

### Brent Knoll & Lympsham Drainage – Background & History

- The foul drainage catchment includes the villages of Brent Knoll, Lympsham, East Brent and Rooks Bridge.
- Foul drainage from Lympsham, East Brent and Rooks Bridge is pumped separately to Forge House Pumping Station in Brent Knoll from where it is pumped to Burnham and eventually treated at West Huntspill.
- The foul drainage system in Lympsham was constructed in 2004. There are 6 pumping stations in the village. The majority of the village drains to Worthy Crescent pumping station. From here it pumps to Innsbruck terminal pumping station near South Road and this pumps into the gravity system at Burton Row in Brent Knoll.
- There has been a history of sewerage problems in Brent Knoll and Lympsham. Over the years, the foul drainage system in Brent Knoll had become overloaded, and there was significant backing up from Forge House pumping station, notably at Burton Row, Brent Street and Laurel Avenue. The lack of capacity at Brent Knoll also impacted on the drainage in Lympsham which was having to discharge into a system that was surcharged during heavy rainfall.
- The foul drainage system in Lympsham suffers from ingress of groundwater during prolonged periods of wet weather, which can inundate the system and cause surcharging in the system

### The Brent Knoll Flood Alleviation Scheme

- The main aim of the scheme was to provide increased hydraulic capacity in the system at Brent Knoll.
- Forge House pumping station has been upgraded and the pumping capacity increased from 45l/s to 80l/s. To accommodate this increase, a new rising main has been constructed between Forge House and the discharge point at Burnham.
- The pumping stations at Manor Ride and New Inn used to pump to Forge House. A new pumping station has been constructed behind the school in Brent Knoll and this pumps via another new rising main to Burnham, the pumping stations at New Inn and Manor Ride have been abandoned.
- As well as reducing surcharging in the system at Brent Knoll, the improvements provide a free outfall for pumped flows from East Brent and Lympsham.

### Telemetry Problems in Lympsham – January 2018

- Over the Christmas/New Year period, 2017/2018, high surcharge levels were recorded upstream of Innsbruck pumping station and tankers had to be deployed to bring the levels down. The problem was found to be a fault with the telemetry between Worthy Crescent and Innsbruck. The fault has been rectified (as of 9<sup>th</sup> January 2018) and now flows from Worthy Crescent to Innsbruck will be inhibited to make use of the storage at Worthy Crescent and reduce surcharging at Innsbruck.
- The increased capacity at Brent Knoll will allow the free discharge of flows from Lympsham into the gravity system at Burton Row.
- Innsbruck and Worthy Crescent pumping stations will be monitored over the coming weeks to ensure that everything is operating satisfactorily.

### Infiltration at Lympsham

- We are currently carrying out an extensive CCTV investigation of the public sewers in Lympsham to identify where infiltration is getting into our system. The results will be assessed and any 'leaking sewers' will be included in our programme of infiltration sealing for 2018/2019.
- We are only looking at the public sewers at the present time. There will also be infiltration into the private laterals in Lympsham, and in the future, the scope of infiltration investigations may be extended to include private laterals as well.
- I attach a couple of photos showing groundwater infiltration into public foul sewers. These were not taken in Lympsham, but show the levels of ingress that can occur in areas prone to groundwater inundation.
- Wessex Water currently have approximately 60 catchments across the region that are affected by groundwater ingress.