



# **Consumer Issues Workshop**

**Professor Bernard Crump**  
**Chair**

**CCWater Central & Eastern Committee**

**27 September 2016**

# Flooding

- What can customer's expect from their water company if the area in which they live is subject to flooding?
- How might this response develop in the future as the climate becomes "less predictable"?





# Who we are and what we do

# The Environment Agency

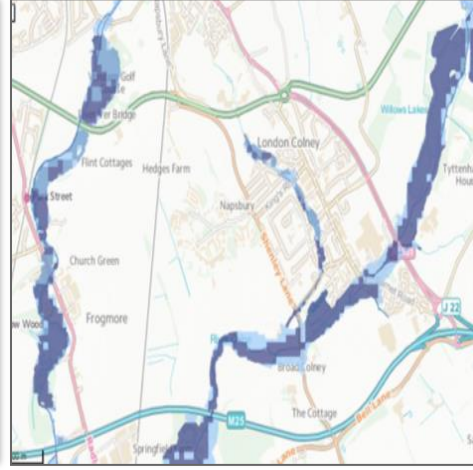
Largest environmental regulator in Europe and national flood risk agency for England

- ➔ 10,000 staff
- ➔ The government invested over £3.2 billion in FCERM over the parliamentary period 2010/11 to 2014/15.
- ➔ main responder for flood and environmental incidents





# Our role in Flood Risk Management



## Risk Management Authority

## Strategic level

## Operational level

Environment  
Agency

National Strategy (by  
WAG in Wales),  
reporting and general  
supervision

Main Rivers, Sea  
(flooding and  
erosion)

Lead Local  
Flood Authority

Local Strategy and  
investigations

Surface Runoff,  
Groundwater

District Council  
or IDB

Input to national and  
local strategies

Ordinary  
Watercourses,  
Sea (with EA  
consent)

Arrangements underpinned by duties to  
cooperate and share data, ability to  
delegate functions and scope for Ministerial  
directions

# Flood and coastal erosion risk management in England

## Investment programme 2015 to 2021



**£1.5 billion**  
in benefits to the  
agriculture sector  
through flood risk  
reduction

**£2.3 billion of Defra  
capital grant invested  
over the next 6 years**

Investing in built schemes  
and improving critical  
services - flood warnings,  
forecasting, mapping and  
telemetry

**One in six**  
homes in England  
is at risk of  
flooding

**£23.1 billion**  
in benefits through  
damages avoided  
from **300,000**  
households being  
better protected

Total additional  
benefits to the value  
of **£30.3 billion**  
through flood  
damages avoided  
and long term gains

**£5.1 billion**  
long term benefits  
to transport,  
infrastructure,  
commerce and  
industry

**45%** spent on  
coastal flood  
and erosion risk  
management and  
**55%** on inland  
flood risk  
management

**300,000 households  
with reduced risk  
of flooding**

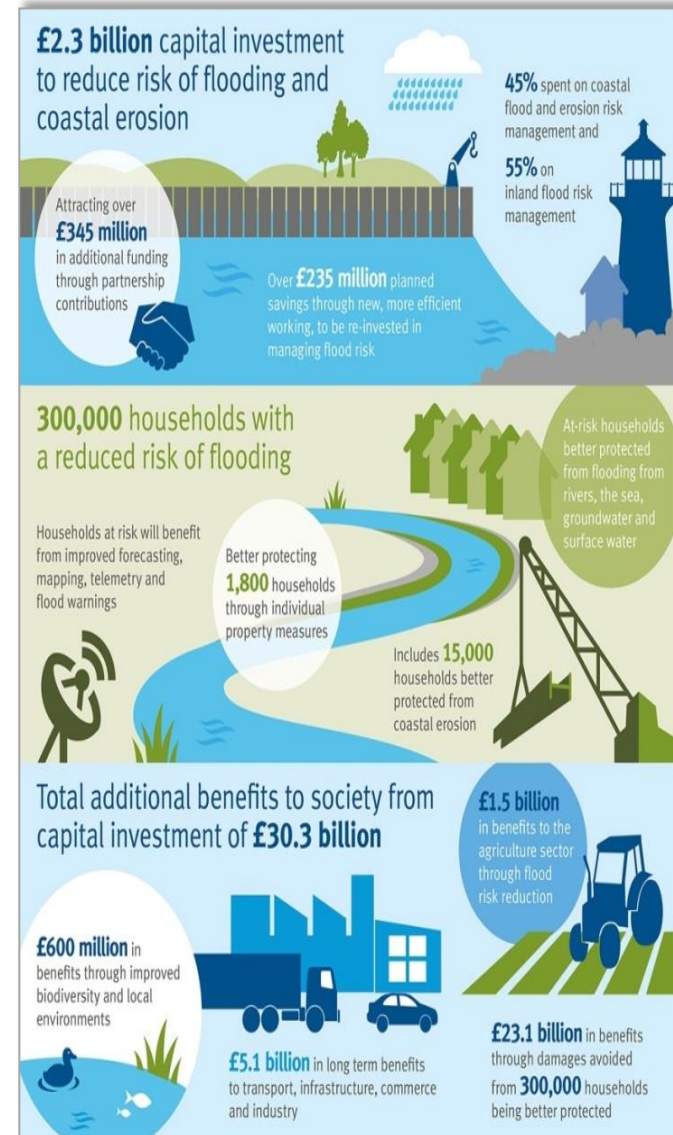
**5% reduction**  
in expected annual  
economic damages  
from flooding by  
2021

**£600 million**  
benefits through  
improved  
biodiversity  
and local  
environments

Attracting over  
**£345 million**  
in additional  
funding through  
partnership  
contributions

# 6 year investment programme 2015-2021

- ➔ More than £2.3 billion will be invested in capital projects
  - ➔ must reduce flood risk to at least 300,000 households
  - ➔ must improve efficiency by at least 10%
  - ➔ must secure partnership funding contributions from other sources of at least 15%

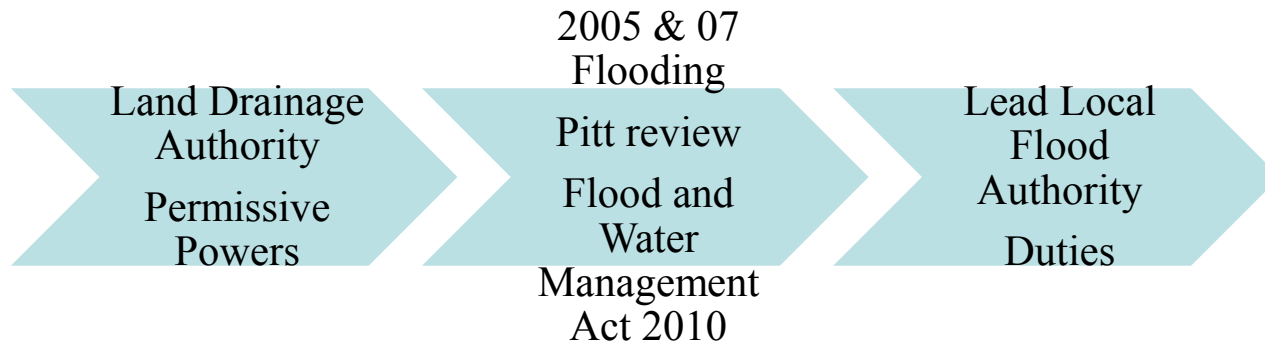




# Drainage and Flood Risk Management

General roles and responsibilities

# To Date



# Flood risk management

- Flood and Water Management Act 2010
- Lead local flood authority
- Flood Risk Management Strategic Board
- Birmingham Water Group and project groups
- Strategic flood risk assessment (level 1 and 2)
- Preliminary flood risk assessment & Hazard maps
- Surface water management plan for Birmingham
- Local flood risk management strategy

# Continued

- Coordination of flood risk management partners
- Duty to cooperate, data sharing etc
- Application for grants and management of resulting works
- Duty to Investigate
- Duty to maintain a register of significant features
- SAB (SuDs)
- Co-deliverer under Water Framework Directive
- Lead body for surface water and groundwater flooding



# Ordinary watercourse maintenance

- Maintaining capacity of bridges
- Grill clearance
- Desilting and removal of blockages likely to cause flooding
- 'Advising' private landowners of their responsibilities
- Maintenance of flood defence assets, retaining walls, engineered channels, weirs etc

# Consultancy work

- Advising Leisure Services on their responsibilities as Reservoir Undertakers
- Safety work to park pools
- Desilting large raised reservoirs
- Other BCC Clients
- Environmental improvements including Pollution Partnership projects
- Other Flood risk management interests – Planning, flood surveys, development guidance

# Highway Authority

- Highway Drainage through Amey
- Other drainage on Transportation Land, Non HMPE assets
- Regulation of highway drainage related issues – footpath crossings, discharge onto highways, ‘winter’ hazards

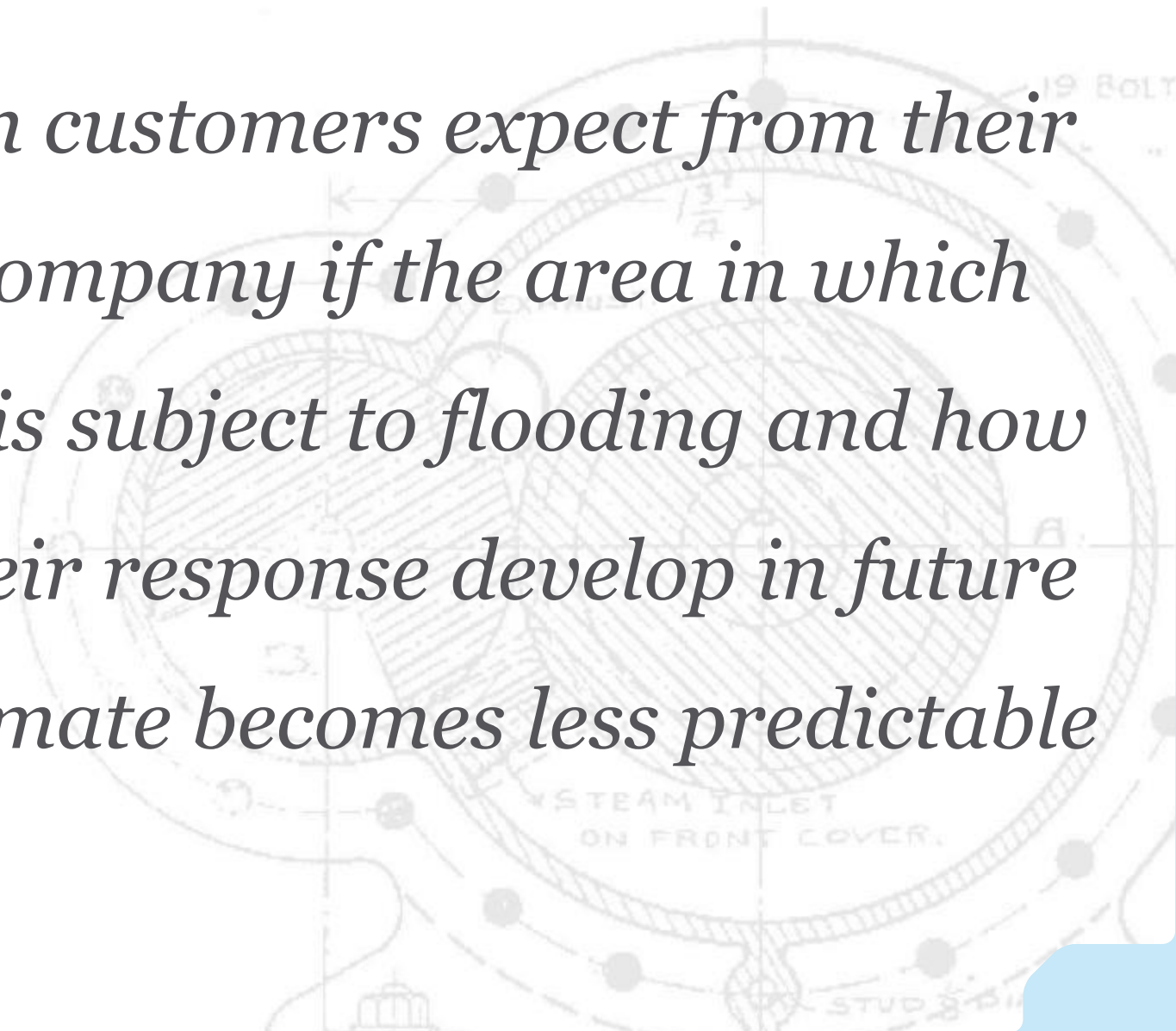
# SEVERN TRENT WATER

*Consumer Council for Water  
Stakeholder Engagement Event*

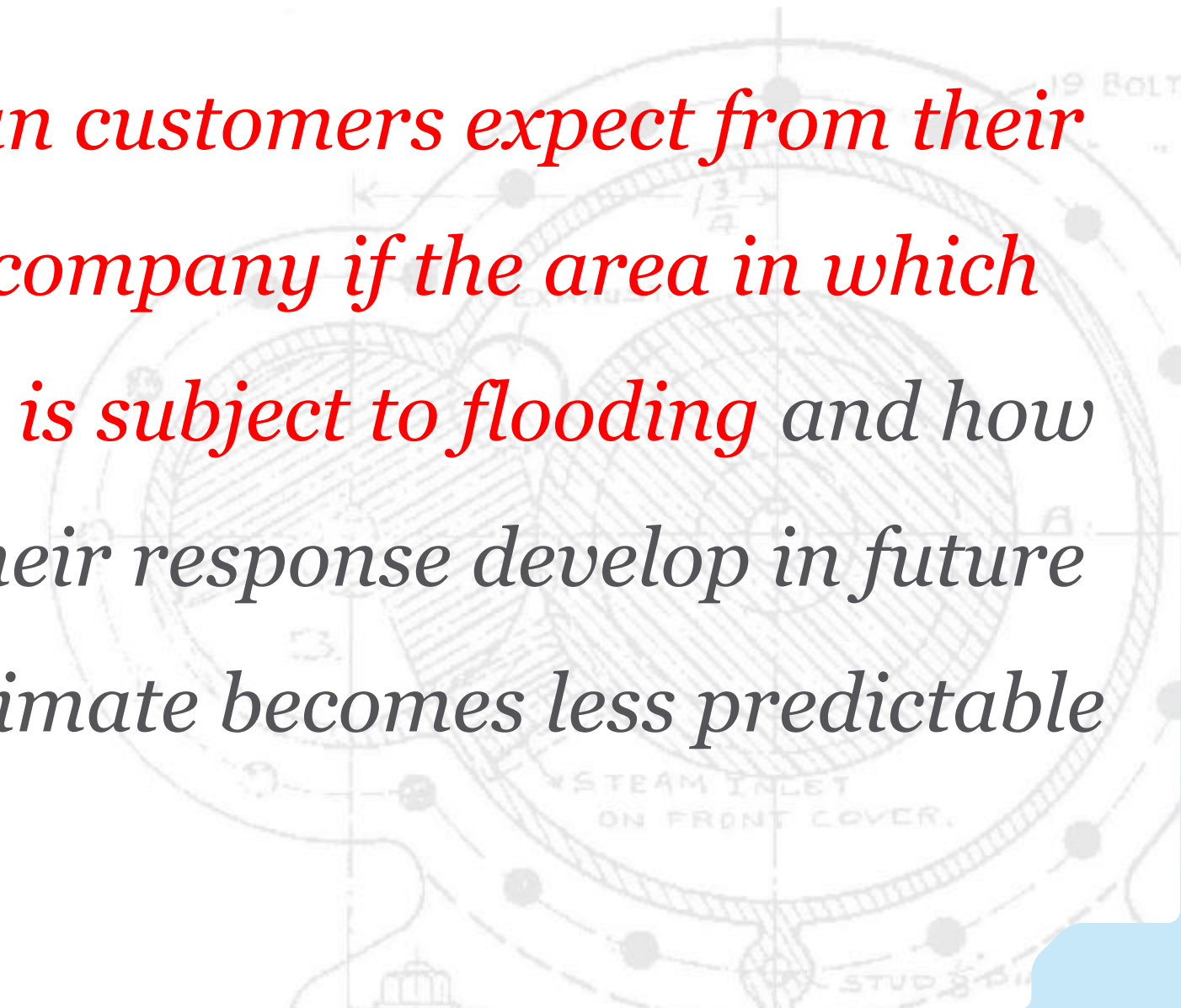
*Tim Smith, Severn Trent Water  
27<sup>th</sup> September 2016*





A faint, technical drawing of a steam boiler cover is visible in the background. It features circular patterns, dimension lines, and text such as "19 BOLT", "3/4", "STEAM INLET ON FRONT COVER", and "STUD 8 DI".

*What can customers expect from their water company if the area in which they live is subject to flooding and how might their response develop in future as our climate becomes less predictable*

A faint, light blue technical drawing of a mechanical part, possibly a valve or a cover, is visible in the background. It features circular patterns, lines, and some text like "19 BOLT", "STEAM INLET", and "ON FRONT COVER".

*What can customers expect from their water company if the area in which they live is subject to flooding and how might their response develop in future as our climate becomes less predictable*

# SEVERN TRENT WATER

## About us

*One of the largest of the 10 regulated water and sewerage companies in England and Wales. We provide high quality services to more than 3.3 million households and businesses in the Midlands and mid-Wales.*

*Turnover*

£1,581.2m (2014: £1,564.8m)

*Profit\**

£539.0m (2014: £518.6m)  
\*Before interest, tax and exceptional items.

*Households and businesses serviced*

3.3m

*Litres of drinking water supplied each day*

1.8bn

*Litres of waste water collected per day*

1.4bn

*Employees*

5,181 (at 31 March 2015)

## Where we operate

*Our region stretches across the heart of the UK, from the Bristol Channel to the Humber, and from mid-Wales to the East Midlands.*



**Water is collected**

We pay the Environment Agency and Natural Resources Wales for the water we collect from reservoirs, rivers and underground aquifers across our region.

**Water is cleaned**

Our 133 groundwater and 22 surface water treatment works clean raw water to the highest standards making it safe to drink.

**Clean water is distributed**

A 47,000 km network of pipes and enclosed storage reservoirs bring a continuous supply of clean water right to our customers' taps.

**Wastewater is treated and returned to the environment**

Waste water is carefully screened, filtered and treated in our 1,027 sewage treatment works to meet stringent environmental standards. We pay the Environment Agency and Natural Resources Wales annual consent fees to return the treated water to the water system.

**Waste water is collected**

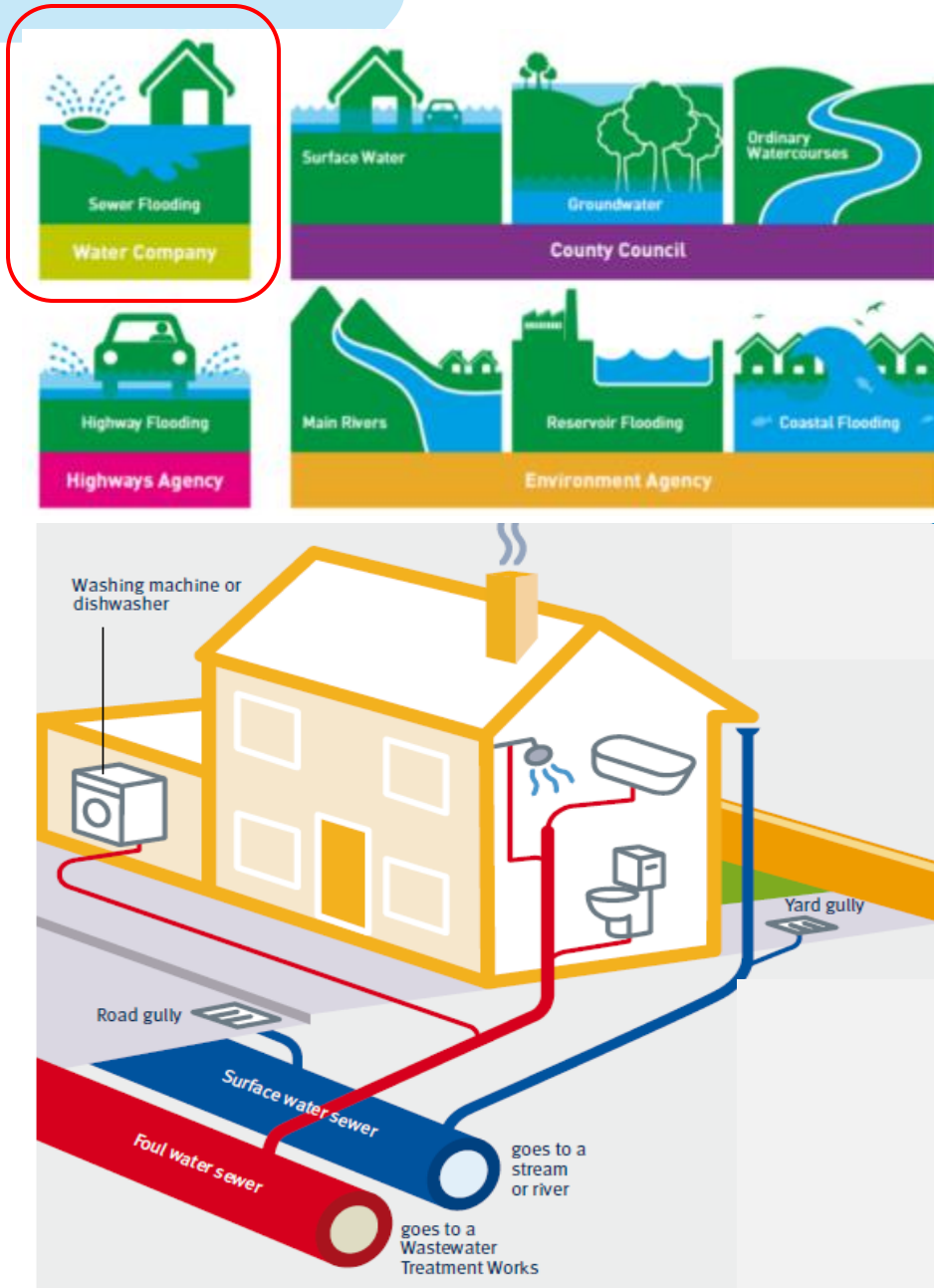
Our 92,000 km of sewers and pumping stations collect waste water from homes and businesses from outside properties and drains.

**Customers enjoy our services**

We serve 4.3 million businesses and households with a safe, reliable supply of water and collect waste water 24 hours a day, 365 days a year.



# FLOOD RISK MANAGEMENT DUTIES



**Duty to provide public sewers and to effectually drain our area**

**Duty relates to:-**

- Domestic sewage
- Surface water from roofs and curtilage

**Also accept:-**

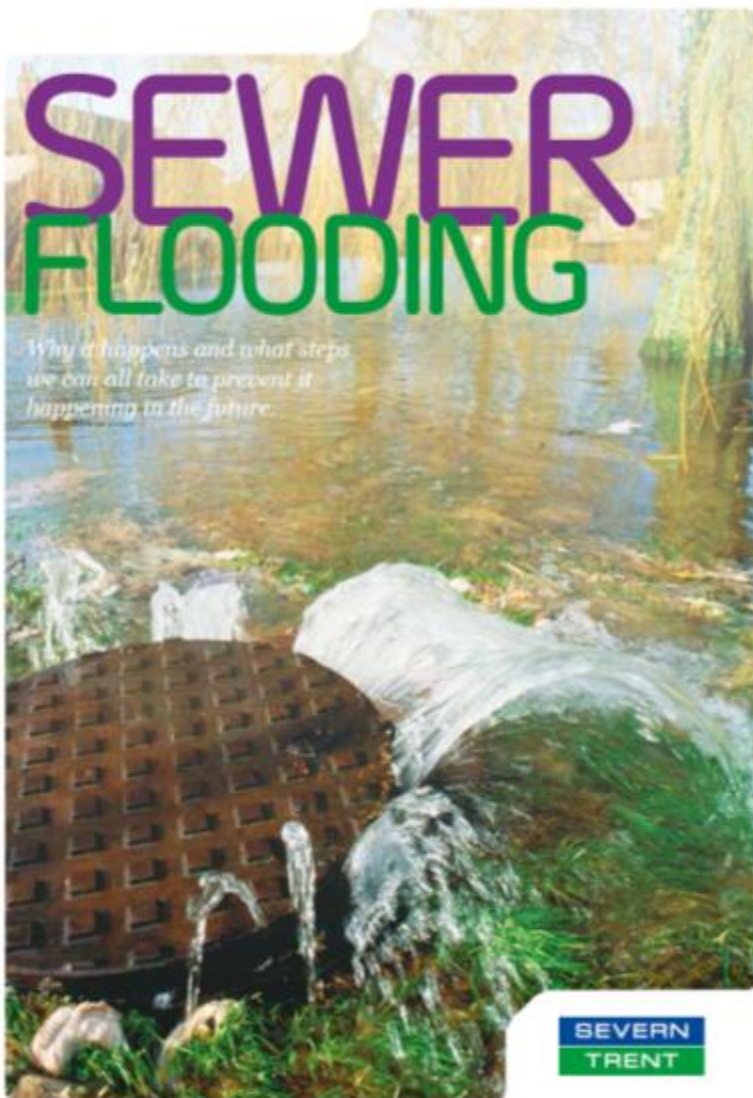
- Industrial / commercial effluent
- Highway Drainage by agreement

**Not for:-**

- Land Drainage
- Watercourses

# SEWER FLOODING

*Why it happens and what steps  
we can all take to prevent it  
happening in the future.*



## What can we do to help?



### Step 1 – Respond to your call

When you call us, one of our advisors will help you identify the cause of the flooding over the phone. If they can't do this, we'll send out a team to take a look. The advisor will tell you when you can expect them to arrive. We aim to get to you within four hours of being contacted for internal flooding and 12 hours for external flooding. If there has been lots of flooding, for instance during exceptionally heavy rainfall, we may take a little longer to get to you. We always give priority to customers who have flooding inside their homes as we know that this is particularly distressing. When you speak to our advisor please let them know if you have any individual needs or requirements. We'll always do as much as we can to help.

If we find that the flooding is coming from the public sewerage system we'll try to resolve it. If this isn't the case, we'll either let you know whether there is anything we can do to help or you can contact a private drainage company and/or your home insurance provider.



### Step 2 – Clean up

We'll be able to give you practical advice about how to deal with the clean up. If the flooding has occurred due to our public sewerage network, then usually we will help with a basic clean up unless this would risk damaging or contaminating your possessions. If we provide a basic clean up, we'll do it after the flooding has reduced. Our basic clean up service usually involves pumping out water, removing any sewage from an internal flood and also disinfecting hard-standing areas such as driveways. We don't offer a deep clean service as this should only be done by professionals and is usually covered by your home insurance.



### Step 3 – Investigate and identify the cause

We'll carry out an investigation to identify the cause of the flooding and whether there's anything we can do to reduce the risk of it happening again. If it isn't immediately clear why your property or garden has flooded, we'll look into it further and tell you what we find. In some cases the investigation can be complicated and take some time.



### Step 4 – Resolution

If the flooding was caused by a defect or blockage in the public sewerage system, we'll arrange for it to be fixed.

If the cause of the flooding was overloading of the sewers due to heavy rainfall then it's important we're told each time this happens as we use this data to prioritise which parts of the public sewerage network needs additional capacity. Priority is always given to the areas that are affected most severely or very frequently. So depending on the priority, we may not be able to complete work to prevent the flooding from happening again for a number of years. In the meantime, we may be able to offer you some support in protecting your property such as flood proof doors and gates. We'll discuss protection options with you once the flooding has drained away.



# REPAIR, REPLACE AND CLEANSE OUR SEWERAGE SYSTEM



# INCREASE CAPACITY



**Example Flood Alleviation Scheme in Birmingham which involved significantly increasing the capacity of the sewerage system including the construction of large underground storage tanks**





## Range of Property Level Resilience (PLR) Measures



Example of a floodgate fitted to an individual property



# PROPERTY LEVEL RESILIENCE (PLR)



# ASSET RESILIENCE

Flood defences constructed at Myth WTW



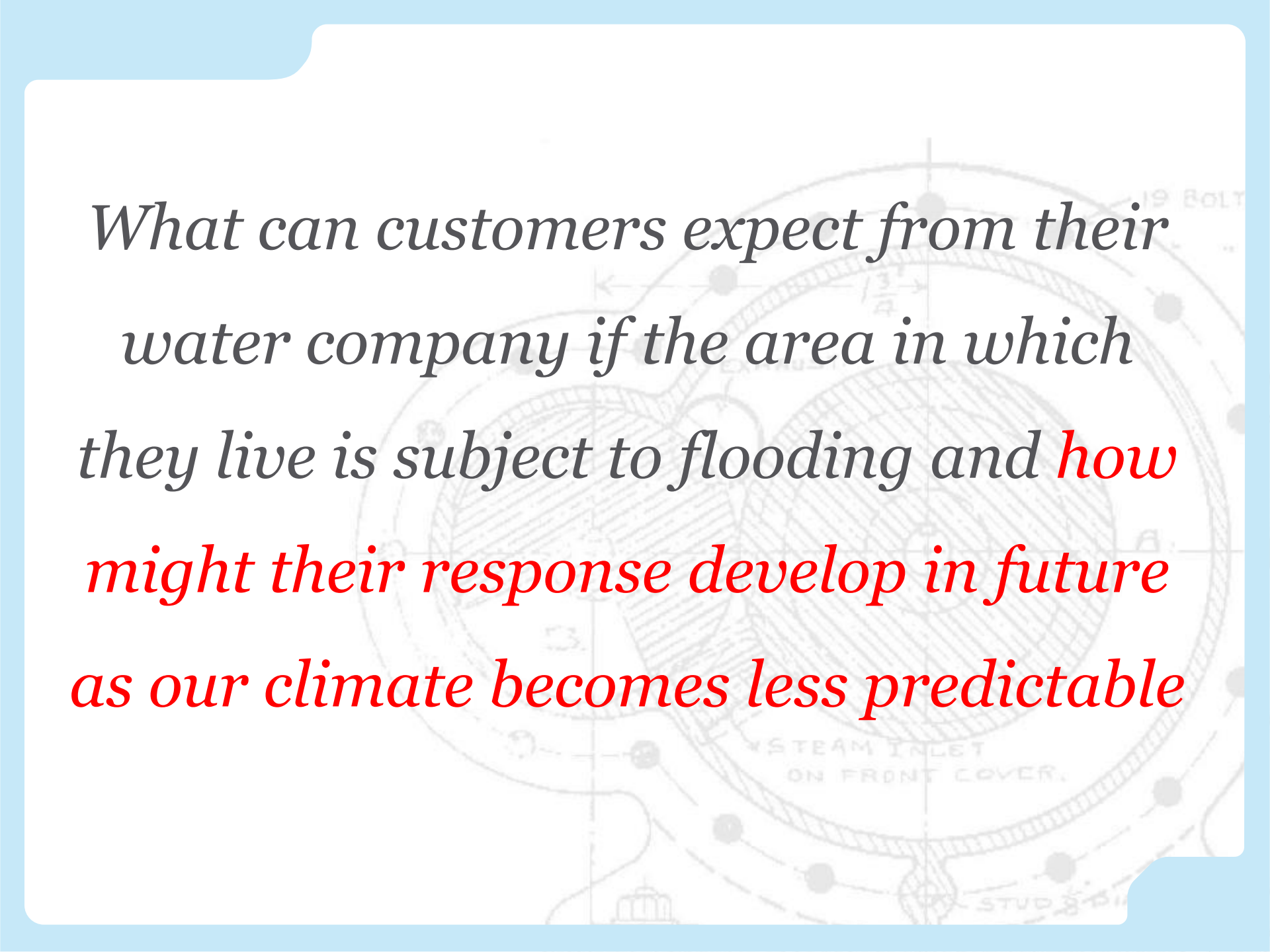


Multi-agency temporary pumping at agreed locations along River Severn



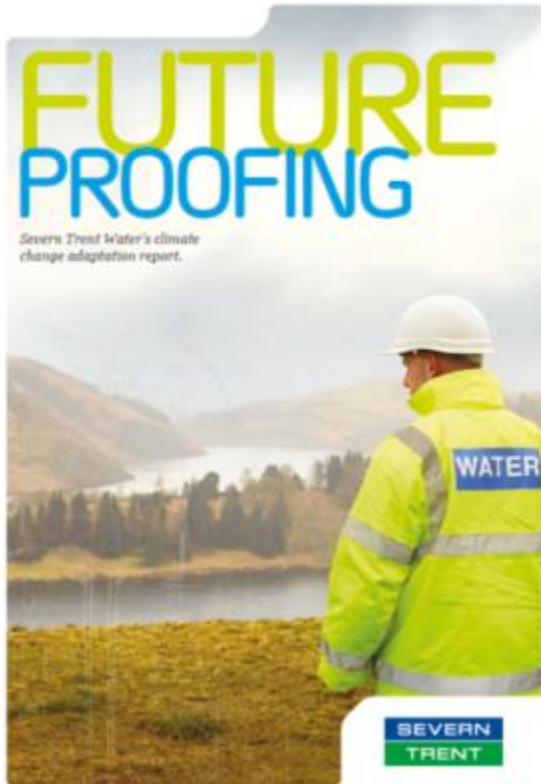
# TEMPORARY PUMPING



A faint, light blue technical drawing of a mechanical part, possibly a valve or a cover, serves as the background. It features concentric circles, radial lines, and various dimension lines with numerical values like 1/2, 3/4, and 1. Text labels such as '19 BOLT', 'STEAM INLET', and 'ON FRONT COVER' are visible. The drawing is centered and covers most of the slide area.

*What can customers expect from their  
water company if the area in which  
they live is subject to flooding and **how**  
**might their response develop in future**  
**as our climate becomes less predictable***

# ADAPTING TO CLIMATE CHANGE



## Timeline of weather impacting service 2010-2015

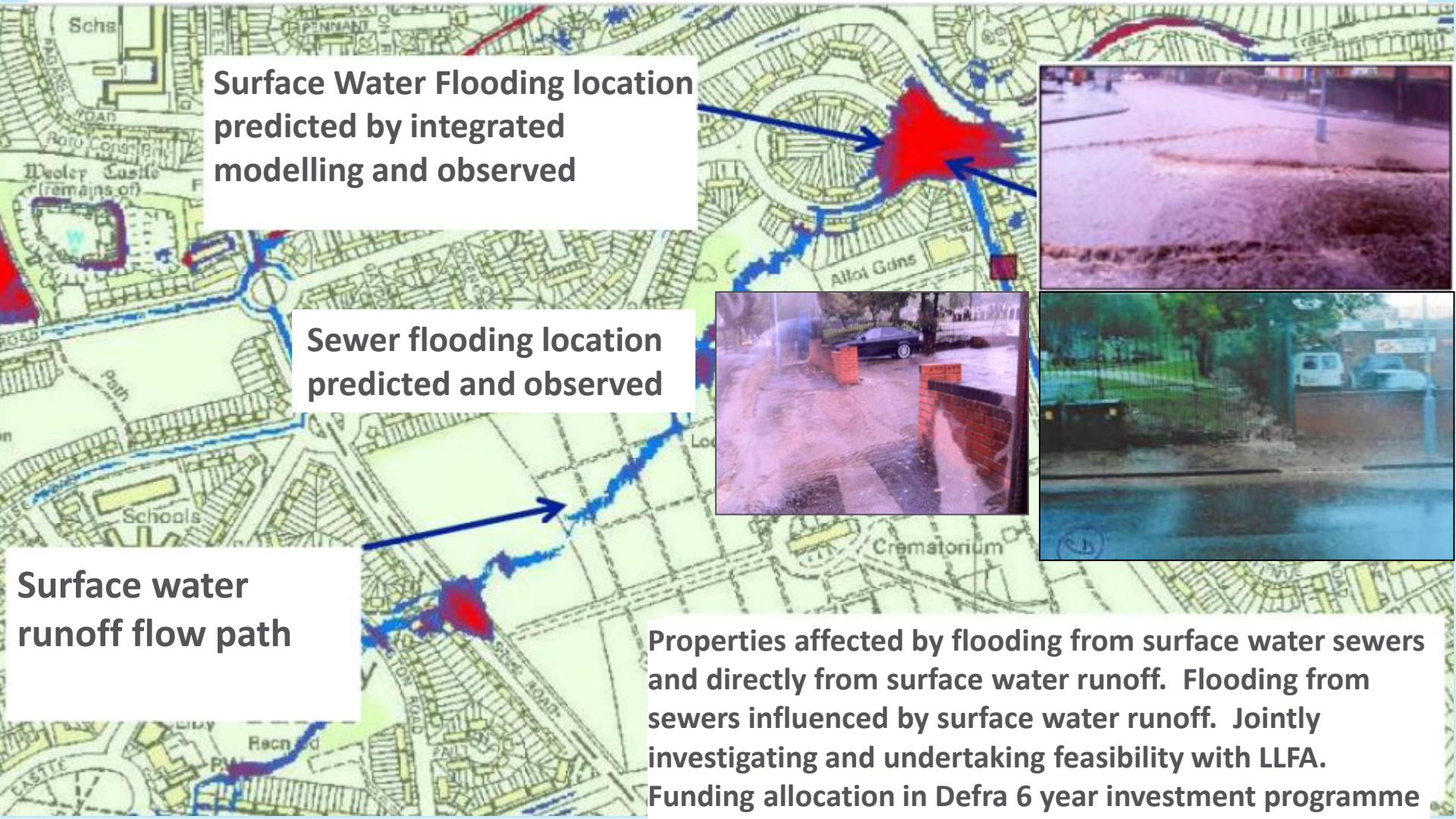


Figure 1 - The rainfall records for the Midlands over the last five years show the exceptionally dry periods we experienced in 2010 and 2011 and the extremely wet months experienced in 2012, 2013 and 2014.

<https://www.stwater.co.uk/environment/adapting-to-climate-change>



# BETTER MANAGING THE INPUTS— SURFACE WATER MANAGEMENT



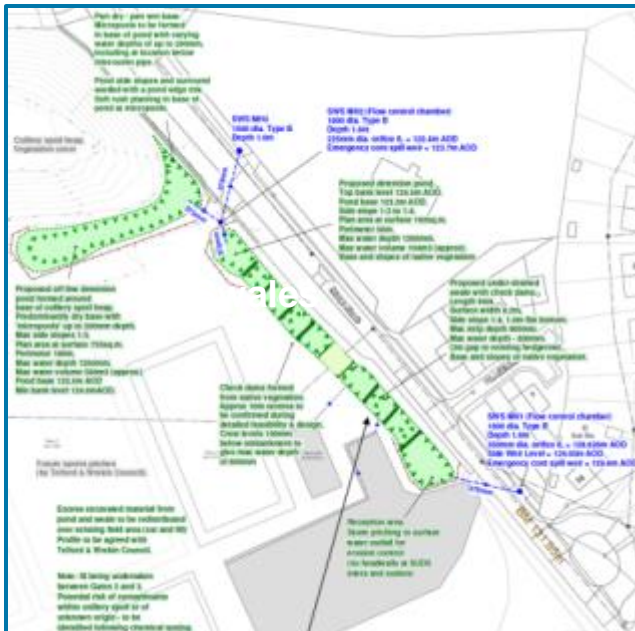
Surface Water Flooding location  
predicted by integrated  
modelling and observed

Sewer flooding location  
predicted and observed

Surface water  
runoff flow path

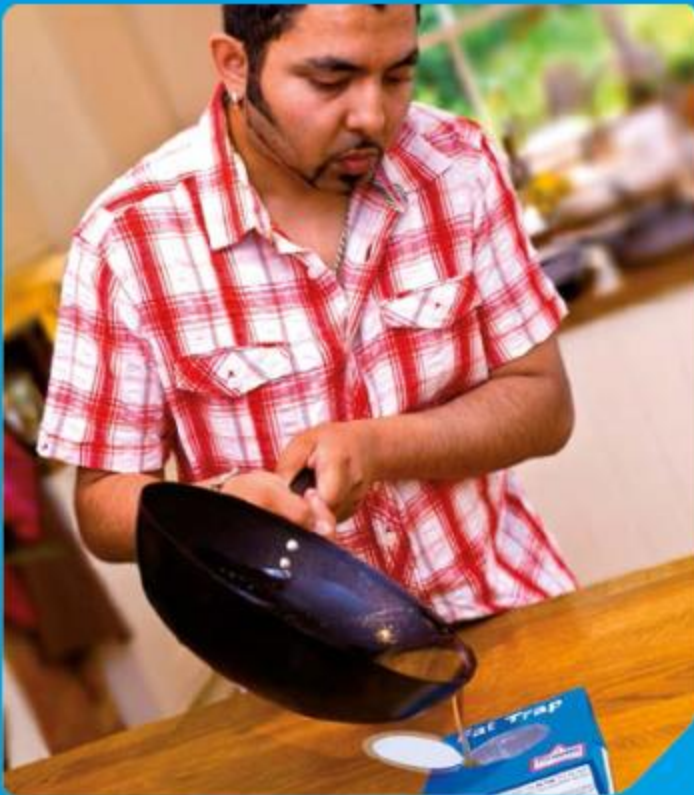
Properties affected by flooding from surface water sewers and directly from surface water runoff. Flooding from sewers influenced by surface water runoff. Jointly investigating and undertaking feasibility with LLFA. Funding allocation in Defra 6 year investment programme





*A new SUDS scheme in Leamington. This scheme uses land at the back of a school to collect surface water.*

# BETTER MANAGING THE INPUTS – CUSTOMER BEHAVIOURS



## Educate 125,000 customers each year to reduce sewer misuse

The root cause of the majority of our blockages is from customers putting the wrong things into sewers. The largest cause of blockages is sanitary items (towels, nappies, wipes etc) followed by Fats, Oils and Greases (FOG) from cooking.

To tackle this, we are increasing our programme of customer education. We are investing £4m over the next five years on direct engagement with our domestic customers, large commercial outlets in our region, and future customers in schools. We are also engaging more widely with others at the national level to get messages onto packaging and other routes. We aim to reach 125,000 people per year by 2020.



# BETTER MANAGING THE INPUTS – SMART WATER BUTTS



## SMART Water Butts

We are trialling 'SMART' water butts in our area. Usually water butts are considered a good way to conserve water. However, they can also be used to relieve the burden on the sewerage network by collecting water that would normally go straight down the drain. Individually their capacity is small, but collectively this solution could help to provide a much cheaper alternative to building additional rainwater storage in the sewer system. They offer a potential way to reduce sewer flooding whilst also reducing water demand.



# BETTER INSIGHT - NETWORK MONITORING

## Improving sewer monitoring and control

We are installing 1,800 live foul sewer network monitors over the next five years, which let us proactively identify blockages as well as get long term feedback on general sewer performance. Live monitoring will allow us to identify blockages much earlier so we can rectify the problem before flooding occurs. The monitors also allow us to better track pollution during wet weather events. For some catchments we will be able to advise customers to ensure property level protection is ready and working. In some of our larger catchments we could also use active system controls to optimise sewer capacity more flexibly.

Across the Birmingham network we have several large attenuation tanks which could be upgraded and automated so they could be used to hold back flow in dry parts of the catchment so that wetter parts of the system do not get overloaded. We are proposing to undertake a pilot study on several of our strategic storage tanks to optimise capacity. This will address sewer flooding risk and release capacity to accommodate planned new development across the catchment.



# BETTER RESPONSE- REPORT AND TRACK AN INCIDENT

Our website now allows customers to report a wastewater problem online.

The screenshot shows the 'Report a problem' page. On the left is a sidebar with links: 'My supplies', 'My water', 'My waste water', 'In my area', 'Report a problem' (highlighted), 'My water meter', 'Pipes & drains', and 'Help with my supplies'. The main content area has a heading 'Spotted a problem? We'd like to know more' followed by explanatory text. Below this is the 'Incident details' section with a dropdown menu for 'What type of problem?' set to 'Drain issue'. There is a text input field for 'Enter a street name, town or full postcode.' and a 'Locate me' button. A map of Coventry is displayed with a blue pin. Below the map is another dropdown for 'What type of drain issue do you have?' with a list of options: 'Please Select', 'Please Select', 'Flooding my house', 'Flooding my garden', 'Flooding public area', 'Seeping manhole', 'Blockage', 'Smell', and 'Other'. An 'Upload a photo (optional)' button is also present.

This is a close-up of the 'What type of drain issue do you have?' dropdown menu. The menu is open, showing a list of options: 'Please Select', 'Please Select', 'Flooding my house', 'Flooding my garden', 'Flooding public area', 'Seeping manhole', 'Blockage', 'Smell', and 'Other'. The 'Please Select' option at the top is highlighted in blue.

<http://www.stwater.co.uk/my-supplies/report-a-problem/>

## Contact us



Emergencies (24hrs)

**0800 783 4444**



# BETTER PREPARED – WEATHER QUEST

Detailed 5 day forecast

View of what is happening on the ground right now

Weather along your travel routes

% likelihood of rain / temperature extremes up to 10 days ahead

One month ahead outlook

Talk to a forecaster

Register to receive warnings directly to your inbox

Bespoke warnings tailored to STW regions and trigger levels

The screenshot shows the weatherquest website. The navigation bar includes links for Overview, Realtime, 5 Day Forecast, Route Finder, Probability, Monthly Forecast, Account, and Log Out. A 'Speak directly to a forecaster' button is highlighted. Below the navigation bar is a 'DISTRICT OVERVIEW' section with a map of the UK and a table of 'DISTRICT WARNING DETAILS'. The table lists regions and their corresponding warning levels.

DISTRICT WARNING DETAILS	
South	100
South East	100
North West	100
West	100
East	100
Central	100
North	100
North East	100



# RESILIENCE TO EXTREME FLOOD EVENTS?



<https://www.gov.uk/government/publications/national-flood-resilience-review>

Table 1: Assets above relevant population threshold within Extreme Flood Outlines (EFO) (\* to nearest 10).

Total number of potentially vulnerable asset sites (above pop. threshold and within EFO)	
All sectors (clean water, electricity, gas, oil, telecoms, health)	1640

# QUESTIONS

Tim Smith

Severn Trent Water  
Severn Trent Centre  
2 St John's Street  
Coventry  
CV1 2LZ

# Issues to Consider



- What currently works well for water companies and their customers?
- How can the water industry share good practice?
- What are the main barriers to partnership working/ working with communities?
- How can companies build on the progress?/ What more can be done?
- How are companies planning for increased frequency of high rainfall events as a result of climate change?

# Business customers in the new open market



Business customers will need our support not only to answer their queries but to fix problems when things go wrong.

We want to understand your views on what more we need to do to support them.



# Challenges of competition



- Limited push factors
  - Customer satisfaction: Most are relatively satisfied with service
  - Water is a relatively low cost and lower priority than energy
- Limited pull factors
  - Retail margin: Limited price discounts, service incentives, innovation?
- Awareness
  - Lower as organisations get smaller
  - Ability to differentiate retailer service offerings?



## On the shelf

- Uncharted Waters, Jun '14
- Testing the Waters, Jul '14
- Exit Strategies, Nov '14
- Lessons Learned, Dec '14
- Uncharted Waters: Phase 2, Jan '16
- Floating the idea: Household views May '16
- Open for Business:  
Learning from Scottish Experience, August '16



## Almost done

- Testing the Waters, October '16



# Customers worry about...



Contracts that automatically roll-over and/or tie in customers

Mis-selling, cold calling, hard sell and limited cool-off period

*Lessons Learned,  
Dec 2014  
Open for Business,  
Aug 2016*

Customer detriment to those forced to switch due to retail exit

Complaints resolved promptly

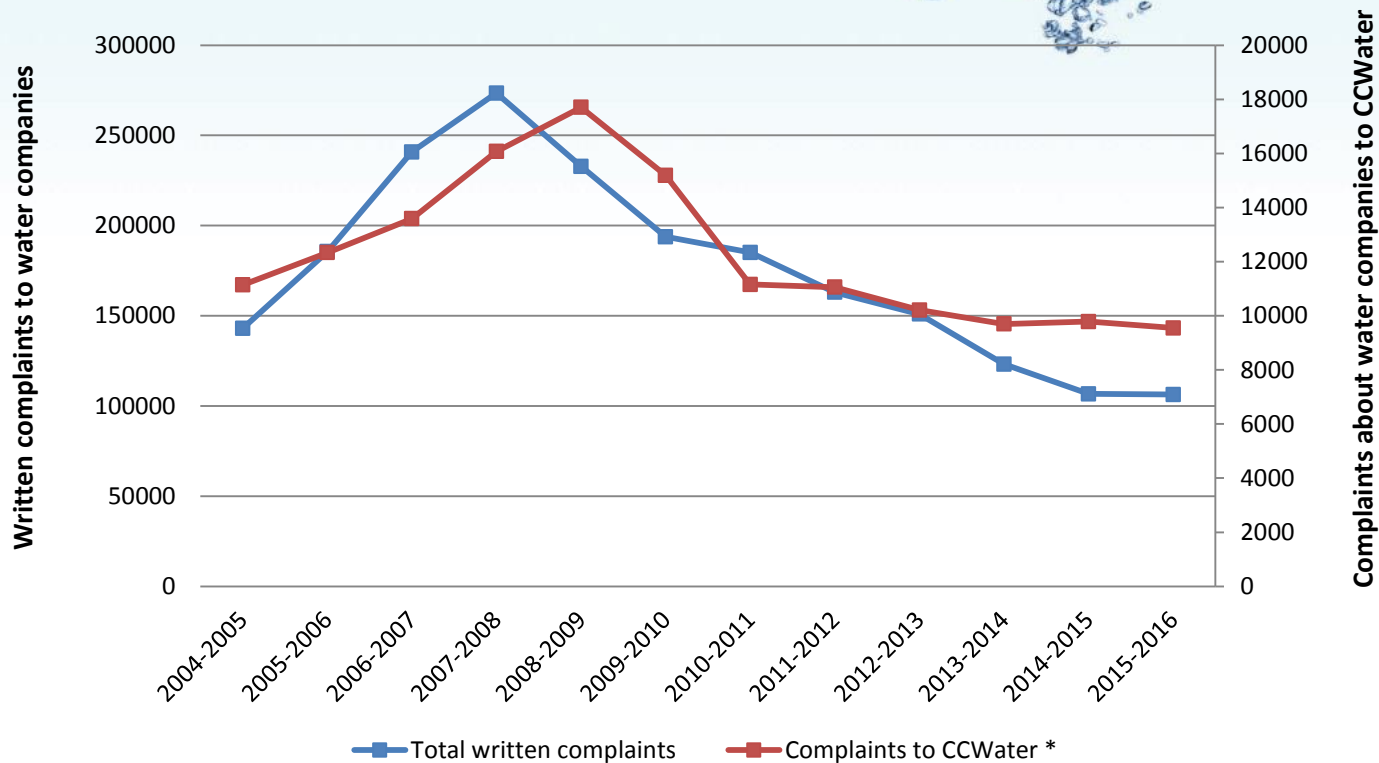
Awareness of market, retailers, renegotiation as an option

# Issues to Consider:



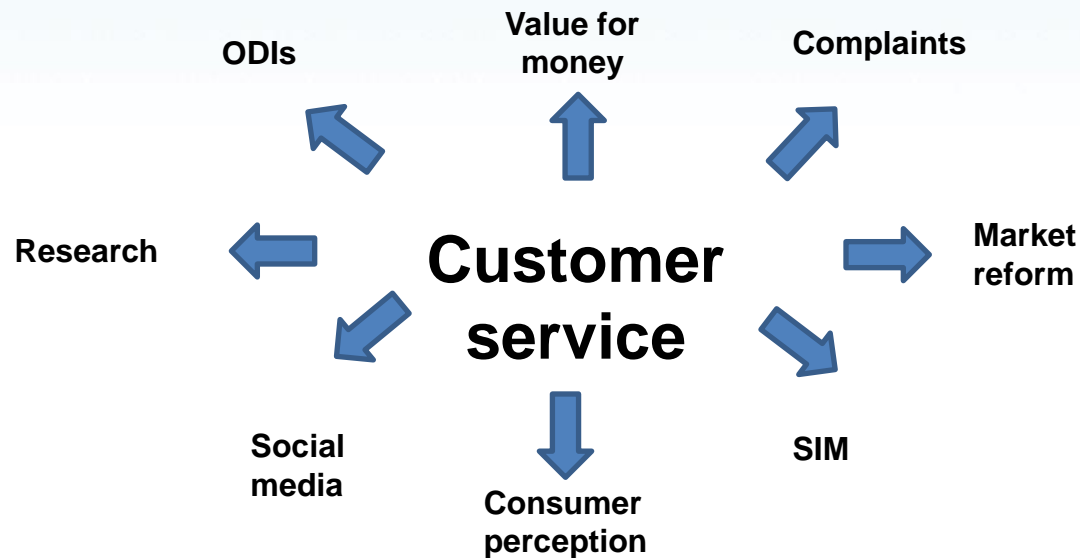
- How should we best support non-household customers?
- How can customers know whether a retailer is right for them?
- CCWater's role in performance standards for non-household customers

# Customer Service



- The industry has improved significantly , complaints are less than half the number from the peak in 2007/08
- The SIM has helped deliver the right company behaviour
- But what next?

# The industry and consumer landscape is changing



# The industry and consumer landscape is changing



## Issues to consider:

- How do companies build on the progress made from the SIM?
- What are the main motivations to deliver good service?
- How can the industry be sufficiently incentivised and work effectively with the forthcoming changes from market reform and social media?
- How can the industry share good practice?



CYNGOR DEFNYDDWYR



CONSUMER COUNCIL FOR



# Breakout Groups



Finish discussions and  
return for the feedback session  
at 15.25

**And finally...**

A horizontal graphic of a water splash with several bubbles, spanning the width of the slide.

Thank you for your thoughts and views today

Draft Forward Work Programme is due out mid-  
November

Comments by early January

Please fill in an evaluation form