Our metering policy.

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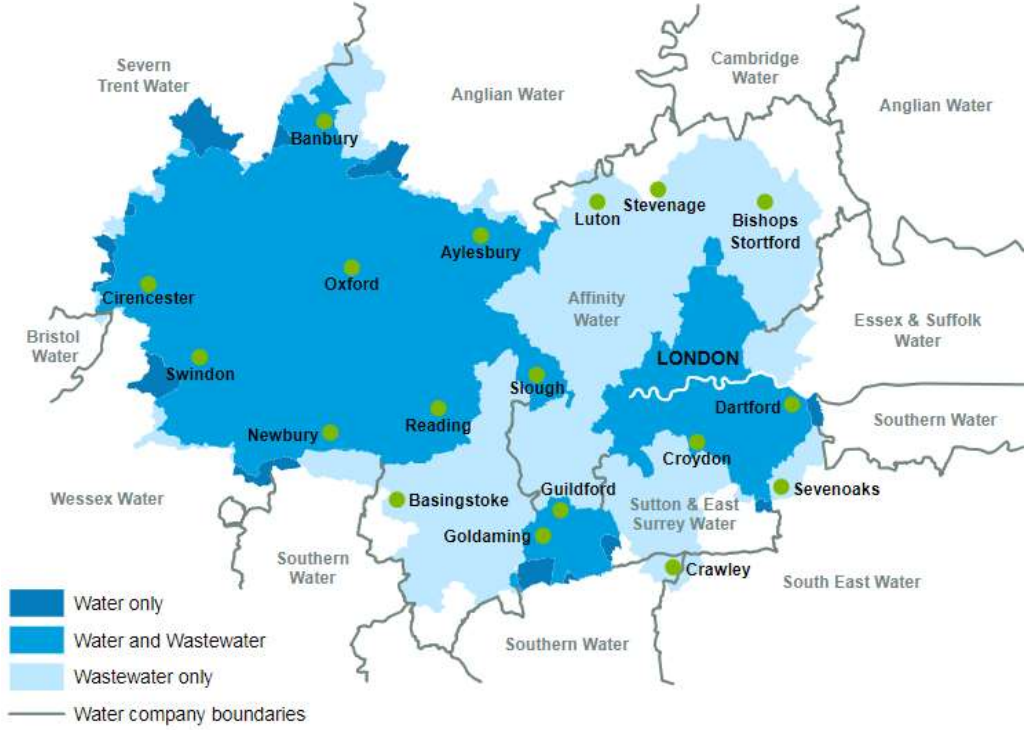
Smart metering programme.

What we do.

Every day, we supply around **2,600 million litres** of tap water to **9 million customers**.

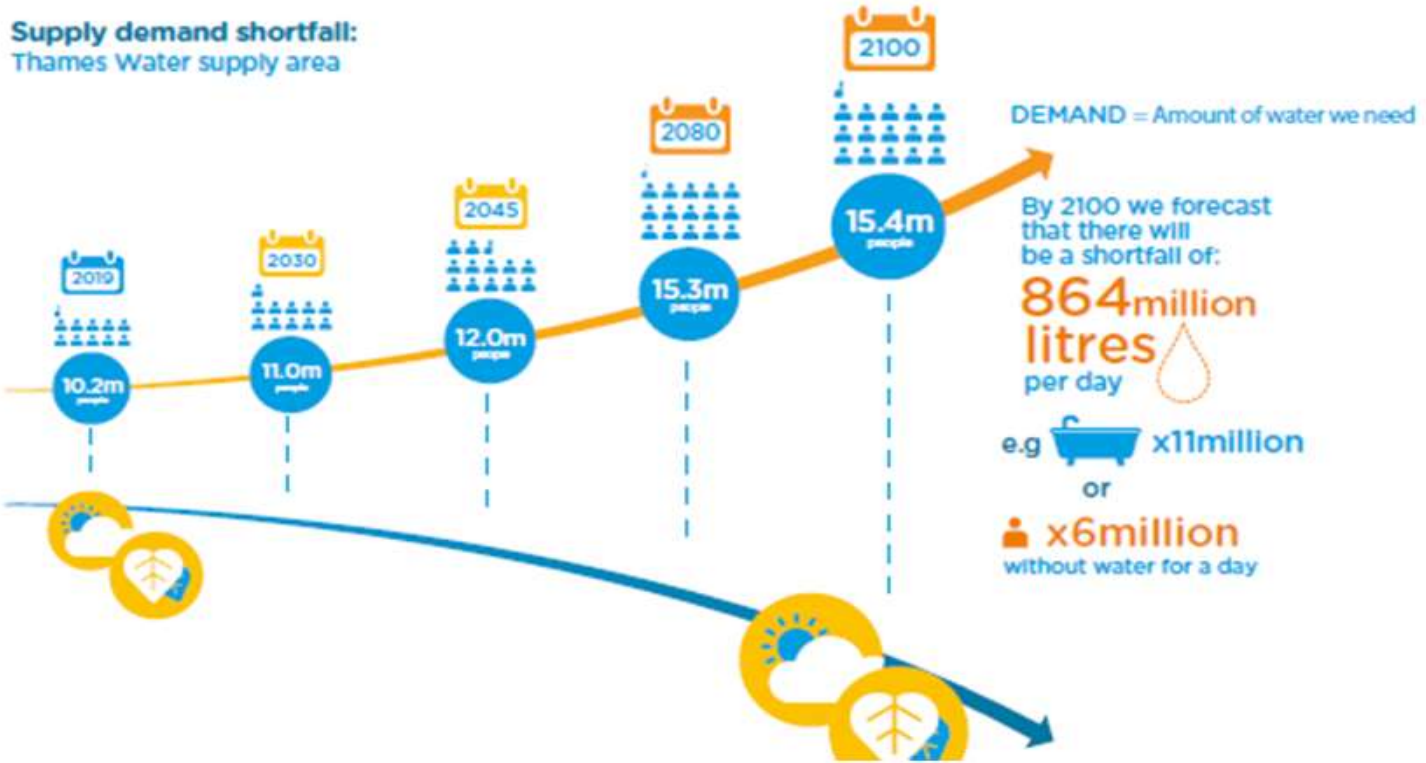


1/3

household customers have a water meter

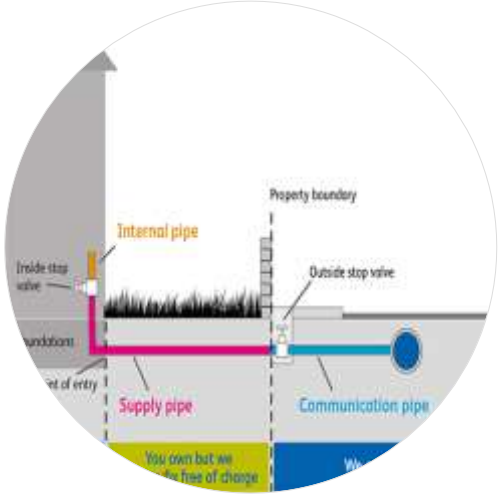
Why metering?

Water supplies in our area are already under pressure, and this will only increase as the population we serve grows and the environment changes.

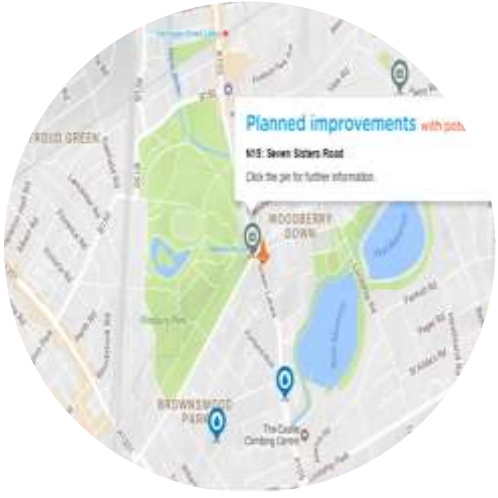


Why metering?

Customers with meters tend to use **12%** less



1/4 of our leakage is ‘customer side’



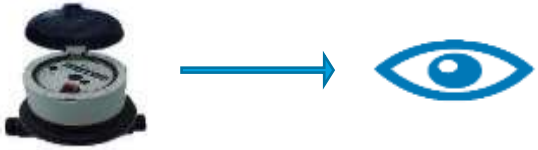
We need to manage supply & demand in a **smarter** way

Thames Water

Evolving meter technology.

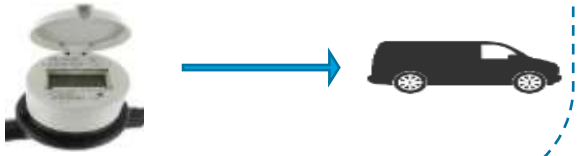
Dumb/Manual

- Have to locate meter
- Manually enter data
- One read every 6 months
- No alarms



Smart-capable

- AMR (Automatic Meter Reading)
- Drive-by/ Walk-by
- Pay per read
- Alarms available



Smart

- AMI (Advanced Metering Infrastructure)
- Straight to Mast
- Hourly reads
- Daily Data
- London initially

How customers can get a meter.

Progressive

Our compulsory metering programme.

Optant

Customers requesting a meter.

Replace

Replacing old and faulty meters.

Bulk

Large meters that spot private side leaks.

New connections

All new homes have meters.

Smart meter and LCE (AMI) within London
Smart-capable meter outside of London (AMR)

Meter and logger

Smart-capable meter (AMR)

Fully smart and integrated solution across our entire area

Thames Water

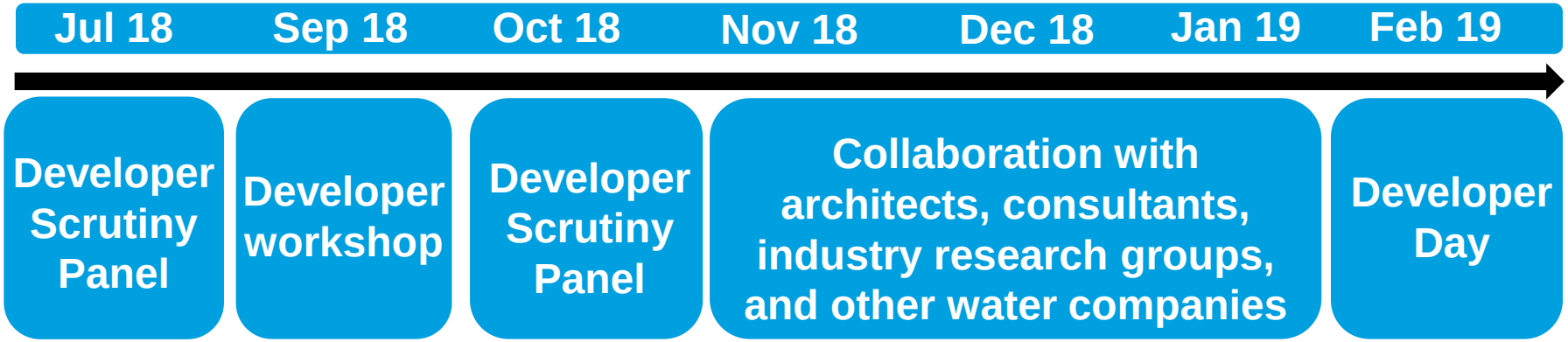
Updating our policy.

Updating our policy.

Currently:

- Unclear for customers
- Doesn’t support smart metering
- Issues with current practices permitted by the policy
  - Oversized meters – inaccurate usage and leak detection
  - Meters fitted inside apartments – access issues and leak detection

Working with you.



Three areas updated.

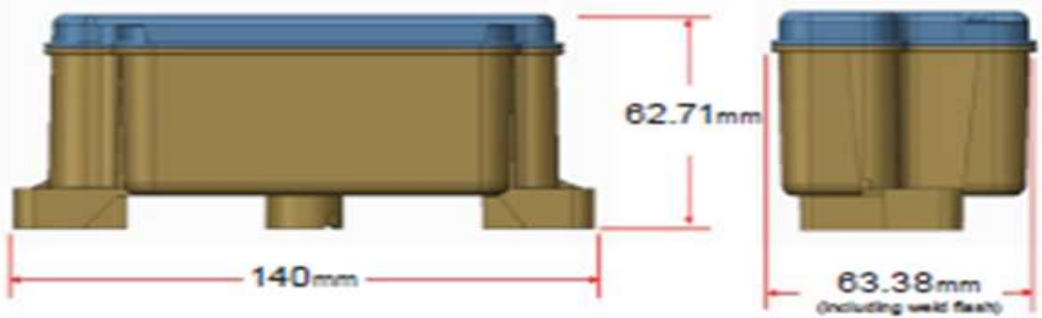
1. Supporting **smart metering** technology
   - Leaving space for LCEs
   - Supporting the future - iPerl
2. Improving **billing accuracy** and **leak detection**
   - Meter right sizing
3. Ensuring **meters are accessible**
   - Internal meter location

1. Supporting smart metering technology.

Leaving space for LCEs.

When fitting internal meters, leave space for **one LCE unit per meter**, such that we can fit them:

- Within 2m of the meter
- To a permanent surface
- Not immediately adjacent to a metal cabinet
- **The LCE can be installed horizontally or vertically.**



What this means for you.

External fit

No change

Internal fit

Leave space for one LCE per meter

Supporting the future iPerl.

Available **April 2020** in 15, 20, 25, 40mm models for internal use.

- Combined single unit

  - Space saving - LCE integrated with meter

- Less pressure drop

- Silent operation

- Fits same pipework as current in-line meters

Available as in-line only

What this means for you.

External fit

No change

Internal fit

If you usually install in-line meters:
Continue as you are, and we'll let you know when the new iPerl is available

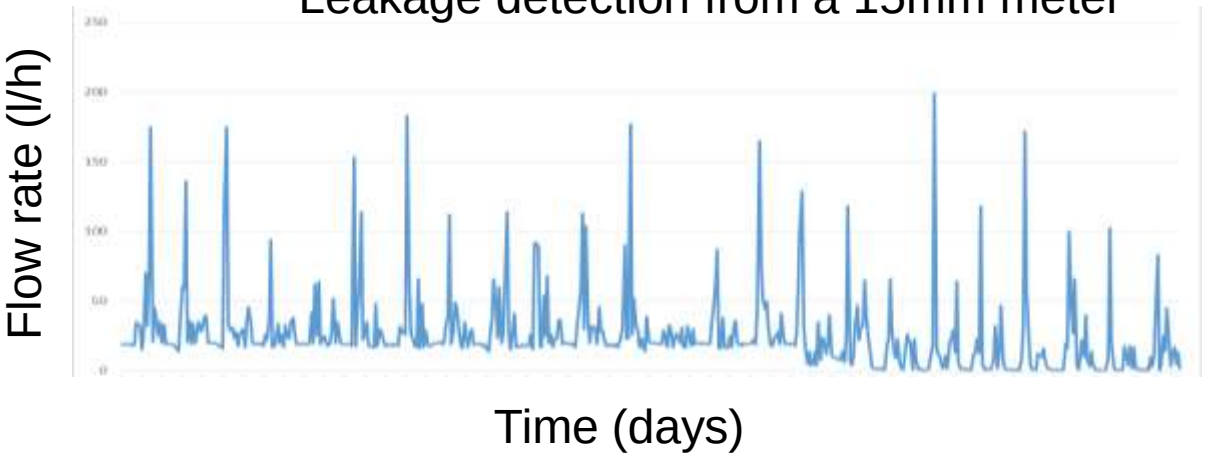
If you usually install concentric meters:
Start moving towards in-line if you'd like to fit the iPerl when it's available

2. Improving billing accuracy and leak detection.

Meter size issue.

We proposed: 15mm internal meters should be fitted as they're more accurate so we can bill customers fairly and detect more leaks.

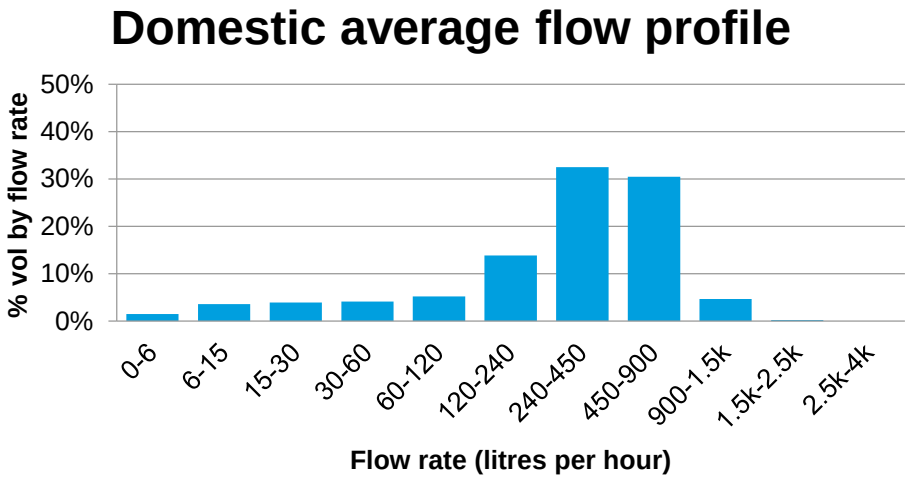
Leakage detection from a 15mm meter



95% accuracy at:
15mm: 6.25 l/h
20mm: 10 l/h

What we found.

- The industry still runs on British Standards loading units and we'll continue to work to them
- Industry research projects suggest the standards need updating (LUNA project)
- Our experiments also found that 15mm was sufficient for almost all domestic properties
- Years experience and having installed more than 1 million 15mm meters with no known issues



Have confidence that 15mm works

Expect to see an industry change in coming years

What this means for you.

External fit

No change – continue to use 15mm concentric

Internal fit

If you fit 15mm today – no change

If you fit 20mm+ today – we encourage you to consider 15mm

3. Ensuring meters are accessible.

The access challenge.

Our current policy simply states an order of preference for meter location.

Published hierarchy:

External fit

1. Boundary box in public footpath
2. Boundary box on private property

Internal fit

3. Common service area (flats only)
4. Within the customer's property

We're facing issues accessing meters installed inside apartments:

- **Inconvenience** and **disruption** to homeowners
- Can't access **25%** of our internal meter stock
- 8x **higher cost** to service and 5x **greater effort** (time and resource)

We proposed: all large new build apartment blocks should place meters in a communally accessible location. For conversions where that is not technically feasible, exceptions could be accepted.

We investigated further.

Discussions with architects and M&E consultants

Technically feasible to install meters in communally accessible areas:

- Space must be left for meter cupboards and incorporated in early design stages
- A transitional period is provided
- Education given to architects, consultants and developers

Discussions with other water companies

Similar approach taken in water-stressed areas

What this means.

External fit

No change

Internal fit

If you currently fit meters:

- in communally accessible areas: No change

- inside new build apartments: start working towards leaving space in your designs for meters to be installed in communally accessible areas

- inside converted apartments: follow the hierarchy, aiming for communally accessible areas where you can, and only in the apartment if not technically feasible

Who this affects.

These changes will impact a relatively small number of new installations.

- In 2018 we set up **33,500** new accounts on our billing system
  - Of these accounts, **59%** (19,670) are internal installations
  - Of those 19,670 internals, **22%** (4,379) are inside apartments
- That's **13%** of the total new meter installations that we'd like to move from inside the apartments to communally accessible areas

In summary.

External fit

No changes

Internal fit

1. Leave space for LCEs
2. Move to in-line meters if you'd like to use the iPerl when available
3. If you use 20mm+ meters, consider 15mm meters
4. If you fit meters inside apartments, prepare to shift your designs to accommodate fitting in communally accessible areas

Rolling this out.

- **April 2019** - updated metering policy will be published - the policy is included in our conditions of connection.

- **Transition year** – we'll work with architects, consultants and developers to educate on our policy over the coming year.

- **April 2020** – we'll launch a new process for reviewing designs in line with this policy.