Bramley PC Summary of possible Thames Water actions, and Thames Water comments – January 2021 – (Thames Water comments in green)

Bramley Parish Council's understanding from the discussion is that

1. The results of the modelling indicate that the present facilities are not capable of coping with the existing housing let alone more housing without an upgrade.

   Thames Water comment: modelling has confirmed an underlining issue at Bramley No.1 SPS (pump station on Sherfield Road). This explains the issues experienced at the new Centenary Fields development.

   During several and/or prolonged rainfall events, the large storage tank, and Bramley No.1 SPS are overwhelmed. This is when problems present themselves at Bramley No.1 SPS and Centenary Fields.

   The foul drainage on the Centenary Fields site is built with a similar ground level at Bramley No.1 SPS, which explains why residents are experiencing issues.

   Modelling has identified that the new developments will not increase the risk of flooding at other locations within Bramley.

2. The proposal that was suggested in 2014 to overcome the likely sewage overspill associated just with the development of 200 houses on Minchens Lane would not have solved the problems we see now in Bramley with sewage overspill (Sewer Impact Study SMG 1294 G4027. 27/10/2014). The pumping station on Sherfield Road and the capacity of the main running to Sherfield are at the root of the problem. The pumping station has a storage tank that is supposed to take excess sewage in extreme conditions, but this becomes full very quickly, and because the capacity of the pipe running to Sherfield is incapable of taking the extra flow from the housing in Bramley, with the pump working 24/7 and the overflow tank full, then there is back flooding from the station and sewage overspill in North Row and more recently in Centenary Fields because the tank is not allowed to empty.

   Thames Water comment: Comments on 2014 study are correct.

   The storage tank and Bramley No.1 SPS share a rising main (pipe running to Sherfield-on-Loddon). The storage tank is fitted with pumps that discharge into the same rising main as Bramley No.1 SPS when emptying. Due to the capacity of the rising main, both the storage Tank and Bramley No.1 SPS are unable to operate at the same time. Bramley No.1 SPS has priority to pump over the storage tank.

   Flooding at North Row is being investigated further; the relationship between the neighbouring stream and surface water network serving North Row needs to be understood further. The surface water pipe from North Row was identified during the walk over in December.

3. Solution:-
a) A sewage main between Bramley and Sherfied needs upgrading to cope with the extra flow. This would definitely be a necessity if more housing is planned for Bramley.
b) The Pumping Station needs to be overhauled and the problems sorted to eliminate the present problems.

c) In total there were 3 options proposed. One other was to have an open sewage holding pond which it was agreed was completely unacceptable.

Thames Water comment: Three options are being explored to address the issues described above. These are:

1. **Increase the flow rate from Bramley No.1 SPS during storm events**

   The idea of this solution is to prevent the storage tank from filling completely during storm events, ensuring the system does not become overwhelmed.

   Challenges:
   - Capacity of the existing rising main; this may require a larger rising main to be installed to accommodate an increase in flow rate.

   - Capacity at Sherfield-on-Loddon Sewage Treatment Works needs to be understood (this exercise is ongoing).

2. **Remove infiltration/surface water ingress from the foul sewer network in Bramley**

   The idea of this solution is to identify and remove ingress of infiltration and surface water from the foul sewer network in Bramley.

   Challenges:
   - Locating and removing infiltration / surface water ingress is not straight forward and complex.

3. **Installation of Combined Sewer Overflow (CSO)**

   In the past, the installation of a Combined Sewer Overflow may have been a default solution for type of issue experienced in Bramley. This option would formalise a spill point from the foul sewer network into the watercourse.

   Challenges:
   Installation of CSOs is not currently considered best practice and is considered unlikely to be granted a discharge permit by the Environment Agency [this is option C in your notes from the meeting].