

# **Irish Water**

## **First Fix Leak Repair Scheme**

**For Domestic Water Customers**

**Quarterly Report**

Q1 2016



## 1. Introduction

Leakage of water from the network is a serious problem on a national scale. Lost water is estimated nationally at approximately 49% 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 5<sup>th</sup> 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 abnormal 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 48 ½ million litres of water per day have been saved as a result of this scheme to the end of Q1 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, 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 requirements<sup>1</sup> 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 should 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](http://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 Q1 2016, Irish Water has undertaken a call and SMS campaign to provide information and assistance to customers where a constant flow advice letter was issued and to offer a free leak investigation survey.

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 Q1 2016.

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<sup>1</sup> 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](http://www.water.ie)

## 4. Quarterly Summary

Table 1 provides a detailed breakdown of the scheme deliverables up to the end of Q1 2016.

### 4.1. Constant Flow Advice Letters and Customer Response Rates

The number of constant flow advice letters issued is ahead of forecast by 33% at the end of Q1 2016. 75,974 constant flow advice letters have been issued to the end of the quarter with a total of 28,585 requests for a leak investigation survey. In addition, 48,676 first reminder, 28,495 second reminder and 2,546 final reminders have also been issued where a response has not been received.

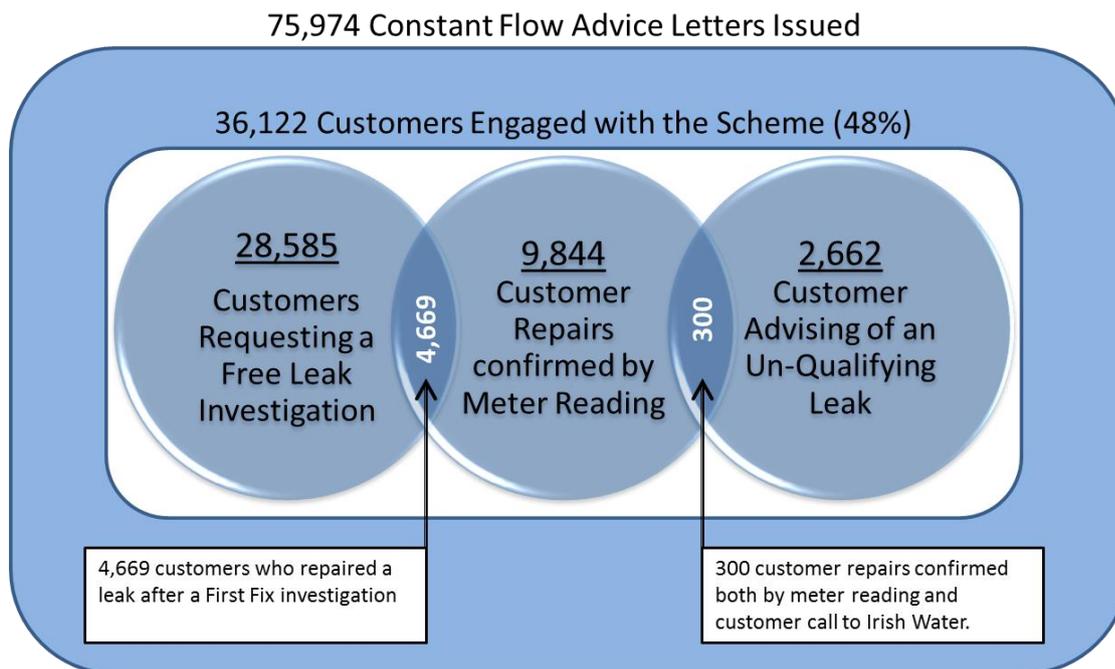
Overall for Q1 2016 the percentage of customers that requested a leak investigation was 38% of those issued with a constant flow advice letter. It is anticipated that as more members of the public become familiar with the scheme and develop an understanding of their water consumption, these response rates will increase significantly.

Irish Water has continued to promote the scheme through Q1 2016, running a targeted SMS and call campaign. The campaign targeted properties to which a constant flow advice and reminder letters were issued, no response received and where verified contact details were available. The purpose of the campaign was to help increase customer awareness and customer engagement levels with the scheme.

Irish Water has also reviewed the level of customer engagement with the scheme to the end of the quarter. A total of 36,122 customers have engaged with the scheme to date, representing 48% of the 75,974 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 Q2 2016 where a response has not yet been received. Irish Water will also continue the outbound calling and SMS campaign to remind customers about their constant flow advice letter and to encourage them to engage with the scheme.

#### 4.2. Leak Investigations

A total of 28,585 customers contacted Irish Water to avail of the free leak investigation under the scheme. A total of 29,620 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 26,941 leak investigations had been undertaken by the end of March 2016. For the remaining 2,679 customers that had requested a leak investigation to the end of Q1 2016, they either had appointments scheduled with the contractor or were in the process of having appointments scheduled.

From the 26,941 completed leak investigations 6,205 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 other 20,736 leak investigations identified non-qualifying leaks.

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

- 1) A total of 6,299 properties surveyed did not have an operational Internal Stop Valve (ISV) and the survey could not be progressed<sup>2</sup>. In many cases, the ISV was present but not operational.
- 2) In addition, a total of 415 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. As with all internal repair and maintenance in a customer's home, if a leak is confirmed internal to the house the customer should have this repaired. A lot of household leaks e.g. dripping taps, running cisterns can be repaired cheaply and easily.

#### **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 March 2016 Irish Water had completed 4,217 free leak repairs under the First Fix Leak Repair scheme. Of the remaining 1,988 customers to whom Irish Water offered a free leak repair, 259 no longer qualified for repair (e.g. repaired by the customer or found to be non-qualifying after further detailed investigation), 745 repairs were scheduled or were in the process of being scheduled, while 984 customers had yet to accept the leak repair offer.

#### **4.4. Customer Repairs**

From the data collected by the meter reading we know that 9,844 customers have repaired leaks on their property.

#### **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 48.58 million litres of water per day achieved to the end of Q1 2016. A cumulative estimated total of 28.21 million litres per day has been saved through First Fix repairs and a further estimated 20.37 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 Q1 2016 (end of March 2016) is €12,263,213 consisting of €6,226,337 for leak investigations, €4,033,963 for repairs and €2,002,913 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 Q2 2016, to the CER in Q4 2016.

**Table 2: Project Summary**

1	Number of Continuous Flow Alarms Detected	Total	Q2 2015			Q3 2015			Q4 2015			Q1 2016		
			36,424			50,801			52,292			54,498		
2	Number of Customer Notifications Issued (Cumulative)	Period	Q2 2015			Q3 2015			Q4 2015			Q1 2016		
		Region	2015-04	2015-05	2015-06	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03
		East and Midlands	2,499	4,349	7,354	11,294	15,369	17,764	22,005	24,529	25,533	27,296	31,436	34,497
		North and West	458	816	1,308	2,514	3,603	5,288	6,256	7,920	8,445	8,955	10,997	12,839
		Southern	828	2,298	4,173	7,874	9,717	11,786	15,282	19,317	21,465	22,232	23,936	28,638
		Grand Total	3,785	7,463	12,835	21,682	28,689	34,838	43,543	51,766	55,443	58,483	66,369	75,974
		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 75,974 constant flow advice letters issued to the end of Q1 2016.												
3	Customer Responses requesting a Free Leak Investigation (Cumulative)	Period	Q2 2015			Q3 2015			Q4 2015			Q1 2016		
		Region	2015-04	2015-05	2015-06	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03
		East and Midlands	844	1,475	2,259	3,178	4,817	6,538	7,892	9,060	10,332	11,584	12,884	13,765
		North and West	60	126	255	664	886	1,546	1,863	2,351	2,845	3,285	3,772	4,315
		Southern	145	420	1,015	1,881	2,770	4,148	4,970	6,129	7,381	8,608	9,653	10,505
		Grand Total	1,049	2,021	3,529	5,723	8,473	12,232	14,725	17,540	20,558	23,477	26,309	28,585
		28,585 customers contacted Irish Water to request a free leak investigation. A total of 29,620 leak investigations have been raised to the end of Q1 2016 (second leak investigation where a customer installs an ISV after advice from first leak investigation survey).												
4	Leak Investigations Completed (Cumulative)	Period	Q2 2015			Q3 2015			Q4 2015			Q1 2016		
		Region	2015-04	2015-05	2015-06	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03
		East and Midlands	559	901	1,270	1,820	2,495	3,829	5,868	7,851	9,016	10,403	11,827	12,792
		North and West	-	68	106	175	425	747	1,492	2,025	2,476	2,963	3,502	4,098
		Southern	1	224	466	802	1,269	2,294	3,824	5,615	6,598	7,948	9,107	10,051
		Grand Total	560	1,193	1,842	2,797	4,189	6,870	11,184	15,491	18,090	21,314	24,436	26,941
		26,941 leak investigations were carried out to the end of Q4. The remaining 2,679 customers that requested a leak investigation had appointments scheduled or were in the process of having appointments scheduled.												
4a	Leak Repairs Created (Cumulative)	Period	Q2 2015			Q3 2015			Q4 2015			Q1 2016		
		Region	2015-04	2015-05	2015-06	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03
		East and Midlands	219	404	608	855	1,039	1,431	1,872	2,258	2,504	2,796	3,103	3,324
		North and West	-	44	68	96	178	265	383	454	529	604	679	790
		Southern	1	127	282	417	518	755	1,058	1,332	1,483	1,718	1,902	2,091
		Grand Total	220	575	958	1,368	1,735	2,451	3,313	4,044	4,516	5,118	5,684	6,205
		Of the 26,941 completed leak investigations carried out in Q4, 6,205 were found to be on the external supply pipe.												
5	Leak Repairs Completed (Cumulative)	Period	Q2 2015			Q3 2015			Q4 2015			Q1 2016		
		Region	2015-04	2015-05	2015-06	2015-07	2015-08	2015-09	2015-10	2015-11	2015-12	2016-01	2016-02	2016-03
		East and Midlands	159	172	317	450	638	829	1,035	1,332	1,578	1,807	2,105	2,352
		North and West	-	1	3	6	34	89	162	240	305	356	405	452
		Southern	-	-	30	120	232	393	531	691	844	1,015	1,233	1,413
		Grand Total	159	173	350	576	904	1,311	1,728	2,263	2,727	3,178	3,743	4,217
		In respect of the 6,205 qualifying leaks, 4,217 free leak repairs were carried out. For the remaining 1,988 leaks, 259 no longer qualify for repair (e.g repaired or found to be non-qualifying after further detailed investigation), 984 were awaiting acceptance of the leak repair offer by the customer and the remaining 745 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)	<b>Period</b>	<b>Q2 2015</b>			<b>Q3 2015</b>			<b>Q4 2015</b>			<b>Q1 2016</b>		
		<b>Region</b>	<b>2015-04</b>	<b>2015-05</b>	<b>2015-06</b>	<b>2015-07</b>	<b>2015-08</b>	<b>2015-09</b>	<b>2015-10</b>	<b>2015-11</b>	<b>2015-12</b>	<b>2016-01</b>	<b>2016-02</b>	<b>2016-03</b>
		<b>East and Midlands</b>	0.95	1.08	2.66	3.98	5.68	7.24	8.44	9.97	11.32	12.70	13.94	15.12
		<b>North and West</b>	-	0.02	0.07	0.14	0.46	0.83	1.45	1.92	2.54	2.84	3.09	3.28
		<b>Southern</b>	0.00	0.00	0.31	1.35	2.44	3.77	4.96	5.97	6.81	7.69	8.87	9.81
		<b>Grand Total</b>	0.95	1.10	3.05	5.48	8.58	11.84	14.84	17.86	20.67	23.23	25.91	28.21
		A cumulative estimated total of 28.21 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)	<b>Period</b>	<b>Q2 2015</b>			<b>Q3 2015</b>			<b>Q4 2015</b>			<b>Q1 2016</b>		
		<b>Region</b>	<b>2015-04</b>	<b>2015-05</b>	<b>2015-06</b>	<b>2015-07</b>	<b>2015-08</b>	<b>2015-09</b>	<b>2015-10</b>	<b>2015-11</b>	<b>2015-12</b>	<b>2016-01</b>	<b>2016-02</b>	<b>2016-03</b>
		<b>East and Midlands</b>	326	752	1,429	2,232	2,949	3,676	4,377	4,936	5,084	5,241	5,275	5,288
		<b>North and West</b>	82	214	355	497	664	875	1,034	1,145	1,195	1,219	1,226	1,229
		<b>Southern</b>	140	457	762	1,224	1,711	2,212	2,674	3,003	3,174	3,266	3,307	3,327
		<b>Grand Total</b>	548	1,423	2,546	3,953	5,324	6,763	8,085	9,084	9,453	9,726	9,808	9,844
		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. 9,844 of these repairs were undertaken by customers following a First Fix notification.												
8	Estimated Savings from Customer Repairs (Cumulative)	<b>Period</b>	<b>Q2 2015</b>			<b>Q3 2015</b>			<b>Q4 2015</b>			<b>Q1 2016</b>		
		<b>Region</b>	<b>2015-04</b>	<b>2015-05</b>	<b>2015-06</b>	<b>2015-07</b>	<b>2015-08</b>	<b>2015-09</b>	<b>2015-10</b>	<b>2015-11</b>	<b>2015-12</b>	<b>2016-01</b>	<b>2016-02</b>	<b>2016-03</b>
		<b>East and Midlands</b>	1.26	2.78	4.25	5.79	7.11	8.37	9.47	10.34	10.56	10.82	10.85	10.86
		<b>North and West</b>	0.40	0.81	1.17	1.51	1.81	2.19	2.43	2.54	2.59	2.61	2.62	2.62
		<b>Southern</b>	0.43	1.59	2.45	3.29	4.40	5.46	6.27	6.55	6.71	6.81	6.87	6.88
		<b>Grand Total</b>	2.09	5.18	7.86	10.59	13.32	16.02	18.17	19.43	19.86	20.24	20.34	20.37
		An estimated 20.37 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)	<b>Period</b>	<b>Q2 2015</b>			<b>Q3 2015</b>			<b>Q4 2015</b>			<b>Q1 2016</b>		
		<b>Region</b>	<b>2015-04</b>	<b>2015-05</b>	<b>2015-06</b>	<b>2015-07</b>	<b>2015-08</b>	<b>2015-09</b>	<b>2015-10</b>	<b>2015-11</b>	<b>2015-12</b>	<b>2016-01</b>	<b>2016-02</b>	<b>2016-03</b>
		<b>East and Midlands</b>	30	100	135	202	299	588	992	1,460	1,714	2,012	2,284	2,476
		<b>North and West</b>	-	1	8	10	64	161	362	525	649	718	818	929
		<b>Southern</b>	-	22	42	69	107	407	811	1,326	1,652	2,155	2,538	2,894
		<b>Grand Total</b>	30	123	185	281	470	1,156	2,165	3,311	4,015	4,885	5,640	6,299
		A total of 6,299 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)	<b>Total</b>	<b>Q2 2015</b>			<b>Q3 2015</b>			<b>Q4 2015</b>			<b>Q1 2016</b>		
			16			103			252			415		
		415 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	<b>East and Midlands</b>	Dublin City, County Dublin, Kildare, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wicklow											
		<b>North and West</b>	Cavan, Donegal, Galway, Leitrim, Mayo, Monaghan, Roscommon, Sligo											
		<b>Southern</b>	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.