



Counters Creek Strategic Sewer Flooding Alleviation

Our plans to protect your property

We are committed to reducing the risk of sewer flooding which currently exists in an area covering the London Borough of Hammersmith & Fulham and part of the Royal Borough of Kensington & Chelsea. The area, known as the Counters Creek catchment, is within the flood plain of the River Thames.

As you may know, there was widespread local sewer flooding during particularly heavy rainfall in July 2007 and September 2005, as well as other localised incidents. A study we completed last year concluded that this was due to a mixture of factors:

- The sewer network is combined, meaning that foul sewage and rainwater enter the same system.
- The local area has a very high proportion of basement properties.
- There has been a loss of green space, which would otherwise help soak up rainfall.

This document sets out our short-term proposals to protect properties at the highest risk of severe internal sewer flooding, while we continue to plan and develop a long-term and permanent solution.

During last year, we discussed with our regulator Ofwat, and other stakeholders, the most suitable technology to help reduce risk in the short term.

We concluded that the best way to protect individual properties was to install 'cut and pump' systems known as 'flooding local improvement projects' (FLIPs).

These consist of a small self-contained pumping unit designed to pump sewage and rainwater from the private drains of your property to the main sewer in the road. It is able to do this even when the sewer is full. The device also contains a non-return valve, to prevent backflow from the sewer.

Earlier this year, we interviewed residents at more than 1,000 basement properties in areas we believe to be at high risk, to improve our understanding of past flooding incidents.

These discussions have caused us to reassess our initial view that the best approach was to target entire streets at risk of flooding. We now believe that we can protect the maximum number of households by targeting those that have reported flooding to us and are at highest risk.

Ofwat agreed that FLIPs are the right technology to use and has set us the target of installing approximately 600 devices, which we intend to fit over the next two years.



Who will get a FLIP device?

We have created a hydraulic model of the area, which suggests that several thousand properties are potentially at risk of flooding, depending on the location and intensity of rainfall. Conversely, only 1,500 residents have reported flooding to us and are recorded on our database.

Work carried out in 2009 revealed that many residents have experienced sewer flooding but have chosen not to report the incident to us – perhaps because they did not know to whom the problem should be reported, or due to concerns that it could affect their ability to obtain home insurance or sell their property.

We intended originally to target whole streets, in order to address unreported incidents. However, our interviews have shown that there are many reasons why properties do not actually flood, when our model suggests that they should do so. For example, the basement may be much shallower than assumed in our hydraulic model, or toilets and other utilities may be located on the ground floor and not in the basement.

If we target entire streets, we are likely to encounter many properties that are not actually at risk of flooding and do not require a FLIP device. This would slow the programme and frustrate customers who need a device.

We propose to offer FLIP devices to:

- **Customers with basements in the London Borough of Hammersmith & Fulham and the Royal Borough of Kensington & Chelsea who have reported internal sewer flooding to us and are recorded on our 'DG5' flooding register (for which a rainfall event with a return period of less than or equal to one in ten years must have caused flooding)**
- **Customers with basements in the London Borough of Hammersmith & Fulham and the Royal Borough of Kensington & Chelsea who have reported internal sewer flooding to us and whose properties are shown by our hydraulic model to be at the highest risk of flooding**

Our hydraulic model allows us to pinpoint the specific risk of sewer flooding for an individual property. However, we do not believe it is in our customers' interests to publish a list of addresses along with the commensurate sewer flooding risk. We wish to respect our customers' rights to privacy in this matter.

How does a FLIP device work?

A Flooding Local Improvement Project (FLIP) is essentially a 'cut and pump' system. That is, we cut the gravity foul and surface water drainage from the property to the sewer in the road and then install a small chamber and pump to lift the flow from basement level to ground level and then into the sewer. If the sewer in the road becomes completely full during a heavy storm, this system prevents sewage from entering the property, but also allows surface and foul water from the property to drain normally.



What is the process for applying for a FLIP device?

Customers do not need to apply for a FLIP device. We will write to you if your property has been selected, as our database contains the addresses of all properties and we can match these to customers' names through our billing system. We will also write to the landlords of rented properties that are selected.

We plan to start writing to customers that are currently recorded on our flooding register in April, with further letters to be dispatched throughout May, June and July for customers whose homes are shown to be at the highest risk of flooding.

If I have been selected for a FLIP device, what happens next?

If you have been selected for a device we will arrange to conduct a survey of your property, so that we can determine how and where the FLIP device can be installed. It is possible, although unlikely, that your property will not be suitable for a FLIP device, either because there is insufficient space to construct a chamber or there are complications with the layout of the foul water and surface water drains at your property.

We will need to carry out survey and design work before the construction and installation of the FLIP device can be completed. Construction work may take up to four weeks, during which time we will need access to your property.

We will agree the timing of the works with you in advance, and give as much notice as possible of the proposed start date. We will let you know when we intend to visit to inspect and maintain devices, again giving as much notice as is reasonably possible.

How much will it cost me?

Nothing. Thames Water will own the device and arrange and pay for its installation, ongoing periodic inspection and maintenance. Customers will be asked to sign an agreement allowing us to gain access to maintain the FLIP. We will need to connect a 240V domestic electricity supply from your property to the pump in the FLIP device. You will be paying for the electricity used by the pump when it is operational. However, we will offer a rebate on your annual water bill to compensate for this.

If I have not been selected for a FLIP device what can I do?

The installation of FLIP devices should be seen as a temporary measure while we develop and construct a long-term sustainable solution to the risk of flooding in the area that will benefit all properties. We anticipate commencing construction on the long-term solution by 2015 at the earliest.

If you have not received a letter from us by August 2010 and feel that your property should be protected by a FLIP device, please contact us and we will carry out a survey of your property to establish the risk of flooding. There may be an aspect of your basement that is not specifically captured in our hydraulic model. For example, your basement may be much deeper than we have assumed.

Can you install more than 600 FLIP devices?

Our target is to install approximately 600 devices over the next two years. With this limited programme, we recognise that not all customers that expect a device will receive one. Nevertheless, if we succeed in installing 600 devices within this



timeframe, we may discuss with Ofwat broadening our programme to include other properties.

What happens if I sell my property?

The presence of a drainage device may alert potential purchasers to the risk of sewer flooding. You are obliged in any case to inform purchasers of any risks and problems relating to the purchase of the property, as part of pre-sale enquiries as the law currently stands. Prospective purchasers may be given advice by Thames Water, but will continue to benefit from the protection that the device offers, while we continue to plan and develop a long-term solution to the risk of flooding in the Counters Creek catchment.

What happens if the pump fails?

An alarm system will alert you in the event of a problem with the device. We will provide emergency 24-hour telephone numbers at the time of installation and details of the procedure to follow in the event of a problem. If the pump fails to operate during a rainstorm, connected properties will continue to be protected against backflow from the main sewer via a non-return valve contained within the unit.

In the event of a failure of the device, we may need to gain access to the device at any time of day or night.