

**Wiltshire Council**

**Western Area Planning Committee**

**22 May 2013**

---

**Drainage Report: W/12/02235/FUL - Proposed Dwelling at 19, St Mary's Lane, Dilton Marsh**

The proposed development at 19, St Mary's Lane, Dilton Marsh discharges both foul and surface water but as the foul discharges will be piped directly to an existing foul sewer which is in turn part of a Wessex Water sewer; Wessex Water will provide the applicant with the criteria necessary for his connection to their network.



The means of surface water disposal is another matter however and it is intended to discharge excess surface water to an existing open watercourse shown above. The open watercourse is coloured blue and runs from the hammerhead at the western end of Dutts to the Wessex Water pumping station and out across the fields in a larger open watercourse. This receiving watercourse fronts the proposed property and is shown in the photograph below.



My calculations indicate that the open watercourse has a capacity of 2.3 cubic metres per second (2,300 litres per second). I measured a fall of 3.5% by placing my iPhone on the kerb line because the watercourse slope is similar to the road slope but physically measured the other dimensions.

The calculated output from the site using the Wallingford procedure is about 3.34 litres per second or roughly 0.15% of the watercourse capacity. If the property is draining to the open watercourse at the end of the hammerhead, where is all the water coming from to generate all the objections?

I have spoken to residents who tell me that the road itself acts as a conduit, feeding surface water towards the hammerhead which appears to be the source of the trouble.

Access to the watercourse is blocked by private fences but I went to the lower end of the watercourse at the pumping station and traced the watercourse back upstream towards Dutts.

There has been encroachment over the watercourse at some properties but where the watercourse is open, it retains its original profile and hence its capacity. I could not measure its slope here but believed it to be somewhere between 1 in 100 and 1 in 200 which indicates a capacity of between 6000 litres per second and 3800 litres per second with the larger dimensions accounted for in the calculations.

So in a nutshell the existing system should be capable of conveying several cubic metres per second, to a point close to the pumping station and out in the fields to the north of all the properties where it can do no harm.

If the proposed site uses 100 mm diameter pipe work from the storage tank into the open watercourse then the maximum pipe capacity is in the order of 5 litres per second, well within the expected maximum run off value of 3.34 litres per second.

So the upper end of the receiving water course is shown pictorially above and the lower end is pictured below, now if there is a problem, which I sure there is, then it occurs in the middle.



The open watercourse disappears behind new private fences at the side of the flats numbered 22, 22A, 23 and 23A and I suspect that the open watercourse has been illegally piped somewhere between 27, 27A and 29. Access is a problem making the watercourse that is shown as an open feature on the ordnance survey drawings different from the watercourse that exists on site.

Having pointed to the problem being the possible illegal alteration of the open watercourse and the “fencing in” of the places where the open watercourse still exists. I can appreciate the worries of the neighbouring properties but it could be a case of a self inflicted condition which is outside the scope of planning permission. I understand that planning permissions are assessed by referring to items within the applicant’s control and thus determination should not consider off site problems.

My supposition would be the riparian owners downstream having no idea that they are responsible for the wider increased flood risk problem and regard themselves as not having any responsibility for the hidden watercourse at all. Establishing exactly who owns what along that route will be a considerable challenge but would be necessary in order to address any flooding issues in the area.

The highway drainage problem will continue to exist as this watercourse is the only outward water route through the already constructed mass of rear gardens but careful development should not exacerbate the problem further.

---

**Report Author:** Steve Scothern (Land Drainage Engineer), 01249 706312

08 May 2013

Appendices: None