

First Fix Scheme: Customer Guide

Irish Water submission to the CRU



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1. Introduction

Water is one of our most valuable resources. Clean potable water is expensive to produce and distribute and a key priority of Irish Water (IW) is to reduce the level of water wasted through leakage. IW produces 1.7 billion litres of treated water every day. We lose about 42% of this treated water through leaks before it even reaches your taps. Leaks can be difficult to find because they happen in the vast and complex network of pipes below ground.

IW is committed to the delivery of high quality Water Services to our Customers in a safe and environmentally responsible manner. We are committed to meeting all statutory and regulatory requirements, as well as the expectations of our Customers and stakeholders. IW's First Fix Leak Repair Scheme (the 'First Fix Scheme'), which provides qualifying Customers with a free leak investigation and repair to their External Supply Pipe, has been in operation since approved by the Commission for Regulation of Utilities (CRU) in 2015. The First Fix Scheme is an important element of IW's Water Conservation Policy, with a particular focus on the reduction of customer-side leakage. The aim of the First Fix Scheme is to provide an efficient scheme with national reach to address, where possible, the issue of External Supply Pipe leakage through increased awareness of leakage and the provision, where appropriate, of leak repair solutions to maximise water savings.

Under the First Fix Scheme, IW assists eligible Customers by notifying them by letter when suspected leakage is occurring within their Property. IW provides these Customers with a free leak investigation, if the Customer contacts IW to avail of the offer. IW will then offer a free repair if a qualifying leak is identified on the External Supply Pipe.

2. Purpose

The purpose of this Customer Guide is to describe the processes and procedures that IW will implement to continue to deliver the First Fix Scheme. It outlines the eligibility requirements for the scheme, explains how IW prioritises properties for leak investigations and repairs, and provides details of how Customers can access the scheme.

3. Definitions

Key technical terms used in this document are explained in Appendix A.

4. First Fix Scheme Objectives

IW has identified the following objectives for the First Fix Scheme:

- Improve water conservation through increased public awareness of the existence of leaks;
- Provide Customers with an opportunity to reduce water lost through Customer side leakage through the offer of a repair for leaks on External Supply Pipes to eligible Customers. This will help Customers to reduce excess use and mitigate the risk of domestic excess use charges;¹
- Develop an efficient data driven approach to the identification and prioritisation of leaks based upon water volumes;
- Ensure the efficient operation of the First Fix Scheme to minimise inconvenience to Customers and to maximise the return on investment in the First Fix Scheme; and
- Analyse the Meter-derived leak and repair data to identify unmetered locations (estates & streets) with similar characteristics that may benefit from more detailed leak investigation.

5. First Fix Scheme qualifying criteria

5.1 Qualifying Properties

Property types satisfying the following criteria are eligible for consideration under the scheme:

- Individual domestic properties on the public water supply with a single service pipe connection;
- Semi-detached, or similar, domestic properties with a Shared Service Connection. These typically will not include Backyard Shared Services;
- Mixed use properties with a predominant domestic demand component. Customers in mixed use properties typically considered by IW to have a predominant domestic demand component receive a Domestic Allowance but are usually only liable for a standing charge because the Domestic Allowance covers all usage.

It will be necessary for the water supply to the Property to be isolated in order for a leak investigation to be completed. If the Property does not have a working Internal Stop Valve (ISV), IW will seek to use alternative methods to isolate the

¹ The CRU's Household Water Conservation (Excess Use Charges) policy decision is [here](#)

supply. These may include techniques such as pipe freezing² or installation of a temporary (or permanent) stop valve outside the wall of the house. A leak investigation may be carried out if it is feasible to isolate the service pipe in order to carry out the works. If the service pipe cannot be successfully isolated, the Property will have to be excluded from the First Fix Scheme.

5.2 Non-qualifying Properties

The following situations will generally fall outside the scope of the scheme:

- Non-domestic (including Mixed Use with a predominant non-domestic demand component) Properties;
- Service connections greater than 32mm Outer Diameter (OD);
- Single Properties with long service pipes, typically over 15m length in private land;
- Leak repairs that present a risk to the structural integrity of a building or structure;
- Backyard Shared Services.
- Properties that have availed of the scheme previously.

Non-Domestic (including Mixed Use with a predominant non-domestic demand) Properties:

The First Fix Scheme was developed in 2015 to provide a free leak investigation and repair to domestic Customers. IW considers that focusing on domestic and small Mixed Use Customers with a predominantly domestic demand is the most appropriate use of current resources³. Implementation of the Household Water Conservation (Excess Use Charges) policy is expected to result in increased demand; IW's priority is to seek to ensure that qualifying Customers facing excess use charges have access to the First Fix Scheme.

However, there may be merit in extending the First Fix Scheme and its benefits to non-domestic customers in the future if further funding can be made available and certain technical issues can be addressed. For example, non-domestic customers may have different usage patterns to domestic Customers, including 24 hour/day usage (e.g. cooling systems), and, on that basis, it becomes difficult to distinguish normal consumption from leakage.

² Pipe freezing involves the use of a special plumbing kit that has freeze heads and uses either CO2 or another type of refrigerant to create a small ice block in the pipe, which stops the water from flowing.

³ See section 7 for details on funding for the First Fix Scheme over the RC3 period (2020-2024)

Service connections greater than 32mm Outer Diameter (OD);

A typical single domestic property would not require a service pipe greater than 32mm OD. A service pipe of this size would be indicative of a larger, most likely non-domestic property.

Single Properties with long service pipes, typically over 15m length in private land

In designing the scope of the First Fix Scheme in 2015, IW carried out a review of the Customer terms and conditions for first fix or equivalent repairs for the majority of the UK Water utilities. It was discovered that the replacement length adopted by the UK utilities varies from 7m up to 25m. The average replacement length adopted across all UK utilities is 12m with only one UK utility adopting 25m as its replacement length. IW elected for a service pipe replacement length of 15m which, when tested through a pilot programme, covered a vast proportion of pipe lengths encountered. IW may, at its discretion, offer to carry out repairs on pipework in excess of 15 metres in length (subject to such repairs being cost effective) but intend to limit this to localised repairs solution instead of full service replacement.

Leak repairs that present a risk to the structural integrity of a building or structure

IW will not carry out such repairs, on health and safety grounds.

Backyard Shared Services

Such supply configurations prevent the installation of Meters or Flow Monitoring Devices on an individual Property. This Customer category will require significant design works linked to mains renewal programmes prior to metering. It is therefore not practical to include such properties in the First Fix Scheme.

Properties that have availed of the scheme previously

This provision is to manage available resources and to ensure that as many customers as possible can avail of the benefits of the scheme. IW may, at its discretion, offer a leak investigation to a Customer that has previously availed of the First Fix Scheme where there is indication of a significant leak or if there is a possibility that the original survey and repair missed something.

5.3 Leak Investigation

Where a leak on the External Supply Pipe is suspected, IW will offer a free leak investigation to qualifying Customers, in line with our prioritisation procedures (outlined in section 6.2).

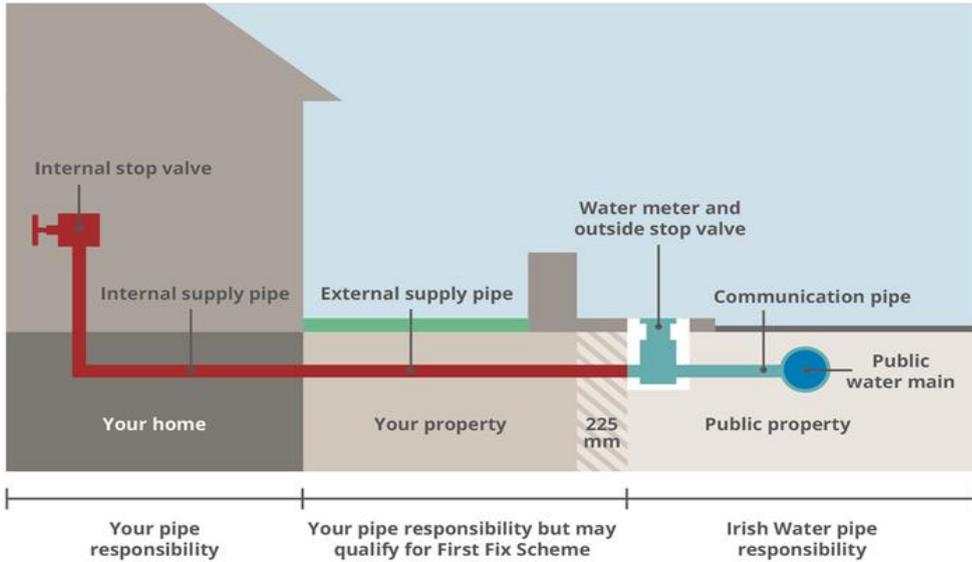
5.4 Leak Repair

Where a leak is identified on the External Supply Pipe, the Customer will be offered a free repair. If it is found following excavation that more than one leak exists on the External Supply Pipe, IW will, where possible, repair all such leaks. This may require the replacement of a portion of the External Supply Pipe.

Even though the First Fix Scheme offer is limited to pipework which does not exceed 15 metres in length, IW may in its discretion (and taking into account the costs associated with the extension of the First Fix Scheme offer) elect to extend the offer to pipework serving the Property which exceeds 15 metres.

Repairs carried out under the First Fix Scheme will be limited to leaks that occur between the Dwelling and the Property boundary. If the leak is internal to the Dwelling it will not be IW's responsibility to have the leak repaired. Where IW identifies that a leak is internal to the Dwelling and therefore outside the scope of the First Fix Scheme, the Customer will be provided with advice on repair and water conservation options. IW will monitor the Meter read data for these Properties through subsequent Meter read cycles. If Meter read data suggest that a leak is still present at the Property, IW will send a reminder letter to the Customer to check for an internal leak and will follow up with a second letter if required. The proposed applicability of the First Fix Scheme is represented in figure 1. In summary, leaks identified on the External Supply Pipe are within the scope of the First Fix Scheme and may be offered a free repair; leaks identified on the Internal Supply Pipe are outside the scope of the First Scheme and will not be offered a free repair.

Figure 1 Scope of the First Fix Scheme



Please note figure 1 is for illustration purposes only and reflects IW's current policy on pipe responsibility which may be changed from time to time. Ultimately pipe responsibility is governed by the Water Services Acts 2007 to 2017.

In order to qualify for a leak repair, the Customer must be the Owner of the Dwelling, or have the consent of the Owner for the repair works.

6. First Fix Scheme Procedure

The process of identifying a potential leak (and implementing the associated repair) requires a series of steps, beginning with identification of a potential leak in the supply to a domestic Property, followed by the necessary on-site checks to establish a definitive (identifiable) leak capable of repair on the External Supply Pipe.

6.1 Awareness

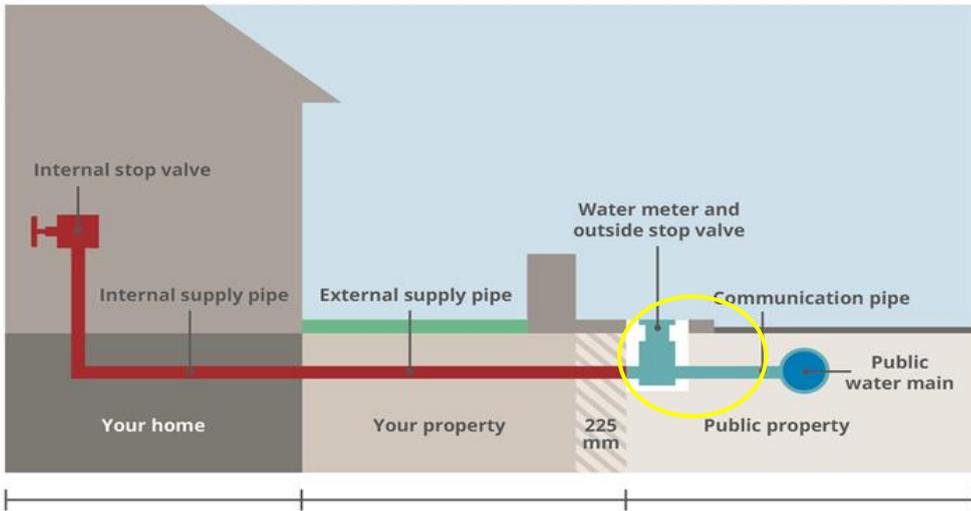
It is recognised that the success of the First Fix Scheme is highly dependent on the availability of a regular stream of reliable data that raises the awareness of potential leaks. IW maintains a “Preliminary First Fix Scheme Properties List” which contains details of properties with suspected leakage. This list facilitates the prioritisation and scheduling of Constant Flow Advice Letters.

The First Fix Scheme is driven primarily by the Constant Flow Alarms (CFAs) that are collected automatically from the domestic Meters when they are read each quarter. Automatic Meter Reading (AMR) technology identifies a CFA for any Property where there has been a continuous flow of 6 litres per hour or more throughout a 48-hour period. The technology has been installed on over 890,000 domestic properties, representing almost 60% of domestic properties.

The First Fix Free scheme will also accept notification of potential properties of interest from other sources, including:

- Unmetered domestic properties may self-report customer-side leaks that may be within the declared scope of the scheme. IW will install a Meter or a Flow Monitoring Device (FMD) on the connection to confirm the presence of a leak. A FMD uses sensors to detect parametric variations indicative of a flow of water within the pipe. The profile of parametric changes is used to identify continuous flow and estimate average daily flow. IW can install the device on the service pipe or stop valve in the public realm outside the Property, where the pipework and fittings are owned by IW;

Figure 2 Potential location of the Flow Monitoring Device (FMD)



It is likely that the FMD would be installed on the stop valve or service pipe in the footpath outside of a Customer's Property as indicated in Figure 2. Figure 3 shows a FMD installed.

Figure 3 Attachment of the FMD to pipe between stop valve and meter blanking plate



- IW or local authority crews, or contractors working on their behalf on "Find & Fix" or equivalent water conservation exercises, may also report customer-side leaks that could be within the scope of the scheme. As above, IW will install a Meter or FMD on the connection to confirm the presence of a leak;
- Unmetered Properties fitted with a FMD, rather than a Meter, with functionality to identify the presence and approximate quantity of continuous flow; and

- Properties that are the subject of excess use letters or notices under the terms of the Household Water Conservation (Excess Use Charges) policy and procedures.

The full set of Properties that are potential candidates for the First Fix Scheme will be assembled in the Preliminary First Fix Scheme Properties List, which will be updated as new information is received from the relevant sources. IW will remain open to receipt of information from all sources that may lead to the identification of continuous flow at domestic properties. Metered Properties without an identified CFA may be added to the list if the measured flow is so large as to be indicative of a leak.

6.2 Prioritisation

The Preliminary First Fix Scheme Properties List must necessarily be prioritised to achieve maximum value from the available resources. The method of prioritisation may be varied to respond to changing situations and acute water conservation challenges. The thresholds for prioritisation may vary on a regional basis depending on the significance of customer-side leakage on the water balance in each region.

The prioritisation will not exclude any Customers from the scheme, but may determine the form of engagement with the Customer, and the timeline for action.

IW will prioritise Properties with average usage above of 584 litres per day (213m³ equivalent per annum) for the scheme; usage at which households may become liable for excess use charges. The estimation of usage will be based on the Meter reading from the quarter in which the CFA was raised. Where there is no Meter reading available, the estimation may be based on information from a FMD, or inferred from evidence gathered from site.

For Properties exceeding 584 litres average usage per day (or 213m³ per annum), those Properties with the largest flows in the context of their water supply zone or region will typically be the first to be contacted. These Properties will be placed on the Prioritised First Fix Scheme Properties List. Properties below 584 litres per day average usage will not be excluded from the scheme, but in normal operations will be contacted with regard to a potential First Fix Scheme repair only where resources are available. Where properties show evidence of a leak, but are not placed on the prioritised list, IW will seek to identify alternative methods to notify these Customers that they may have a small leak that may need repair.

6.3 Communication

The primary objective of the communication procedure is to ensure that those Customers with properties on the Prioritised First Fix Scheme Properties List are made aware of the likelihood of a significant leak on their Property, and the availability of a scheme that may offer assistance to fix the leak.

The main approach to communication with those Customers responsible for properties on the Prioritised List will be a Constant Flow Advice Letter (Appendix C). The purpose of the letter is as follows:

- Inform the Customer that IW has reason to believe that there is a continuous flow of water indicating a potential leak on the Property;
- Explain that leaks within the Property boundary are the responsibility of the Owner and that excess use will attract charges in accordance with legislation;
- Provide information so that a Customer can check for the source of the leak on the Property;
- Introduce the First Fix Scheme to the Customer; and
- Offer the Customer an opportunity to avail of a free site inspection which may lead to an offer of a free first fix repair if the leak is eligible.

The issuance of Call to Action letters will also support Customer communication to raise awareness of potential leaks. The Call to Action letter will advise that a Notice will issue (and liability for excess use charges will commence) if excess use continues and will encourage Customers to fix any leaks now rather than be liable for excess use charges in the future. IW analysis indicates that up to 60% of households with excess use may have a leak on their Property, suggesting a significant Customer overlap between the First Fix Scheme and the Household Water Conservation (Excess Use Charges) policy. The Call to Action letters will advise Customers with excess use that they have had high water usage over a 12 month period and that a likely reason for this is a leak in the home. The letter will inform these Customers about the First Fix Scheme and provides them with contact details.

It is recognised that a multi-channel approach is necessary for effective communications, particularly in a context where contact details may be incomplete. Communications may be further complicated where the Customer is not the Owner of the Property.

It is fundamental to the success of the scheme that Constant Flow Advice Letters are received and considered by the Customer as quickly as possible. IW will use the learnings from operation of the First Fix Scheme to date to engage with

Customers and make them aware of the likelihood of a potential leak. IW will consider a range of measures for the delivery of the letters, including postage and hand delivery.

After delivery of the letter, IW may use outbound phone calls and other communication routes to encourage Customer engagement with the scheme. If the Customer seeks to avail of the First Fix Scheme, by contacting IW to arrange a free leak investigation, the process will move to the investigation phase (see section 6.4).

If there is no engagement from the Customer after a reasonable period (not less than 2 months), and at least one reminder letter, IW may write to the Customer to advise that the Property is to be removed from the list of properties potentially eligible for the First Fix Scheme. Such properties will remain liable for excess use charges (if applicable) arising from usage measured by IW. If a Customer does not receive the Constant Flow Advice Letters, for example as a result of being out of the country, and is removed from the First Fix Leak Scheme, as a result of failure to respond to the letters, they may contact IW to request re-inclusion.

6.4 Investigation

Once a Customer accepts IW's Leak investigation offer, IW will make arrangements within 2 weeks for a Leak Investigation to take place. A work order will be issued to a leak investigator to make an appointment to visit the Property and conduct a survey and investigation. The leak investigator will attempt to visit the Property within 6 weeks of the request for an investigation, subject to Customer availability. The leak investigator will carry authorised IW identification when calling to a Property.

The Leak Investigator will seek to ascertain the following during the investigation:

- Confirm that the Meter (if applicable) is correctly matched to the Property, and is not serving multiple properties;
- Confirm that there is no evidence that a leak has been repaired, and that the flow recorded on the Meter (if applicable) remains consistent with a leak on the Property;
- Confirm that the Property is eligible for the scheme, as described in section 5;
- Establish if there is means to isolate the External Supply Pipe if required to facilitate a pipe repair or replacement, e.g. locate a working ISV;
- Investigate within the building (and external fittings) for evidence of plumbing losses of sufficient scale to account for the reported leak;

- Look for evidence of a leak between the water Meter (or stopcock) and the Property boundary or a qualifying leak on the External Supply Pipe between the Property boundary and the domestic building;
- Reach a decision as to whether there is sufficient evidence to confirm that there is a significant probability of a qualifying leak on the External Supply Pipe within the grounds of the Property, and there are no significant aggravating factors that would make repair work impractical or cost prohibitive.

Upon completion of the investigation, the leak investigator will inform the Customer of the preliminary findings of the investigation. If the investigation indicates that the Property is eligible for a repair, the leak investigator will make a provisional offer to the Customer to undertake a first fix leak repair on a date to be agreed, and subject to:

- Acceptance by the Owner of the Terms and Conditions (Appendix D) and the Consent Form (Appendix E);
- Confirmation by IW of the findings of the leak investigation; and
- Availability of suitable resources to undertake the repair within the context of other leak repairs identified by investigations in the area.

If the investigation indicates that there are internal plumbing losses or other reasons for excess use, the leak investigator will provide advice materials (as described in section 6.5) to the Customer.

6.5 Advice

There are a number of scenarios wherein a Property is deemed to be not eligible for a repair under the First Fix Scheme, or where the Customer may not wish to engage with the scheme. Nevertheless, there remains an objective to provide information and advice to Customers to promote water conservation.

IW will provide advice and information to Customers at the following opportunities:

- Subject to resources, IW will make arrangements to issue an information leaflet to those properties on the Preliminary First Fix Free Property List that are not migrated to the Prioritised First Fix Free Property List within six (6) months. This leaflet will advise the Customer that there is evidence to suggest that they have a small leak on the Property, and they should seek to investigate and repair any leaks for reasons of water conservation. The leaflet will note that, if the continuous flow exceeds the household's annual allowance threshold, that excess use charges may be applicable; however, it will also note that the First Fix Scheme is available for qualifying Properties. The

Customer should contact IW to request a leak investigation if they receive a Call to Action letter;

- For those Customers that are contacted to offer a leak investigation, the Constant Flow Advice Letter, as detailed in section 6.3, provides advice and information;
- For those Customers that do not engage, after repeated attempts, with the Constant Flow Advice Letter, they will be notified (as set out in section 6.3) of their removal from the list of properties eligible for the scheme. The notification letter will include advice about water conservation, inspecting for leaks, and potential liability for excess use charges;
- After the leak investigation, if the Property is deemed to have internal plumbing losses or other forms of excess or constant usage that do not qualify for the First Fix Scheme, then the Customer will be provided with advice and information on how to address the leaks found by the investigator, and general water conservation advice.

All communications and advice materials will be compatible with the Household Water Conservation (Excess Use Charges) policy objectives and principles, and directed towards the shared objective of reducing excess use.

6.6 Repair

After receipt of the preliminary findings of the investigation, and subject to the availability of suitable resources in the area, IW will confirm the offer of a leak repair if the Owner has accepted the Terms and Conditions (Appendix D) and the Consent Form (Appendix E).

IW will seek to contact the Customer to schedule a date for the repair within 10 Business Days of receipt of the signed acceptance of the offer by the Owner. In certain circumstances it may be necessary to obtain a road opening license from the Local Roads Authority, if the nature of the repair extends outside the Property boundary. This license will be obtained by IW or its contractors; however, the time required to schedule the repair works may be extended while the license application is processed.

The repair crew will be provided with the details of the leak Investigation, including the probable location of a leak or leaks. While IW will seek to avoid damage to garden fixtures or furniture, or established shrubs and plants, some disturbance will be unavoidable, and the Owner will be responsible for moving such plants or fixtures in advance of the works.

The repair crew will normally excavate on site to confirm the location of the leak and or leaks, and either conduct a single point repair (e.g. replace a fitting or repair a short length of burst pipe) or replace the full length of pipe (up to 15m). The circumstances in which a full length pipe repair will be considered will include:

- Metal External Supply Pipes will be replaced in full to remove the risk of contaminants;
- Where there are multiple leaks or defects along a supply pipe, the External Supply Pipe will be replaced in full;
- Where the External Supply Pipe is shallow and vulnerable to future bursts, IW may at its sole discretion lower or replace the External Supply Pipe.

While the scope of the scheme does not extend beyond the outer face of the building, the repair crew may, at their discretion and with the written permission of the Owner, extend the repair works a short distance under the external wall to complete a repair from the outside.

In certain cases, subject to the nature of the defect/leak, IW's crews may be able to repair or replace the External Supply Pipe without the need for an excavation, using non-invasive technologies. Such non-invasive technologies may be attempted first, before an excavation is undertaken or traditional approaches are followed.

After excavations, IW will undertake reinstatement, resurfacing and "making good" works within the area directly excavated for the works. The scope and nature of reinstatement, resurfacing and making good for different common surface types is described in the Terms and Conditions (Appendix D). Where there are specialist surfaces (i.e. not natural ground, tarmac, concrete or modular surface), then the Owner will be required to take responsibility for the final reinstatement, resurfacing and making good works. However, IW's crews will do temporary reinstatement and resurfacing works before leaving site.

On completion of the repair or replacement works, IW may install a boundary box and Meter, or a FMD if appropriate, outside the Property, if none existed previously. This will be required to monitor the success of the works and confirm that the leak does not recur.

Subject to the Terms and Conditions, if the leak recurs within 12 months of the repair, IW will investigate and undertake remedial works.

6.7 Monitoring

IW will monitor the performance of leak repairs through the regular Meter reading cycles and the collection of CFAs. The Meter reading cycles will include all Properties, including those that did not respond to the invitations from IW to participate in the scheme, however may have privately undertaken repairs. In this way, the water savings arising from the scheme can be estimated.

If for any reason it is not possible to install or read a Meter on a Property where there had been a suspected leak, IW may install a FMD to monitor continuous and excess usage flows at properties.

IW will also monitor Customer contacts through the call centre for indications of leakage trends in areas and repeated leak reports.

6.8 Reporting

IW issues quarterly First Fix Scheme performance reports to the CRU. The following metrics are included in these reports:

- Number of CFAs raised;
- Number of Constant Flow Advice Letters Issued;
- Number of Leak Investigations completed;
- Number of Leak Repairs completed;
- Estimated number of Customer Repairs completed;
- Estimated Water savings from First Fix Scheme repairs and Customer repairs;
- Number of known Properties Without an operational ISV; and
- Number of Non-Qualifying Properties Served Through a Shared or Backyard Pipe

The First Fix Scheme quarterly reports are published at www.water.ie.

Appendix A – Glossary of Technical Terms

“Annual Allowance” means the total allowance provided to a Dwelling per year; 213,000 litres per year plus 25,000 litres per year (additional to 213,000) for each additional occupant above four as specified in the Water Services Act 2007 (Threshold Amount and Allowance Amount) Order 2017.

“Automatic Meter Reading (AMR)” is a technology where a transmitter periodically sends Meter read data to a receiver unit in an IW Meter reading vehicle.

“Backyard Shared Service” means that more than four properties (typically terraced houses) are fed by a single water pipe.

“Business Days” means the days between and including Monday to Friday and not including public holidays and weekends.

“Business Hours” means the time period within which leak investigations and repairs will be conducted. This will be between 7.30am and 6.30 pm on Business Days.

“Call to Action” means a letter issued to domestic Customers who have exceeded the Annual Allowance over a 12 month period. The Call to Action letter will advise that a Notice will be issued (and liability for excess use charges will commence) if excess use continues.

“Constant Flow Advice Letter” means a letter issued by IW to a Customer notifying them that they may have a leak on their Property and offering them a free leak investigation.

“Constant Flow Alarm or CFA” means a flow of 6 litres per hour through the Meter over a continuous 48 hour period.

“Customer” means the occupier of the Dwelling.

“Domestic Allowance” means allowances for mixed use premises where water is used partly for Domestic Purposes, for non-domestic charges are not levied, and partly for non-domestic purposes, for which non-domestic charges are levied.

“Dwelling” means a building or part of a building used by a person as his or her place of private residence (whether as his or her principal place of residence or not).

“External Supply Pipe” means the water supply pipework serving the Property, which pipework runs between the point that is (i) 225mm outside the boundary to the Property and the point (ii) just before such pipework enters the Dwelling (the latter point being determined at Irish Water’s discretion, acting reasonably). External Supply Pipe excludes:

- (1) external plumbing systems, standpipes, irrigation systems or other external water supplies; and/or
- (2) pipework that exceeds 15 metres in length; and/or
- (3) pipework that runs under buildings or structures on the Property; and/or
- (4) pipework with an inside diameter exceeding 32 millimetres.

“First Fix Scheme” means the leak repair scheme operated by IW which provides qualifying Customers with a free leak investigation and repair to their External Supply Pipe.

“Flow Monitoring Device or FMD” means a technology connected to a service pipe of an unmetered Property to monitor water consumption.

“Internal Stop Valve or ISV” means the valve which can be used to turn off the water supply into a Dwelling. The location of stop valves can vary depending on the style and age of the Dwelling but they are typically located on the pipework under the kitchen sink.

“Internal Supply Pipe” means the water supply pipework that runs under and/or inside the Dwelling.

“Meter” means a mechanical, electronic or other device for measuring volume or rate of flow of water supplied to a Customer Property, together with the boundary box, the cover and any ancillary equipment for the purposes of data collection or transmission.

“Mixed Use Customer” means a Customer that uses Water Services for both business and household purposes.

“Non-Domestic Property” means any Property that is not a Dwelling.

“Owner” means, in relation to a Property, a person, other than a mortgagee not in possession, who, whether in his or her own right or as a trustee or agent for any other person, is entitled to receive the rent of the Property or where the Property is not let at a rent, would be so entitled if it was let.

“Preliminary First Fix Scheme Properties List” means the list of properties identified with suspected leakage. This list facilitates the prioritisation and scheduling of Constant Flow Advice letters.

“Prioritised First Fix Scheme Properties List” means the list of Properties with an average daily usage above the threshold of 584 litres (equivalent to 213 m³/annum), that have been prioritised for a First Fix Scheme Leak Investigation.

“Property” means a Dwelling and includes the curtilage to that Dwelling.

“Shared Service Connection”: means a connection whereby up to four properties are fed by a single water pipe.

“Water Services” means all services, including the provision of water intended for human consumption, which provide storage, treatment or distribution of surface water, groundwater or water supplied by a water services authority, or Wastewater collection, storage, treatment or disposal, but does not include —

(a) provision by a person of pipes and related accessories for the distribution of water, or collection of Wastewater, to facilitate the subsequent connection by a provider of water services of another person to a water supply or Wastewater collection service, and

(b) such other exemptions as the Minister may prescribe, for the purposes of the application of licensing provisions.

Appendix B – Typical Leak Investigation Process (Metered Connection)

#	Step
1	A leak investigation appointment is scheduled with the Customer.
2	The crew attends the Property at the appointed time, present their ID cards and explain the leak investigation process.
3	The crew will locate and close the Internal Stop Valve (ISV), if accessible
4	If the dials on the Meter continue to turn after the ISV is closed then water is continuing to flow through the pipe which indicates the presence of a leak on the supply pipe between the Meter and the ISV.
5	<p>Where a supply pipe leak is indicated, the crew will then use a combination of a ground microphone and pulse wave generator to listen along the line of the external pipe to determine where the leak is occurring.</p> <p>This technique is based upon sending a pulse through the water in the pipe and listening on the surface at a number of points to trace the line of pipe.</p> <p>The pulse wave generator is then removed and the flow water is restored. The crew will then listen along the marked line of the pipe for activity which indicates the location where water is forcing its way through a leak in the pipe.</p>
6	Where the location of a supply pipe leak is confirmed, a sketch is marked-up to provide a repair crew with the information they will require.
7	If, having operated the ISV, the dials on the Meter stop turning this shows that no water is escaping from the External Supply Pipe. This indicates that any leaks occurring are located beyond the ISV e.g. internal to the
8	With the Customer's permission, the contractor will also conduct a visual check of the main water based devices (taps, toilets, overflows) in an attempt to identify the source of any internal plumbing issues.
9	Once the investigation is complete the contractor will populate a job-card to record the details of the investigation and close the work order.
10	The Customer is provided with a card to summarise the outcome of the investigation. This will clearly indicate whether the customer is being referred for an External Supply Pipe repair under the First Fix Scheme or whether they need to arrange for an internal repair.