,232	23,936	28,638	29,925	34,272	36,073
		Grand Total	21,682	28,689	34,838	43,543	51,766	55,443	58,483	66,369	75,974	78,753	87,854	90,942
		The number of customer notifications (constant flow advice letters) issued was increased from July 2015 to encourage participation in the scheme. This contributed to an overall total of 90,942 constant flow advice letters issued to the end of Q2 2016.												
3	Customer Responses requesting a Free Leak Investigation (Cumulative)	Period	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	3,178	4,817	6,538	7,892	9,060	10,332	11,584	12,884	13,765	15,076	15,840	16,559
		North and West	664	886	1,546	1,863	2,351	2,845	3,285	3,772	4,315	4,856	5,241	5,705
		Southern	1,881	2,770	4,148	4,970	6,129	7,381	8,608	9,653	10,505	11,781	12,553	13,500
		Grand Total	5,723	8,473	12,232	14,725	17,540	20,558	23,477	26,309	28,585	31,713	33,634	35,764
		35,764 customers contacted Irish Water to request a free leak investigation. A total of 37,086 leak investigations have been raised to the end of Q2 2016 (second leak investigation where a customer installs an ISV after advice from first leak investigation survey).												
4	Leak Investigations Completed (Cumulative)	Period	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	1,820	2,495	3,829	5,868	7,851	9,016	10,403	11,827	12,792	13,778	14,989	15,957
		North and West	175	425	747	1,492	2,025	2,476	2,963	3,502	4,098	4,638	5,092	5,565
		Southern	802	1,269	2,294	3,824	5,615	6,598	7,948	9,107	10,051	11,063	12,060	13,091
		Grand Total	2,797	4,189	6,870	11,184	15,491	18,090	21,314	24,436	26,941	29,479	32,141	34,613
		34,613 leak investigations were carried out to the end of Q2 2016. The remaining 1,151 customers that requested a leak investigation had appointments scheduled or were in the process of having appointments scheduled.												
4a	Leak Repairs Created (Cumulative)	Period	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	855	1,039	1,431	1,872	2,258	2,504	2,796	3,103	3,324	3,523	3,733	3,913
		North and West	96	178	265	383	454	529	604	679	790	871	937	1,016
		Southern	417	518	755	1,058	1,332	1,483	1,718	1,902	2,091	2,286	2,465	2,657
		Grand Total	1,368	1,735	2,451	3,313	4,044	4,516	5,118	5,684	6,205	6,680	7,135	7,586
		Of the 34,613 completed leak investigations carried out at the end of Q2 2016, 7,586 were found to be on the external supply pipe.												
5	Leak Repairs Completed (Cumulative)	Period	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	452	640	830	1,036	1,333	1,579	1,807	2,107	2,357	2,633	2,889	3,084
		North and West	6	34	89	163	241	306	357	407	456	505	573	655
		Southern	122	234	396	535	695	848	1,021	1,243	1,424	1,619	1,732	1,871
		Grand Total	580	908	1,315	1,734	2,269	2,733	3,185	3,757	4,237	4,757	5,194	5,610
		In respect of the 7,586 qualifying leaks, 5,610 free leak repairs were carried out. For the remaining 1,976 leaks, 360 no longer qualify for repair (e.g. repaired or found to be non-qualifying after further detailed investigation), 908 were awaiting acceptance of the leak repair offer by the customer and the remaining 708 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	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	3.99	5.69	7.25	8.45	9.97	11.31	12.68	13.95	15.17	16.65	17.89	18.59
		North and West	0.14	0.46	0.83	1.47	1.94	2.50	2.81	3.06	3.27	3.76	4.11	4.40
		Southern	1.35	2.44	3.79	4.97	6.02	6.84	7.73	8.95	9.94	11.16	11.85	12.35
		Grand Total	5.49	8.60	11.87	14.90	17.93	20.65	23.22	25.96	28.37	31.57	33.85	35.33
		A cumulative estimated total of 35.33 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	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	2,228	2,937	3,664	4,656	5,556	6,155	6,743	7,221	7,512	7,731	7,997	8,068
		North and West	501	676	905	1,168	1,409	1,566	1,707	1,860	1,936	1,992	2,020	2,035
		Southern	1,224	1,711	2,214	2,915	3,586	4,114	4,579	5,112	5,301	5,496	5,583	5,636
		Grand Total	3,953	5,324	6,783	8,739	10,551	11,835	13,029	14,193	14,749	15,219	15,600	15,739
		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. 15,739 of these repairs were undertaken by customers following a First Fix notification.												
8	Estimated Savings from Customer Repairs (Cumulative)	Period	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	5.67	6.97	8.22	9.84	11.45	12.51	13.42	14.19	14.73	15.21	15.59	15.67
		North and West	1.51	1.83	2.25	2.62	2.91	3.09	3.26	3.58	3.70	3.83	3.85	3.86
		Southern	3.25	4.35	5.43	6.71	7.60	8.28	8.96	9.54	10.07	10.44	10.50	10.53
		Grand Total	10.43	13.15	15.90	19.17	21.96	23.88	25.64	27.32	28.50	29.49	29.94	30.05
		An estimated 30.05 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	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
		Region	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03	2016-01	2016-02	2016-03
		East and Midlands	202	299	588	992	1,460	1,714	2,012	2,284	2,476	2,732	2,857	3,008
		North and West	10	64	161	362	525	649	718	818	929	1,066	1,143	1,270
		Southern	69	107	407	811	1,326	1,652	2,155	2,538	2,894	3,232	3,403	3,628
		Grand Total	281	470	1,156	2,165	3,311	4,015	4,885	5,640	6,299	7,030	7,403	7,906
		A total of 7,906 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	Q3 2015			Q4 2015			Q1 2016			Q2 2016		
			103			252			415			560		
		560 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.