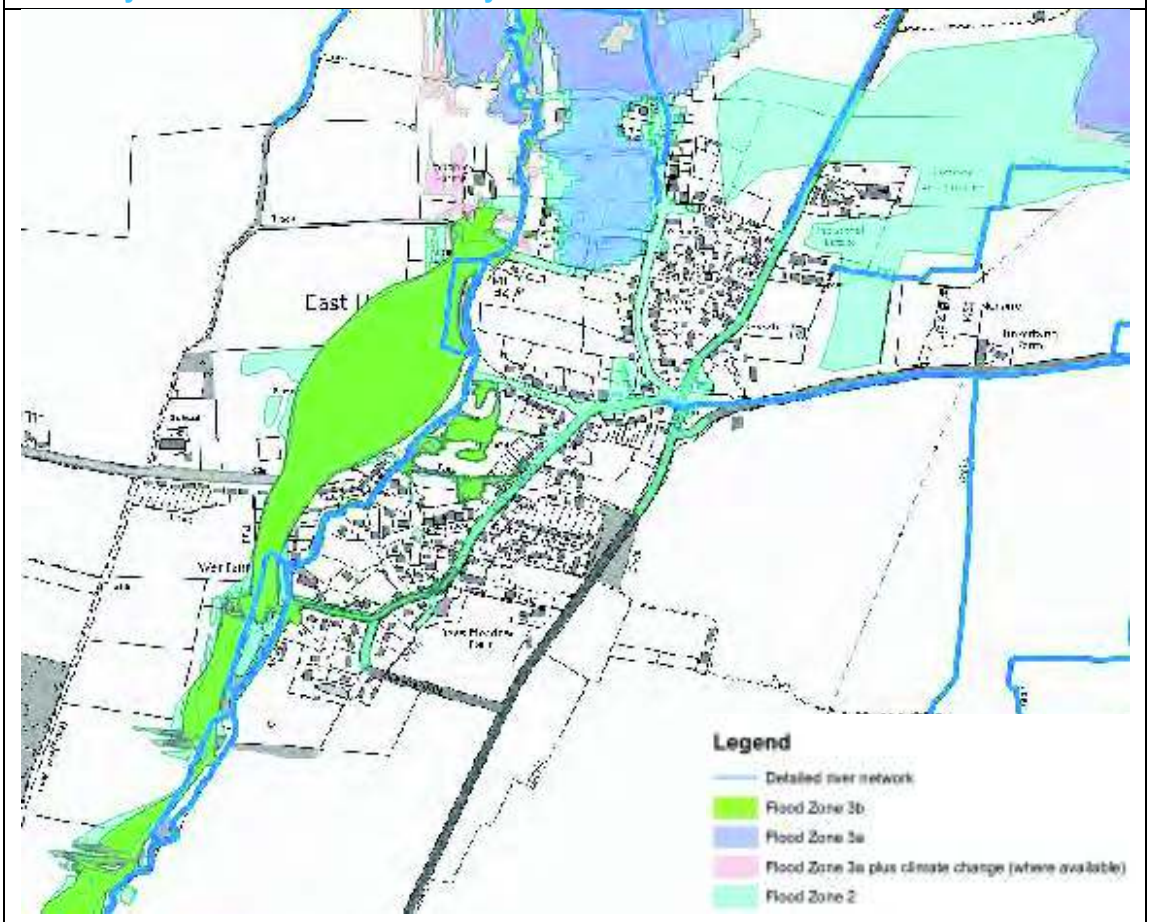
Summary of flood risk to East Challow
Sewer There are four properties on the Thames Water sewer flooding register for the OX12 9 postcode, none have been flooded internally. No other evidence of sewer flooding.
Canals The disused Wilts and Berks Canal runs east to west across the village. Two properties were experienced a flooding 'near-miss' in the winter of 2012/13 when the outlet from the canal was blocked and surface water drainage filled the canal to capacity.
Effects of climate change Increased rainfall intensity in the future may exacerbate flooding from surface water, the canal and small watercourses.
Available survey/detailed modelling No detailed models available.
Implications for development • Development should be sequentially located away from small watercourses and the disused canal, but if development is proposed in proximity to them, a FRA should be undertaken to ascertain the flood risk in the absence of a Flood Zone. • Development must not impact on existing surface water flood risk or flow paths. • 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.

B.4.12 East Hanney

Summary of flood risk to East Hanney
Fluvial East Hanney is at risk of flooding both within the existing village, particularly the roads, and to the west and north from the Letcombe Brook and associated drains. In 2007, 31 properties claimed flood grants and the HFM shows extensive historical flooding. VOWH has recently made improvements at East Hanney under the FCRMGiA scheme. A short raised embankment is recorded as a defence in the Environment Agency's AIMS database, just downstream of Berry Lane. Its effect is likely to be insignificant in extreme events. **Flood Zone Map**

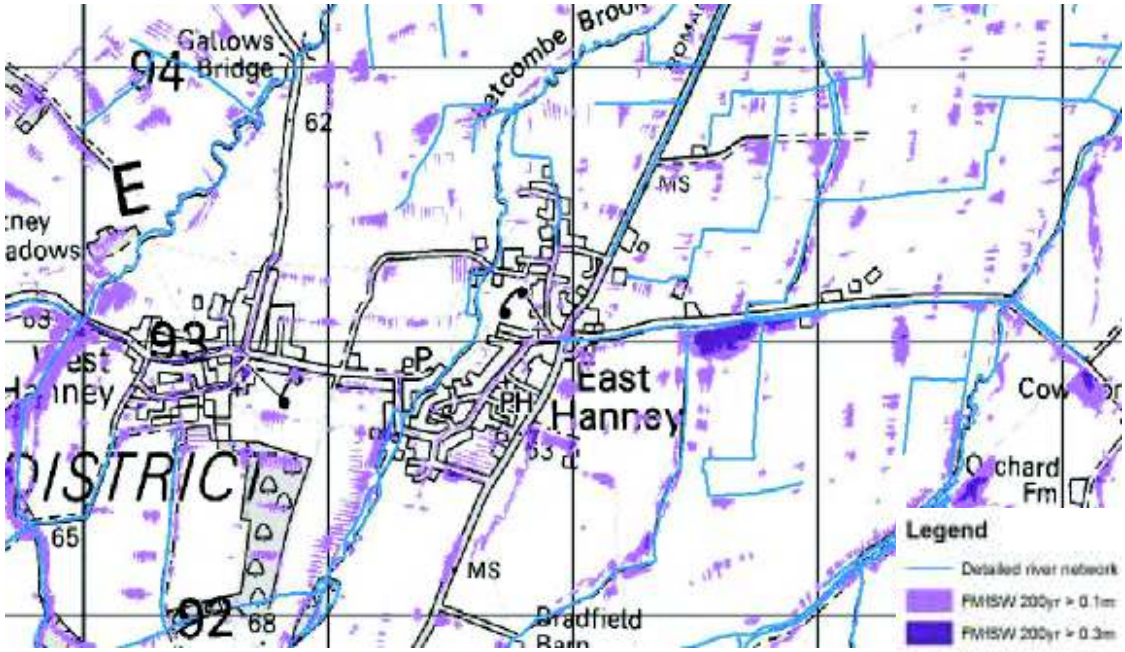
Summary of flood risk to East Hanney



Surface water to complete

The FMfSW shows small areas of isolated potential ponding around the village.

Flood Map for Surface Water (200 year)

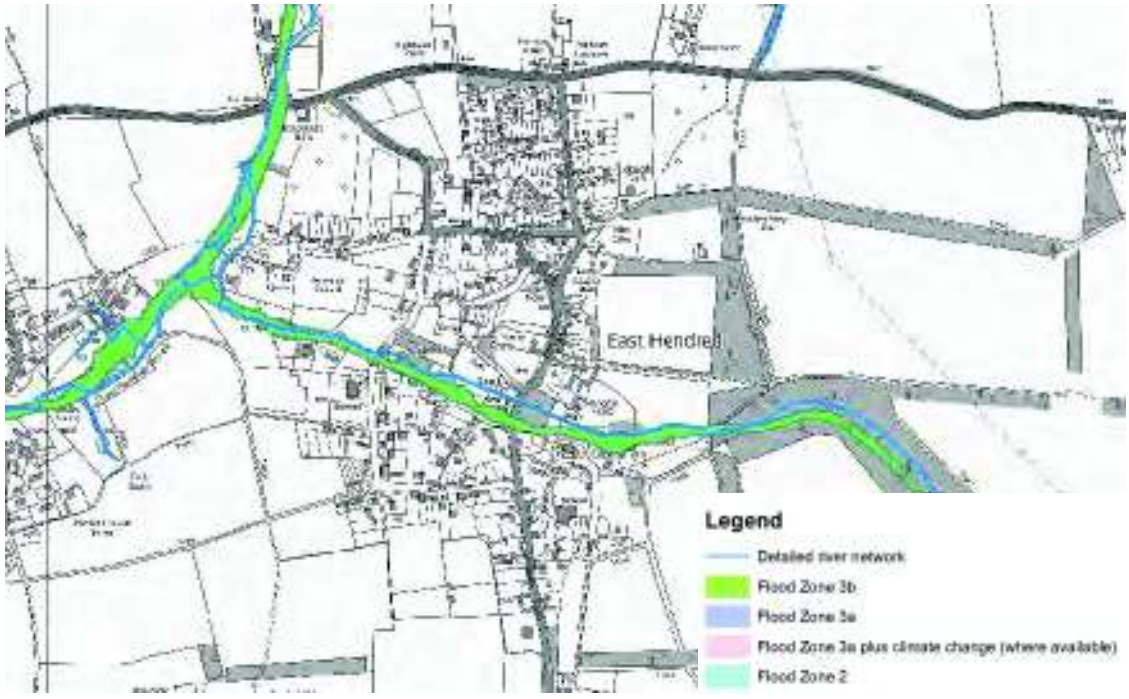


Groundwater

The AStGWF map suggests that all East Hanney is at the highest risk of groundwater emergence. No incidents of groundwater flooding recorded by the Environment Agency.

Summary of flood risk to East Hanney
Sewer There are no properties on the Thames Water sewer flooding register for the OX12 0 postcode. No other evidence of sewer flooding.
Effects of climate change Climate change is likely to increase the fluvial flood extent and severity of flooding from the Letcombe Brook. Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses. Wetter winters may increase groundwater flood risk.
Available survey/detailed modelling The following detailed models have been used in the Flood Map: • Letcombe Brook, 2009
Implications for development • Development allocations should be sequentially located away from Flood Zone 2 and 3. • Development should be sequentially located away from small watercourses, but if development is proposed in proximity to them, a FRA should be undertaken to ascertain the flood risk in the absence of a Flood Zone. • Development must not impact on existing surface water flood risk or flow paths. • 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.

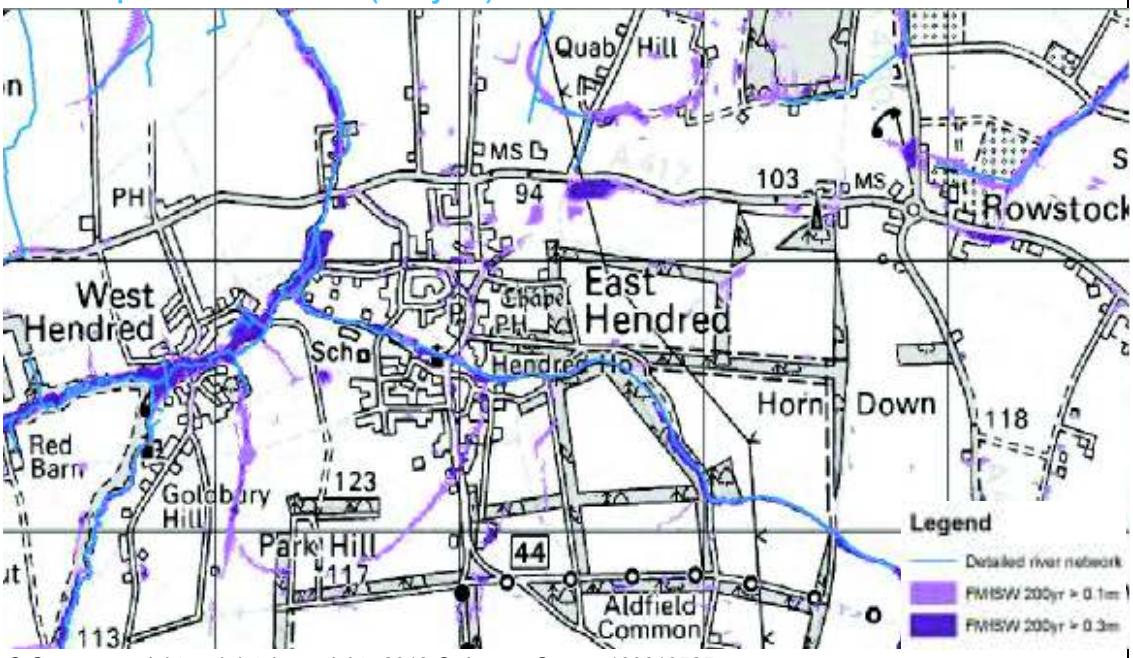
B.4.13 East Hendred

Summary of flood risk to East Hendred
Fluvial East Hendred is at risk of flooding from the Hendred Brook on its west side and a small tributary which crosses the south of the village. The VOWH Flood Database shows one incident recorded close to the tributary. There are no formal flood defences.
Flood Zone Map 
Surface water The FMfSW shows several potential flow paths some of which follow the small watercourse

Summary of flood risk to East Hendred

and the Hendred Brook, and other small areas of ponding. One property claimed a flood grant in 2007, with flooding likely to have been caused by surface water.

Flood Map for Surface Water (200 year)



Groundwater

The AStGWF map suggests that all East Hendred is at medium risk of groundwater emergence apart the north and east which are at low risk. No incidents of groundwater flooding recorded by the Environment Agency.

Sewer

There are four properties on the Thames Water sewer flooding register for the OX12 8 postcode within the VOWH boundary, two of which have been flooded internally. One incident on the VOWH Flood Database is recorded as due to a 'blocked sewer'.

Effects of climate change

Climate change is likely to increase the fluvial flood extent and severity of the Hendred Brook and its tributary.

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

Wetter winters may increase groundwater flood risk.

Available survey/detailed modelling

The Flood Zones of Hendred Brook and its tributary are based on national broadscale mapping in which there is lower confidence.

Implications for development

- Development allocations should be sequentially located away from Flood Zone 2 and 3.
- Development must not impact on existing surface water flood risk or flow paths.
- 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.

B.4.14 Harwell

Summary of flood risk to Harwell

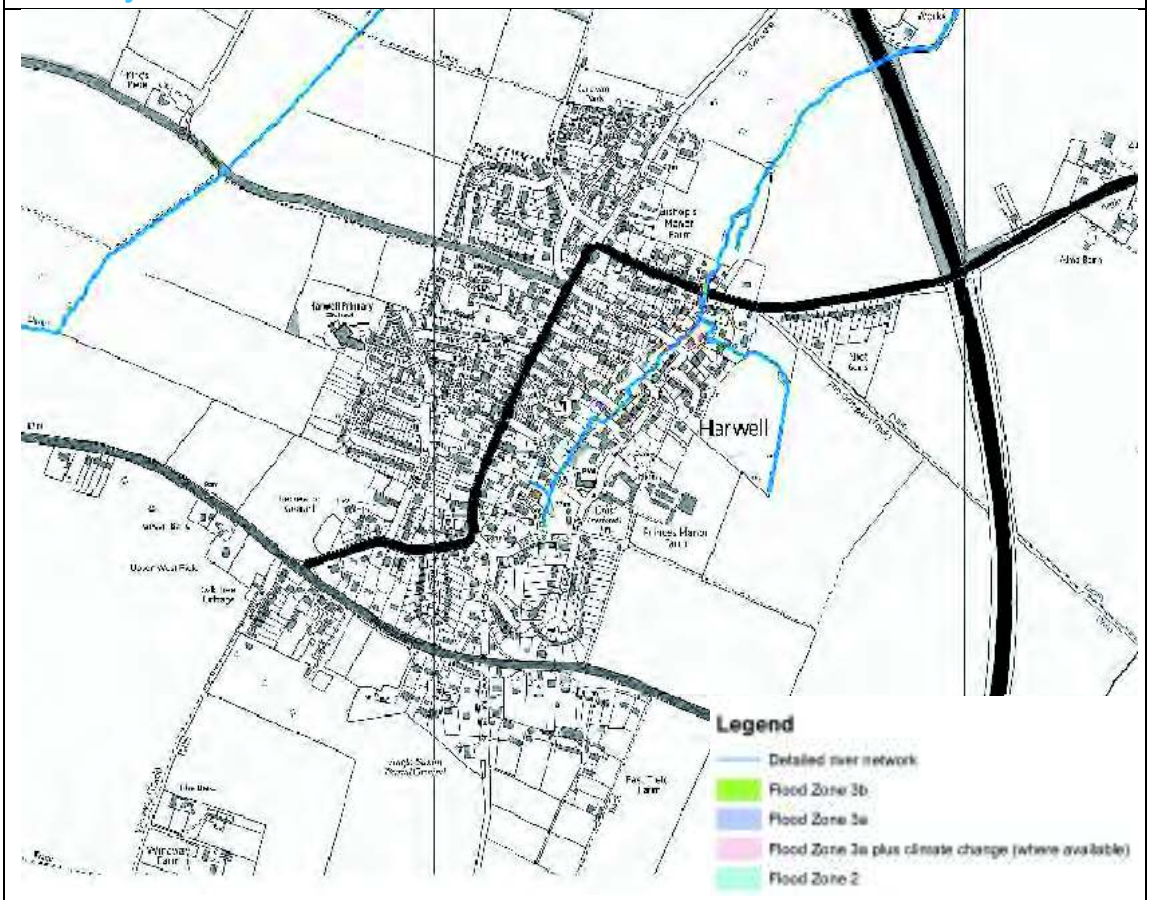
Fluvial

There are no Flood Zones in Harwell, although there is a small watercourse which is not included in the Flood Zones running through the village and out to the north, and another further west.

There are no formal flood defences.

Flood Zone Map

Summary of flood risk to Harwell



Surface water

The FMfSW shows flow paths clearly following the small watercourses, and other areas of ponding in the south west of the village. There are two incidents reported in the VOWH Flood Database that appear to be related to surface water flooding.

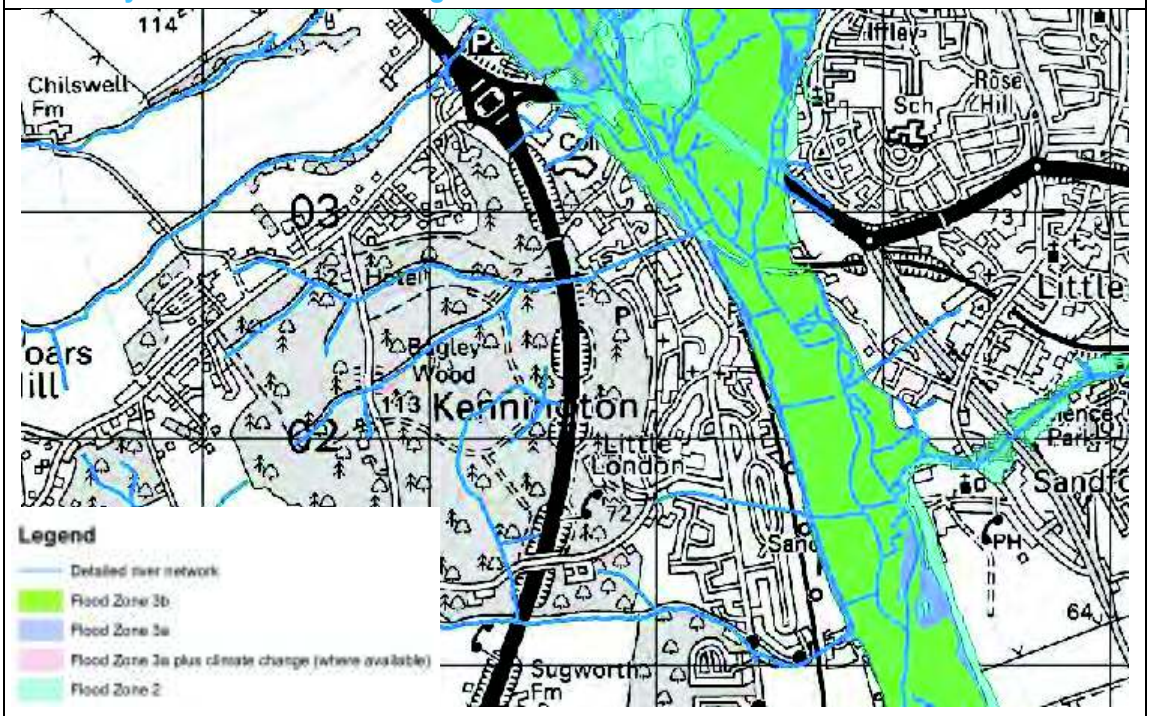
Flood Map for Surface Water (200 year)

Summary of flood risk to Harwell
Groundwater The AStGWF map suggests that all of Harwell is at low risk of groundwater emergence. No incidents of groundwater flooding recorded by the Environment Agency.
Sewer There are no properties on the Thames Water sewer flooding register for the OX11 0 postcode within the VOWH boundary, and no other evidence of sewer flooding.
Effects of climate change Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.
Available survey/detailed modelling No detailed modelling available
Implications for development • Development should be sequentially located away from small watercourses, but if development is proposed in proximity to them, a FRA should be undertaken to ascertain the flood risk in the absence of a Flood Zone (note, the FMfSW gives a good indication of risk from these watercourses in this case). • Development must not impact on existing surface water flood risk or flow routes. • 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.

B.4.15 Kennington

Summary of flood risk to Kennington
Fluvial Kennington is constrained by the Thames floodplain to the east and Seacourt Stream to the north. There are three minor watercourses that drain Bagley Wood which are not included in the Flood Map, and are extensively culverted through Kennington. There are 53 incidents recorded in the VOWH Flood Database, of which the majority are associated with Seacourt Stream and the minor watercourses. Only one property claimed a flood grant in 2007. There are no formal flood defences. There are various structures on the Thames which may have some impact on water level, such as Sandford weir. The railway embankment is noted in AIMS as a non-flood defence structure. However, as it has flow routes through it at the northern end, and the ground levels are significantly higher than the floodplain in Kennington at the southern end, it is not thought to have a significant impact on flood risk. **Flood Zone Map**

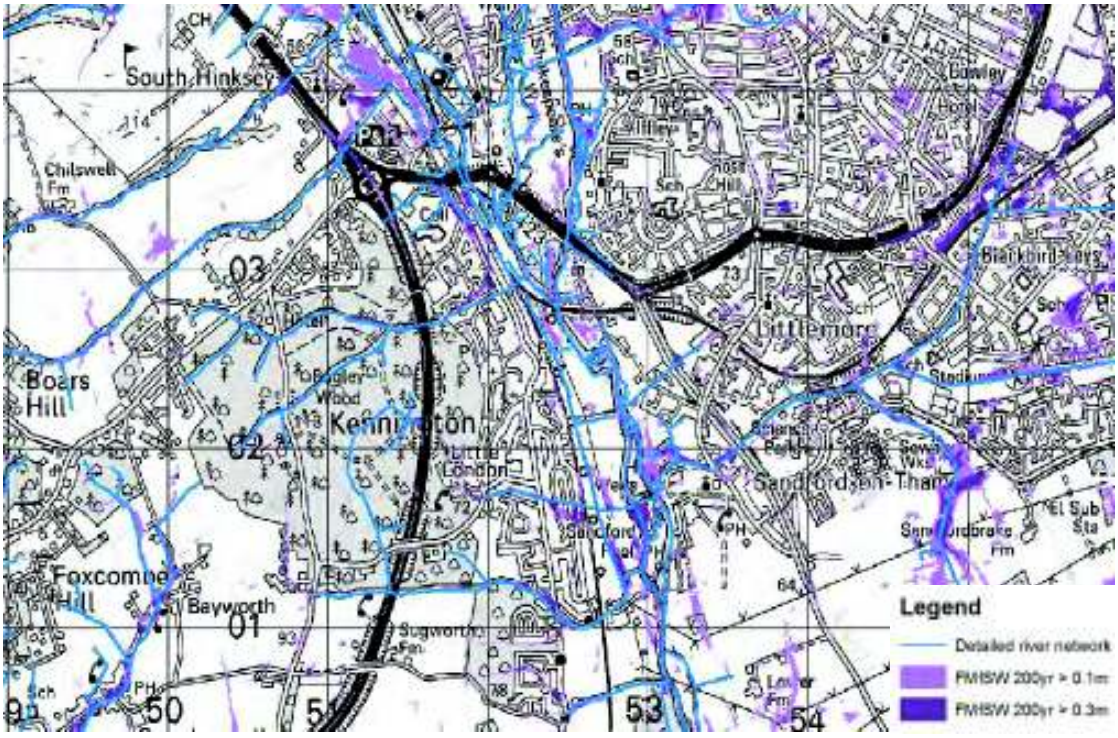
Summary of flood risk to Kennington



Surface water to complete

The FMfSW shows flow routes along the culverted parts of the minor watercourses, and other isolated potential areas of ponding.

Flood Map for Surface Water (200 year)



Groundwater

The AStGWF map suggests that Kennington is at low risk of groundwater emergence.

No incidents mapped in Defra report for 2000/1 and 2002/3 events. No incidents of groundwater flooding recorded by the Environment Agency.

Sewer

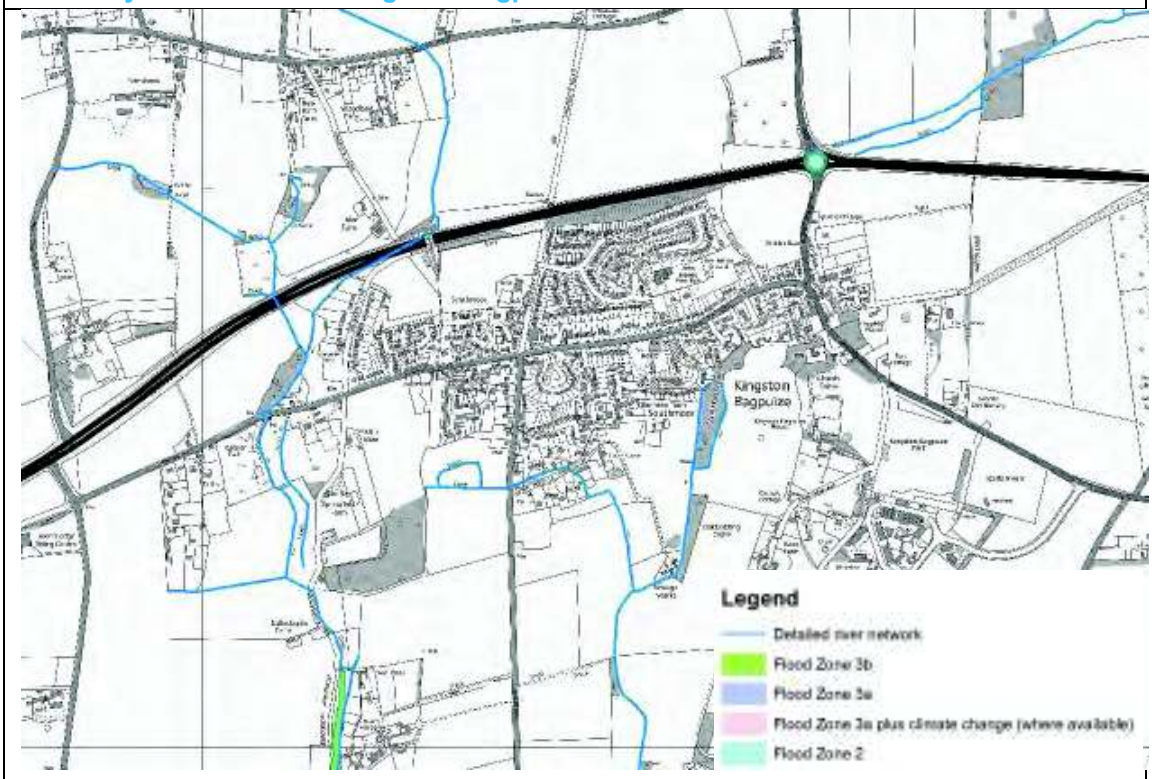
Summary of flood risk to Kennington
There are 40 properties on the Thames Water sewer flooding register for the OX1 5 postcode, of which 16 have been flooded internally with a 1 in 10 year return period. This suggests that there is a significant sewer flooding problem within this postcode, although the postcode also includes South Hinksey which has known sewer flooding problems.
Reservoir Kennington is within the flood risk envelope in the event of a failure at Farmoor Reservoir, which covers roughly the same area as the Flood Zones. For more information see the Environment Agency website under Risk of Flooding from Reservoirs[14].
Effects of climate change Climate change is likely to increase the frequency and severity of flooding from the Thames, although the flood extent is not likely to increase significantly. Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.
Available survey/detailed modelling The following detailed model has been used in the Flood Map: • Thames Wolvercote to Kennington (Environment Agency, 2006)
Implications for development • Development allocations should be sequentially located away from Flood Zone 2 and 3. • Development should be sequentially located away from small watercourses, but if development is proposed in proximity to them, a FRA should be undertaken to ascertain the flood risk in the absence of a Flood Zone and accounting for the effect of culverts. • Opportunities should be taken to open up culverted watercourses as part of development. • Development must not impact on existing surface water flood risk or flow routes. • 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.

B.4.16 Kingston Bagpuize with Southmoor

Summary of flood risk to Kingston Bagpuize with Southmoor
Fluvial There are no Flood Zones in Kingston Bagpuize with Southmoor. There are several small ditches around the edges of the settlement. The VOWH Flood Database has one incident associated with the ditch to the east. There are no flood defences. **Flood Zone Map**

[14] Environment Agency - Risk of flooding from Reservoirs map available at http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683.0&y=355134.0&scale=1&layerGroups=default&ep=map&textonly=off&lang=_e&topic=reservoir

Summary of flood risk to Kingston Bagpuize with Southmoor



Surface water

The FMfSW shows flow routes along some of the small ditches, and ponding to the south of the A420. The latter area of risk is verified by local evidence -6 of the 7 flood grant claimants in July 2007 were situated in Larch Close/Blandy Avenue.

Flood Map for Surface Water (200 year)

Groundwater

The AStGWF map suggests that the south of the village is a low risk of groundwater flooding, but that risk increases to the highest category in the north east of Southmoor.

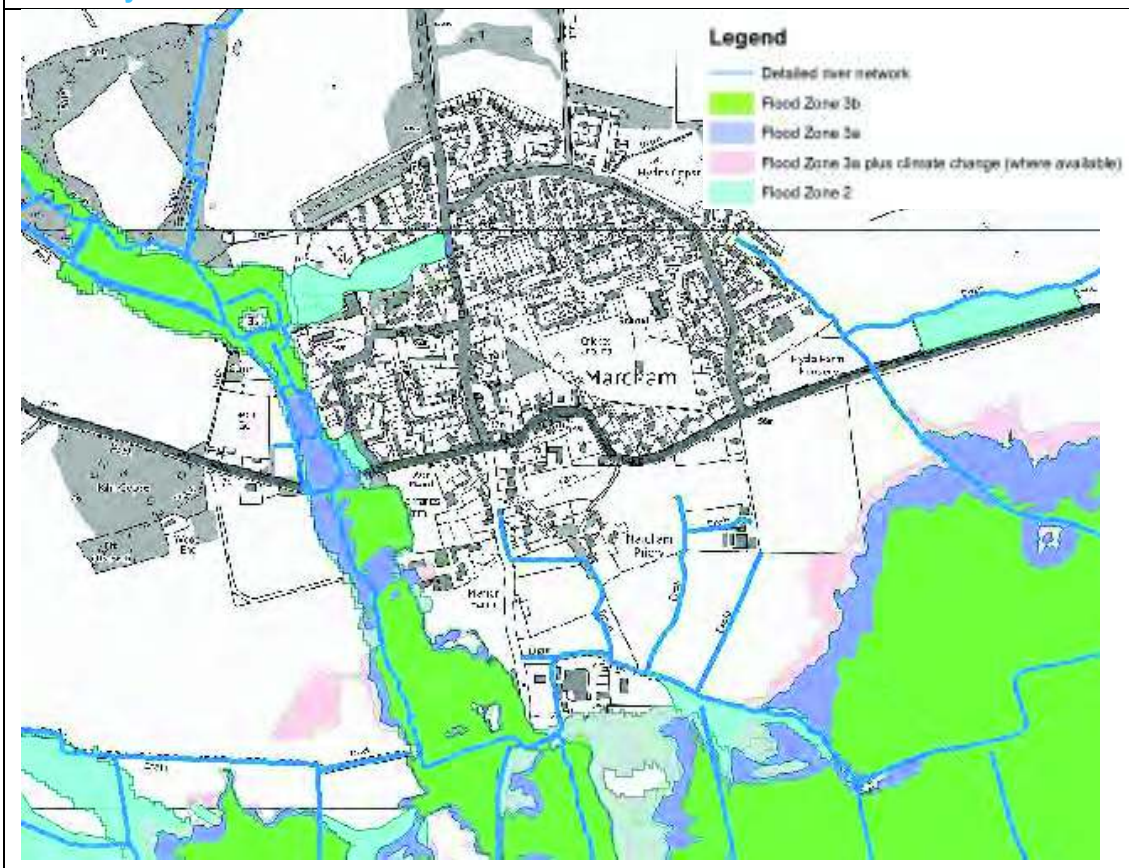
No incidents mapped in Defra report for 2000/1 and 2002/3 events. No incidents of groundwater flooding recorded by the Environment Agency.

Summary of flood risk to Kingston Bagpuize with Southmoor
Sewer Parish Council report incident of foul sewer flooding at the junction of A415/A420 in 2007. There are three properties on the Thames Water sewer flooding register for the OX13 5 postcode, one of which has been flooded internally.
Effects of climate change Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.
Available survey/detailed modelling No detailed model available.
Implications for development • Development should be sequentially located away from small watercourses, but if development is proposed in proximity to them, a FRA should be undertaken to ascertain the flood risk in the absence of a Flood Zone. • Development must not impact on existing surface water flood risk or flow routes. • 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.

B.4.17 Marcham

Summary of flood risk to Marcham
Fluvial Marcham is constrained by the extensive floodplain of the River Thames to the south, and its tributary Marcham Brook, which runs down the eastern edge of the village. Several existing properties are within the Flood Zone of Marcham Brook. There are also several small watercourses to the east and south of the town which are not included in the Flood Map. Twelve properties claimed flood grants in 2007, most of which are within the Flood Zone. The VOWH Flood Database also records one incident caused by a ditch to the south of the village in 2003. The HFM shows historical flooding from Marcham Brook between Denman College and North Street, on which part of Flood Zone 2 is based. There are no formal flood defences recorded. **Flood Zone Map**

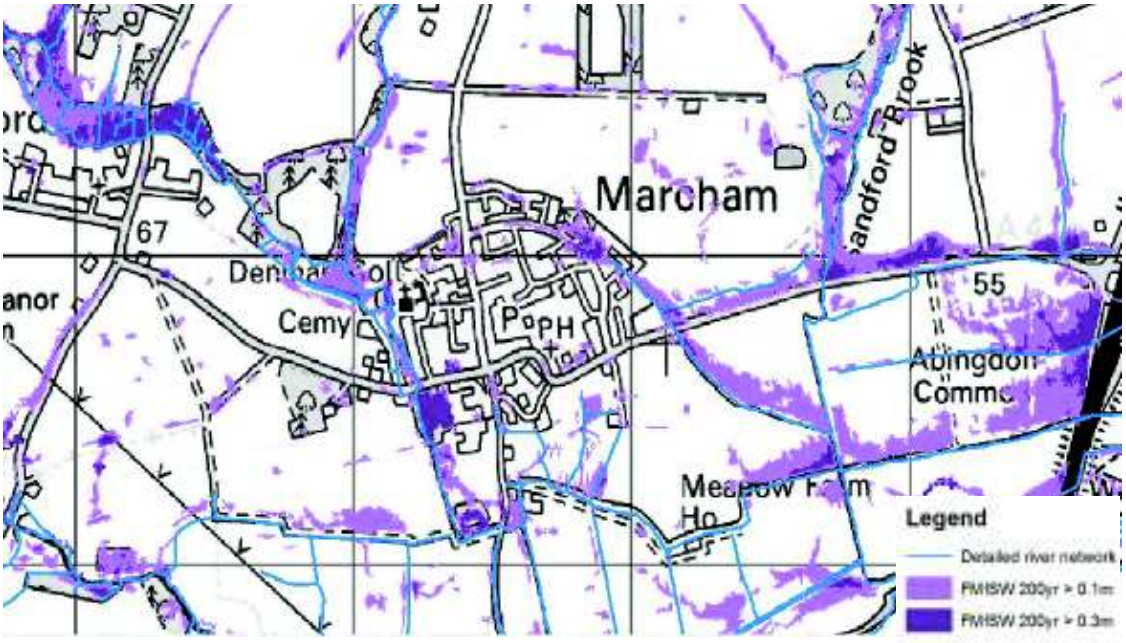
Summary of flood risk to Marcham



Surface water to complete

The FMfSW shows flow routes along the small watercourses, particularly apparent in the north east of the village, and other isolated potential areas of ponding.

Flood Map for Surface Water (200 year)



Groundwater

The AStGWF map suggests that all of Marcham is at the lowest risk of groundwater emergence.

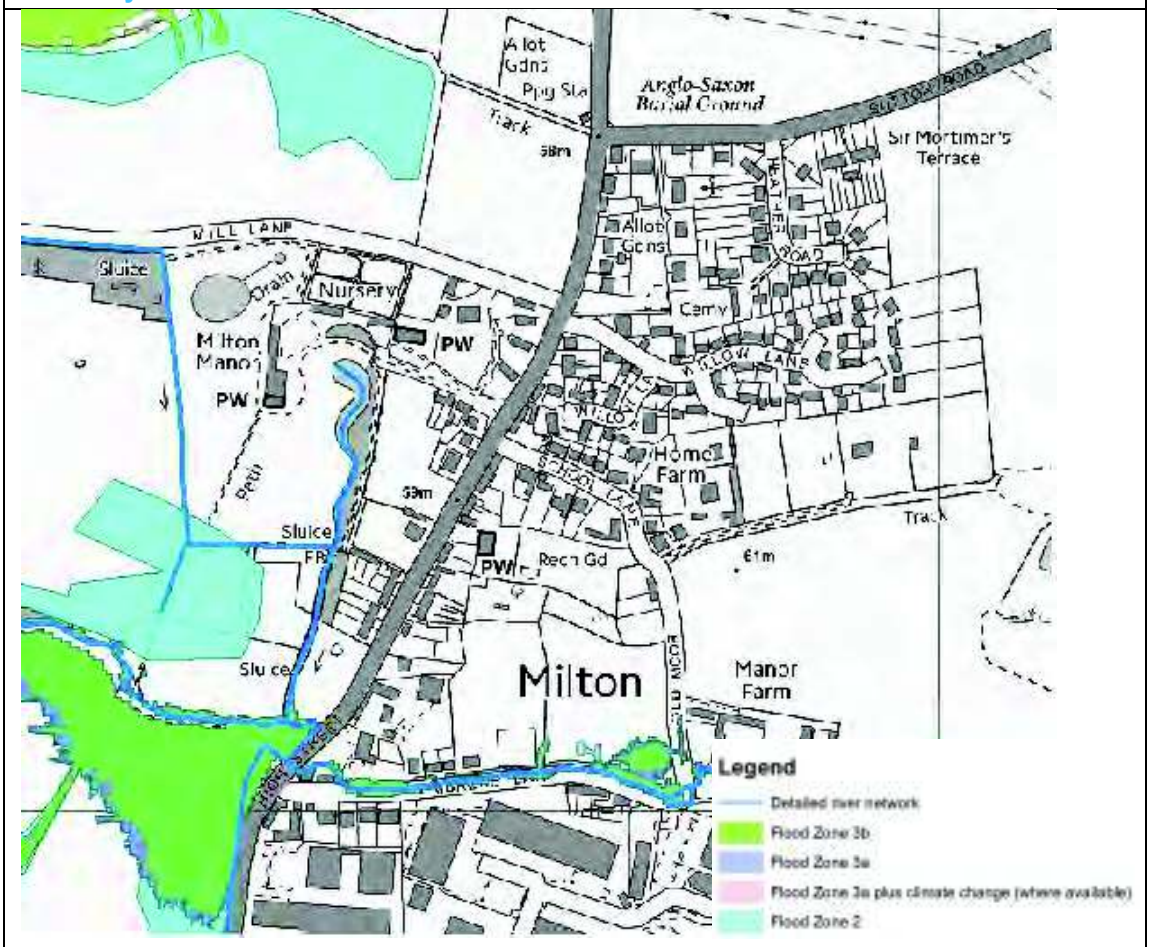
No incidents of groundwater flooding have been recorded by the Environment Agency.

Summary of flood risk to Marcham
Sewer There are 13 properties on the Thames Water sewer flooding register for the OX13 6 postcode of which one has been flooded internally. No other evidence of sewer flooding.
Effects of climate change Model results for the River Thames show that Flood Zone 3a plus climate change results in a significant increase in flood extent (50-100m) to the south of the village, making it more extensive than Flood Zone 2 in places. Marcham Brook floodplain may also increase in extent at Denman College. The frequency and severity of lesser events is likely to increase. Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.
Available survey/detailed modelling The following detailed model has been used in the Flood Map: • Thames Sandford to Whitchurch (Environment Agency, 2000) The Flood Zones of Marcham Brook upstream of Frilford Road are based on national broadscale mapping, in which there is lower confidence.
Implications for development • Development allocations should be sequentially located away from Flood Zone 2 and 3, and Flood Zone 3 with climate change. • Development should be sequentially located away from small watercourses, but if development is proposed in proximity to them, a FRA should be undertaken to ascertain the flood risk in the absence of a Flood Zone. • Development must not impact on existing surface water flood risk or flow routes. • 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.

B.4.18 Milton

Summary of flood risk to Milton
Fluvial Milton village is separate from Milton Park Estate by Moor Ditch. Further west in the floodplain of the Ginge Brook. There is evidence for previous flooding in 1992, 2003, 2006 and 2007. Four properties were confirmed flooded in 2007. There is a system of drains and ornamental ponds and sluices not included in the Flood Map to the west of the village, associated with Milton Manor. Some areas of Flood Zone 2 are based on historical flood outlines. **Flood Zone Map**

Summary of flood risk to Milton



Surface water

The FMfSW shows some flow paths along the watercourses and ponding affecting different areas.

Flood Map for Surface Water (200 year)

Groundwater