Water Supply and Wastewater in Whitchurch, a Rough Guide for Residents

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This Rough Guide has been compiled for village residents by the Whitchurch Flooding and Drainage Forum (John Southey, Geoff Weir, Richard Wingfield), with assistance from former Thames Water employee Howard Brett. The idea of a guide developed from the need to provide information for the Community Emergency Plan, a link to which can be found near the top of <u>this page</u> of the village website.

First, the water supply....

Where does our water come from?

At Gatehampton, to the south of Goring, the Thames floodplain has an array of seven groundwater extraction tubewells installed through the Thames gravels into the underlying chalk. Thames Water, our supplier, pumps water from there to the Cleeve Water Treatment Works, to the northeast of Goring.

From Cleeve, treated water is pumped to a Thames Water storage reservoir at Greenmoor Hill, Woodcote, from which it flows by gravity to nearby communities including Whitchurch Hill and Whitchurch on Thames. There is a pressure reduction device under the road at the foot of the Whitchurch hill, near the junction with the Hartslock Bridleway, to restrict the pressure in the distribution system. On one occasion in recent years, the device failed and parts of the village were subjected to excessive pressure, causing some damage.

Is there an alternative source of water?

In the event of a severe problem with this supply there is an alternative source. This brings water from a reservoir in Tilehurst across the toll bridge in a 4" pipe. The source is groundwater extracted in Pangbourne. This route is understood not to have been used for many years. In an emergency, an alternative is for Thames Water to bring bottles of water by truck and hand them out.

Some properties in the village still have their own wells or tubewells to extract the local groundwater. The water quality from these is likely to be variable. Sampling and testing for bacteria, and if necessary sterilization, is recommended before using these sources for drinking.

Second, the wastewater....

Where does our wastewater go, and what happens to it?

Water draining from kitchen sinks, basins, baths and toilets flows by gravity into the foul water collector system. For most of the houses in Whitchurch this sewage flows towards a holding tank beneath the Thames Water pumping station on the south side of Eastfield Lane. The station is shown in the photo below. It is equipped with two electric pumps, one for duty and one a standby. Sewage is pumped from here in a pipeline leading to the sewage treatment plant (STP) situated to the west of the houses in Manor Road, shown in the aerial view on page 3.



Eastfield Lane Sewage Pumping Station, ref EASTP5ZZ

The higher area of the village, such as the Manor Road estate and properties near the Hardwick Road/High Street junction, have a separate collector system, with a gravity flow directly to the STP and no need for pumping.

After treatment at the STP, there are two products. The treated, cleaned water flows southwards through a gravity pipeline to discharge into the river. The more solid residue ("sludge") is stored at the site and is collected from time to time by a Thames Water road tanker. This conveys the material to a sludge treatment centre (usually Reading or Oxford) for further processing. This next stage of treatment generates gas for energy generation, and the treated sludge is then used as a soil conditioner on farmland.

The parish council has from time to time requested Thames Water to use only their smaller road tankers to avoid damage to the verges in Manor Road.

Some older and/or outlying properties in the village still rely on a septic tank within their boundary to which all their wastewater flows. These tanks, which are maintained by the property owner, have an overflow that allows seepage into the ground and are periodically emptied of solid material by a contractor's road tanker.



Aerial view of the Manor Road Sewage Treatment Plant, ref WHITS1ZZ

What can go wrong?

In the event of a power failure lasting many hours, the holding tank beneath the Eastfield Lane pumping station could become full and be at risk of overflowing. To avoid this, Thames Water, warned by a remote alarm, can either send a road tanker to pump out the holding tank or send a mobile generator to provide temporary power to the pumps.

In 2014 during a major Thames flood the foul system was overloaded by the entry of river water into it at unknown locations, and sewage emerged in some properties, particularly along Eastfield Lane. The event is described on page 11 of <u>this report</u> and its Appendix B contains the minutes of a meeting with Thames Water. The company is understood to have since fitted remote level monitors at some locations in the collector system so that if the event occurs again the entry points can be identified.

One well-known cause of problems in sewage systems is the flushing of anything other than toilet paper. Wet strength tissues, or wet wipes, should not be flushed down a toilet.

How can I report a sewage problem?

Thames Water encourages people to report sewage problems whenever they occur. These help them build up a picture of the situation and allocate resources accordingly. They urge residents to contact them via <u>their website</u> if they have any problems with backing-up of sinks or toilets, or slow drainage of facilities.

Does our STP sometimes discharge untreated sewage into the river?

In a heavy rainfall event, if there is a risk of overflowing of the foul sewer collector system, STPs may discharge untreated sewage to a river. Thames Water maintains an <u>interactive map</u> listing such discharges. However, the Whitchurch STP, one of their smaller plants, is not included and we currently have no information on discharges from it.

Can I get a discount for sending rainwater to soakaways?

To minimize the amount of rainwater entering the foul water collector system, which unnecessarily burdens both the pumping station and the sewage treatment plant, many houses in Whitchurch (for example, all the Swanston Field properties) are provided with soakaways, into which rainwater drains from roof gutters and from paved ground surfaces. Householders are rewarded with a rebate from Thames Water on their wastewater charges. A 'Surface Water Rebate' of about £25 per year can be obtained by demonstrating that no rainwater from a property enters the foul water collector system. Details of how to apply are given <u>here</u>.

Contact

Any queries or corrections relating to this first edition of the Rough Guide would be welcomed by the Whitchurch Drainage and Flooding Forum. They can be sent to the Forum by <u>email</u>.