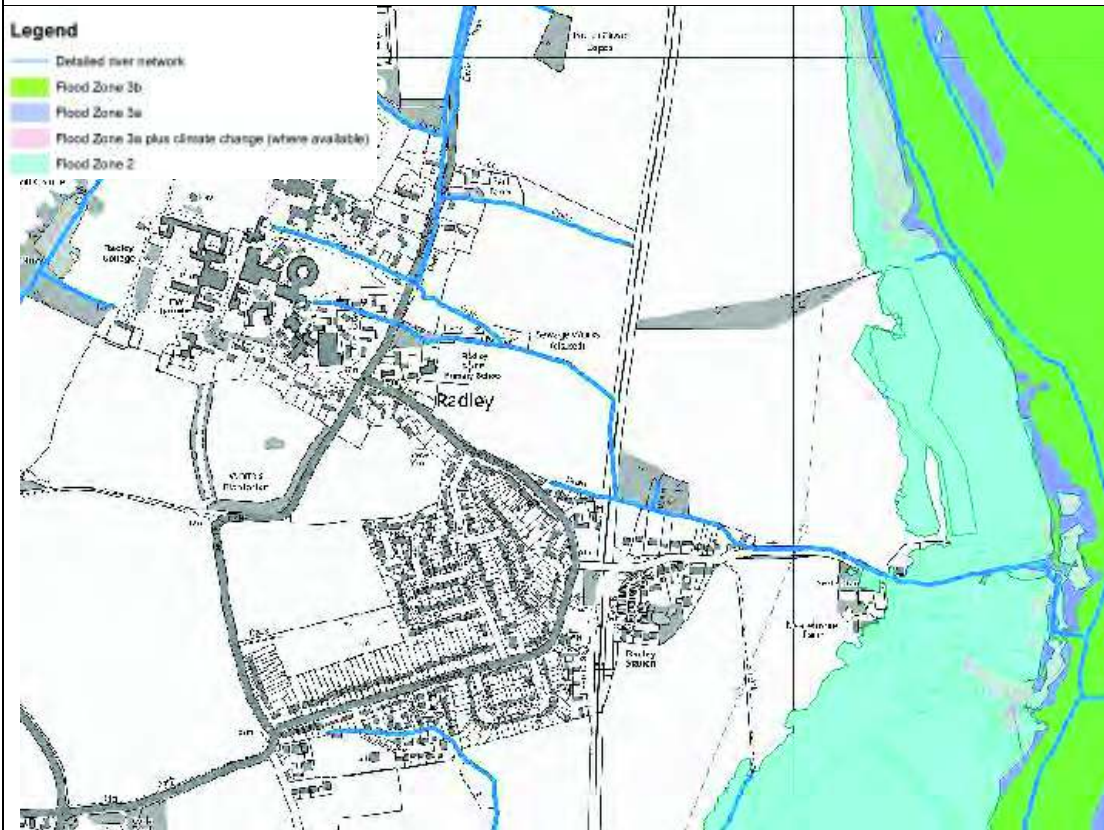


Summary of flood risk to Milton
The AStGWF map suggests that Milton is at the highest risk of groundwater emergence. No incidents of groundwater flooding recorded by the Environment Agency.
Sewer There is one property on the Thames Water sewer flooding register for OX14 4 postcode within the VOWH boundary, which has been flooded externally.
Effects of climate change Climate change is likely to increase the frequency, extent and severity of flooding on the Moor Ditch. Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses. Wetter winters will increase the risk of high groundwater.
Available survey/detailed modelling The following detailed model has been used in the Flood Map: <ul style="list-style-type: none"> • Moor Ditch (HR Wallingford, 2007) Flood Zones for the Ginge Brook are based on broadscale modelling and therefore have lower confidence.
Implications for development <ul style="list-style-type: none"> • 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 routes. • FRAs should fully investigate groundwater flood risk. • 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.4.19 Radley

Summary of flood risk to Radley
Fluvial Several minor watercourses drain from Radley into the River Thames to the east and Radley Park Ditch in Abingdon. They are not included in the Flood Map. There is a flood incident reported in the VOWH Flood Database associated with the former. The River Thames curves round to the east of the village, and Lower Radley is almost completely within Flood Zone 2.
Flood Zone Map

Summary of flood risk to Radley

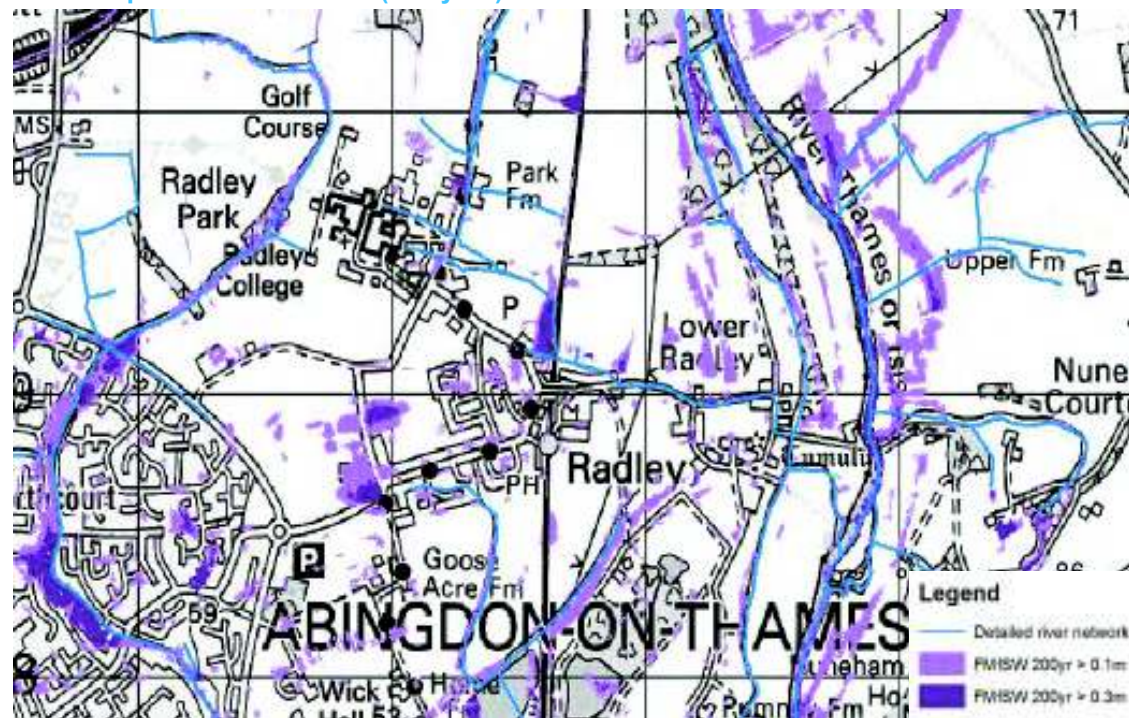


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Surface water to complete

The FMfSW shows potential ponding in the west of the village, and up against the railway on one of the minor watercourses.

Flood Map for Surface Water (200 year)



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Groundwater

The AStGWF map suggests that the north part of Radley is at low risk of groundwater

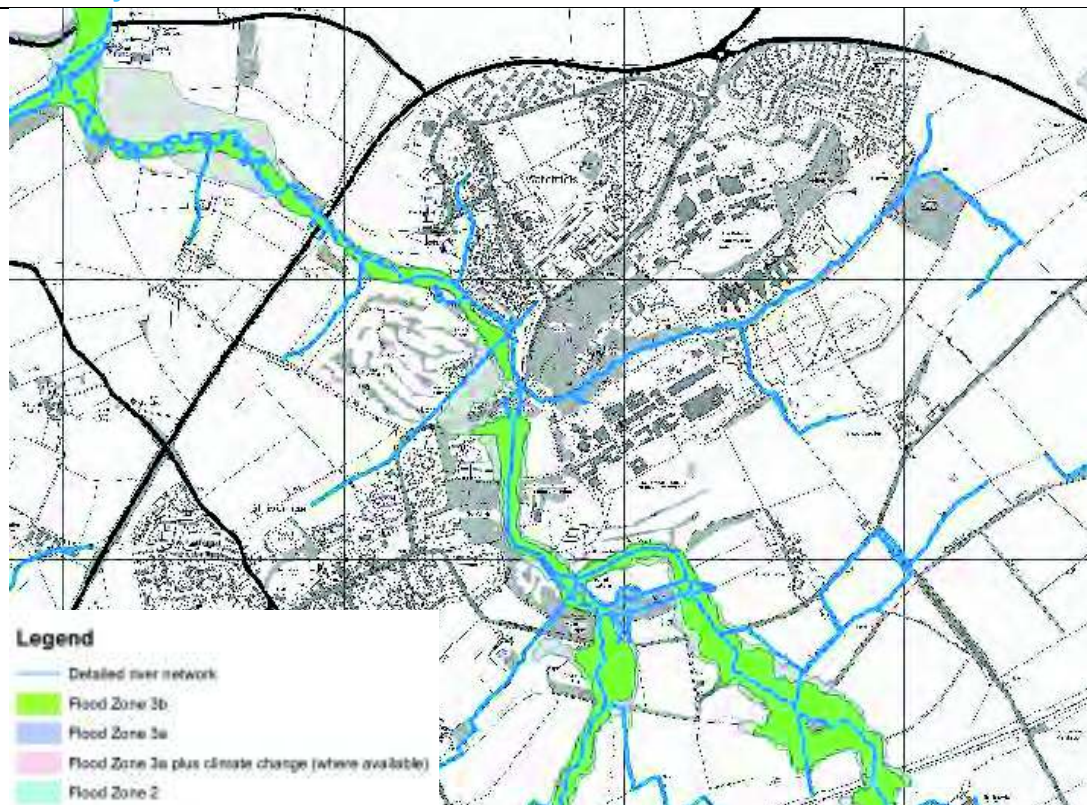
Summary of flood risk to Radley
emergence and the south part is at the highest risk. No incidents of groundwater flooding recorded by the Environment Agency.
Sewer There are nine properties on the Thames Water sewer flooding register in the two postcodes covering Radley (OX14 2 and 3), two of which have been flooded internally.
Reservoir Radley is within the flood risk envelope in the event of a failure at Farmoor Reservoir, which at Radley is similar in extent to Flood Zone 3. For more information see the Environment Agency website under Risk of Flooding from Reservoirs ¹⁵ .
Effects of climate change Model results for the River Thames show that Flood Zone 3a plus climate change results in an increase in flood extent at Lower Radley. Climate change is likely to increase the frequency and severity of flooding on the River Thames 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 model has been used in the Flood Map: <ul style="list-style-type: none"> Thames Sandford to Whitchurch (Environment Agency, 2000)
Implications for development <ul style="list-style-type: none"> 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 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.4.20 Shrivenham and Watchfield

Summary of flood risk to Shrivenham and Watchfield
Fluvial Tuckmill Brook, a tributary of the River Cole, runs from south to north between the villages. There is one record on the VOWH Flood Database related to Tuckmill Brook. There are several other small watercourses/drains including Bower Brook that are not included in the Flood Map. There are no formal flood defences recorded, although there are several structures recorded in the AIMS database, including the railway culverts and the sluices at Lake Road.
Flood Zone Map

¹⁵ 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=m&ap&textonly=off&lang=_e&topic=reservoir

Summary of flood risk to Shrivenham and Watchfield

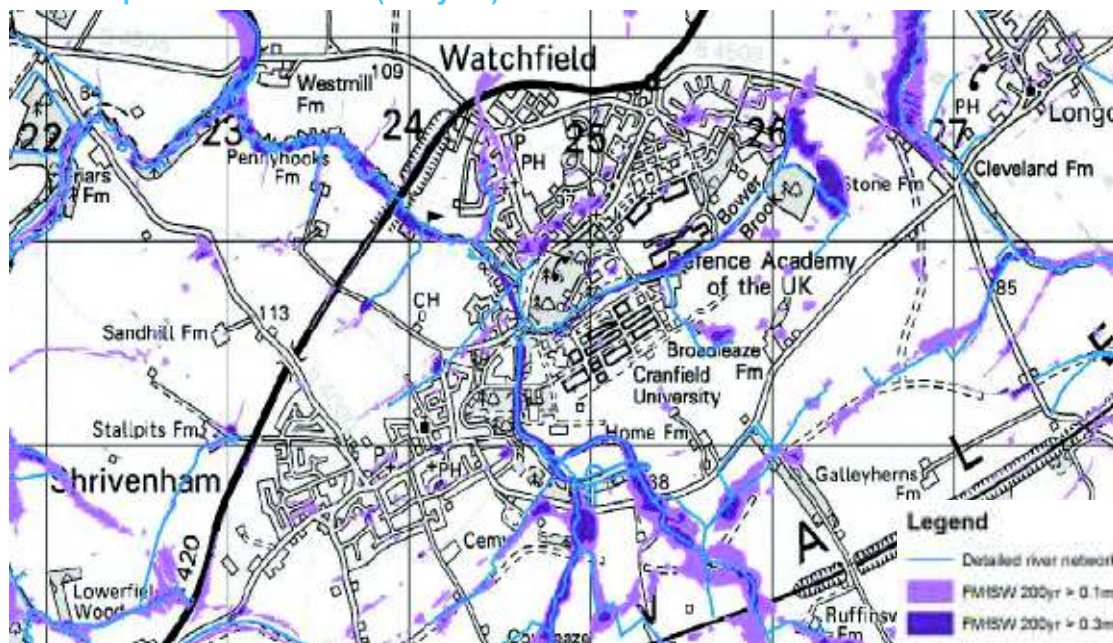


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Surface water

The FMfSW shows flow routes along some of the small ditches, and ponding along Faringdon Road. Three properties claimed flood grants in 2007 in east Shrivenham, with flooding likely to be caused by surface water.

Flood Map for Surface Water (200 year)



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Groundwater

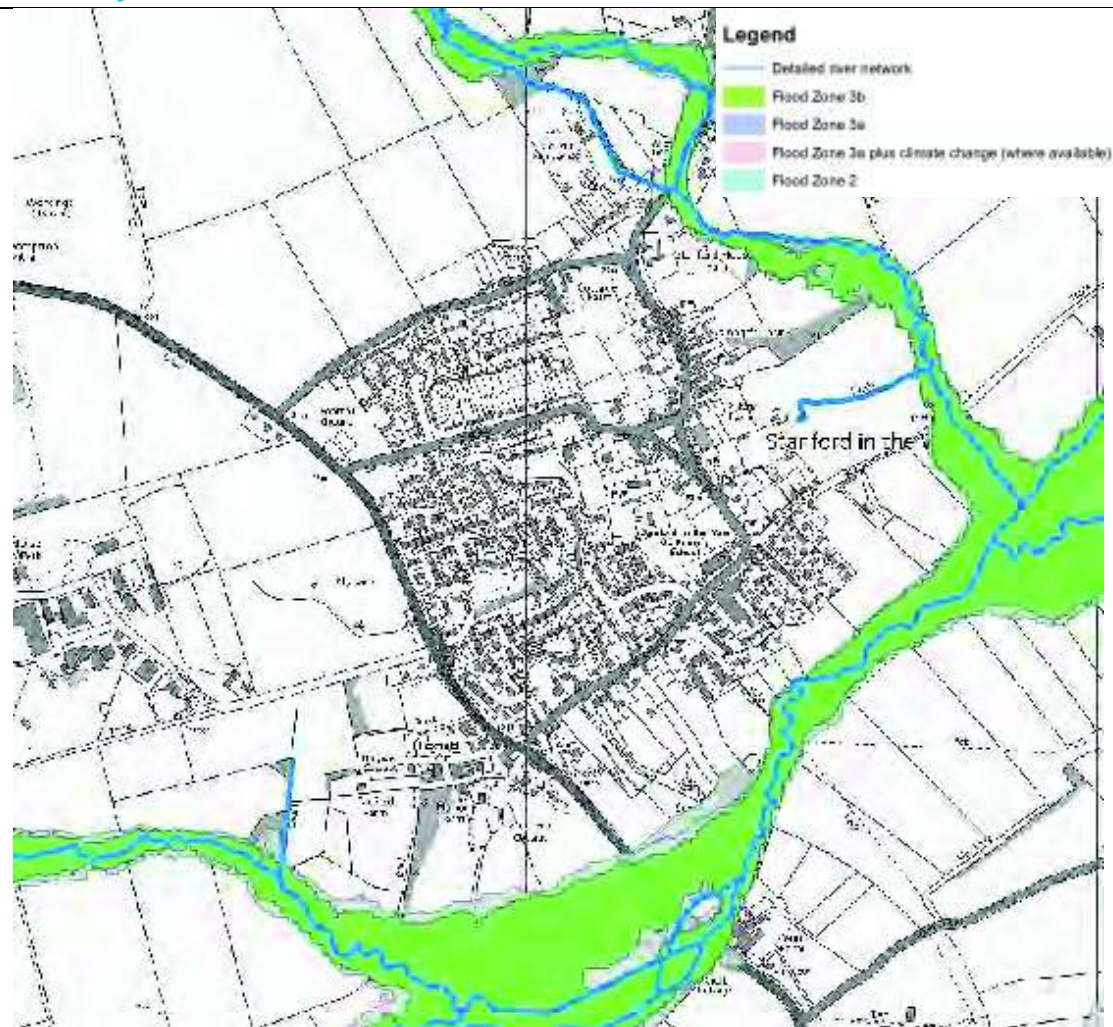
The AStGWF map suggests that groundwater emergence risk is low to the north of Watchfield, but increases to medium further south and then high in the south east of Shrivenham.

Summary of flood risk to Shrivenham and Watchfield
No incidents mapped in Defra report for 2000/1 and 2002/3 events. No incidents of groundwater flooding recorded by the Environment Agency.
Sewer There are six properties on the Thames Water sewer flooding register for the SN6 8 postcode, one is recorded as flooding internally. In early 2009 Thames Water objected to planning permission for a small residential development on the grounds of sewer incapacity.
Effects of climate change Fluvial flooding from Tuckmill Brook is likely to increase in extent, frequency and severity with 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. Flood Zones for Tuckmill Brook are based on national broad-scale mapping with lower confidence.
Implications for development <ul style="list-style-type: none"> • 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 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.4.21 Stanford in the Vale

Summary of flood risk to Stanford in the Vale
Fluvial Stanford in the Vale is contrained by the floodplain of the River Ock, which curves round to the south of the villages, and its tributaries Holywell Brook to the west and Frogmore Brook, to the east. There are six incidents recorded in the VOWH Flood Database, and three properties claimed flood grants in 2007, two of which are adjacent to Frogmore Brook. All roads into the village were impassable in July 2007 and other events. There are no formal defences. Several structures are recorded in the AIMS database on the River Ock. The Parish Council has funded dredging and minor defences in recent years.
Flood Zone Map

Summary of flood risk to Stanford in the Vale



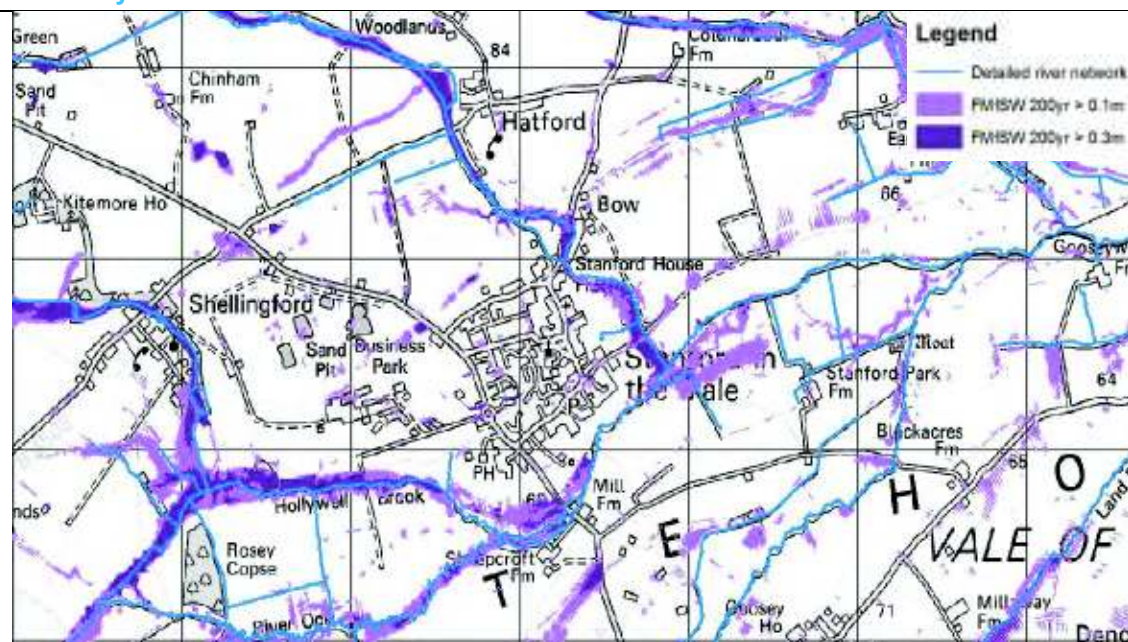
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Surface water

The FMfSW shows minor areas of potential ponding in the village. One of the three properties that claimed a flood grant in 2007 and five of the incidents recorded in the VOWH database are likely to be linked to surface water.

Flood Map for Surface Water (200 year)

Summary of flood risk to Stanford in the Vale



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Groundwater

The AStGWF map suggests that Stanford in the Vale 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

There are three properties on the Thames Water sewer flooding register for the SN7 8 postcode, none are recorded as flooding internally. No other evidence of sewer flooding.

Effects of climate change

Climate change is likely to increase the fluvial flood extent on the River Ock around the A417 bridge, but elsewhere the floodplain is fairly constrained and may not increase significantly. Frequency and severity of flooding will increase however.

Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.

Available survey/detailed modelling

No detailed model available. The Flood Zones at Stanford in the Vale are based on broadscale mapping and have lower confidence.

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 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.4.22 Steventon

Summary of flood risk to Steventon

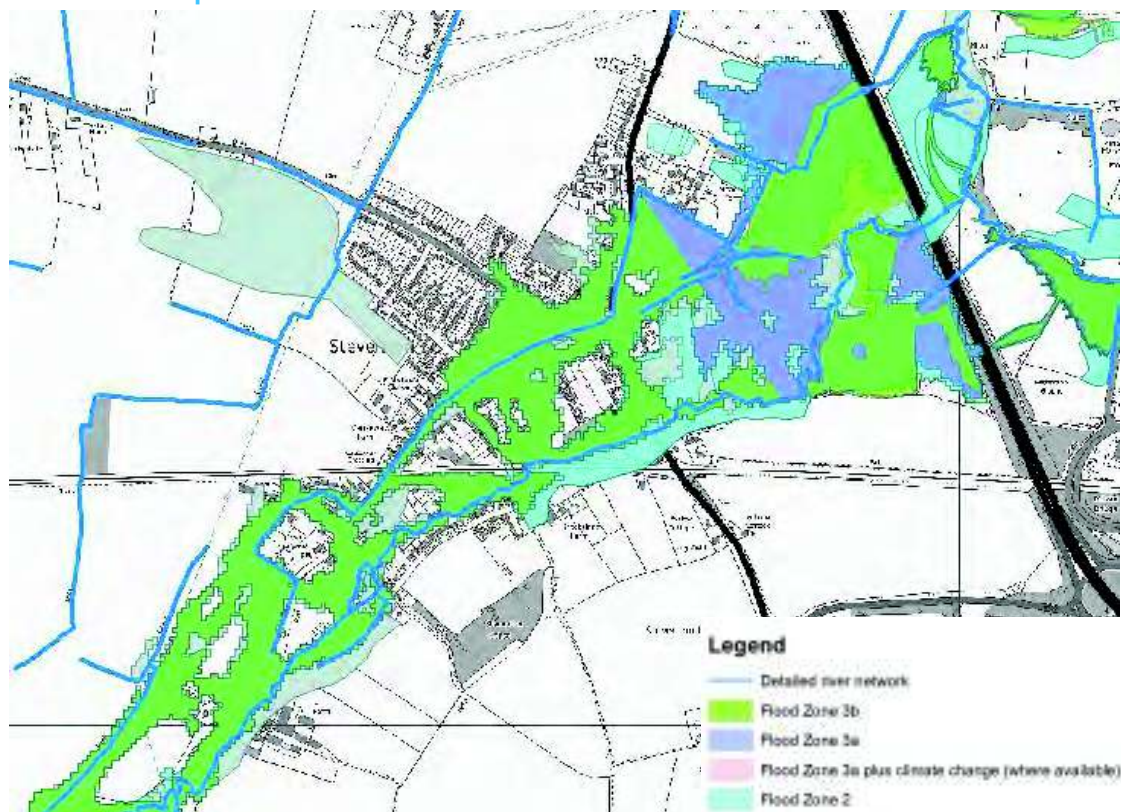
Fluvial

The Ginge Brook and associated drains flow through the centre of Steventon, and the existing village is at high risk of fluvial flooding. Flood grants were claimed by 62 properties in 2007 and there are 13 incidents in the VOWH Flood Database, mainly associated with Ginge Brook. There is extensive flooding recorded in the HFM, and these outlines form part of Flood Zone 2. There are also several minor watercourses which are not included in the Flood Map.

Summary of flood risk to Steventon

There are no formal flood defences, but there are several structures and non-flood defence embankments recorded in AIMS.

Flood Zone Map



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Surface water to complete

The FMfSW shows flow routes along the Ginge Brook and the drain system, and other isolated potential areas of ponding.

Flood Map for Surface Water (200 year)



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Groundwater

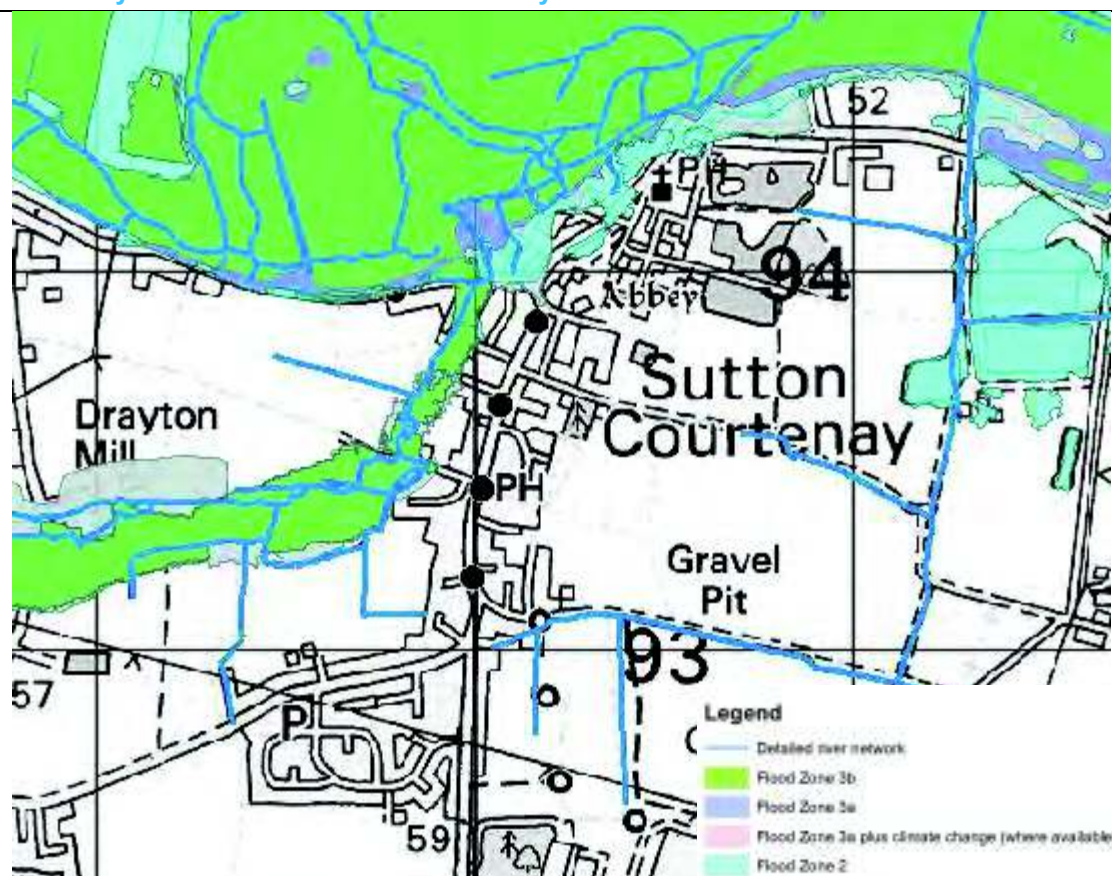
The AStGWF map suggests that most of Steventon is in the highest category of risk of

Summary of flood risk to Steventon
groundwater emergence. There are two incidents of groundwater flooding recorded by the Environment Agency, in 2007 and 2008. No incidents mapped in Defra report for 2000/1 and 2002/3 events.
Sewer There are 12 properties on the Thames Water sewer flooding register for the OX13 6 postcode, one of which has been flooded internally. No other evidence of sewer flooding.
Effects of climate change Climate change is likely to increase the fluvial flood extent, frequency and severity from the Ginge 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 No detailed models available. The Flood Zones for Ginge Brook are based on national broadscale mapping and have lower confidence.
Implications for development <ul style="list-style-type: none"> • 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 routes. • FRAs should fully investigate groundwater flood risk. • 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.4.23 Sutton Courtenay

Summary of flood risk to Sutton Courtenay
Fluvial Sutton Courtenay is constrained to the north and west by the River Thames Ginge Brook. One property claimed a flood grant in 2007, which is within the Thames Flood Zones. The HFM includes extensive flooding around Sutton Courtenay, which forms part of Flood Zone 2. There are no formal flood defences recorded, although there are several structures and non-flood defence embankment in AIMS.
Flood Zone Map

Summary of flood risk to Sutton Courtenay

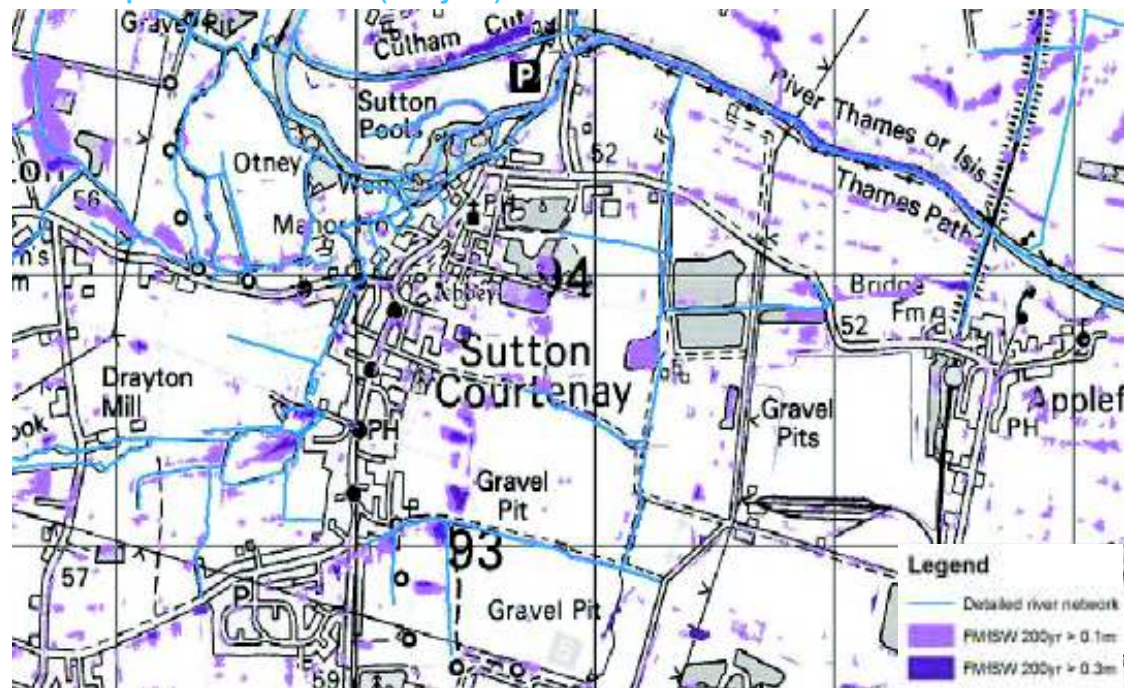


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Surface water to complete

The FMfSW shows isolated potential areas of isolated ponding, and flooding associated with minor watercourses. There are 12 incidents on the VOWH Flood Database, most of which are attributed to gullies and drains.

Flood Map for Surface Water (200 year)



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Groundwater

<p>Summary of flood risk to Sutton Courtenay</p> <p>The AStGWF map suggests that all Sutton Courtenay is at the highest risk of groundwater emergence, as it is situated on River Thames alluvial gravels overlying clay. The Defra report maps groundwater flooding in 2002/3. Environment Agency have records of four incidents of groundwater flooding in 2003 and 2013, one of which refers to 'persistent basement flooding'.</p>
<p>Sewer</p> <p>There is one property on the Thames Water sewer flooding register for the postcode OX14 4 within VOWH boundary, which flooded externally. One incident in the VOWH Flood Database is recorded as due to a 'blocked sewer'.</p>
<p>Effects of climate change</p> <p>Climate change is likely to increase the extent, frequency and severity of fluvial flooding from the Ginge Brook and River Thames.</p> <p>Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.</p> <p>Wetter winters may increase groundwater flood risk.</p>
<p>Available survey/detailed modelling</p> <p>The following detailed model has been used in the Flood Map:</p> <ul style="list-style-type: none"> Thames Sandford to Whitchurch (Environment Agency, 2000) <p>The Flood Zones for the Ginge Brook are based on national broadscale mapping with lower confidence.</p>
<p>Implications for development</p> <ul style="list-style-type: none"> 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 routes. FRAs should be requested to include a detailed assessment of the risk from high groundwater levels in the alluvial gravel aquifer. 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.4.24 Uffington

<p>Summary of flood risk to Uffington</p>
<p>Fluvial</p> <p>The west part of Uffington is at fluvial flood risk from an un-named minor watercourse that flows north. There is a network of small drains in the village which are not included in the Flood Zones.</p> <p>There are no formal flood defences recorded.</p>
<p>Flood Zone Map</p>

Summary of flood risk to Uffington

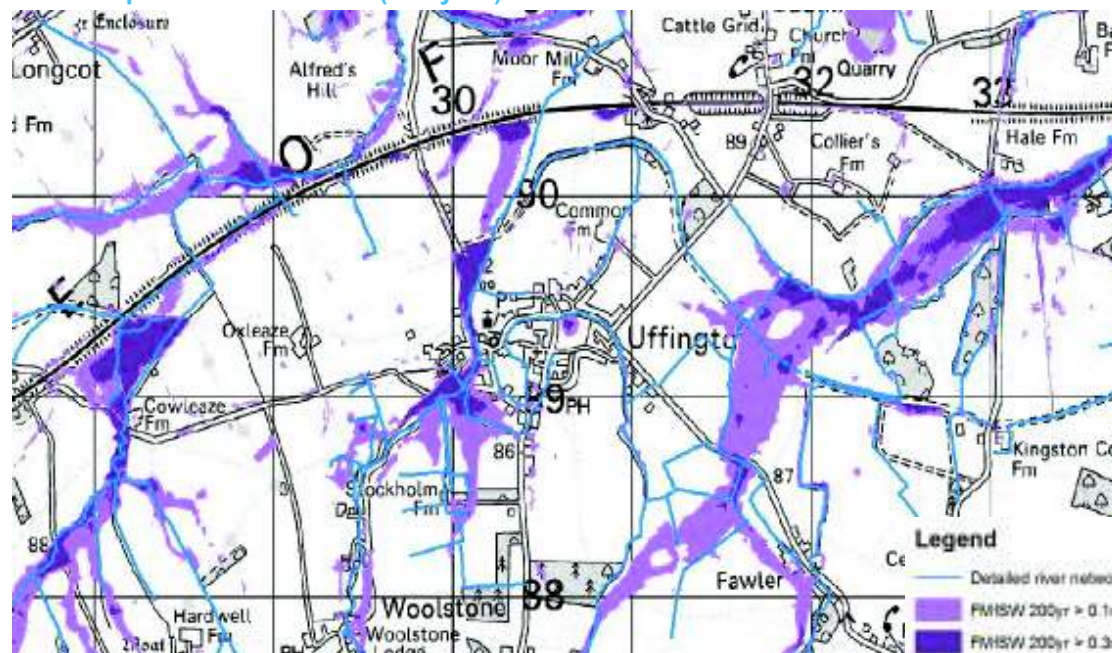


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Surface water

The FMfSW shows a significant flow route along the drain system on the west part of Uffington and isolated potential areas of ponding. Flood grants were claimed by 10 properties in 2007, with flooding likely to be due to surface water and drainage. There are 30 incidents recorded in the VOWH Flood Database, mostly pre-2002, and related to land drainage, ditches and minor watercourses.

Flood Map for Surface Water (200 year)



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Groundwater

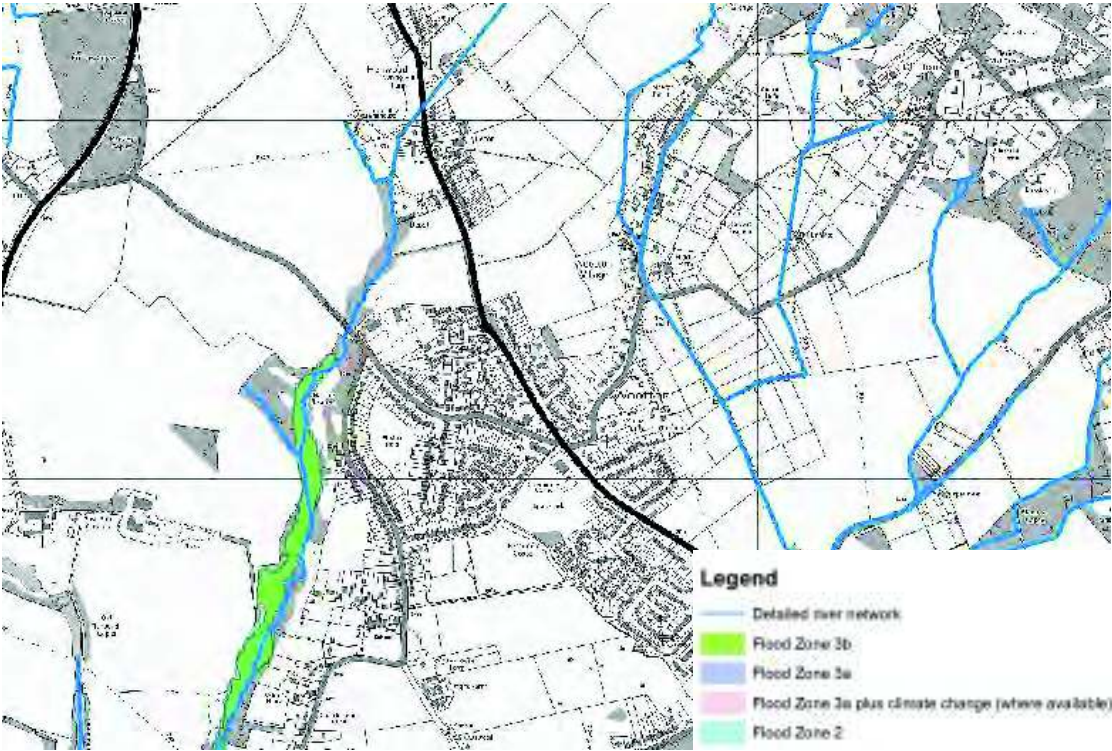
The AStGWF map suggests that Uffington is at the lowest risk of groundwater emergence. No incidents of groundwater flooding recorded by the Environment Agency.

Sewer

There are 17 properties on the Thames Water sewer flooding register for postcode SN7 7, six of which have been flooded internally. No other evidence of sewer flooding.

<p>Summary of flood risk to Uffington</p> <p>Effects of climate change</p> <p>Climate change is likely to increase the frequency and severity of fluvial flooding on the un-named minor watercourse, although the extent of the Flood Zone is unlikely to increase significantly.</p> <p>Increased rainfall intensity in the future may exacerbate flooding from surface water and small watercourses.</p> <p>Available survey/detailed modelling</p> <p>No detailed models available. The Flood Zone for the un-named watercourse is based on national broadscale mapping with lower confidence.</p> <p>Implications for development</p> <ul style="list-style-type: none"> • 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 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.

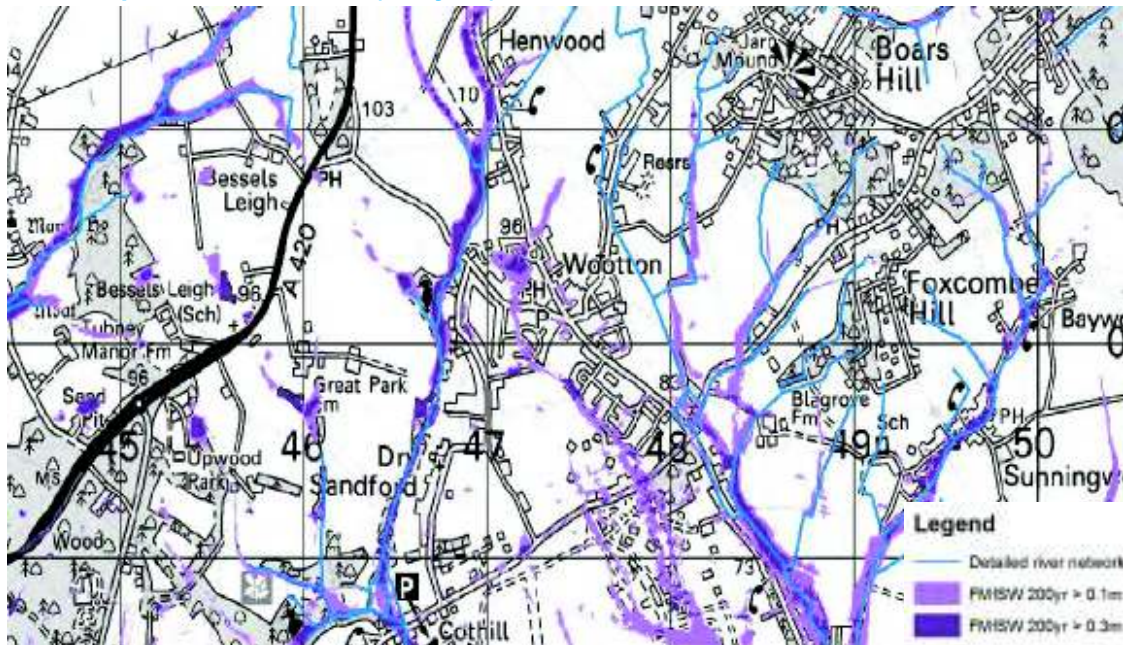
B.4.25 Wootton

<p>Summary of flood risk to Wootton</p> <p>Fluvial</p> <p>Sandford Brook flows in a north to south direction along the western edge of the existing village. The upper part of Sandford Brook and the headwaters of Wildmoor Brook to the east are minor watercourses that are not included in the Flood Map.</p> <p>There are no formal flood defences recorded.</p> <p>Flood Zone Map</p>  <p>© Crown copyright and database rights 2013 Ordnance Survey 100019525</p> <p>Surface water to complete</p> <p>The FMfSW shows a flow route through the centre of the village that does not appear to be associated with a watercourse, and isolated areas of ponding. Five properties claimed flood grants in 2007 and 24 appear in the VOWH database, almost all of which are located along</p>

Summary of flood risk to Wootton

this flow route, providing local evidence to support the FMfSW.

Flood Map for Surface Water (200 year)



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Groundwater

The AStGWF map suggests that Wootton is at medium to high risk of groundwater flooding. No incidents mapped in Defra report for 2000/1 and 2002/3 events. No incidents of groundwater flooding recorded by the Environment Agency.

Sewer

There are 12 properties on the Thames Water sewer flooding register for OX13 6 (which covers south Wootton), one of which was flooded internally. There are 40 properties for OX1 5 16 of which were flooded internally (although it should be noted this postcode also includes South Hinksey). No other evidence of sewer flooding problems was found.

Effects of climate change

Climate change is likely to increase the frequency and severity of fluvial flooding although the extent is unlikely to increase significantly.

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

No detailed models available. The Flood Zones for Sandford Brook are based on national broadscale mapping and have lower confidence.

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 routes, particularly the one through the centre of the village.
- FRAs should investigate groundwater risk.
- 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.