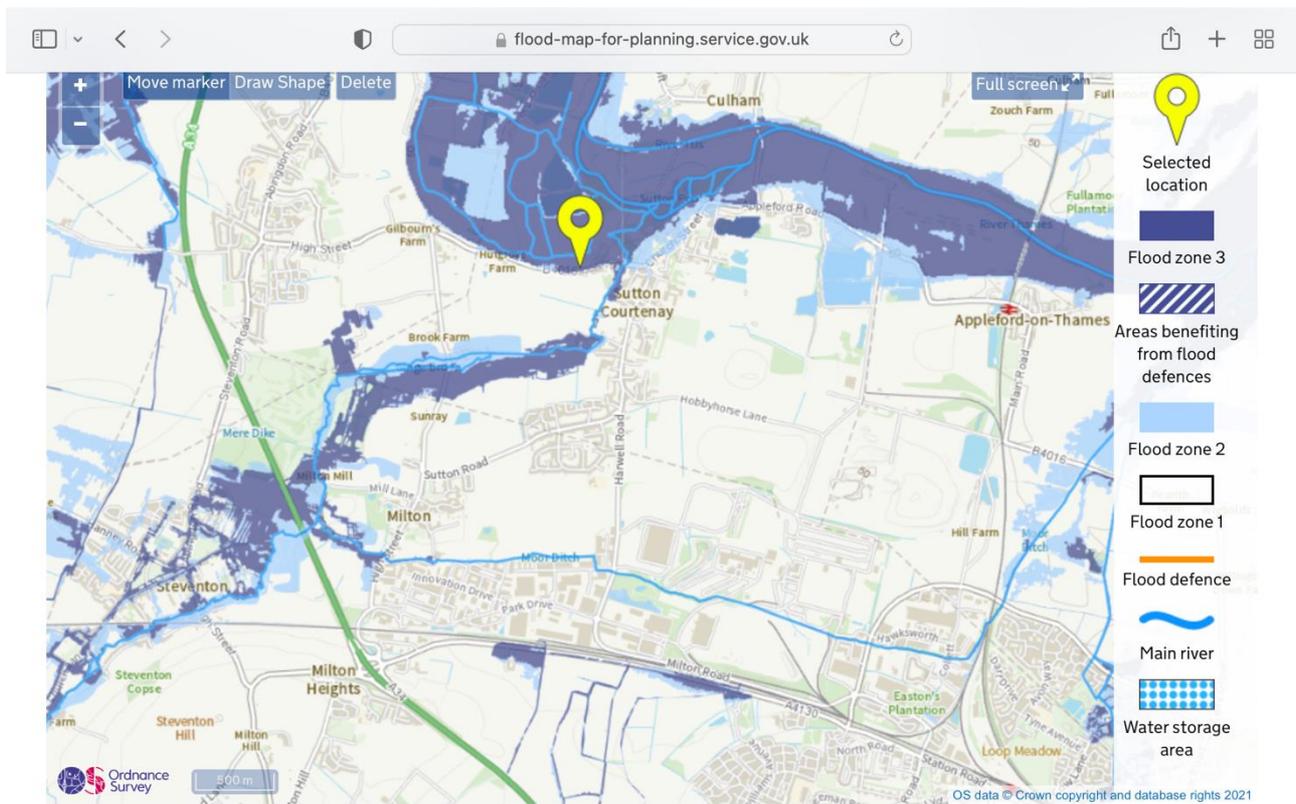


## Sutton Courtenay Neighbourhood Plan addendum on Flooding (DRAFT 8fv2, April 2023)

Sutton Courtenay sits in a low-lying area beside the River Thames which is vulnerable to flooding. Parts of the village are vulnerable to river flooding, surface water flooding and groundwater flooding to differing extents and historical incidences of flooding have resulted from one or a combination of these factors. Flooding is therefore a key factor which needs to be considered when evaluating future development proposals in Sutton Courtenay. As the evidence presented in this document shows, many sites may be unsuitable for development, either because of a disposition to flooding of the site itself, or because of the effect that any new development may have on flooding of existing properties.

The purpose of this document is to present evidence to demonstrate that many areas of the village are at significant risk of flooding. The UK Government Flood map for planning shows that different parts of the village lie in Flood zones 3 (1% or greater chance of flooding each year), 2 (0.1-1% chance of flooding each year) and 1 (less than 0.1% chance of flooding each year).



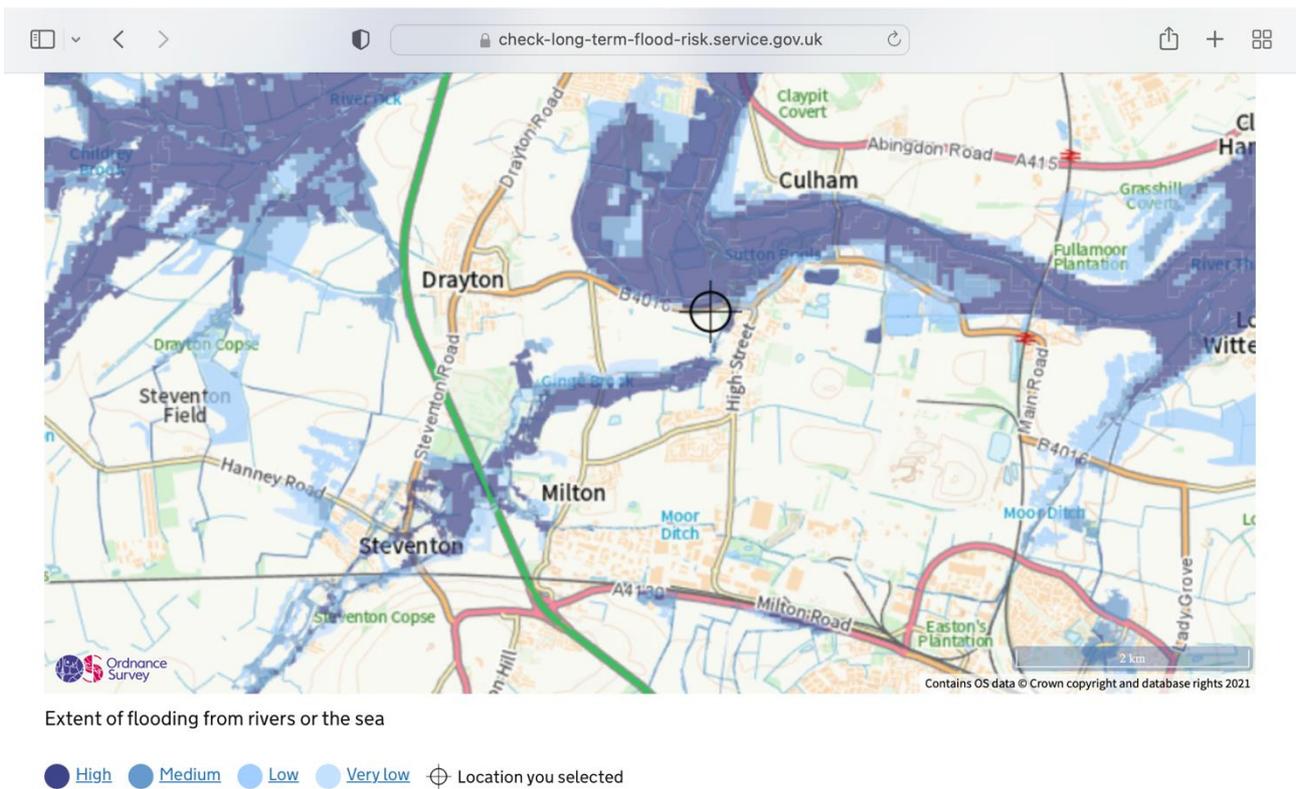
### Section 1: River flooding

#### River Thames

Sutton Courtenay is situated beside the River Thames and northern areas of the village in particular are vulnerable to river flooding. The UK Government flood map shown below categorises the predicted extent of flooding from the river.

Abingdon Road which leads northwards to the bridges crossing the Thames, regularly floods when the river becomes very high. Although the weirs allow much of the water in the river to be diverted onto the flood plain when it is in flood, the gardens of the houses on the western side of Church St which back on to the Thames are potentially vulnerable. River flooding regularly extends over the fields on both sides of Abingdon Road and on the western side of this road in particular, it often extends as far south as

Appleford Road, as reflected in the high and medium risk shown for this area on the UK Government flood map.



*River flooding on field to the west of Abingdon Road in 2014 (taken from the south looking north east). In this instance, the flooding came very close to the houses on the north of the western section of Appleford Road.*



*River Flooding on Abingdon Road January 2003*



*River Flooding on Abingdon Road 2014.*



*River flooding on Abingdon Road, February 2021.*

On the eastern side of the Abingdon Road the risk of flooding on the UK Government River Flooding map is shown as high at the northern end towards the bridges, but low further south towards Appleford Road. However, the very extensive flooding observed, most recently during the winter of 2019/20, suggests that the fields immediately to the east of Abingdon Road and to the north of Appleford Road are all likely to be at significant risk.



*Photos taken on 18.11.19 from Abingdon Road. Left photo is taken looking east and the right photo is taken from a gate in the field looking south (and slightly west) towards the backs of the houses in Abingdon Road.*

The very extensive flooding observed in 2019/20 may have resulted from a combination of river and surface water flooding (although this area is shown to be at very low risk of surface water flooding on the UK Government flood map, see Section 2 below). A high level of groundwater (see Section 3) may also have contributed. The increasing frequency of heavy rainfall which is accompanying climate change may possibly account for the extent of this. Indeed, the Abingdon Road and its surrounding area were flooded again during the winter of 2020/2021 and a recent article in The Guardian, highlighting the dangers associated with increasing use of floodplains for housing development, was illustrated with a photo of this flooding on Abingdon Road, Sutton Courtenay in February 2021 ([www.theguardian.com/society/2021/nov/22/more-than-5000-homes-in-england-approved-to-be-built-in-flood-zones](http://www.theguardian.com/society/2021/nov/22/more-than-5000-homes-in-england-approved-to-be-built-in-flood-zones)). As this is expected to continue (as acknowledged by the VoWHDC which has declared a climate change emergency), careful account needs to be taken of this changing situation when considering sites for development.

The Environment Agency (EA) recommendation on outline planning application P15/V2933/O to develop a site to the north of Appleford Road was that building should not be permitted on those areas within the proposed site lying within Flood Zones 2 and 3 (see Appendix A). The application and a subsequent appeal were rejected on grounds other than flood risk. The evidence presented here suggests that the flood risk to parts of this site other than those currently categorised as 2 and 3 makes this site unsuitable for development when the predicted effects of climate change, together with recently completed and planned developments on the southern side of the Appleford Road (which have increased the area of impermeable surface nearby), are taken into account.



*Flooding at the northern end of the field immediately to the north of Appleford Rd, and lying to the east of the houses in Abingdon Rd, November 2019.*

River flooding is also a frequent event in a large area to the north of Drayton Road in Sutton Courtenay. This area lies predominantly in flood zones 2 and 3 (medium and high risk). Photographs taken in March 2020 exemplify the extent of flooding in this area and confirm its unsuitability for development.



*Flooding north of the cycle path on Drayton Road, March 2020 and February 2021.*



*Flooding of the Peep-o-Day Lane cycle path which spilled out into Drayton Road, February 2021.*



*The overall level of water in the Thames has often been extremely high in recent years as illustrated in the two photos above taken in December 2012 of an area around the lock at the Culham Cut.*

## Ginge Brook

This chalk stream which rises on the Berkshire Downs passes through fields to the west of the village before turning northwards and running behind houses at the top of the west side of the High Street and passing under Brook Street before joining the Thames. In periods of heavy rain this has led to flooding of nearby properties most notably in 2007. The photos show flooding of Lower Mill and neighbouring properties on Ginge Brook but the overflowing brook was also responsible for flooding of houses in The Nursery in July 2007.



*Flooding of the Ginge Brook at Lower Mill, where the brook flows through a culvert under the house (July 2007).*

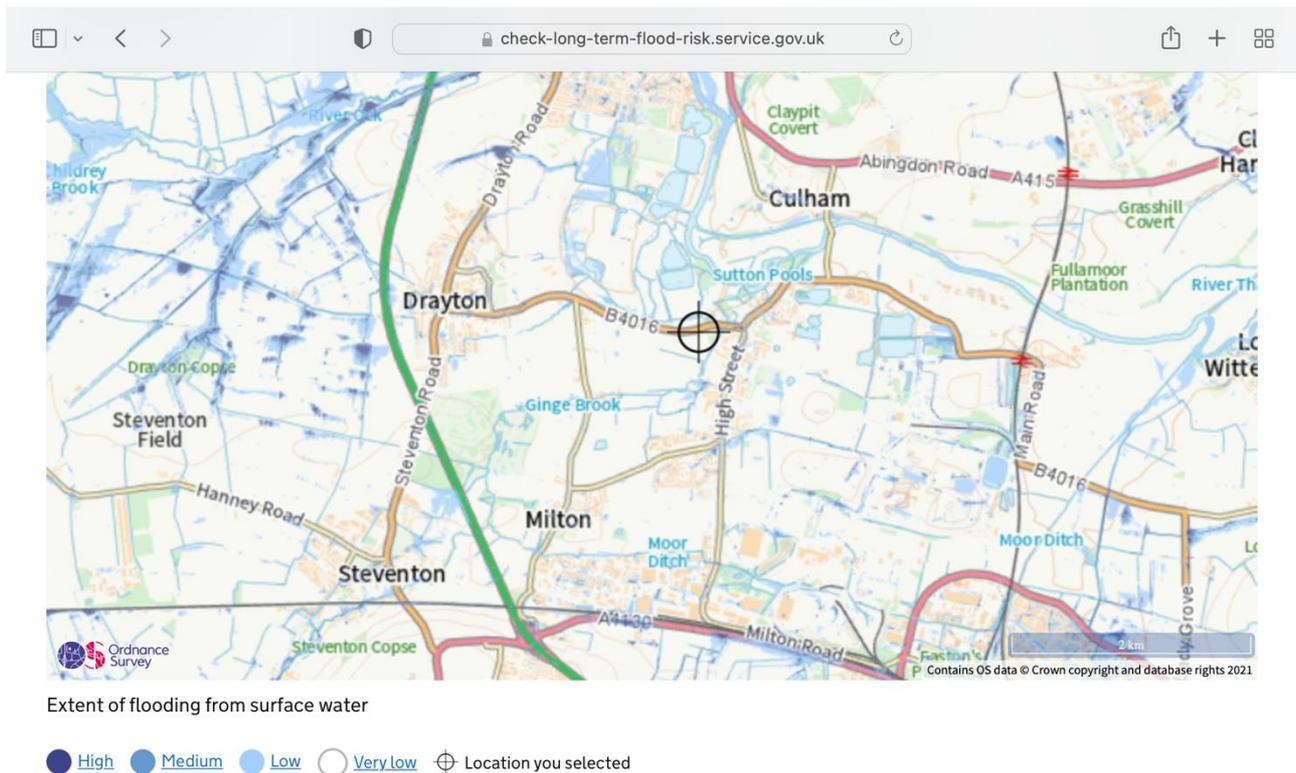


*Flood water on the Ginge Brook immediately upstream of the Lower Mill culvert, showing the flooding of the neighbouring property (July 2007).*



*Flooding from the Ginge Brook onto Brook St (July 2007).*

## Section 2: Surface Water Flooding



The UK Government surface water flood map for Sutton Courtenay (above) shows some areas that are particularly vulnerable to flash flooding (where water from rainfall cannot easily drain away). Parts of the High Street and the area of Brook Street where it meets the High Street are shown as highly vulnerable (dark blue) and flooding often occurs on Brook Street after heavy rain, e.g. in July 2007 as shown in photo where the floodwater can be seen extending into Chapel Lane, and in September 2017 as evidenced by this report on Fix My Street

( <http://fixmystreet.oxfordshire.gov.uk/report/897268> )



*Flooding in Chapel Lane July 2007.*

The more extreme weather associated with climate change is resulting in an increased frequency of this type of flash flooding. The photo below shows flooding of the upper part of the High Street (Nos 20-30) following a thunderstorm on 12<sup>th</sup> August 2020, during an unusually prolonged period of extremely hot weather.



The map also shows that larger areas to the south of Frilsham Street/Hobbyhorse Lane and to the east of the High Street, are highly vulnerable to surface water flooding. The latter is of particular concern as it was selected as a strategic development site in the VoWH Local Plan 2031.

Objections to Planning Application P17/V1963/O to build 200 houses on this site were made on the grounds of flood risk. It was concluded that the applicants did not demonstrate that the development was 'flood resilient and resistant whereby residual flood risk can be safely managed, including by emergency planning, and that flood risk will not be increased elsewhere'. The application was refused, and an appeal was lodged but this was subsequently withdrawn (see also Section 5 below).

Photographs submitted by village residents during the course of the examination of this planning application showed flooding on this site, for example in 2014 below (and see also **Appendix F** for a resident's objection letter of 27.11.2016 to an earlier application on the same site, P15/V2353/O, which was also refused).

Despite the very significant issues established in connection with this site, in particular those relating to drainage, an outline application to build 175 houses on the same site was submitted again in September 2021(P21/V2682/O). Furthermore, the applicant requested that only the matter of access to the site be determined at this stage which was contrary to the advice of the District Council officer in the pre-application decision. Given the concerns identified in previous application submissions, which in his view needed to be resolved at the earliest stage, the officer considered a full application was required. Reassuringly in October 2022, following the submission of supplementary information, P21/V2682/O was refused on a number of grounds including vulnerability to surface and groundwater flooding and failure

to demonstrate that the development would not increase flooding elsewhere, taking into account the effects of climate change.



*Photograph, taken on 9<sup>th</sup> February 2014, of flooding to the proposed development site. Photo taken from a position at the East of the site looking West.*

More recent photos (below) show flooding is a regular occurrence at this site.



*Standing water in center of the development site in January 2018, looking to the south (ref Rodda 2018 report, HR5).*



*Photo taken 29.2.20 from Hobbyhorse Lane, the top right-hand corner of the field is waterlogged with a large section of water mid-way across the field towards the recreation ground*



*Photo taken 29.2.20 looking NW towards the Village Hall from the continuation of Hobbyhorse Lane showing the waterlogged ditch to the south of the proposed site.*



*Flooding of the NE part of the site, January 2021.*



*Looking into the site from the flooded footpath to its east, January 2021.*



*Looking into the site from the west, January 2021.*



*SE corner of the recreation ground (north of the site), January 2021.*

Flooding has also been observed in the field behind Cross Trees Farm most recently during the winter of 2019/20.



*Looking towards Cross Trees Farm over the field to its east, February 2020.*

Only part of this area appears to be indicated to be at risk of surface water flooding on the UK Government's long term flood risk map of 24.11.21 (it is located south of the fishing lake at the end of Churchmere Road which is marked on this map in pale blue). It seems likely that the more extreme weather experienced as a result of climate change may have contributed to this extensive flooding. This changing situation will need to be carefully monitored and considered with respect to any future applications for development on the eastern side of Sutton Courtenay.

### **Section 3: Groundwater Flooding**

A note from the Environment Agency describes groundwater flooding as follows:

'Flooding from groundwater can happen when the level of water within the rock or soil underground – known as the water table – rises. When the water table rises and reaches ground level, water starts to seep through to the surface and flooding can happen. This means that water may rise up through floors or underground rooms such as cellars or basements. Water doesn't always appear where you would expect it to - such as valley bottoms – it may also emerge on hillsides.'

Groundwater flooding is much slower to occur than river flooding – it will usually happen days, weeks or even months after heavy or prolonged rainfall. And it may last weeks or even months. Flooding from groundwater is most common in areas where the underlying bed rock is chalk, but it can also happen in locations with sand and gravel such as in river valleys. Some parts of the country are more prone to groundwater flooding than others.'

( <https://environmentagency.blog.gov.uk/2019/12/23/what-is-groundwater-flooding/> ).

According to the Vale and South Oxfordshire Strategic Flood Risk Assessment Final Report of 2013, there have been 62 reports of groundwater flooding in the area since 2000. It mentions that groundwater flooding also occurs in combination with main rivers and that some areas in the VoWH have suffered basement flooding when groundwater in alluvial gravels has risen, driven by river flooding in the River Thames. In particular, according to the Environment Agency, a couple of properties in Appleford (*which lies on the Thames a couple of miles to the east of Sutton Courtenay*) were flooded in 2013, probably caused by raised ground water in gravels which were unable to discharge naturally due to flooding in the River Thames nearby.

Very high groundwater levels are a feature of Sutton Courtenay. For this reason, burials in the cemetery (which lies between the High Street and the recreation ground) are restricted to being no more than one person deep. Furthermore, in many areas, particularly during a wet winter, groundwater levels are so high that any development would be in breach of Sustainable Drainage (SuDS) Guidance, as shallow infiltration systems would not work.

For instance, high groundwater levels are prevalent in the area south of the recreation ground, which led to the rejection of the planning application for 200 houses on the Hobbyhorse Lane site (P17/V1963/ O) in August 2019 (see also Section 5 below). The VoWHDC Strategic Flood Risk Assessment (see Appendix C) states that this area is 'predominantly within the very high-risk category (greater than 75%) of groundwater flooding.' (*see map at Appendix H*). Additionally, in the Water Resources Associates February 2016 Report on the Hobbyhorse Lane site (HR3 see Appendix E), Dr Harvey Rodda states clearly that, 'as shallow infiltration systems will not function on the site it cannot be deemed to be sound'.

Groundwater levels were monitored by village residents over the winter of 2016-17 at a site to the east of Harwell Road where an application to build over 300 houses was made (P18/VO340/O). Levels were found to be high (less than a metre below the surface) all over the site and water emerged from the area causing flooding at the northeast of the site in January 2017. Groundwater was also observed to be very high during archeological excavations on the site in June 2016 (ref Rodda 2017, HR4).



*Left: Surface ponding at the Harwell Road site, January 2017.*

*Right: High groundwater levels in the archaeological excavations, June 2016.*

The area to the north of Appleford Road which was the subject of a planning application to build 93 houses in 2015 also lies in an area of high risk of groundwater flooding (part of the site being in an area of greater than 75% risk and part in an area of 50-75% risk) according to the same flood risk map (Appendix H). Dr Harvey Rodda's report of Feb 2016 on the applicant's FRA (HR3) pointed out that the groundwater

assessments carried out by the applicant on this side were inadequate (ref Rodda 2016 Appleford Road (HR2), see Appendix B).

Thames Water works intended to improve sewerage in the High Street were suspended in May 2020 owing to high groundwater levels (ref Sutton Courtenay News June 2020).

High groundwater levels are also a feature in the area to the north of Milton Road on which 3 new housing developments were completed in the second half of the last decade: 68 homes in Asquith Park, 34 in Springfield Way and 28 in Rye Gardens/Partridge Close. High groundwater levels 0.3m below the surface were recorded in December 2012 and 0.16m in February 2013 (Harvey Rodda report on Pye and Redrow FRAs, Rodda 2013, HR1). The completion of these developments has created more impermeable surfaces in this area and extensive flooding was observed in the adjacent fields over the winter of 2019/20. This was most probably a combination of surface water flooding exacerbated by the high groundwater levels. Flooding was so intense over the winter of 2019/20 that the farmer had to dig an additional drainage ditch in the field to the west of the recent developments to alleviate this (see photos below).



*Ditches created to alleviate excess flooding.*

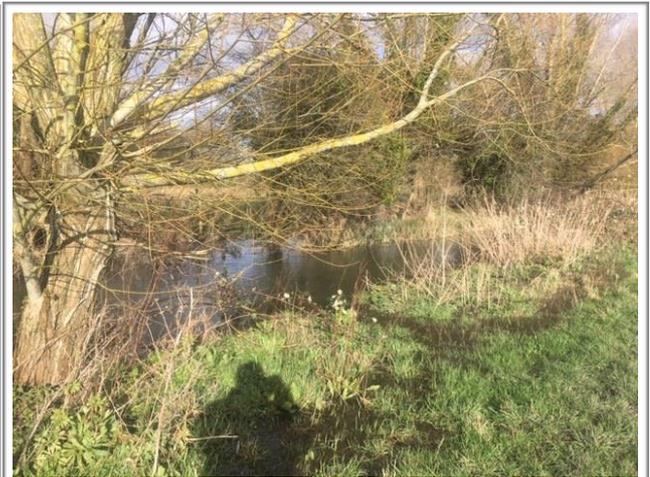


*Looking south towards Springfield Way, March 2020*

The fields to the north of this (on the western side of the village), and those adjacent to the Mill Brook were also flooded during the winter of 2019/2020.



*The field that runs parallel to Mill Brook. This flood was running off into Mill Brook at the North-Western corner.*



*The same field looking from the Mill Brook south east towards Didcot and the Mill stream at full flow.*

A similar pattern of flooding occurred around the Mill Brook in the winter of 2020/2021.



*North and south of the Mill Brook, February 2021.*

Although small areas in the fields on this western side of the village are shown to be at risk of flooding on the UK Government surface water flood map, the observed flooding has been much more extensive than this would indicate.



*High groundwater levels are likely to have contributed to the flooding of houses in Churchmere Road in 2014, in combination with drainage of surface water from the landfill site into the nearby lake (see photo above).*

In one of these houses the flood water overwhelmed the sewage system. The house was badly damaged by the rising flood water and, given that it would be very vulnerable should flooding be repeated, a decision was taken to demolish it.

In another part of Churchmere Road, a further disaster was narrowly averted when the sewage water rose to touch a manhole cover.

Water contributing to this flooding ran down over the field between the FCC landfill site, to the east of the village, and Churchmere Road. FCC has subsequently made considerable improvements to drainage which will hopefully reduce the impact of any future flooding. Until now however, these conditions have not recurred so the impact of the improvements remains to be seen.

#### **Section 4: Flooding from Sewers**

Sewer flooding occurs when intense rainfall overloads the sewer system capacity (surface water, foul or combined), and/or when sewers cannot discharge properly to watercourses due to high water levels. Sewer flooding can also be caused when problems such as blockages, collapses or equipment failure occur in the sewerage system.

There have been a number of incidences of sewer flooding in the village. During the early 2000s a resident of Frilsham Street entered into a protracted correspondence with Thames Water regarding sewage backing up into their property. Similar problems were experienced by other properties in the High Street and Frilsham Street and Sutton Courtenay Parish Council took this up with Thames Water (ref SCPC letter to Thames Water 2003, Appendix I)

During the July 2007 floods, houses in the upper part of the High Street were inundated with sewage and sewage flooding occurred in the same area a few years earlier.



*Flooding of the upper part of the High Street 20th July 2007.*

Another example hit the press in 2016 when raw sewage spilled into the road near the Triangle for several hours. Although this was caused by a blockage, the flooding was likely to have been exacerbated by the lack of capacity of the sewers to cope with the load, partly as a result of the extent of new developments in the village. An article in the Oxford Mail on 4th February 2016 describes this incident and includes a photograph of a local resident attempting to clear the raw sewage which had leaked into one of the houses at the top of the High Street (*follow link to Oxford Mail: [www.oxfordmail.co.uk/news/14253768.sewage-water-gushes-across-road-sutton-courtenay-spills-home/](http://www.oxfordmail.co.uk/news/14253768.sewage-water-gushes-across-road-sutton-courtenay-spills-home/)*).

A few years ago, the pumping station behind Church Street, broke down and foul water began to bubble through drains and lift manhole covers. This necessitated a vehicle-mounted pump working around the clock over a period of about two weeks to alleviate the problem and some of the waste had to be taken away by tanker. The sewers along Church Street have since been improved but nevertheless sewage has backed up through the manhole cover outside Manor Cottage on several occasions since 2021. This situation is becoming worse as more houses are connected to the sewer. In the most recent occurrence in April 2023 the raw sewage was spread up the driveway leading to Manor Cottage (see photo below). In addition to the need for this particular problem to be remedied directly, it further highlights the need for the capacity of the sewage system to be very carefully assessed in relation to any future applications for development at the northern end of the village.



*April 2023 Raw sewage seeping out of manhole and spreading down driveway on Church Street*

There have also been problems with the main pumping station on Drayton Road. A few years ago around Christmas time this station failed and tankers removed waste over the Christmas period. Then on 18<sup>th</sup> December 2019 it failed again and this time the alarms also failed. As a result, the sewers backed up in an easterly direction along the Drayton Road and Brook Street. An occupant of one of the houses in Brook Street noticed that their waste was beginning to back up and notified Thames Water. The sewage was rising up through manholes in the Drayton Road close to the pumping station by the time Thames Water arrived to inspect. During the summer and autumn of 2020 work was carried out to install some larger diameter sewers and large storage manholes on Brook Street and Drayton Road to deal with sewage during periods of high demand. Thames Water, however, met with high levels of groundwater during these works which has, we understand, necessitated some changes to the original plans including applying for permission from the Environment Agency to drain excess water into the Ginge Brook. How effectively these works will address the historical problems remains to be seen.

The vulnerability of the sewage system is further illustrated by the fact that effluent was also taken away via tanker for some time after the new houses in the developments off the Milton Road were first occupied. The limited capacity of the system was again highlighted when the application to develop large warehouses at the southern end of the village was only permitted conditional on the sewage being routed to the south, rather than through the village as originally proposed.

The inadequate state of the sewer system in the village has been raised during consideration of many recent planning applications. As a result, Thames Water undertook work to upgrade sewers in Brook Street (see above) but the works intended to provide a similar upgrade to the sewers in the High Street had to be abandoned in 2020 owing to high groundwater levels. These works were finally completed over the summer/autumn of 2021 and it remains to be seen how effective these will be.

The works carried out in Brook Street in summer/autumn of 2020 also had to be paused owing to high groundwater levels.

## **Section 5: Summary of Flooding Related Objections to Recent Planning Applications.**

This section summarises the objections that were made relating to flooding which were considered during the determination of a series of recent large scale planning applications in Sutton Courtenay.

### **I) North of Appleford Road Site P15/V2933/O - SUT**

There were no statutory consultee objections on the grounds of flooding (ref EA letter - see Appendix A). However, parts of the site are in flood zones 2 and 3 hence a condition was applied to prohibit any building on these parts of the site. Villagers did object on the grounds of flooding. The EA believes photographic evidence of flooding supplied by the village does not show any flooding beyond the 'current' flood zone 2 extent.

The application and a subsequent appeal were both turned down on other grounds. However, further evidence presented in this document of the extensive flooding which occurred in this area over the winter of 2019/2020 (see Section 1) supports the objections made on grounds of flooding.

PLANNING APPEAL - APP/V3120/W/20/3247391:

A village resident's submission to the Appeal (see Appendix B) references independent consultant Harvey Rodda's report of February 2016 (Rodda (Appleford Road) 2016, HR2) which concluded that:

*'The flood risk assessment is generally lacking in important detail and punctuated by a number of errors. The report fails to provide an adequate description of the flood risk at the site and the proposed SuDS design. The FRA should be rejected by the EA and local authority. Information is missing from the following key areas.....'*

In the key areas, he particularly highlighted the paucity of groundwater level analysis and concluded that *'The risk of groundwater flooding has not been properly assessed in the FRA.'*

## II) Hobbyhorse Lane site

### a) P17/V1963/O (previous application P15/V2353/O refused, appeal lodged and then withdrawn)

The lead Local Flood Authority objected with respect to flood risk. 'Applicants did not demonstrate that the development was flood resilient and resistant whereby residual flood risk can be safely managed, including by emergency planning, and that flood risk will not be increased elsewhere'.

Details of individual objections are no longer available on web site but are summarised in delegated report: <https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/planning-registers/planning-application-register/> Select 'search by reference number' and insert 'P17/V1963/O' in the search box. Under 'Downloads' the Delegated Report can be found in the folder entitled 'The Decision'. An extract of details from this report which refer to drainage and flood risk issues can be found at Appendix D.

Section 5.13 of the delegated report reads:

- Due to the existing flood risk and groundwater issues at the site, and with no feasible surface water discharge point to an existing watercourse, it is considered that the information provided has failed to demonstrate that there is an adequate drainage solution for the site. It has also not been demonstrated how the existing surface water issues will be addressed adequately and how groundwater will be managed during construction to ensure flood risk is not increased elsewhere.

Harvey Rodda (WRA) was commissioned by Sutton Courtenay Action and challenged several of the applicant's FRAs since there were multiple versions and inaccuracies (see Appendix E, Rodda 2018, HR5). Dr Rodda's reports were used by the Council to justify their own independent review which concluded that the FRA was inadequate.

### b) P21/V2682/O

A new outline application to build 175 houses on this site was submitted in September 2021. In October 2022 this application was refused on a number of grounds including inability to provide safe access, unacceptable increase in road traffic movements, inability to mitigate against contamination and odours from the adjacent land fill site and vulnerability to flooding. Based on evidence demonstrating repeated flooding on this site and its apparent worsening during recent years, the decision notice states: 'The application site is subject to surface and ground water flooding. The proposal fails to demonstrate that it is flood resilient and resistant from all sources of flood risk and that flood risk will not be increased elsewhere taking account of the effects of climate change.' ( [www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/planning-registers/planning-application-register/](http://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/planning-registers/planning-application-register/) ) Select 'search by reference number' and insert 'P21/V2682/O' in the search box. Under 'Downloads' the Decision Notice can be found in the folder entitled 'The Decision'.)

## III) Harwell Road Site (London Regeneration) P18/V0340/O

This outline application to build, amongst others, up to 310 residential units in the field behind Harwell Road was refused on grounds including its disproportionate size and its inappropriate location on an area of rural agricultural land which forms an essential gap between Sutton Courtenay and Didcot. An appeal was lodged and then withdrawn. In preparation for the appeal Sutton Courtenay Action commissioned a hydrology review of the site from WRA. Monitoring of groundwater levels by local residents over the winter of 2016/17 demonstrated high ground water levels within a metre of the surface all over this site with groundwater emerging in the north east corner of the site. Further evidence of high groundwater

was obtained from boreholes monitored by FCC on the eastern boundary of this site between 2015 and 2017 (*ref Rodda 2017, HR4*).

#### **IV) Milton Road Sites (Redrow, Pye and Linden Homes)**

Three new housing developments were completed in the second half of the last decade: Asquith Park (68 houses, Redrow P13/V0401/O), Springfield Way (34 Houses, Pye V0233/FUL) and Rye Gardens/Partridge Close (28 houses, Linden Homes P14/V2362/FUL).

High groundwater levels 0.3m below the surface were recorded by Pye in Dec 2012 and 0.16m in Feb 2013 (Rodda 2013, HR1, report on Pye and Redrow FRAs). Concern about the ability to design acceptable systems to deal with surface water drainage in light of high groundwater levels were raised in connection with these applications. Thames Water raised objections based on the inability of existing drainage systems to accommodate waste water and there were also concerns about the potential impact on the Ginge Brook and hence potential flooding of other properties within the village (Rodda 2013, HR1). The Springfield Way (Pye Homes) development was initially refused on drainage grounds but was allowed following an appeal. All the applications were finally granted following submission of drainage plans which were deemed to be acceptable.

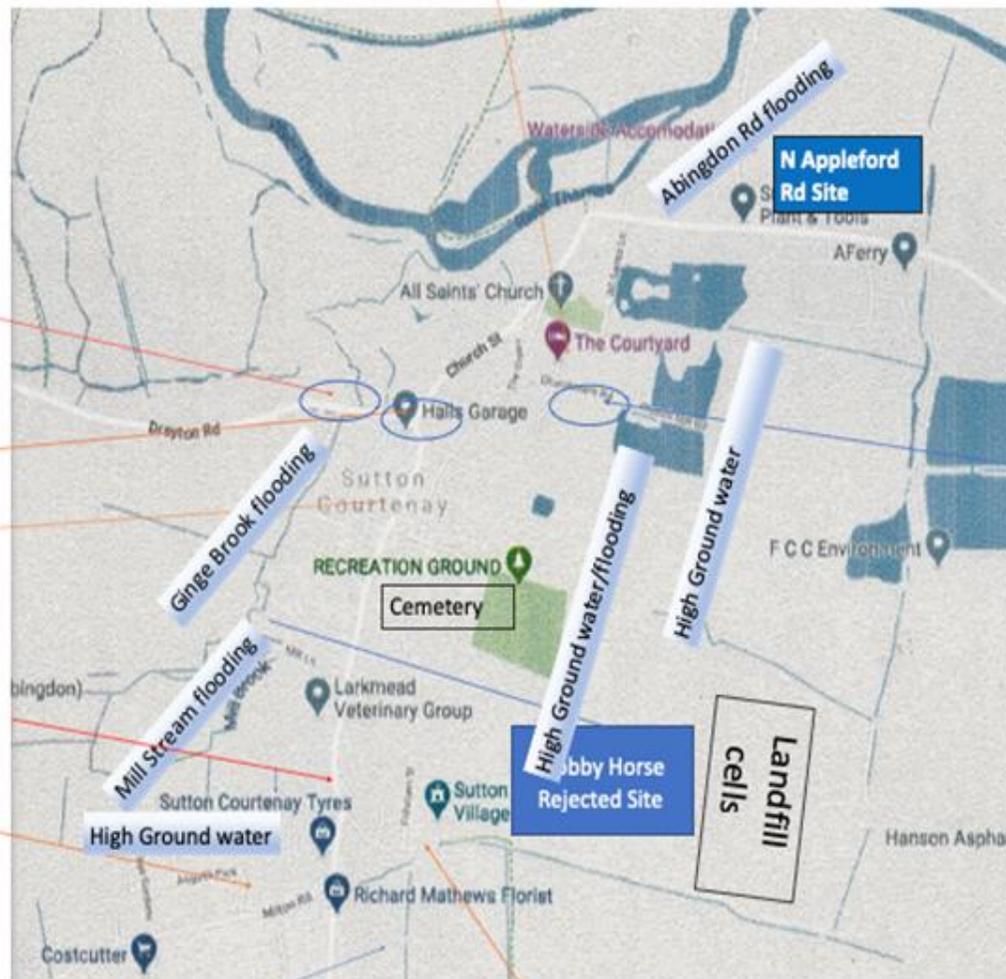
As described in Section 3 above, groundwater levels remain high in this area and flooding was so intense over the winter of 2019/20 that the farmer had to dig an additional drainage ditch in the field to the west of the recent developments to alleviate this.

#### **Conclusions**

The evidence in this document demonstrates that flooding is a significant issue in many of the fields surrounding Sutton Courtenay as well as within the built-up area of the village itself (see summary in map below). Its occurrence is apparently becoming more frequent and more extensive with climate change and this is a major concern for villagers ( [https://www.suttoncourtenay-pc.gov.uk/Consultations\\_25753.aspx](https://www.suttoncourtenay-pc.gov.uk/Consultations_25753.aspx) ). Deficiencies and inaccuracies in the Flood Risk Assessments carried out by developers in connection with recent planning applications have been uncovered by independent experts as highlighted in Section 5 of this document.

Given Sutton Courtenay's proximity to the Thames and other water courses, its high groundwater levels and the increased rainfall expected from continuing climate change, it will be important that the risk of flooding is given more diligent examination in planning proposals in the future. This can be expected to limit the areas available for development.

Church Street Sewage tankered



### SUTTON COURTENAY - RIVER, SURFACE AND GROUND WATER FLOODING RISKS

Brook Street Sewage works 2020 and flooding

Triangle Sewage flooding

High Street houses sewage overflow

High Street Sewage works 2020

Milton Road sewage tankered

High Ground water

Frilsham Street house sewage overflow

Churchmere Road Houses flooded

## References

HR1. Sutton Courtenay FRA Evaluation. Dr Harvey J E Rodda, February 2013

*(A review the FRAs submitted by Pye Homes and Redrow Homes relating to developments north of Milton Road, Sutton Courtenay)*

HR2. Proposed Residential Development, North of Appleford Road, Sutton Courtenay, Oxfordshire, OX14 4NF: Review of the Flood Risk Assessment produced by Peter Brett Associates on Behalf of O & H Properties Ltd. Version 4: Final report including groundwater monitoring. Dr Harvey J E Rodda, February 2016

HR3. Proposed Residential Development, Land North of Hobbyhorse Lane, Sutton Courtenay, Oxfordshire: Review of the Sutton Courtenay Flood Risk Assessment produced by JNP Group on Behalf of Redrow Homes. Version 4: Final Report. Dr Harvey J. E. Rodda, February 2016

HR4. Proposed Residential Development, Land off Harwell Road, Sutton Courtenay, Oxfordshire: Review Groundwater Observations. Version 2: Final Report. Dr Harvey J. E. Rodda *FRGS*, October 2017

HR5. Proposed Residential Development, Land North of Hobbyhorse Lane, Sutton Courtenay, Oxfordshire: Review of JNP Group Flood Risk Assessment Submitted December 2017. Dr Harvey J. E. Rodda, January 2018

References HR1-HR5 can be found at [www.suttoncourtenay-pc.gov.uk/Neighbourhood\\_Plan\\_24936.aspx](http://www.suttoncourtenay-pc.gov.uk/Neighbourhood_Plan_24936.aspx)

**Appendix A**  
(North Appleford Road Site)

**Appleford Road P15/V2933/O - SUT**

**Environment Agency Letter:**

<https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/planning-registers/planning-application-register/>. Select 'search by reference number' and insert 'P15/V2933/O' in the search box. Under 'Downloads' a summary of this letter can be found in the 'Committee report of 21 August 2019' in the folder entitled 'The Decision'.

Mr Adrian Butler  
Vale Of White Horse Council Planning & Building Control 135 Eastern Avenue  
Milton Park  
Milton  
Oxon  
OX14 4SN

Dear Mr Butler  
Our ref: WA/2016/121968/01-L01  
Your ref: P15/V2933/O  
Date: 4 March 2016

Outline planning application for the erection of up to 93 dwellings including associated car parking, public open space and landscaping  
Land north of Appleford Road, Sutton Courtenay

Thank you for consulting the Environment Agency on the above planning application. We have reviewed the submitted plans and Flood Risk Assessment (FRA) (PBA ref. 31670 Rev A, dated December 2015). We have also received photographs submitted by a local resident of previous flooding at the site. We have the following comments to make.

**Environment Agency Position**

We have no objections to the proposed development, as submitted, subject to the inclusion of the following conditions in any planning permission granted.

Without the inclusion of these conditions we consider that the development poses an unacceptable risk to people and property from flooding.

Condition – No development in Flood Zones 3/ 2

No development approved by this planning permission shall be located within Flood Zones 3 or 2 (excluding the area of depression in the south-east corner of the site).

**Reasons**

Our Flood Map shows that the application site has areas within Flood Zones 3 and 2. These are defined as the 1% AEP (or chance in any year) flood event and 0.1% AEP flood event, respectively.

There is therefore a high probability of fluvial (river) flooding at northern portions of the site.

Paragraph 101 of the National Planning Policy Framework (NPPF) states that development in areas of flood risk must demonstrate that there are no reasonably available sites suitable for the development at a lower risk of flooding. This is otherwise known as the Sequential Test.

Paragraph 1.3.4 of the FRA confirms that all development will be located within Flood Zone 1, and therefore that the Sequential Test has been passed.

The above condition is therefore required in order to ensure that the development is implemented in accordance with the approved FRA, and national planning policy.

The FRA states at paragraph 3.6.5 that the area of Flood Zone 2 at the south east of the site is not hydraulically connected with the watercourse and therefore would not flood in the 0.1% AEP flood event. We accept this assessment and therefore recommend the condition wording reflects this, to ensure that the restrictions of the condition are proportionate.

#### Historic flooding

We have reviewed photographic evidence submitted by local residents, which correlates with our historic flood outlines for the site. The photographic evidence does not show any greater flooding than the current Flood Zone 2 extent.

We believe the flooding of winter 2013/ 14 did not exceed 49.5mAOD, which correlates with our historic flood outline, and shows fluvial flooding does not significantly encroach on the site.

#### Groundwater protection

Due to increased workload prioritisation we are unable to make a detailed assessment of this application with regards to groundwater protection. We have checked the environmental constraints for the location and have the following guidance.

The environmental risks in this area relate to the historic use of the site as landfill, and the potential risks to groundwater quality from developing the site.

The FRA states that it may not be practical to provide infiltration drainage at the site.

If infiltration drainage is proposed at a more detailed stage, then it must be demonstrated that it will not pose a risk to groundwater quality. We consider any infiltration SuDS greater than 3m below ground level to be a deep system and generally not acceptable. All infiltration SuDS require a minimum of 1m clearance between the base and peak seasonal groundwater levels. All need to meet the criteria set out in our Groundwater Protection: Principles and Practice (GP3) document. In addition, they must not be constructed in ground affected by contamination.

#### Final comments

Please consult us on any applications for the approval of reserved matters of layout, if outline planning permission is granted.

Please note that we are reliant on the accuracy and completeness of the reports in undertaking our review, and can take no responsibility for incorrect data or interpretation made by the authors.

1 ( [www.gov.uk/government/publications/groundwater-protection-principles-and-practice-gp3](http://www.gov.uk/government/publications/groundwater-protection-principles-and-practice-gp3) )

If I can be of any further assistance, please do not hesitate to contact me.

Yours sincerely

Mr David Griggs

Planning Advisor

Direct dial 01491 828490

Direct e-mail [planning-wallingford@environment-agency.gov.uk](mailto:planning-wallingford@environment-agency.gov.uk)

cc Savills

**Appendix B  
(North Appleford Road Site)**

**Resident's submission of 6th April 2020 to planning appeal:**

**PLANNING APPEAL - APP/V3120/W/20/3247391**

**INADEQUATE FLOOD RISK ASSESSMENT**

Others will cover the main traffic and housing supply issues. My purpose is to draw the Inspectors attention to the misleading assessment of the flood risk on this site in the applicant's inadequate FRA and concern that the local authorities and that the EA did not address this sufficiently.

In 2015 the local community commissioned a national expert Mr Harvey Rhodda (sic) of WRA Associates, to review the applicant's FRA (1) (attached for convenience). I ask that you review this as further evidence that the site is unsuitable for development. The WRA report concludes:

*'The flood risk assessment is generally lacking in important detail and punctuated by a number of errors. The report fails to provide an adequate description of the flood risk at the site and the proposed SuDS design. The FRA should be rejected by the EA and local authority. Information is missing from the following key areas.....'*

In the key areas, he particularly highlighted the paucity of groundwater level analysis and concluded that *'The risk of groundwater flooding has not been properly assessed in the FRA.'*

Very high groundwater levels are a feature of the village which is typified by the structure on the cemetery which is some 950 metres up the slope from the appeal site, that no burials should be more than one person deep; the fact that the houses on Churchmere Road, 550 metres from the site, flooded in 2014 and the proven high groundwater levels in the area south of the recreation ground, which led to the rejection of the planning application (2) for that site in August 2019 (see map below).

All these and much of the landfill site to their east drain into the ditch running east of the proposed development into the Thames. Despite this, as the WRA report states, *'No further information has been provided about the catchment of this ditch nor has any assessment made of the potential flood flows in the ditch and possible impacts on the site.'* Furthermore, its conclusions state, *'Basic hydrological information is missing about the River Thames, its catchment area and the ditch running alongside the eastern edge of the site,'* a ditch which also runs alongside the base of unfilled landfill cells which continuously leach methane into it.

It is interesting to note that, despite failing to address the hydrological context and the high groundwater levels adequately, the applicant tacitly acknowledges that there is a risk by raising the level of the proposed housing by 300mm.

For too long under the pressure to pass speculative developments due to a lack of housing supply, district councils have not paid enough attention to the real experts in the field commissioned by local communities, using the rationale that conditions could be imposed which would mitigate any flooding risks. Even the Leader of the Vale DC subsequently accepted the requirement for more attention to be paid to outside experts. Indeed, he arranged for the Vale to commission further independent expert advice in the reconsideration of the application to build 200 houses behind the village hall (2). The outcome of that was that the drainage objection was upheld, supported additionally by a new expert drainage expert at OCC.

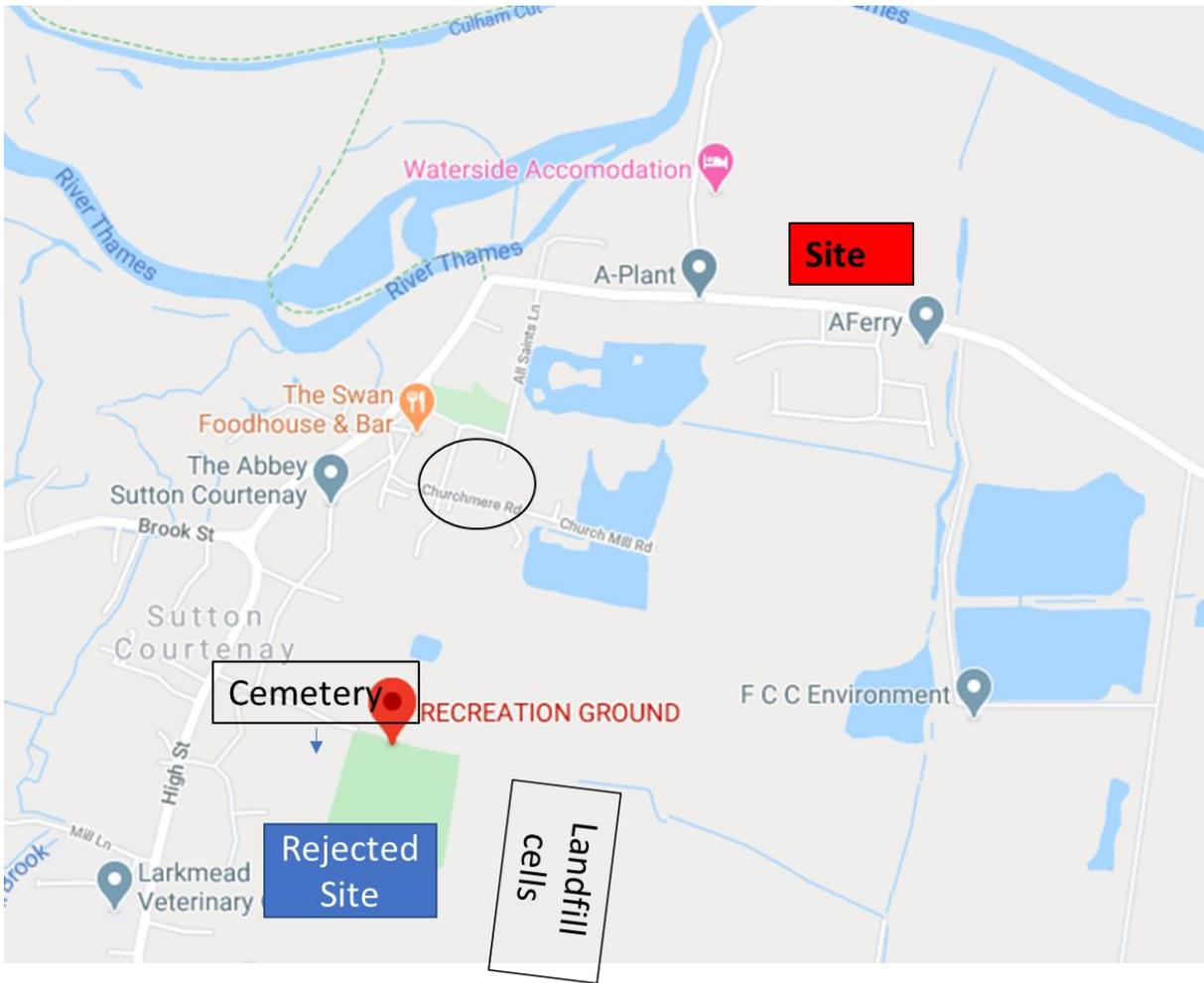
Here I should add that at the time of the application in question there was considerable confusion over which was the responsible authority, with neither the County Council or the EA taking responsibility. That was only resolved subsequently, with the County Council having to appoint more in-house expertise.

The NPPF states clearly that development should be '*appropriately flood resilient and resistant*'. The key to that and the protection of local communities and potential residents is a thorough FRA and that this should prove the resilience case at the outline planning permission stage. Sadly, too often this has been fudged by allowing an inadequate FRA to go forward to the detailed planning stage under conditions.

I would ask that you consider that as the applicant failed '*to provide an adequate description of the flood risk at the site and the proposed SuDS design*' that the omissions in its FRA provide further grounds for the rejection of the appeal.

#### References

- (1) Review of the Flood Risk Assessment produced by Peter Brett Associates on Behalf of O&A Properties Ltd Dated February 2016.  
[www.whitehorsedc.gov.uk/java/support/dynamic\\_serve.jsp?ID=1236304615&CODE=BECA61B961B54611646B40333CD7DA0D](http://www.whitehorsedc.gov.uk/java/support/dynamic_serve.jsp?ID=1236304615&CODE=BECA61B961B54611646B40333CD7DA0D)  
*NB This link is no longer active but the review can be found at HR2. See reference list on p24 of this document.*
  
- (2) Vale DC Planning application P17/V1963/O]



Churchmere Road Feb 2014

## Appendix C

### (Hobbyhorse Lane Site)

Extract from: Vale of White Horse District Council Strategic Flood Risk Assessment, Addendum October 2014\* (p17-18)

#### 3.4.5 East Sutton Courtenay

Area: 8.83 ha

Brownfield/Greenfield: Greenfield

Proposed use: Residential - 220 houses

Flood risk vulnerability classification: More vulnerable/less vulnerable

#### Summary of flood risk to site

##### Fluvial

A watercourse runs along the south side of the road to the south of the site, however there is no Flood Zone mapping for this watercourse.

There are no flood defenses.

##### Surface water

The uFMfSW shows risk of surface water flooding for a 100 or 1000 year event. No local evidence to support this.

##### Groundwater

The AStGWF map suggests that most of the area is in the highest category of risk of groundwater flood emergence. No historical record of groundwater flooding.

##### Sewer

No known sewer flooding problems.

##### Effects of climate change

Increased rainfall intensity in the future may exacerbate any surface water flooding problems.

##### Available survey/detailed modelling

No detailed models available.

##### Implications for development

- Requires a full FRA for a site >1ha in Flood Zone 1.
- Drainage strategy should be submitted at an early stage to cover mitigation of any surface water risk and reduce impact downstream through site design and SuDS methods.
- Thames Water should be consulted at an early stage to ensure that there will be sufficient capacity in the wastewater system and any upgrades are carried out where necessary.

*\*This document ( Ref: WWF03.18a) can be found at: [www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/local-plan-2031/](http://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/local-plan-2031/).*

*Then follow links to: Part 1 Evidence Base/ Examination Library/ 16 Water, Waste Water and Flooding/WWF03 Strategic Flood risk assessment 2014 incl Appendices and maps/ WWF03.18 SFRA Addendum/WWF03.18a Vo WH SFRA Addendum FINAL REPORT.pdf*

**Appendix D  
(Hobbyhorse Lane Site)**

**Extracts relating to drainage issues and flood risk from:**

**OFFICER RECOMMENDATION Vale of White Horse District Council – Delegated Report – 9 August 2019**

**APPLICATION NO. P17/V1963/O Land off Hobbyhorse Lane Sutton Courtenay Abingdon, OX14 4BB**

It is recommended that this application is refused for the following reasons:

**DRAINAGE**

The National Planning Policy Framework provides that development should not increase flood risk elsewhere and should be appropriately flood resilient and resistant (paragraphs 160 to 163). Core Policy 42 of the Local Plan 2031 Part 1 seeks to minimise the risk and impact of flooding through:

- Directing new development to areas with the lowest probability of flooding
  - Ensuring new development effectively manages all sources of flood risk
  - Ensuring new development does not increase the risk of flooding elsewhere
  - Ensuring wider environmental benefits of development in relation to flood risk
- Based on the drainage documents submitted with this application, in the opinion of the local planning authority the proposal fails to demonstrate that it is flood resilient and resistant whereby residual flood risk can be safely managed, including by emergency planning, and that flood risk will not be increased elsewhere. Therefore, and notwithstanding the fact that the application site is allocated for housing development in the adopted Local Plan 2031 Part 1, the proposal does not amount to sustainable development and would be contrary to the National Planning Policy Framework, Core Policy 42 of the Local Plan 2031 Part 1 and to advice contained in the Council's Strategic Flood Risk Assessment.

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- **Background Information**

An earlier application ref. **P15/V2353/O** (outline planning application for up to 200 dwellings, only the means of access is to be considered) was submitted to the Local Planning Authority in October 2015. This application was considered by the Council's Planning Committee on 1 March 2017. Officers were recommending that planning permission for this application be granted subject to conditions and the completion of a S106 agreement.

Following the public speaking and the debate by the Planning Committee members it was decided to refuse this application for the reasons summarised below:

- **Inadequate drainage**
- Inadequate access arrangements
- Highway network capacity issues
- Odour on the site
- Potential risks to health, especially pregnant women and young children

- In accordance with the Council's published constitution, the Development Manager invoked a cooling off period, to seek independent advice from a drainage consultant. In addition, the County Highways Authority commissioned detailed traffic modelling work on three junctions in Culham and Sutton Courtenay adjacent to the Culham Crossing, to determine the impact a number of proposed development sites including 200 dwellings on the Hobbyhorse lane site, would have on the operation of the local highway network.

Whilst this authority and Oxfordshire County Council were undertaking their further assessments, on 19<sup>th</sup> July 2017 the applicant lodged a non-determination appeal. Ultimately that appeal (ref. APP/V3120/W/17/3180396) was withdrawn by the appellant on 29<sup>th</sup> June 2018.

The current application ref. P17/V1963/O was submitted to this Authority on 11th July 2017, and is a duplicate application of the original scheme.

- **1.0 PROPOSAL AND SITE LOCATION**

- 1.4 An illustrative layout plan submitted with the application is below:



- **2.2 SUMMARY OF CONSULTATIONS & REPRESENTATIONS**

Below is a summary of the responses received to the subsequent amendments submitted on 31<sup>st</sup> January 2019. These amendments were subject to the formal re-consultation processes.

- 2.3 Oxfordshire County Council (lead local flood authority)

Drainage- Objection

Summary:

- No feasible Surface Water discharge point to an existing watercourse it is considered that the information provided has failed to demonstrate that there is an adequate drainage solution for the site.
- the Surface Water Drainage Strategy as proposed has not adequately addressed issues/concerns regarding the management of anticipated surface runoff from the proposed development within the footprint of the development without causing flooding on the site as well as to its immediate environment
- It has also not demonstrated how the existing surface water issues will be addressed adequately and how groundwater will be managed during construction to ensure flood risk isn't increased elsewhere.

## Matters of detail/ Technical issues

- **5.5 Site Drainage**

The site is in flood zone 1 which is least susceptible to river flooding and preferred in flood risk terms for housing development. The applicant has submitted a flood risk assessment (FRA, dated 31<sup>st</sup> January 2019). The FRA includes an update to the surface water drainage strategy and foul water drainage strategy. The main principles of the amended scheme strategy are:

- *For most of the site drainage will be infiltration to ground;*
  - *The amended scheme proposes a pumped system which will pump surface water to a raised infiltration basin, in order to maintain a 1m buffer to existing groundwater levels;*
  - *For the remainder, attenuation methods will be used, eg swales and infiltration basins; permeable block paved roads and permeable private parking areas;*
- 5.6 The amended strategy has been reviewed by a consultant acting for local objectors and they have raised the following concerns in a letter received 25 February 2019:
    - *New groundwater monitoring has been established in the north-west of the site but records of groundwater levels are only quoted in the FRA up to August 2018;*
    - *Groundwater monitoring must be continued throughout the 2018-9 winter in order to provide estimates of the maximum groundwater level at that location;*
    - *The proposed level of the detention basin cannot be based on the groundwater level observed in August, when the groundwater is likely to be at its lowest*
    - *The FRA continues to ignore the highest groundwater observations in March 2016 which were from the JNP Groups own monitoring data. This raises serious concerns about the consultants only selecting data to use which is to their benefit*
    - *The FRA does not make use of the latest method for estimating greenfield surface runoff (the ReFH2 software). Estimates of the 100-year greenfield flow using this method show a maximum of 94 l/s, almost 3 times the estimate presented in the current FRA appendix. This risk of flooding from undeveloped parts of the site is therefore much greater than the JNP Group FRA has considered.*
    - *Swales are included as part of the SuDS design, but they appear to be a means for conveying water rather than for providing additional storage. Proper information should be included on the design of the swales including the proposed width, length, cross-sectional area and volume”.*
  - 5.7 Oxfordshire County Council is the Lead Local Flood Authority (LLFA) and they strongly object to this application as they consider that it has not been demonstrated that surface water can be managed appropriately, or that flood risk will not be increased elsewhere post development.
  - 5.8 The County Council Flood Risk Engineer has stated that given the original proposal was based solely on infiltration, which was found to be unfeasible due to high ground water being within 1m, infiltration would normally be ruled out as a suitable solution.
  - 5.9 The amended drainage scheme would require the land around the proposed attenuation pond to be raised approx.1.2m, and the base of the pond to be raised by approximately 0.5m to be 1m above the groundwater level.

- 5.10 Further to that, apart from an area to the north and an area to the south of the site where infiltration is feasible, it is proposed to drain the impermeable areas to two pumping stations via storage tanks, one of which is located in an area currently highlighted to be at risk of surface water flooding.
- 5.11 The County Council Flood Risk Engineer stated that there is a significant amount of surrounding land that falls towards the site and that the potential water from the surrounding catchment has not been accounted for in the current JNP FRA or Drainage Strategy”. This is shown to accumulate adjacent to and within the eastern boundary of the site, by existing surface water flood maps and aerial photography.
- 5.12 Moreover, according to the submitted documents one of the proposed pumping stations and the attenuation tank will be located in an area currently at risk of surface water flooding from overland flows from the adjacent land. This in turn means that these elements of the proposed drainage strategy are likely to be surrounded by groundwater for long periods. This approach is not in line with National Standard S8 from the Non-statutory Technical Standards for Sustainable Drainage Systems and Local Standard L7 of the Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire November 2018.
- 5.13 Due to the existing flood risk and groundwater issues at the site, and with no feasible surface water discharge point to an existing watercourse, it is considered that the information provided has failed to demonstrate that there is an adequate drainage solution for the site. It has also not been demonstrated how the existing surface water issues will be addressed adequately and how groundwater will be managed during construction to ensure flood risk is not increased elsewhere.
- 5.14 The NPPF provides that development should not increase flood risk elsewhere and should be appropriately flood resilient and resistant (paragraphs 160-163). Core Policy 42 of the adopted Local Plan 2031 Part 1 seeks to minimise the risk and impact of flooding through ensuring new development effectively manages all sources of flood risk, ensuring new development does not increase the risk of flooding elsewhere. It is considered that the proposed drainage strategy, as currently designed, is unlikely to ensure that the anticipated surface runoffs from the proposed development are managed adequately within the footprint of the development site, without causing flooding on the site or land adjacent to the application boundary. It therefore conflicts with the NPPF and Core Policy 42 of the Local Plan 2031 Part 1.
- 5.15 Foul drainage and water supply  
Thames Water in their comments indicated that given that the surface water will not be discharged to the public network, there would be no objection to this aspect of the proposal.
- 5.16 With regard to foul water network capacity, Thames Water are aware of some network constraints in the vicinity of the proposed development. However, should the planning application be approved, it is considered that any investigations to understand the network performance in more detail and if required associated upgrades, can be delivered in time to serve the development. Therefore, there are no objections to this aspect of the proposal, and no conditions relating to foul water network matters would be required.
- 5.17 Thames Water has identified an inability of the existing water network infrastructure to accommodate the needs of this development proposal. Therefore, in order to address the identified inability and to accommodate additional demand anticipated from the new development, a Grampian condition was requested.
- 5.18 Therefore, should the application be progressed positively water supply could be dealt with by suitably worded Grampian conditions.’

## 6.0 PLANNING BALANCE AND CONCLUSION

6.1 The application site forms part of land allocated for housing development in the development plan. The principle of housing on this site is acceptable.

6.2 This application has been determined in accordance with the development plan unless material considerations indicate otherwise.

6.3 Notwithstanding the site's allocation status, site drainage has not been adequately addressed in this proposal. The submitted drainage strategy has been assessed by the Lead Local Flood Authority and it has been concluded that it will not function effectively in the proposed location due to the high groundwater level.

6.4 In addition, the Surface Water Drainage Strategy as proposed has not adequately addressed issues/concerns regarding the management of anticipated surface runoff from the proposed development within the footprint of the development without causing flooding on the site as well as to its immediate environment.

6.5 Further to that, with no feasible Surface Water discharge point to an existing watercourse it is considered that the information provided has failed to demonstrate that there is an adequate drainage solution for the site. The proposed scheme is not in line with the National Standard S8 from the Non-Statutory Technical Standards for Sustainable Drainage Systems and Local Standard L7 of the Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire November 2018.

6.6 This drainage and flooding issue is a substantial technical objection to the proposed residential development for up to 200 dwellings on the application site. As such, despite being an allocated site, the proposal does not comply with local and national policies in this respect.'

6.13 Accordingly, it is recommended that this application is refused for the reasons stated at the beginning of this report.'

For a full copy of the delegated report see:

<https://www.whitehorsedc.gov.uk/vale-of-white-horse-district-council/planning-and-development/local-plan-and-planning-policies/planning-registers/planning-application-register/> Select 'search by reference number' and insert 'P17/V1963/O' in the search box. Under 'Downloads' the Delegated Report can be found in the folder entitled 'The Decision'.

**Appendix E**  
**(Hobbyhorse Lane Site)**

**Groundwater Observations: Extract from 2016 report on applicant's December 2015 FRA, by Water Resource Associates (Dr Harvey Rodda) commissioned by Sutton Courtenay Action (HR3)**

The effect of high groundwater has not been properly considered for the site drainage strategy as shallow infiltration systems will not function if they are filled with groundwater.

Any development would therefore be in breach of SuDS Guidance and as shallow infiltration systems will not function on the site, it cannot be deemed to be sound. The proposed drainage design is therefore not deliverable in terms of providing a low risk of flooding to the new development and not increasing the risk of flooding to neighbouring properties.

**Groundwater Observations: Extract from 2018 report on applicant's December 2017 FRA, by Water Resource Associates (Harvey Rodda) commissioned by Sutton Courtenay Action (HR5)**

In the latest submission JNP Group have included observed groundwater levels from February 2016 on their proposed drainage option drawings (Appendices H and I) and within the text of the FRA. The maximum groundwater level they state as 0.62m below ground level (Section 5.8). This is however incorrect, as stated most recently by WRA in the report of October 2017 (Response to the Statement of WSP Relating to the Planning Appeal). The groundwater in the north-eastern part of the development site was observed to reach the surface on 9<sup>th</sup> March 2016. This observation was recorded by GRM (2016) in one of their landfill gas monitoring boreholes and by a borehole on the recreation ground monitored by local residents. The observations from March 2016 have been omitted from the table in section 5.8 of the FRA. JNP Group have consistently ignored the fact that groundwater levels can reach the surface and that flooding of the site from high groundwater is a regular occurrence. They have in previous reports attempted to attribute the flooding to surface water runoff rather than high groundwater and have incorrectly stated that the problem was removed following the improvements to a drainage ditch alongside the adjacent landfill site. The statement in section 6.8 of the FRA: 'It is understood that no flooding has occurred at or near the site since February 2014...' is wrong as demonstrated by both their own monitoring data, the local residents monitoring, and photos provided by local residents (see the WRA October 2017 report). At the time of writing, after a few days of rain in late December 2017, the ponding of water was beginning to appear in the development site (see Figure 1), demonstrating how flooding is a frequent occurrence and furthermore, flooding around the drainage ditch adjacent to the landfill site was observed (see Figure 2) which refutes the claim that improvements to this ditch have prevented flooding. The rainfall over this period was not exceptional.



*Figure 1: Standing water in center of the development site in January 2018, looking to the south.*



*Figure 2: Flooding from the ditch along the base of the landfill immediately to the east of the site, looking north. Photo taken January 2018.*

**Appendix F**  
**(Hobbyhorse Lane Site)**

**Resident objection letter 27.11.2016**

[REDACTED]  
Sutton Courtenay  
Abingdon  
OXON OX14 4FB

27<sup>th</sup> November 2016

[REDACTED]  
Vale of White House District Counsel  
135 Eastern Avenue  
Milton Park  
Abingdon  
OX14 4SB

Objection to Planning Application: P15/V2353/O

Dear [REDACTED]

We have previously objected to the proposed planning application from Redrow Homes to build 200 dwellings off Hobbyhorse Lane, Sutton Courtenay for the following reasons:

1. Increased risk of flooding in the village
2. Increased traffic and associated pollution

We understand that the developers are claiming that no flooding of significance occurs to the site. In our objection letter dated 3<sup>rd</sup> November 2015, we provided photographic evidence of flooding in December 2012 and February 2014. We only showed a single photograph of the flooding in February 2014 (Figure 1) taken from the North of the recreation ground looking South as we thought that it was obvious given the extent of the flooding to the recreation ground that there was also significant flooding to the land selected for the proposed 200 houses. Please see additional photographs (Figures 2-6) taken on the same day that do show the proposed development site and the extent of flooding there.



**Figure 1:** Photograph, taken on 9<sup>th</sup> February 2014, of flooding to recreation ground. This is North of the adjacent field where the proposed dwellings are to be built.



**Figure 2:** Photograph, taken on 9<sup>th</sup> February 2014, of flooding to the proposed development site. Photo taken from a position at the East of the site looking West.



**Figure 3:** Photograph, taken on 9<sup>th</sup> February 2014, of flooding to the proposed development site. Photo taken from a position at the East of the site looking West.



**Figure 4:** Photograph, taken on 9<sup>th</sup> February 2014, of flooding to the proposed development site. Photo taken from a position at the East of the site looking West.



**Figure 5:** Photograph, taken on 9<sup>th</sup> February 2014, of flooding to the proposed development site. Photo taken from a position at the East of the site looking West.



**Figure 6:** Photograph, taken on 9<sup>th</sup> February 2014, of flooding to the proposed development site. Photo taken from a position at the East of the site looking West.

We understand that the developers are arguing that the flooding as extensive as that reported by villagers in 2012-2013 and in early 2014 will never happen again because of some drainage improvement works carried out by FCC in 2014/2015. However, this does not take into account the actual rainfall reported in the locality at this time. Extensive data is available for the nearby village of Steventon which is two miles away as the crow flies (see: <https://www.abnats.org.uk/weather.html> ). From this it can be seen that the monthly rainfall in December 2013, January and February 2014 was 107.7mm, 171.6mm and 115.5mm respectively versus a 20-year average of 65.2mm, 62.3mm and 43.6mm for the corresponding months. From an analysis of these Tables it can be seen that there has not been such significant rainfall since early 2014 and so we think that it is incorrect for the developers to argue that the lower extent of flooding to the site since early 2014 is due to work carried out by FCC. With increasing climate change it is reasonable to assume that the rainfall levels experienced in late 2013 and early 2014 will occur again in the next few years.

We also maintain our objection with regard to increased traffic and associated pollution. The road system in the village is already close to saturation at peak times as highlighted by the extensive tailbacks in the last couple of months that resulted from recent minor roadworks. The introduction of so many more cars will only make matters worse.

The location selected for development is not suitable due to the risk of flooding not only to the site itself but also to the recreation ground and potentially, in the future, to the cemetery and local houses. The flooding risk and increase in traffic further impacts the village of Sutton Courtenay which has already suffered from unacceptable cumulative developments including extensive waste management facilities. Please will you reject this planning application.

Yours gratefully,

## Appendix G

### East Sutton Courtenay Flooding Evidence

Photographs of flooding taken on the afternoon of 29 February 2020 by a resident.



*The ditch with water adjacent to the village hall entrance.*



*The ditch continues on the left-hand side of Hobbyhorse Lane.*



*As you continue along Hobbyhorse Lane the top right hand corner of the field is waterlogged with a large section of water mid-way across the field towards the recreation ground.*



*Turning left from Hobbyhorse Lane to walk alongside the field hedge/fence midway along the field this looks at the large section of water with the village hall in the background and the path is very wet.*



*There is a footpath that crosses the middle of the field, this is the gate, the hedge line is flooded and the footpath is very wet.*



*There is a drainage ditch to the other side of the footpath. This is filling up but is not coming on to the footpath or the field. Direction is looking back towards Didcot Power Station.*



*Looking forward towards the recreation ground.*



*The water is coming from the field onto the path.*



*An additional section of flooding can be seen in this corner of the field.*



*Turning left to walk in between the field and the recreation ground, there are two areas of flooding in the field.*



*Continuing along the path the extent of the second area of flooding can be seen with the giant warehouse in the background.*



*Turning left again to walk back to join Frilsham Street the field is waterlogged and the flooding on the other side can be seen as you look towards the corner with the recreation ground.*



*Again, when looking to the mid-point of the field the flooding on the far side can be seen with the landfill site in the background.*



*Finally, the corner of the field next to the village hall car park backing on to the ditch on Hobbyhorse Lane.*



Appendix I: Letter from Sutton Courtenay Parish Council to  
Thames Water regarding sewage flooding 2003

## Sutton Courtenay Parish Council

Mr. R. Jackson, M.P.  
House of Commons,  
London  
SW1A 0AA

13th May, 2003

Dear Mr. Jackson,

Sewage Flooding - Fribsham Street, Sutton Courtenay

Your letter addressed to Mr. John Francis has been passed to me for reply. The problems as known to the Parish Council started over two years ago, when Thames Water were called out on a regular basis to clear blockages in the High Street and at the start (Northern end) of the Harwell Road. The Council received a report that apples had been removed from the system, and it was they that had caused the original blockages.

Also during this time a new housing development of 57 houses was under construction off the High Street, there could have been debris from the housing site which somehow entered the system. The Parish Council decided to try and arrange for a representative from Thames Water to come to a meeting and discuss the problem. However the Area Manager had left the company, and the Acting Area Manager, a Mr. David Mencham from Killington offices agreed in June 2001 to meet the Clerk or other representatives of the Council during office hours. The Council preferred him to attend an evening Council meeting which was open to the public. He agreed to this in July 2001, but the dates suggested by him were not convenient to Members and vice-versa.

With effect from 1st October 2001 Thames Water was restructured, with Mr. David Mencham leaving the area for duties in another office. A new Area Support Manager Mr. Wayne Frazer had responsibility for the sewage system in the area. During the several weeks it took to try and negotiate a representative from Thames Water to come to a meeting, the company did in fact take steps to completely clear the High Street drains. Mr. Frazer considered that there was little to be gained from attending a meeting, as the company had carried out clearing works and they could only monitor the situation over the forthcoming months, and the original problem with the apples had been solved. Thames Water has never sent a representative to meet with the Parish Council.

This last Winter has brought further problems in the systems in Fritsham Street and High Street particularly as a result of heavy rain. Council's attention has been brought to 3 properties (2 High Street, 1 Fritsham Street) which have suffered as a result of overflowing manholes. In addition there has been the odd report of a blockage in Harwell Road and Milton Road. The problems of the odd blockage appear to be different from the those caused by overflowing manholes, where the main public sewer appears inadequate to cope with the quantity of waste put in it.

The problems do appear to be from the Southern end of the village to the Northern end and are therefore reasonably widespread. Whilst the Parish Council has not become too involved in the individual problems faced by residents, it has taken a wider view for the benefit of the whole community, and is now becoming increasingly concerned that the main sewer system, particularly in the High Street and particularly during the Winter period of heavy rainfall appears inadequate to serve the needs of the numbers of properties which now connect to it.

I hope the above information goes some way to help you with your approach to Thames Water.

For your information I enclose a copy of a letter to a Local Council magazine which was written by Tadley Town Council which is situated South West of Reading, just into Hampshire. Clearly the problem needs addressing at a national level, to ensure the installation of adequate sewers at the time of housing development. Sewers which can provide for increased rainfall, changing weather patterns, and for planned increased flow owing to other properties connecting into the system. This presumably could be achieved by legislation for Local Authorities at the time of granting planning consent and Building Regulation approval.

Yours sincerely,

[Redacted Signature]

Clark to the Council