

12 February 2018



Our ref: BB 970628



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Thames Water, PO Box 286, Swindon, SN38 2RA

Dear Graham

## **Counters Creek Flood Alleviation Scheme**

Thank you for your letter of 25 January 2018 regarding Thames Water's proposals for the above scheme. We understand that, as Lead Local Flood Authority (LLFA), the Royal Borough of Kensington and Chelsea has a responsibility to investigate flooding and try to prevent it, and are pleased to provide further information to support the approach we are now proposing to take. Attached to this letter is a document that addresses the specific information requested. I would also like to make a number of general points on some of the issues raised in your letter, which I trust will assist you with your understanding of our proposals.

## Strategic Sewer Decision and Timing

In your letter you state that you were under the impression that the decision on whether the strategic sewer was to go ahead was to be made in 2020 such that the scheme was delivered in the period 2020-2025. Our original proposal, developed prior to 2014, would have seen the overall Counters Creek scheme, including the strategic sewer, delivered by 2020. As your Officers will be aware, Thames Water was in advanced discussions prior to submitting a planning application for the scheme, which included several rounds of public consultation. However, as our letter of 8<sup>th</sup> January 2018 to Officers and Councillors explains, the original drive site from which the strategic sewer would have been constructed was not available and therefore the next suitable site was chosen, which was at Cremorne Wharf.

Cremorne Wharf is currently being used by the Thames Tideway Tunnel (TTT) Project and given the compact nature of the site and the risk of delay to both projects we were unable to agree joint working. This means that we would not have been able to start construction until 2021 at the earliest, ie. beyond the original completion date, which would have led to at least a four-year delay. We have agreed with the TTT team to make space for a future Counters Creek sewer should one be needed. However, this delay did not seem acceptable to us given the serious consequences that this might have caused to our customers affected by flooding.

Given this, and the far lower than expected reports of flooding in the area following the 2016 summer storms, Thames Water reviewed the project and sought alternative means of protecting our customers by April 2020. As set out in our letter to Officers and Councillors, we believe our current proposals achieve this aim.

## Robustness of FLIPs Solutions

You express concern in your letter about the robustness of FLIPs as a solution, seeing them as more of a short-term solution to localised basement flooding. The Counters Creek scheme has always involved a package of measures to alleviate flooding, which included a significant number of FLIPs and a number of local schemes. These devices are robustly engineered and with the appropriate regular maintenance carried out by Thames Water have a long service life. All installed devices become part of Thames Water's asset register, and are maintained and serviced as appropriate, including emergency call out.

It is also worth noting that our current proposals are not limited to FLIPS alone. In some circumstances a FLIP may not be the appropriate solution and therefore some other local solution may be necessary to provide the required protection. As explained at the recent Public Meetings in both Boroughs, we are currently contacting all customers who remain on our flooding register with a view to arrange a property survey to verify the cause of flooding and help identify the most appropriate solution. The 'drop in' sessions running throughout February are also seeking to identify any customers that have not previously reported flooding to us, so they can be included in the survey programme.

## Impacts of Development and Climate Change

Finally, you also expressed concern that development in the area and climate change will lead to a reduced capacity in the sewer and leave the Royal Borough more vulnerable to flooding in the future. As set out in the attachment to this letter, sewer flooding in the area only affects basement properties. Furthermore, as the sewer network in the area is a combined system, draining both foul and surface water, the sewer flooding only happens during severe weather events, particularly during summer convective storms. It is the rainfall (ie surface water) element that triggers the rise in the water levels in the sewer that leads in some cases to basement flooding.

The foul water element of the flow in the sewers is significantly less than the surface flow (for example, for the Old Oak Common/Park Royal development the peak domestic flows represent 0.1% of the total flow into the sewer, before mitigation from SuDS). The foul flow from future development in the area does not present a significant threat to increased sewer flooding. Developments in the area actually present an opportunity to reduce the flooding risk by reducing the surface water flows which make up the majority of the flows in the combined system. But to achieve this benefit it will be essential to ensure proper implementation of the Royal Borough's and GLA's planning policies in relation to sustainable development and Sustainable Drainage Systems (SuDS). The Integrated Water Management System (IWMS), prepared to support the development of the Local Plan, by the Old Oak and Park Royal Development Corporation and Mayor of London, embodies the approach to managing future flows into the combined sewer system that will be required for areas where major development is proposed.

Currently surface water generally enters our sewer network through run off from impermeable surfaces such as highways. Thames Water, in planning sewer capacity, has a reasonable expectation, based on the policies described above, that when redevelopment proposals come forward for determination by the Boroughs there will be a reduction in surface water run-off. Thames Water has been actively working with the Mayor of London, RBKC, LBHF, OPDC and developers to ensure that the planning process delivers SuDS and achieves greenfield rates where it is feasible to do so.

Thames Water's Business Plan 2015-2020 includes a commitment to work in partnership with the Environment Agency and local authorities to promote and install SuDS. The company is undertaking three SuDS pilot studies as part of the Counters Creek scheme and, through a separate initiative called "Twenty for Twenty," Thames Water has been working with local councils and developers to disconnect the equivalent of 20 hectares of impermeable area from the sewer network by 2020.

Our conclusion is that flows within the sewer networks should reduce, which our modelling suggests will contribute to offsetting the adverse impact of climate change. At a property level, it is also essential that new basement conversions are carried out in accordance with the Royal Borough's policies and Building Regulations, taking due cognisance of the risk of sewer flooding. Thames Water appreciates the Royal Borough's support and vigilance in both these matters and is happy to support you in achieving this.

One final point on climate change. Guidance suggests that climate change will result in more intense summer storms. The evidence we have from the 20<sup>th</sup> July 2007 event suggests that many properties were affected by overland flooding, where the surface water could not enter the sewer network as the surface water drainage system was overwhelmed. Our models for climate change assume all the rain falling in the area can enter the system, which in terms of sewer flooding represents a conservative view. However, in practice, more intensive rainfall brought about by climate change is likely to expose limitations with the surface water drainage system and flooding could still occur, albeit not as a result from sewer flooding. Although this is not a Thames Water responsibility we would be happy to support and work with the Royal Borough to facilitate its adaption of the surface water drainage system to meet the future demands of climate change.

I trust the contents of this letter will address the questions you have raised and provide you with information required for you to fulfil your responsibilities. You may be aware that we have received a similar request from the GLA, who will also be receiving the attached information. As this is a complex matter I suggest that we arrange a meeting between yours and the GLA's experts in flooding and our team, to provide an opportunity for them to ask questions and hopefully conclude the matter to your satisfaction. If this is agreeable to you, I suggest that the arrangements are made through Harriet Allen from my team on harriet.allen@thameswater.co.uk or 07747644259.

Yours Sincerely

Richard Aylard CVO

External Affairs and Sustainability Director