DOVER DISTRICT COUNCIL

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15 March 2017

Dear Councillor

I am now able to enclose, for consideration at the meeting of the **SCRUTINY (COMMUNITY AND REGENERATION) COMMITTEE** on Wednesday 15 March 2017 at 6.00 pm, the following reports that were unavailable when the agenda was printed.

10 **SOUTHERN WATER** (Pages 2 - 9)

To consider the responses of Southern Water to the Key Questions set by the members of the Committee.

Yours sincerely

Chief Executive

Dover District Council Scrutiny (Community & Regeneration) Committee

15 March 2017

Response to Committee Questions

Southern Water

Water Meters

Q1. Can you please advise the number of complaints in the last 12 months in respect of water meter reading in the Dover District and how has this changed from the previous year?

Water supply for the majority of the Dover district area is provided by Affinity Water. Only Deal and Sandwich fall within the Southern Water 'water supply' area.

For the areas we serve - postcodes CT13, CT14 and CT16 - we received:

- No complaints during the current financial year, 2016 - 17
- Five complaints during the previous financial year (2015 - 16), three of which relate to the same address.

Southern Water were the first UK water company to introduce wide scale metering. In 2010, we began a five-year metering programme to install new, advanced Automated Meter Reading (AMR) meters for 500,000 homes across our region. Over 90% of our customers now have a meter, reducing water bills by an average of £162 a year for 62% of metered households.

Our 'intelligent' meters can be read remotely as we drive by, allowing engineers to read around 3,000 per day, reducing the need for estimated bills.

Most meters are read twice a year with water bills usually based on actual meter readings. If we have been unable to obtain a reading, an estimated account with be issued, but we will not normally raise more than one estimated reading in a year.

Our meters also have an inbuilt alarm system which will activate silently if water runs continuously through the meter over a 24 hour period. This means that when we drive by to read the meter, the alarm will be detected by us and we will investigate to see if there is a leak.

Customers are welcome to read their own meters and can submit readings online. Advice on how to read a water meter is available via our website at: https://www.southernwater.co.uk/help-and-info-read%20meter

High meter readings may indicate a leak on the property supply pipe. Advice on how to check for a leak is also available via our website at: https://www.southernwater.co.uk/testing-for-a-leak

Further information on our charges and what customers can do if their water bill is higher than expected, please see:
https://www.southernwater.co.uk/our-charges

We offer a range of services to help customers who may be having problems paying their bill or need to register special requirements. For further information, see:
https://www.southernwater.co.uk/individual-needs

Southern Water customers can now manage their account online at:
https://www.southernwater.co.uk/your-account-is-here

Infrastructure

Q2. The literature given to residents states that the householder is responsible for the pipe connection between the water meter and the house. How can the resident be responsible for a pipe between the water meter and the householders boundary? The householder does not own the land, did not lay the pipe under the land and had no say as to the position of the water meter.

By law, responsibility for the pipe work that supplies clean water is shared between property owners and water companies.

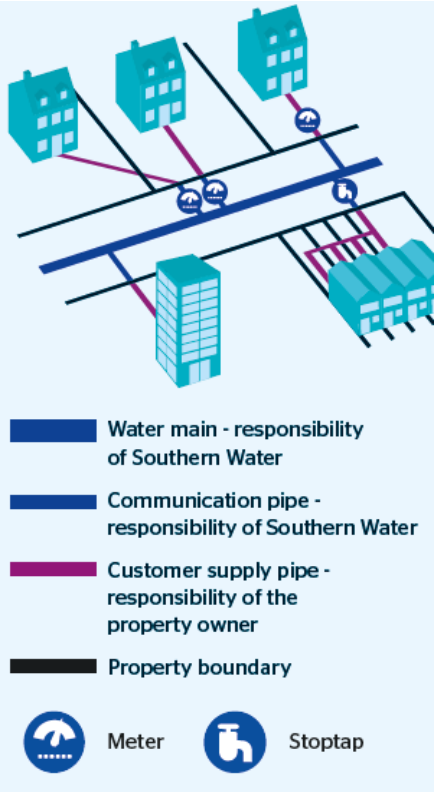
Generally, water companies own and maintain the water pipes in the street and footpath up to the external stop tap, usually at the boundary of the property.

The home owner is responsible for maintaining any private pipes that are supplying their water. This includes pipes running both inside and outside of the property.

In some cases, the private supply pipe will extend beyond the property boundary and may run on third party land - the homeowner would still be responsible for this part of the pipe. Permission to lay this pipe will have been obtained from the relevant land owner, and this permission will typically be recorded within the title deeds relating to the property. If there is a leak on the private supply pipe the responsibility for making a repair falls entirely to the owner.

For properties where there is a shared supply pipe, the property owners are all jointly responsible.

The diagram below shows how typical properties are connected to our mains:



In general, the responsibility for the different types of water pipes are as shown below:

Type of pipe	Laid under	Responsibility for pipe
Water mains	Highway	Water company
	Property owner's land	
	Land owned by someone else	
Communication pipe	Highway	Water company
Supply pipe serving a single property	Highway	Property owner
	Property owner's land	
	Land owned by someone else	
Shared supply pipe serving more than one property	Highway	Joint responsibility of all property owners served by pipe
	Land owned by any of the property owners served by the pipe	
	Land owned by someone else	

There may be special cases which differ from this. Customers should contact Southern Water directly if they wish to find out more.

Flooding in Deal

Q3. Can Southern Water give an assurance that since the suspected cause of the flooding in Albert Road, Deal is known and the money that has been spent on the pumping station that there will be no flooding in this area as a result of their drainage system?

As members will be aware, following the conclusion of our inspections on the Deal sewerage network, our next stage of investigation was to conduct a flow survey to monitor and record flows through various parts of the network. This involved the installation of a number of sensors within manholes at various locations in the area during June 2016. Additional sensors were installed at Golf Road Wastewater Pumping Station (WPS), to record flows and levels on site, and a number of rainfall gauges were placed in strategic locations to provide accurate rainfall volumes.

By undertaking the survey over a period of 3-4 months, we were able to measure a number of different intensity storms.

By early October, we were able to collect enough data to provide a reliable and accurate comparison to our hydraulic model for Deal and to enable our specialist contractor to begin to analyse the results.

As outlined in the written update provided to Members in February, the hydraulic model of the sewer network has been verified to within normal tolerances against the results of the real time flow survey of the catchment. This has allowed a greater understanding of system constraints, how the performance will vary in more severe storms than those recorded in the flow survey and allow the hydraulic design of any future interventions.

To date, we have invested over £500,000 to improve the resilience of Golf Road WPS however as with all mechanical and electrical equipment, it is possible that there may be times when we experience unexpected failures. To ensure we are as well prepared as possible for such circumstances, the Emergency Action Plan for Golf Road WPS / Albert Road was reviewed and revised in late 2015. We have increased local standby coverage to improve our speed of response to emergencies, and we are storing road closure signs and sandbags on site to enable rapid deployment when required. We have also introduced pre-storm checks at the pumping station ahead of predicted poor weather.

It is worth noting that since Spring 2016, we have implemented the emergency action plan on a precautionary basis on two occasions when severe weather warnings were in place for the area. No flooding was experienced on either occasion.

In order to draw conclusions about the likely cause of the most recent flooding incident in January 2016, when Golf Road WPS was working as designed, we have inputted the data from the January 5th incident to run a comparison against the hydraulic model.

The recorded events and levels did not replicate in the model - the model predicts that no flooding would have occurred based solely on the rainfall data recorded. Peak flows and levels from the day were showing much higher that the model would predict.

This leads us to the following possible explanations which might account for this variance:

- We were reliant on a single rain gauge operated by the EA for the rainfall amount recorded on the 5th January 2016. The rain gauge is located in Deal but may not have taken account of more localised intense rainfall. For the flow survey we installed a number of rain gauges across Deal to get much more accurate rainfall data.
- The wastewater network was receiving additional flows from another source on the 5th January 2016 which the system was not receiving throughout the duration of the flow survey. We know that we had incidents of surface water flooding recorded in Allenby Avenue, which was linked to a blocked outfall pipe at Canada Road (by the Downs Sailing Club). Reports from residents also note surface water flooding at some road junctions which could have allowed surface water into the wastewater system.
- Although the storm pumps were operating as expected, the rate of flow was not recorded as a flow monitor was not in place on this pipe. A reduced output would increase levels in the sewer. Since the January event two of the pumps have been refurbished so we are now unable to confirm storm pump rate at the time of the incident.

It is possible that all three scenarios could have had an influence.

The hypothesis which appears most likely at present is that surface water, which could not be released at the Canada Road outfall, overflowed the surface water manholes in these areas and entered the wastewater system via foul sewer manholes in the same locations.

Further analysis is currently being carried out with final detailed conclusions due in May. This may yet identify that further work is required within the network, or at Golf Road WPS.

Whitfield Development

Q4. Where are Southern Water in so far as their system for disposal of foul waste from the Whitfield Urban Expansion is concerned and at what point in terms of number of occupied new home will Southern Water upgrade the existing systems?

Accommodating the Whitfield expansion is a major undertaking and can only be achieved by all interested parties working in partnership (including Dover District Council and the developers), to ensure we can provide the right infrastructure, at the right time, in the right place. We are currently investigating the infrastructure needs to service the entirety of the development, as well as potential build out rates so that we can establish the stages at which new infrastructure will be required.

A growth study is underway and we are due to meet with council officers in April to discuss this further, including the timing of new connections to the sewerage system and what conditions are appropriate to ensure the new development does not impact upon the performance of the sewer network in the area.

In the meantime we are also undertaking analysis to determine and short to medium term actions we can take to allow development to progress whilst the long term solution is designed.

Q5. On Saturday 31st December 2016, sewage washed into Phase 1a at Sandwich Road as the pump had failed yet again and tankers were called in and a pipe burst up Sandwich Road pouring raw sewage everywhere. Plus there is an overflow tank which is connected to the pumping station which regularly overflows and spews raw sewage all over the site and it is my understanding that this tank has no cover, so if the system is already failing when only a fraction of the homes have been built, when are Southern Water going to upgrade that part of the system?

There have been two incidents recently where operational apparatus at or close to the Sandwich Road WPS have failed. These were firstly the loss of pumping facility for mechanical/electrical reasons and later a burst on the rising main from the pumping station. These incidents would have caused some flooding in the vicinity of the pumping station. Both incidents were responded to and resolved.

As with all mechanical and electrical equipment, there will be times when we experience failures however the emergency contingency plan for the site has been reviewed and enhanced to ensure we can continue to manage flows should any further unexpected issues arise.

We are aware that there are two ponds in the green area near to Sandwich Road WPS. One of these is a highways ditch, which is used to facilitate drainage of the road network in the area. Road runoff in wet weather is conveyed to this point for storage and soakage into the ground. This is the responsibility of the Highways department and does not form part of the public sewerage system.

The second pond feature is a depression towards the centre of the open space area. This pond has been dug by Abbey Homes and a connection from the sewerage system has been made to this, also by Abbey Homes. The purpose of this arrangement is to mitigate the impact of high flows in the sewerage system which in heavy rainfall events may overwhelm the sewer network. Without this depression storage, flooding would potentially occur in much closer proximity to the newly constructed properties.

During the development of the new estate, we held extensive discussions prior to allowing the developer to connect to the public sewer network. Strict conditions were agreed to, including a commitment from the developer to re-design the proposed park, adjacent to the development, in order to include a pond to drain excess surface water during wet weather. The pond that has been constructed is not in line with what was previously agreed.

The connection which the developer has made from the sewer to the pond referenced above, albeit to reduce flood impact, was made without our agreement. We are in discussion with Abbey Homes to ensure the disconnection of the pond from the sewer as soon as possible, and the provision of more permanent construction work in the form of a covered storage tank. Our engineering team is currently engaged on the design of this storage facility.

Our design team are also engaged in determining the sewerage system improvements and investment needed to facilitate the construction of further development proposed in the area.