

Figure 15-3 – Flooding in Fields North of Cleeve Court



### 15.4 FLOOD DEFENCES / ASSETS

- 15.4.1. WSP is not aware of any flood defences in the area that benefit Streatley.
- 15.4.2. However, during WSP's site visit to Streatley, the local flood warden informed that there is the potential for an Oxford relief scheme that would divert river water through Port Meadow. This would benefit Streatley and potentially reduce fluvial flood risk.

### 15.5 RISK MANAGEMENT AUTHORITIES

### **Thames Water**

- 15.5.1. During WSP's site visit to Streatley, the local flood warden and residents reported that, Thames Water response was not immediate, but they have begun taking remedial actions to address residents' concerns such as:
  - Improved telemetry to record water levels and pump activity in response to heavy rainfall;
  - Quicker response times to any alert of capacity being exceeded; and
  - More powerful and upgraded pumps.



- 15.5.2. A request for information has been sent to Thames Water, however no specific response regarding the 2024 flood event in this area has been received.
- 15.5.3. Thames Water reported that proactive planned works, such as cleaning blockages in flood prone areas, are carried out each year. Furthermore, in summer months, Thames Water aim to deliver any work that was identified as required in the previous winter period, such as, to address groundwater infiltration or surface water inundation related issues. Investigations are then carried out over the autumn and winter months in catchments known to have issues with groundwater infiltration and surface water inundation.
- 15.5.4. Thames Water reported having started this work in September 2023 after Swindon received the first storm of the season. Thames Water has reported that it will continue to investigate how water is entering the sewer system and collate information to prioritise works based on likelihood of impact and potential consequences.

### **Environment Agency**

- 15.5.5. During WSP's site visit to Streatley, the local flood warden and residents reported that the Environment Agency had not been in attendance in response to the flooding experienced in early 2024.
- 15.5.6. Consultation with the Environment Agency has confirmed that they do not own any specific flood defences benefiting the Streatley area however, the River Thames has weirs which are primarily used for navigation purposes but do have an effect on river flows and therefore flood risk. These are operated by trained lock and weir keepers in accordance with procedures to maintain water levels for navigation. The Environment Agency reported that, during the named storms of early 2024 the river had risen, and the lock and weir keepers adjusted weirs appropriately until they were fully drawn and closed back in when appropriate. On this occasion weirs were only able to be part way shut back in before the next storm arrived, and weirs were reopened.
- 15.5.7. The Environment Agency own the Goring Lock gauge and Cleeve Lock gauge that measure river levels along the River Thames. However, due to a reset on a site visit in March the data for the Cleeve Lock gauge is estimated and therefore unreliable. Consultation also confirmed that the Environment Agency has not yet defined the return period of the 2024 flood event.
- 15.5.8. The following flood alert was in place during the 2024 flood event:
  - River Thames and its tributaries from Days Lock to above Pangbourne (061WAF23WallGor) In force: 31/12/2023 – 15/01/2024
- 15.5.9. Consultation with the Environment Agency detailed that no flood warnings were in place during the 2024 flood event.
- 15.5.10. The Environment Agency only received one report of flooding across Streatley during the 2024 flood event. This included internal fluvial flooding from the River Thames of one property due to debris build up at Goring Lock.
- 15.5.11. Consultation with the Environment Agency has confirmed that there were no specific issues or constraints associated with the River Thames within Pangbourne and that there are no plans to carry out improvement works. Furthermore, details of the Thames Valley Flood Scheme have been provided. The scheme, led by the Environment Agency, is investigating the possibility to store water across the Thames catchment. This is likely to include a combination of flood storage and natural flood management currently across approximately 17 locations.



### **West Berkshire Council**

- 15.5.12. A request for information was sent to West Berkshire Council to detail their response to the 2024 flooding events. The information received details that no road closures were put in place, as a result of flooding, in Streatley, in early 2024.
- 15.5.13. In addition to this, representatives of West Berkshire Council visited the Streatley area on Sunday the 7<sup>th</sup> of January 2024.

### Royal Berkshire Fire and Rescue Service

15.5.14. As part of the investigation Royal Berkshire Fire and Rescue Service (RBFRS) have been consulted for information. RBFRS reportedly did not attend any incidents in relation to the 2024 flood event in this area.

### 15.6 RECOMMENDATIONS

### **Local Residents**

- 15.6.1. Residents should report any foul sewer issues to Thames Water as soon as they become apparent. It is believed that the properties affected by internal sewer flooding, already have non-return valves fitted. Therefore, affected residents should carry out an inspection to check the condition of these valves and carry out any necessary remedial works.
- 15.6.2. Residents and business owners affected by groundwater flooding may benefit from the installation of hard flooring and sump pumps or the tanking the property to protect their premises, especially basements, from further flooding during times of high groundwater. Such measures have already been utilised and proven to be effective across properties in Cleeve Court.
- 15.6.3. Those affected by fluvial flooding, may benefit from the installation of flood barriers or doors, if they are not already in use. General property level resilience and resistance measures could be considered, such as raising plug sockets.

### **West Berkshire Council**

- 15.6.4. It has been noted that the highway gullies in Streatley are regularly cleared, however they become blocked frequently after a flood event. Therefore, West Berkshire Council could investigate the potential to add mesh gates to collect debris before it enters the drainage network. A maintenance schedule could then be put in place to ensure the regular clearance of any debris, specifically along known high risk roads, such as High Street and Streatley Hill. Furthermore, a schedule could be put in place for the maintenance of the ditches across Streatley. If this is already in place, then the schedule could be updated, with ditches in Cleeve Court highlighted as a priority location for inspection on receipt of forecasts of heavy rain.
- 15.6.5. West Berkshire Council could collaborate with the Environment Agency and local residents to investigate the potential for a flood alleviation scheme to be implemented in Streatley. This could include the temporary storage of river water during high flows, at sites such as Bishops Field to the north of Cleeve Court or land to the west of Cleeve Lock, however this will require more detailed investigation, outside of the remit of this report.
- 15.6.6. It is recommended that West Berkshire Council could engage with the electricity provider regarding adequate flood protection for the electricity substation located in Cleeve Court.



### **Environment Agency**

- 15.6.7. During WSP's site visit to Streatley, many affected residents reported that the Environment Agency's flood alerts and warnings were repeatedly issued too late and often the flooding had already occurred before a flood warning was issued. Therefore, the Environment Agency could review the levels at which alerts and warnings are issued to the Streatley area to ensure enough time is provided to residents to allow flood plans to be followed and preparations put in place. Residents also reported that it would be useful for information on the predicted arrival time of the peak flood level and the predicted height of the peak flood level, to be communicated within the daily flood alert and flood warning update.
- 15.6.8. Additionally, the village may benefit from the installation of boreholes, used for groundwater monitoring, and preparation of a groundwater flood plan to help inform flood risk, specifically in the area of Cleeve Court.

### **Thames Water**

15.6.9. Thames Water could consider the implementation of flood defences to protect the SPS from future flooding and therefore prevent internal sewer flooding across Cleeve Court. Furthermore, it is recommended that Thames Water consider engaging with affected residents regarding expectations on response during any future incidents affecting the capacity of the sewerage system.

### **Parish Council**

The Parish Council should continue to support the local flood warden in Streatley and provide education and communication to local residents on the following:

- How to monitor river levels and flows;
- How to sign up to the Environment Agency flood alerts and warnings;
- How to report concerns to the relevant flood risk management authorities;
- Guidance on effective property level protection;
- What to do and when, in preparation for a flood; and
- Where to find support following a flood event.
- 15.6.10. During WSP's site visit to Streatley, it was noted that the area currently only has one flood warden. If possible, it may prove beneficial to increase the number of flood wardens in the area to aid communication and advancements, with regards to flood risk, between the local community and West Berkshire Council.

### 15.7 SUMMARY

- 15.7.1. The flooding generally occurred in areas categorised as Flood Zone 3, according to the Environment Agency's flood maps (refer to Appendix E.7). It is also noted that, according to the Environment Agency's long term flood map, the High Street has a high surface water flood risk.
- 15.7.2. Table 15-1 summarises the flooding experienced in Streatley as a result of Storms Henk, Isha, and Jocelyn. Refer to Appendix A.7 which details the locations of the flooded areas.

### Table 15-1 - Summary of Flooding in Streatley



Total No. of Properties Flooded	Source of Flooding	No. of Properties Flooded Internally	No. of Properties Flooded Externally*	No. of Road Closures
21	Surface Water, Groundwater, Fluvial & Sewer.	6	15	0 (Noted that Cleeve Court Drive was impassable)

<sup>\*</sup>Excluding properties recorded as having flooded internally.

15.7.3. West Berkshire Council, Thames Water and the Environment Agency all had flood management responsibilities related to this event due to the multiple flood sources and assets involved. West Berkshire Council and Thames Water attended during the flooding to monitor the situation and carry out remedial actions. A number of recommendations have been identified to help manage the impact of any future flooding events.



### 16 WINTERBOURNE

### 16.1 LOCATION

- 16.1.1. The village of Winterbourne is located in central West Berkshire and is situated north of Newbury. The village has a National Grid Reference of 445613, 172279 and is shown in Figure 16-1.
- 16.1.2. The village is situated along Winterbourne Stream in a topographical low point with higher elevations to the east and south.
- 16.1.3. Previous flooding occurred in Winterbourne during the winter 2013/14 flood event, during which similar areas were affected. During this event, approximately one property was flooded internally and approximately 11 properties were flooded externally across Winterbourne. Similar to the 2024 flood event, flooding the result of groundwater and fluvial sources from the Winterbourne Stream. Historic flood outlines are mapped within Appendix E.12.

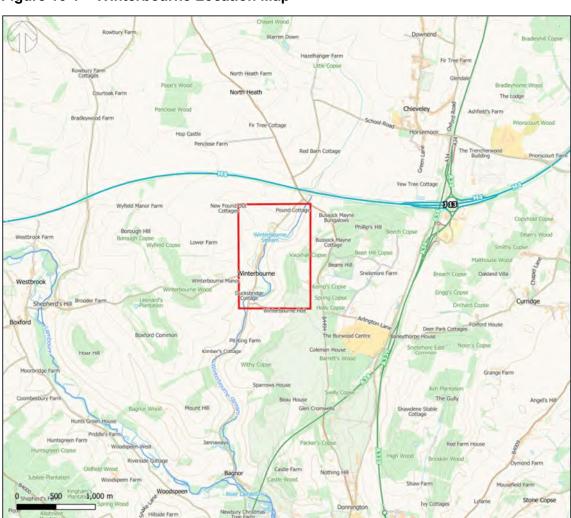


Figure 16-1 - Winterbourne Location Map



### 16.2 FLOODING

- 16.2.1. WSP conducted a site visit to Winterbourne on the 18<sup>th</sup> of April 2024 and from this it is understood that flooding issues began on the 4<sup>th</sup> of January 2024 and resulted from fluvial and groundwater sources.
- 16.2.2. The majority of flooding occurred in areas categorised as Flood Zone 3, according to the Environment Agency's flood maps (refer to Appendix E.12). However, one property that experienced external fluvial flooding and internal groundwater flooding is located in Flood Zone 1. It is also noted that Winterbourne Lane also has a high surface water flood risk, according to the Environment Agency's long term flood maps (refer to Appendix E.12).
- 16.2.3. From interviews with the Winterbourne flood warden and affected residents, it is understood that approximately 11 properties were affected by external fluvial and groundwater flooding, initially in early January, and then again in March. It was reported that external flood depths were deepest in two properties located next to the sewage works at the bottom of the village due to their lower elevation.
- 16.2.4. WSP is not aware of any internal flooding occurring in January 2024, however it is understood that two properties were flooded internally from the 28<sup>th</sup> of March 2024. One property experienced internal flood depths of approximately 150mm as a result of groundwater rising up through the property's floorboards. Another property experienced internal flood depths of approximately 250mm due to groundwater rising up through the floor and fluvial water seeping in through the external walls.
- 16.2.5. The main road that runs through Winterbourne (currently unnamed and hereby referred to as Winterbourne Lane) was affected by fluvial flooding from the 4<sup>th</sup> of January and again from the 28<sup>th</sup> of March. Through this time flood depths along Winterbourne Lane varied, however it is understood that the maximum depths reached approximately 300mm deep. As a result, Winterbourne Lane was closed, therefore affecting businesses and school bus routes that required access through the road.



Figure 16-2 – Flooding at Winterbourne Lane



### **16.3 CAUSES**

- 16.3.1. Following WSP's site visit to Winterbourne, it is understood that flooding was caused by groundwater and fluvial sources. The winter of 2023/24 was one of the wettest on record, which served to elevate groundwater levels for prolonged periods of time in areas of West Berkshire. High groundwater in and around Winterbourne was noted as a significant contributing factor to the flooding experienced. This was exacerbated by significant rainfall during storms Henk, Isha, and Jocelyn in January. As a result, throughout January, February, and March, levels in the Winterbourne Stream were likely to be higher than the typical range. These raised levels caused the stream to overtop its banks north of Pebble Lane and flood Winterbourne Lane.
- 16.3.2. Other contributing factors likely worsened the internal flooding experienced in March 2024. For example, one property's sump pump broke because it could not deal with the amount of water that needed pumping away from the property. In addition to this, residents believe a flood alleviation scheme located north of Pebble Lane (see below) is not believed to have operated as planned,



allowing too much water to flow into Winterbourne village. As a result, the Winterbourne Stream overtopped its banks north of the village, where it flowed into Winterbourne Lane, and in the centre of the village, where it flooded gardens of properties that back onto the stream. However, we have been unable to verify this at this stage.





### 16.4 FLOOD DEFENCES / ASSETS

- 16.4.1. Winterbourne currently benefits from a flood alleviation scheme which was built in 2014 in response to the 2007 flood event. The scheme is located north of the village and diverts Winterbourne Stream into a bunded area, from which flows are restricted by a 'letterbox' style hydraulic control, causing excess flows to be retained upstream of the bund. The size of the opening, and therefore the flow of water through it, cannot be adjusted.
- 16.4.2. The bund is designed to hold a volume of water with a depth of approximately 8m, however residents reported the depth of water is rarely higher than approximately 3m. During the 2024 flood events, local flood wardens reported that the scheme held back some excess flow, storing it in the field to the north of Pebble Lane. However, residents believe the hydraulic control allowed too much water to flow because the stream was still able to flow out of bank, downstream of the scheme.



### 16.5 RISK MANAGEMENT AUTHORITIES

### **Thames Water**

- 16.5.1. A request for information has been sent to Thames Water, however no specific response regarding the 2024 flood event in this area has been received.
- 16.5.2. Thames Water reported that proactive planned works, such as cleaning blockages in flood prone areas, are carried out each year. Furthermore, in summer months, Thames Water aim to deliver any work that was identified as required in the previous winter period, such as, to address groundwater infiltration or surface water inundation related issues. Investigations are then carried out over the autumn and winter months in catchments known to have issues with groundwater infiltration and surface water inundation. Thames Water reported having started this work in September 2023 after Swindon received the first storm of the season. Thames Water has reported that it will continue to investigate how water is entering the sewer system and collate information to prioritise works based on likelihood of impact and potential consequences.

### **Environment Agency**

- 16.5.3. A request for information has been sent to the Environment Agency. It should be noted that, the Winterbourne Stream is not a main river and as such they do not have powers to maintain it.
- 16.5.4. Consultation with the Environment Agency has confirmed details of Winterbourne flood alleviation scheme. The scheme comprised of the realignment of the Winterbourne Stream and the construction of a 300m long, 2.4m high flood defence bund on the land to the north of Winterbourne village. The project also included the construction of associated control structures to form a flood storage reservoir with a capacity of approximately 22,000m³. The aim of the scheme was to intercept fluvial and rainfall flows, and store and release them in a controlled manner.
- 16.5.5. The Environment Agency confirmed that there are no river flow or level gauges along Winterbourne Stream. Consultation also confirmed that the Environment Agency has not yet defined the return period of the 2024 flood event.
- 16.5.6. The following flood alert was in place during the 2024 flood event:
  - River Lambourn and its tributaries from Upper Lambourn down to Newbury (061WAF22Lambourn) – In force: 04/01/2024 – 05/06/2024
- 16.5.7. The following flood warning was in place during the 2024 flood event:
  - River Lambourn from Weston to Bagnor including Boxford (061FWF22MidLamb) In force: 04/01/2024 – 11/02/2024
- 16.5.8. The Environment Agency only received one report of flooding across Winterbourne during the 2024 flood event. This included external flooding of one property.
- 16.5.9. Consultation with the Environment Agency has confirmed that there were no specific issues or constraints associated with Winterbourne Stream within Winterbourne and that there are no plans to carry out improvement works.

### **West Berkshire Council**

16.5.10. A request for information was sent to West Berkshire Council to detail their response to the 2024 flooding events. The information received details that Winterbourne Lane was closed on the 5<sup>th</sup> of January 2024, as a result of flooding.



- 16.5.11. In addition to this, representatives of West Berkshire Council visited the Winterbourne area on the following dates:
  - 7<sup>th</sup> of January 2024
  - 16<sup>th</sup> of January 2024
  - 18<sup>th</sup> of January 2024
  - 25<sup>th</sup> of January 2024

### Royal Berkshire Fire and Rescue Service

16.5.12. As part of the investigation Royal Berkshire Fire and Rescue Service (RBFRS) have been consulted for information. RBFRS reportedly did not attend any incidents in relation to the 2024 flood event in this area.

### 16.6 RECOMMENDATIONS

### **Local Residents**

- 16.6.1. Residents should report any road drainage issues to West Berkshire Council as soon as they become apparent. Riparian owners of Winterbourne Stream should ensure that the watercourse is clear of obstructions, such as vegetation, and enable the free passage of water. During WSP's site visit to Winterbourne, it was noted that several properties have bridges that cross the stream to allow access and egress. During times of high stream levels, these bridges created an obstruction to flow and became unsafe to use. It is recommended that riparian owners could consider raising the height of these bridges to ensure safe access and egress can still be achieved and to reduce the risk of obstruction of flows.
- 16.6.2. Residents and business owners affected by groundwater flooding may benefit from the installation of hard flooring and sump pumps or the tanking their properties to give their premises resilience from flooding during times of high groundwater in addition to other property flood Resilient measures.
- 16.6.3. Those affected by fluvial flooding may benefit from the installation of flood gates or barriers or doors, if they are not already in use. General property level resilience and resistance measures could be considered, such as raising plug sockets.

### **West Berkshire Council**

- 16.6.4. A schedule could be put in place for the maintenance of grips through Winterbourne. If this is already in place, then the schedule could be updated, with grips along Winterbourne Lane highlighted as priority locations for inspection on receipt of forecasts of heavy rain.
- 16.6.5. During WSP's site visit to Winterbourne, it was noted that water from Winterbourne Stream was backing up road drainage and flooding the road. It is acknowledged that the design standard of existing highway drainage is likely to be lower than the rainfall event recorded. However, it is recommended that West Berkshire Council could conduct a CCTV survey to assess the condition of the highway drainage network and then carry out any necessary remedial works.
- 16.6.6. A community schedule could be put in place with the aid of riparian owners and West Berkshire Council to ensure the regular clearance of Winterbourne Stream of vegetation and debris. This schedule should encourage more frequent maintenance upon receipt of forecasts of heavy rain.



16.6.7. It is recommended that West Berkshire Council could review the Winterbourne Flood Alleviation Scheme design to if is functioning as designed and if so if other measures are necessary to improve the flood defence standard.

### **Parish Council**

- 16.6.8. The Parish Council should continue to support the local flood warden in Winterbourne and provide education and communication to local residents on the following:
  - How to monitor river levels and flows.
  - How to sign up to the Environment Agency flood alerts and warnings.
  - How to report concerns to the relevant flood risk management authorities.
  - Guidance on effective property level protection.
  - What to do and when, in preparation for a flood.
  - Where to find support following a flood event.
- 16.6.9. During WSP's site visit to Winterbourne, it was noted that the area currently only has one flood warden. If possible, additional flood wardens should be sought to aid communication and advancements, with regards to flood risk, between the local community and West Berkshire Council.

### 16.7 SUMMARY

- 16.7.1. The majority of flooding occurred in areas categorised as Flood Zone 3, according to the Environment Agency's flood maps (refer to Appendix E.12). However, one property that experienced external fluvial flooding and internal groundwater flooding is located in Flood Zone 1. It is also noted that Winterbourne Lane also has a high surface water flood risk, according to the Environment Agency's long term flood maps (refer to Appendix E.12).
- 16.7.2. Table 16-1 summarises the flooding experienced in Winterbourne as a result of Storms Henk, Isha, and Jocelyn. Refer to Appendix A.12 which details the locations of the flooded areas.

Table 16-1 – Summary of Flooding in Winterbourne

Total No. of Properties Flooded	Source of Flooding	No. of Properties Flooded Internally	No. of Properties Flooded Externally*	No. of Road Closures
11	Groundwater & Fluvial.	2	9	1 – Winterbourne Lane

<sup>\*</sup>Excluding properties recorded as having flooded internally.

16.7.3. West Berkshire Council had flood management responsibilities related to this event due to the flood sources and assets involved. West Berkshire Council attended during the flooding to monitor the situation and carry out remedial actions. Recommendations have been identified to help manage the impact of any future flooding events.



### 17 NON-INVESTIGATED AREAS

- 17.1.1. During WSP's site visits across West Berkshire, reports of other areas that were affected by flooding as a result of Storms Henk, Isha, and Jocelyn were noted. However, it is currently considered that flooding in these areas do not meet the requirements of a s19 Flood Investigation. The areas include:
  - Bucklebury
  - Coley
  - East Garston
  - East IIsley
  - Hampstead Norreys
  - Shefford Woodlands
  - Sulhamstead
  - Thatcham
  - Theale
  - Upper Lambourn
  - West IIsley
- 17.1.2. West Berkshire Council also enforced the following road closures in early 2024, as a result of flooding.

Location	Road Name	Date of Closure	Date Reopened (if known)
Bucklebury	Bucklebury Ford	5 <sup>th</sup> January 2024	
Burghfield	Reading Road	5 <sup>th</sup> January 2024	8 <sup>th</sup> January 2024
Burghfield	Padworth Road	5 <sup>th</sup> January 2024	8 <sup>th</sup> January 2024
Greenham	Burys Bank Road	5 <sup>th</sup> January 2024	10 <sup>th</sup> January 2024
Kintbury	Station Road	10 <sup>th</sup> January 2024	
Newbury	Milkhouse Road	10 <sup>th</sup> January 2024	
Newbury	Two Rivers Way	5 <sup>th</sup> January 2024	
Speen	Milkhouse Road	10 <sup>th</sup> January 2024	
Sulhamstead	Sulhamstead Hill	5 <sup>th</sup> January 2024	8 <sup>th</sup> January 2024
Thatcham	Crookham Hill	5 <sup>th</sup> January 2024	
Ufton Nervet	Ufton Lane	5 <sup>th</sup> January 2024	
Woolhampton	Carbinswood Lane	5 <sup>th</sup> January 2024	5 <sup>th</sup> January 2024



- 17.1.3. It should be noted that cellar flooding was experienced in East IIsley and West IIsley and these were seen to be pumping onto the Highway. Whilst this does not reach the threshold for investigation under Section 19 of the Flood and Water Management Act, this report will act as a record to note that cellar flooding occurred.
- 17.1.4. Of note, Crookham Hill was flooded to varying degrees for 4-5 months which significantly impacted on Avenell's Cottages. The cause of this flooding is believed to be from the River Kennet and will need investigating further due to the impact on this critical infrastructure and the cottages.
- 17.1.5. Sewer flooding was also experienced in Hampstead Norreys and this will be taken up with Thames Water.



### 18 CONCLUSIONS

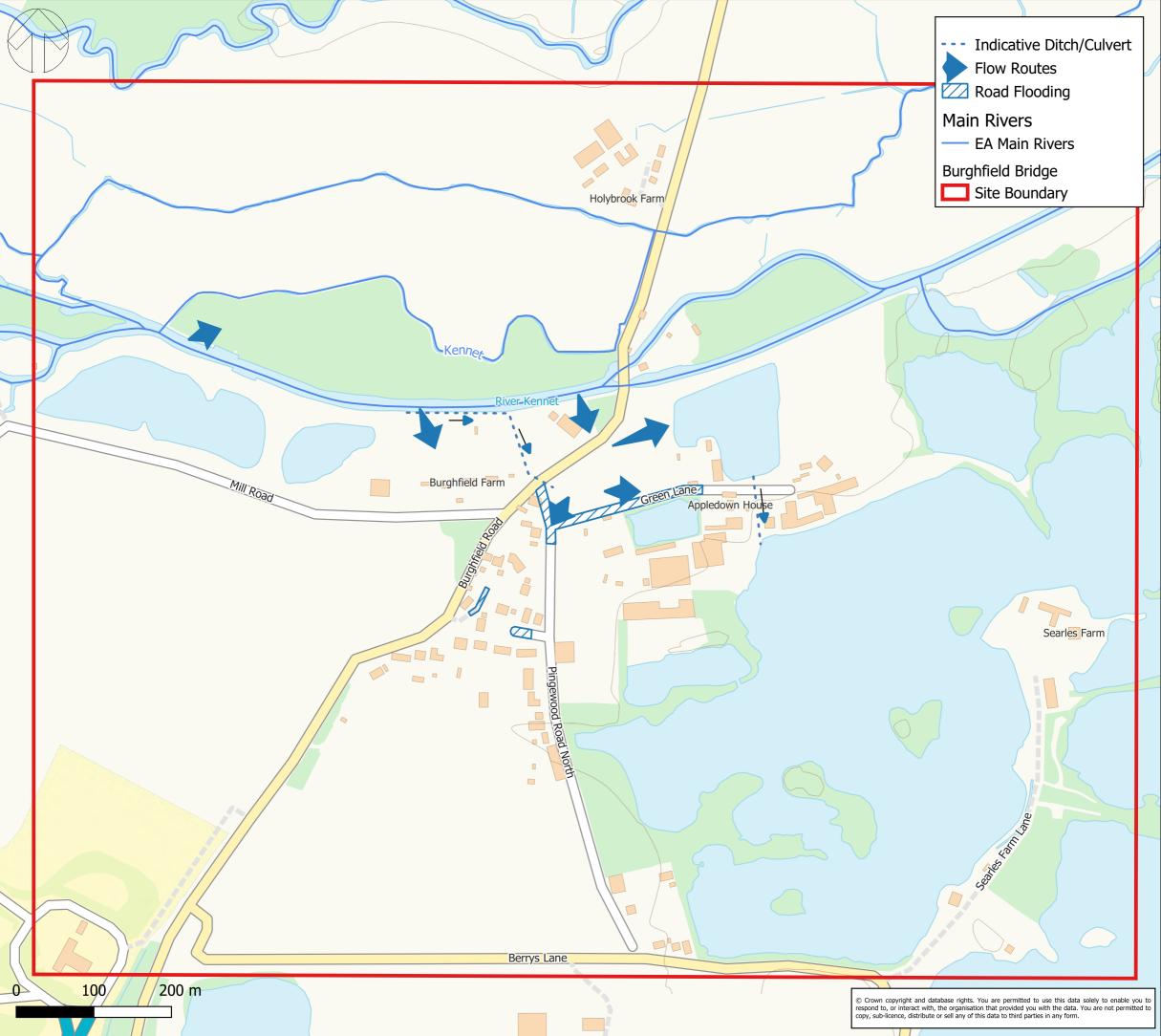
- 18.1.1. WSP were commissioned by West Berkshire Council to conduct a Section 19 Flood Investigation following flooding which was reported across West Berkshire. The majority of flooding occurred on the 5<sup>th</sup> of January 2024, following Storm Henk, which occurred on the 2<sup>nd</sup> of January. Areas of West Berkshire remained inundated for varying lengths of time, due to Storms Isha and Jocelyn causing further flooding. The flooding led to road closures and internal and external property flooding.
- 18.1.2. An analysis of the gauged and radar rainfall data provided by the Met Office has identified that the rainfall event experienced across West Berkshire had an annual exceedance probability ranging between 1 in 4-year and 1 in 10-year. Therefore, the rainfall at this time was not largely significant; however, this analysis does not include the antecedent conditions and preceding wet winter.
- 18.1.3. An analysis of the river level gauges across West Berkshire demonstrated that the peak river levels experienced in January 2024 were the highest or second highest on record for all eight analysed sites. A further analysis of river flows across five gauges, demonstrated that the peak flows experienced in January 2024 were within the top four on record.
- 18.1.4. Finally, an analysis of the peak groundwater levels experienced across West Berkshire in January 2024, demonstrated that groundwater levels were within the top five highest levels on record. Individually, these factors may not have been significant however, when combined in early 2024, they created prime conditions for flooding to occur.
- 18.1.5. During WSP's site visits across West Berkshire, recurring comments from local residents were made regarding housing insurance. It appears that residents across West Berkshire are struggling to obtain insurance cover, even if they have never flooded in the past. Therefore, where highlighted in this report, recommendations could be implemented to help lower future flood risk.
- 18.1.6. Another recurring comment amongst local residents and flood wardens was the need for better communication and collaboration between all risk management authorities.
- 18.1.7. The key findings of this report are:
  - Fluvial and groundwater flooding generally occurred in areas identified as Flood Zone 2 and Flood Zone 3, as indicated on the Environment Agency's flood map for planning. However, some localised flooding occurred within Flood Zone 1.
  - Surface water flooding generally occurred in areas identified as being at a high risk of surface water flooding, as indicated on the Environment Agency's long term flood maps. However, again some localised flooding occurred outside of these zones.
  - High groundwater levels after an unusually wet winter and extreme precipitation brought by Storms Henk, Isha, and Jocelyn, have been identified as the primary contributing factors to the flooding experienced across West Berkshire in early 2024.

**2024 FLOODED AREAS** 



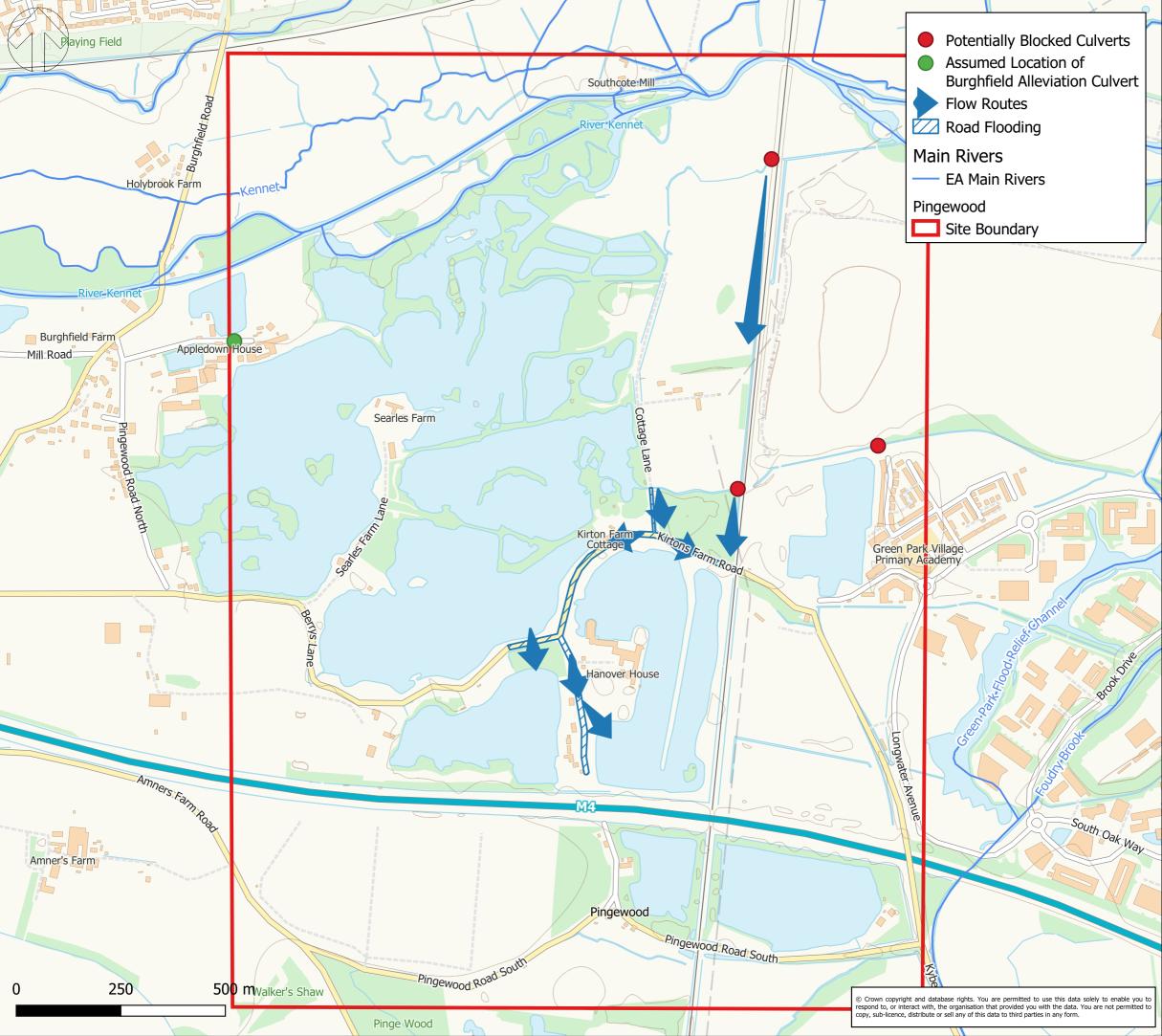
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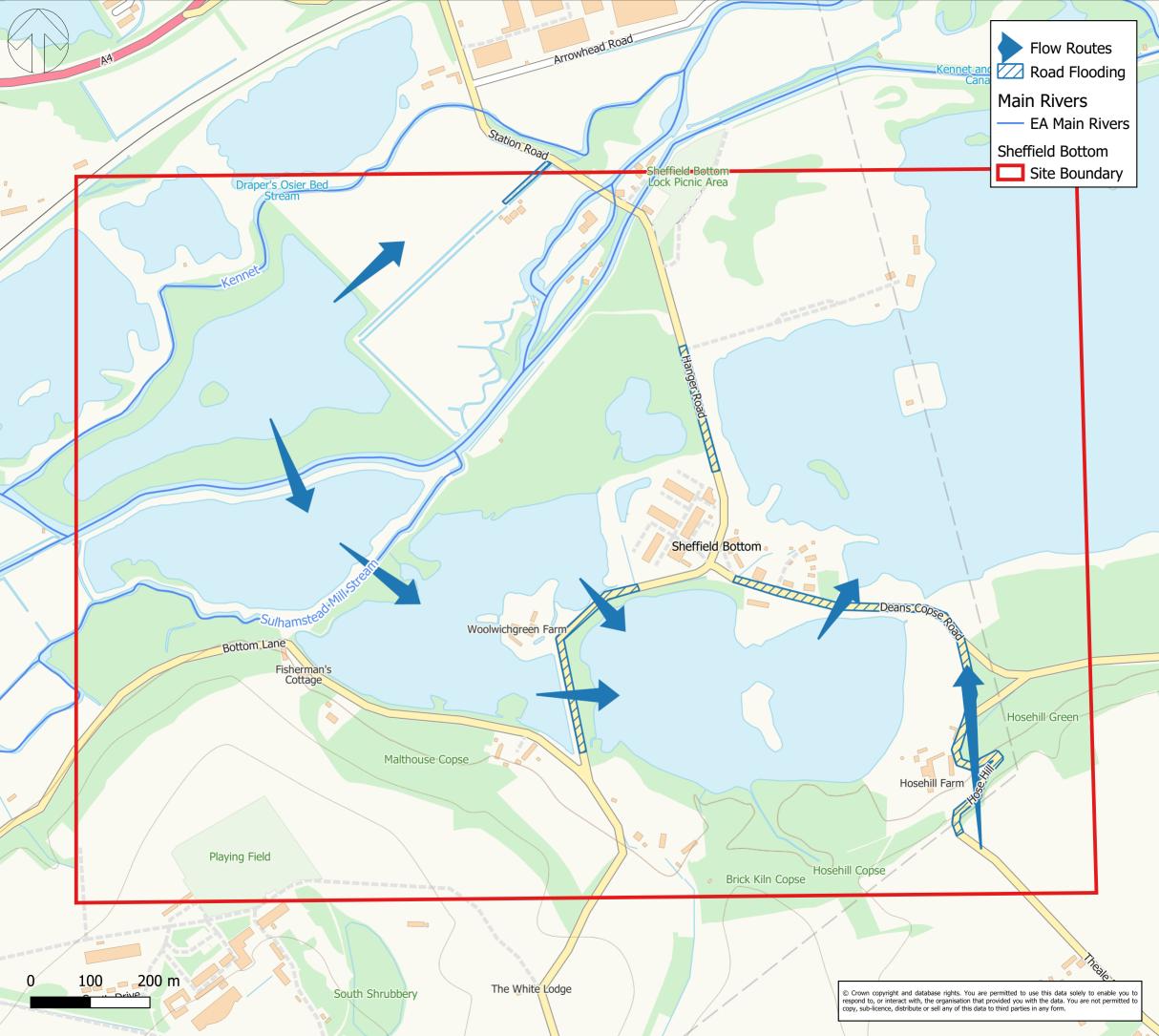
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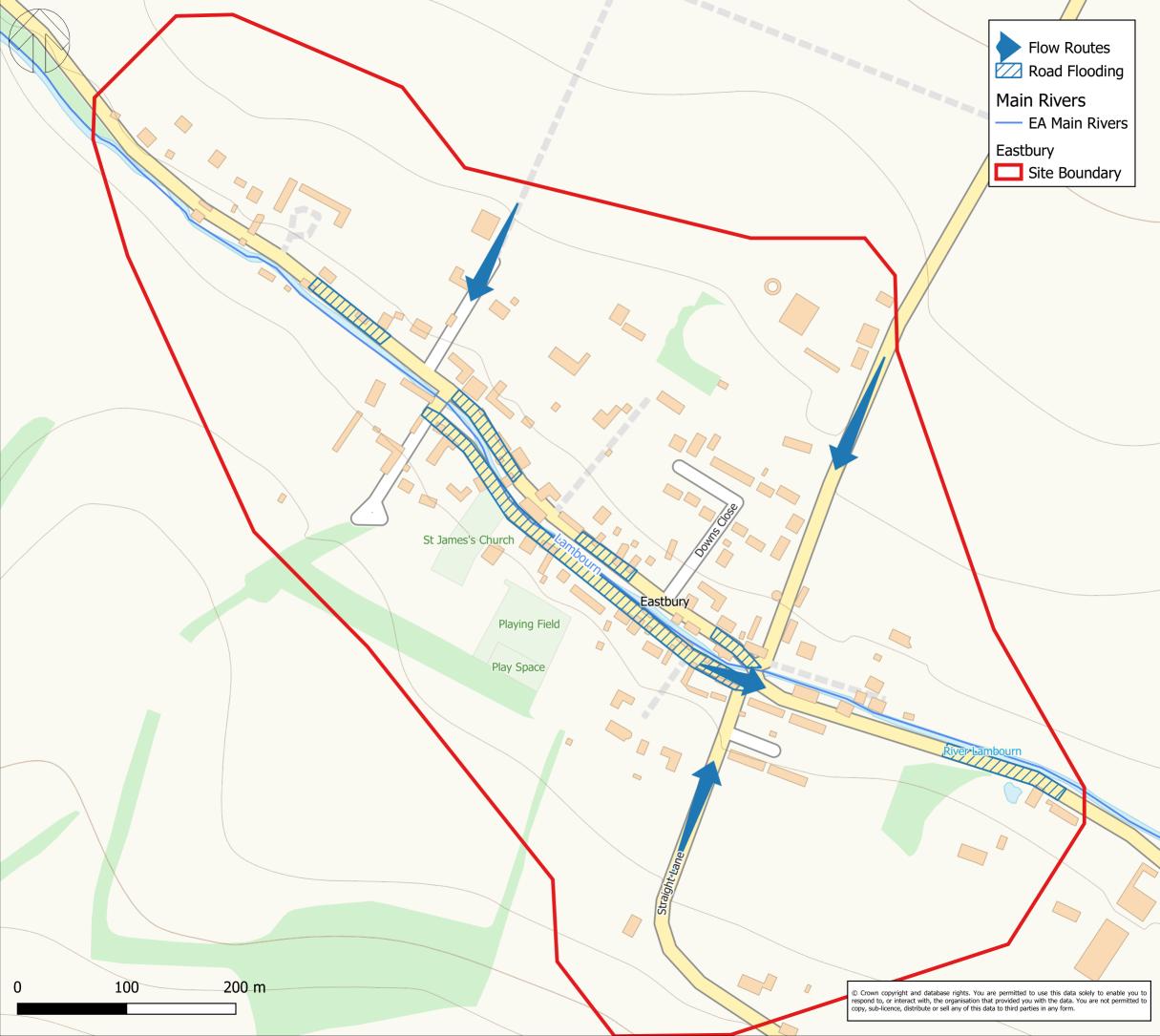
**SHEFFIELD BOTTOM** 





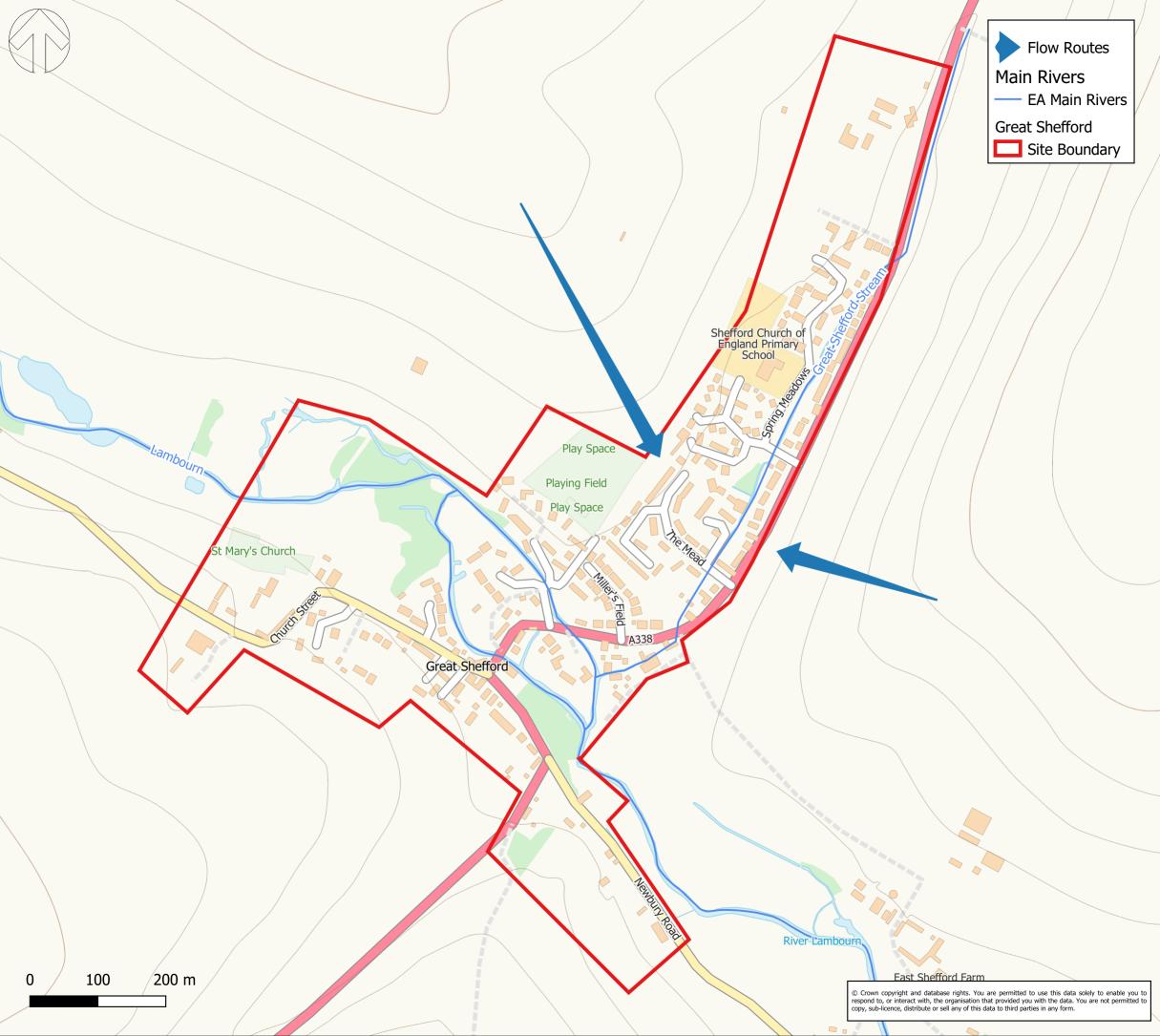
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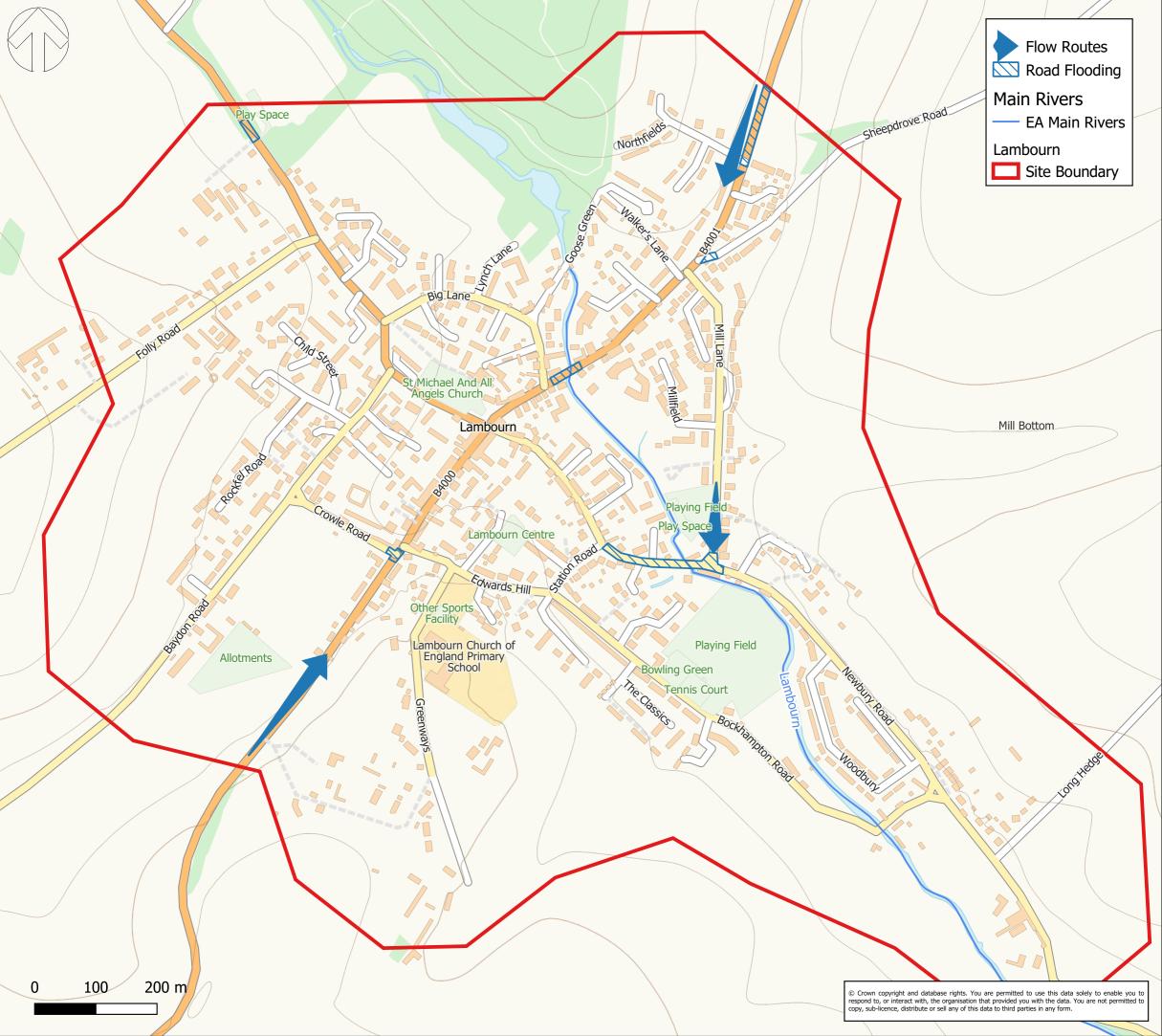
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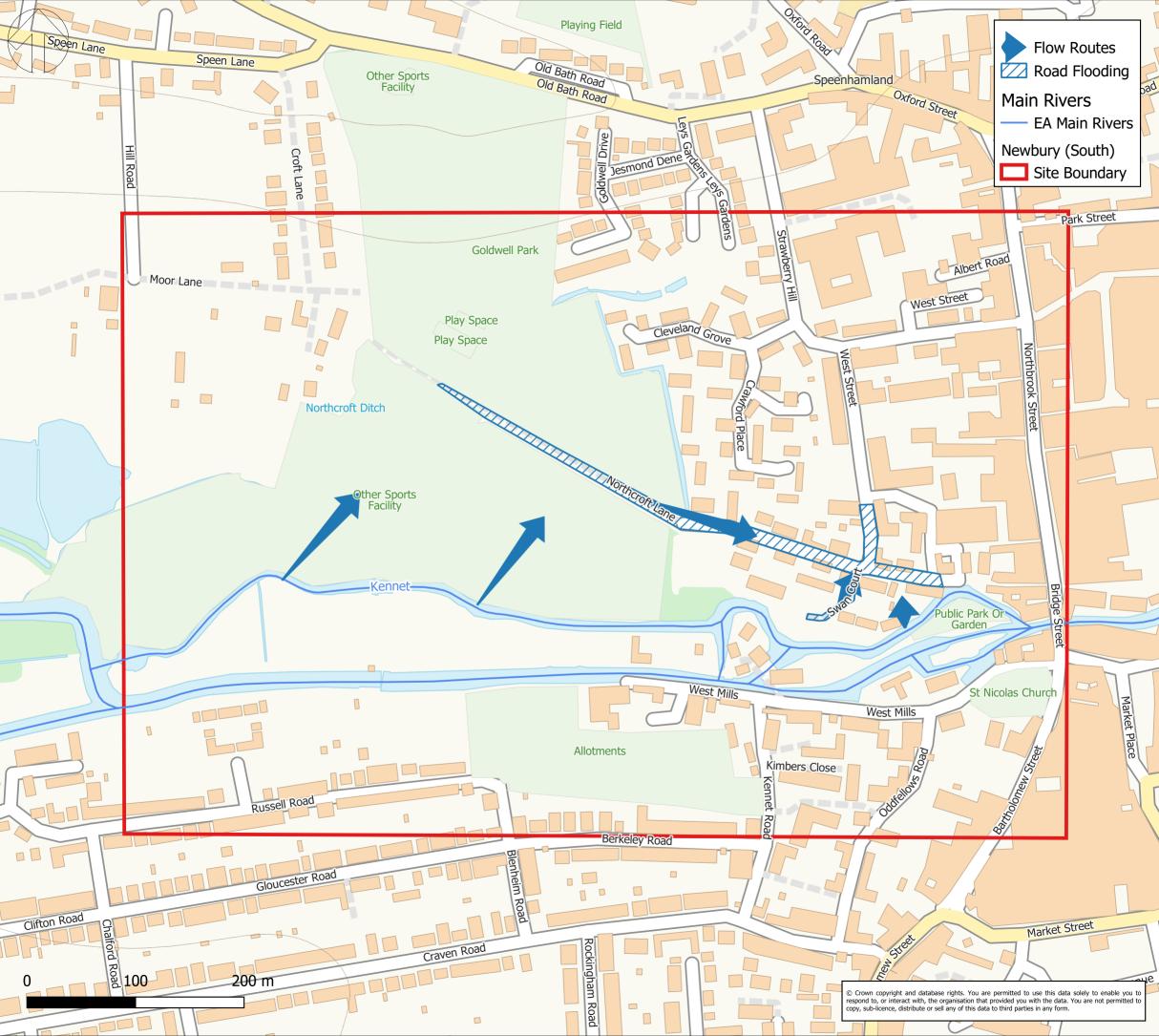
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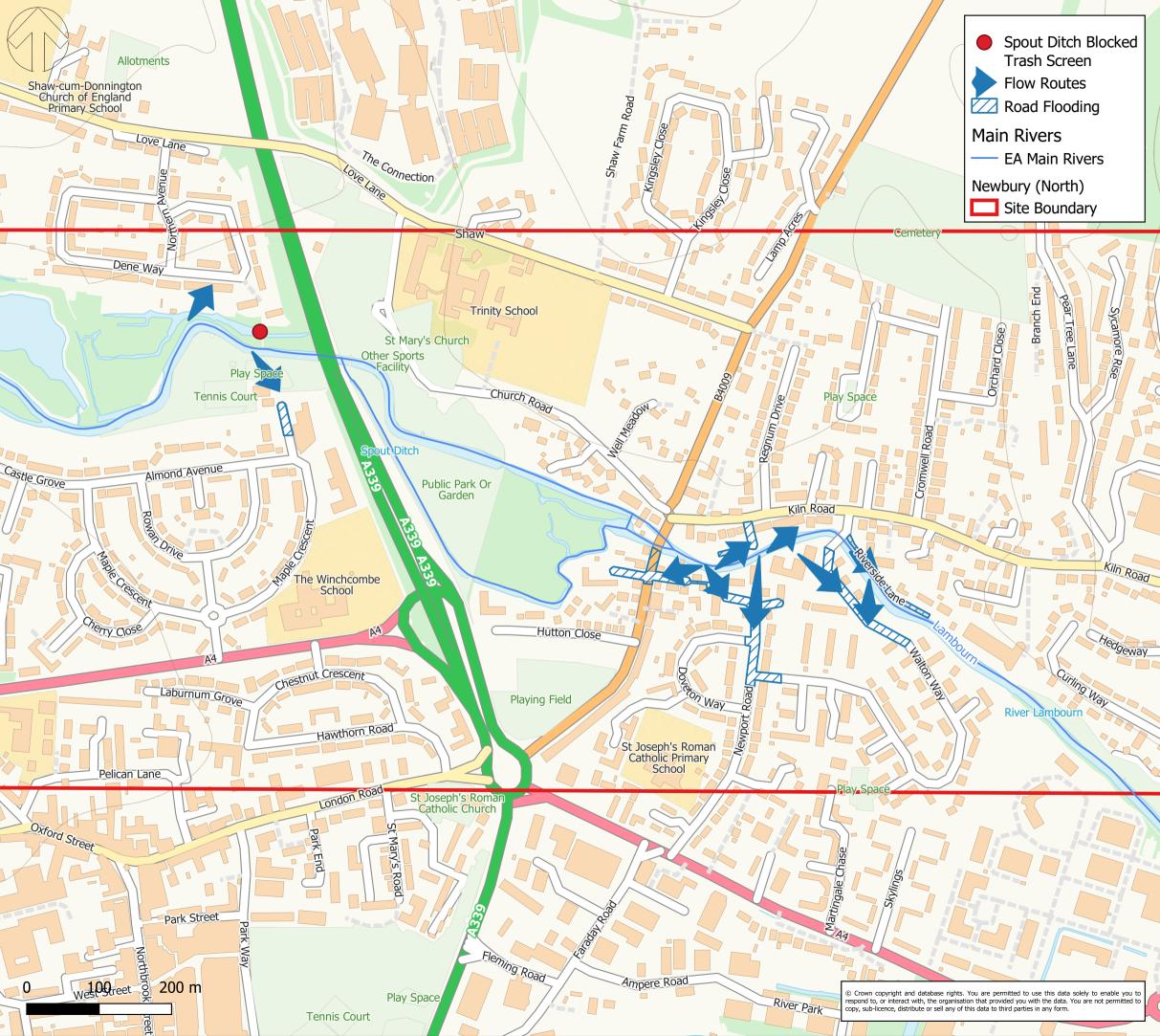
**NEWBURY SOUTH** 





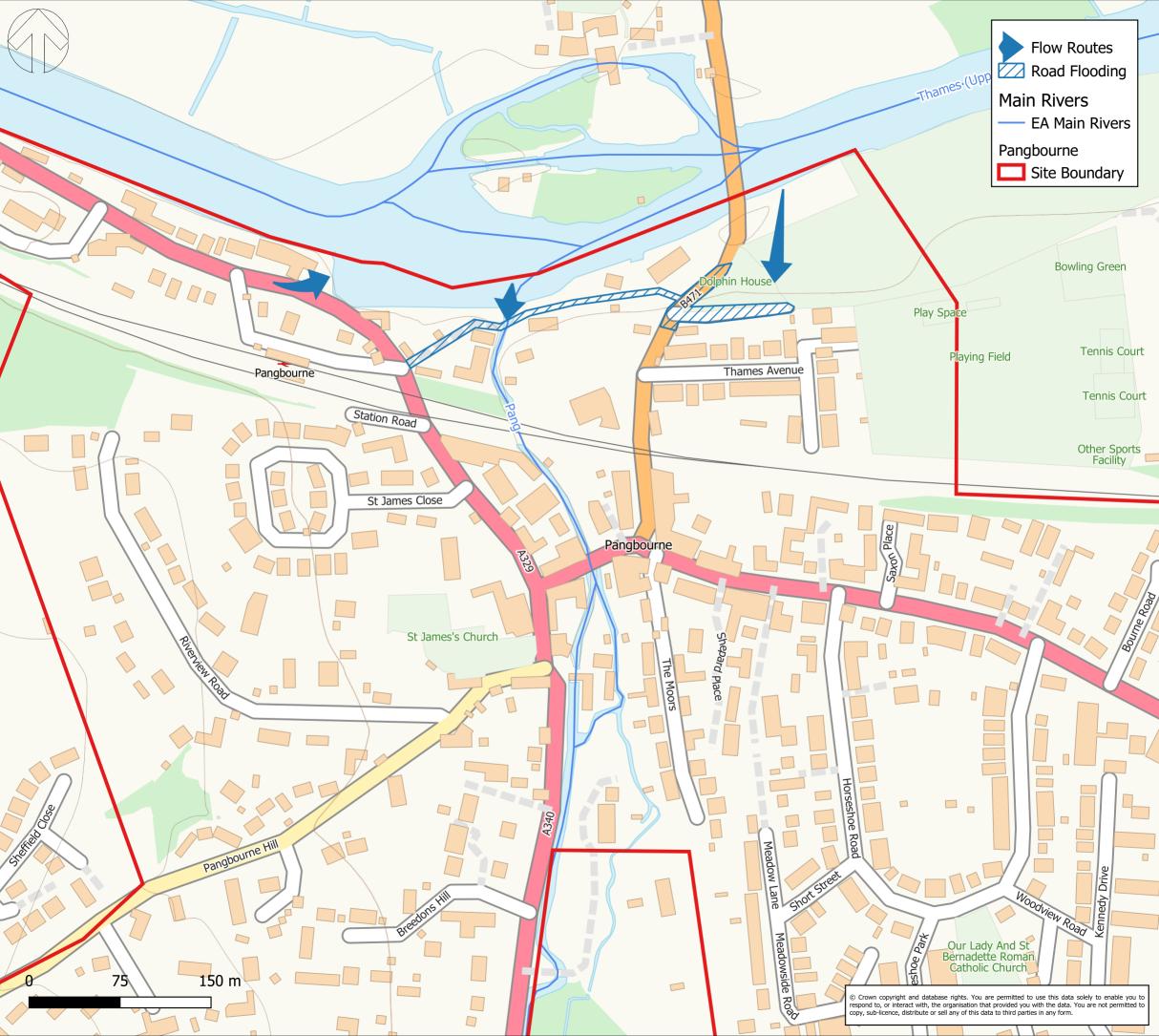
**NEWBURY NORTH** 





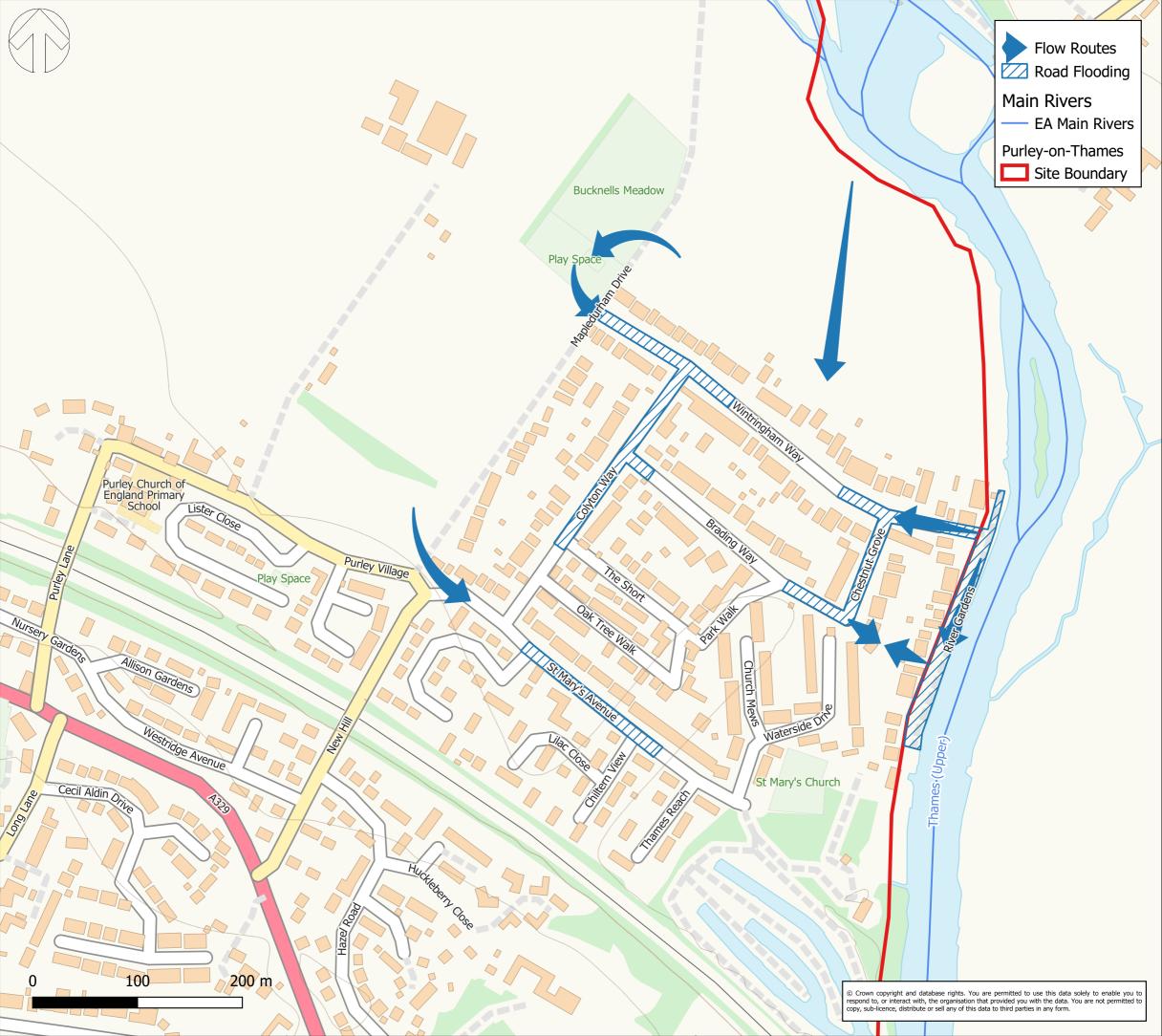
### **PANGBOURNE**





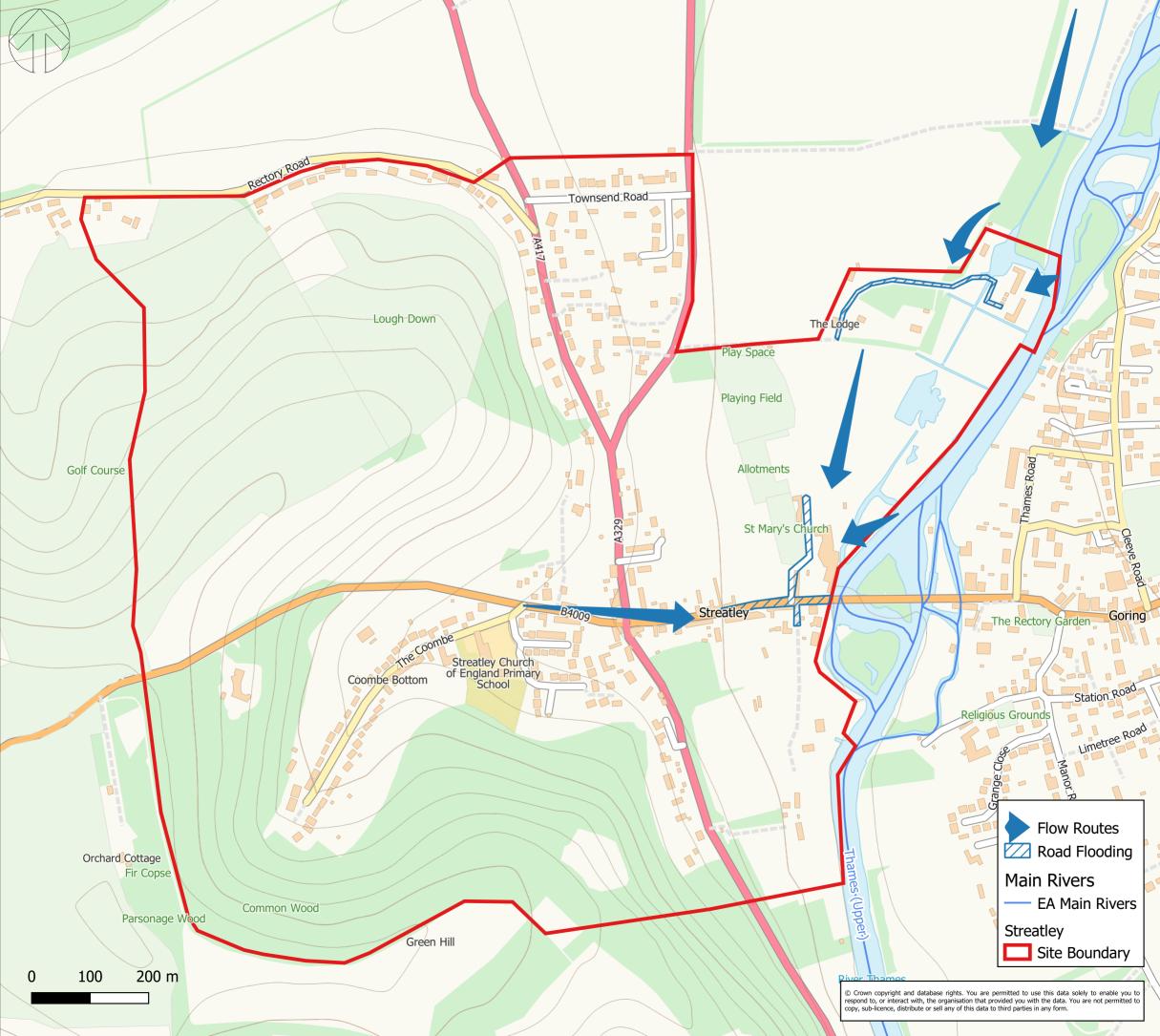
**PURLEY ON THAMES** 





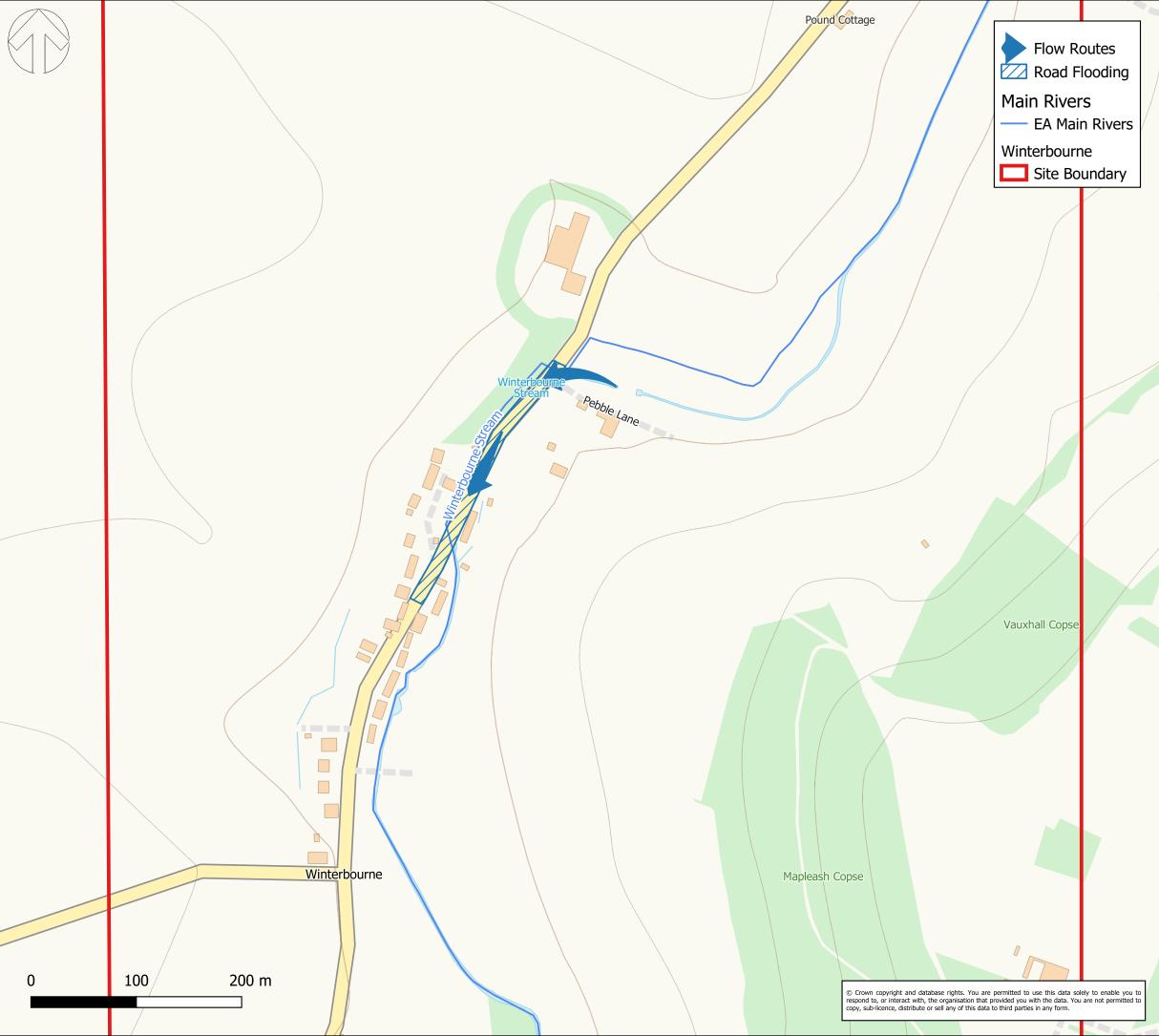
**STREATLEY** 





## **WINTERBOURNE**





**QUESTIONNAIRE RESPONSES** 



**BURGHFIELD** 



**PINGEWOOD** 



**EASTBURY** 



**GREAT SHEFFORD** 



**LAMBOURN** 



**NEWBURY** 



## **PANGBOURNE**



**PURLEY ON THAMES** 



**STREATLEY** 



**OTHER LOCATIONS** 



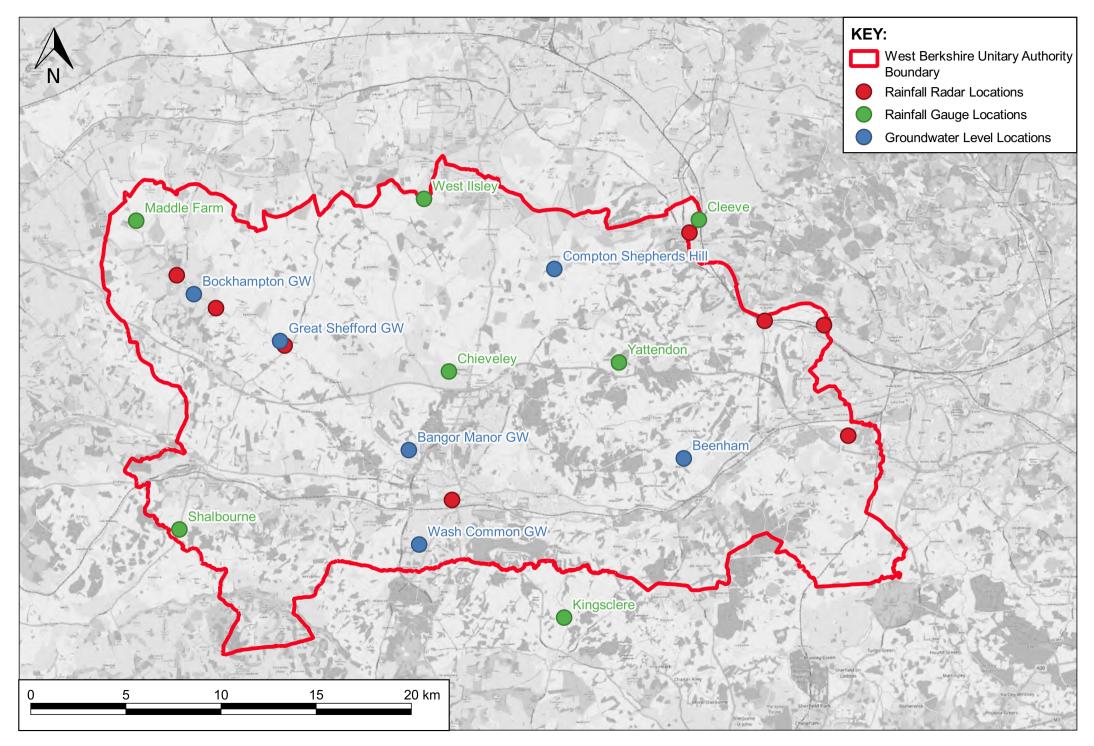
# Appendix C

**RAINFALL ANALYSIS** 



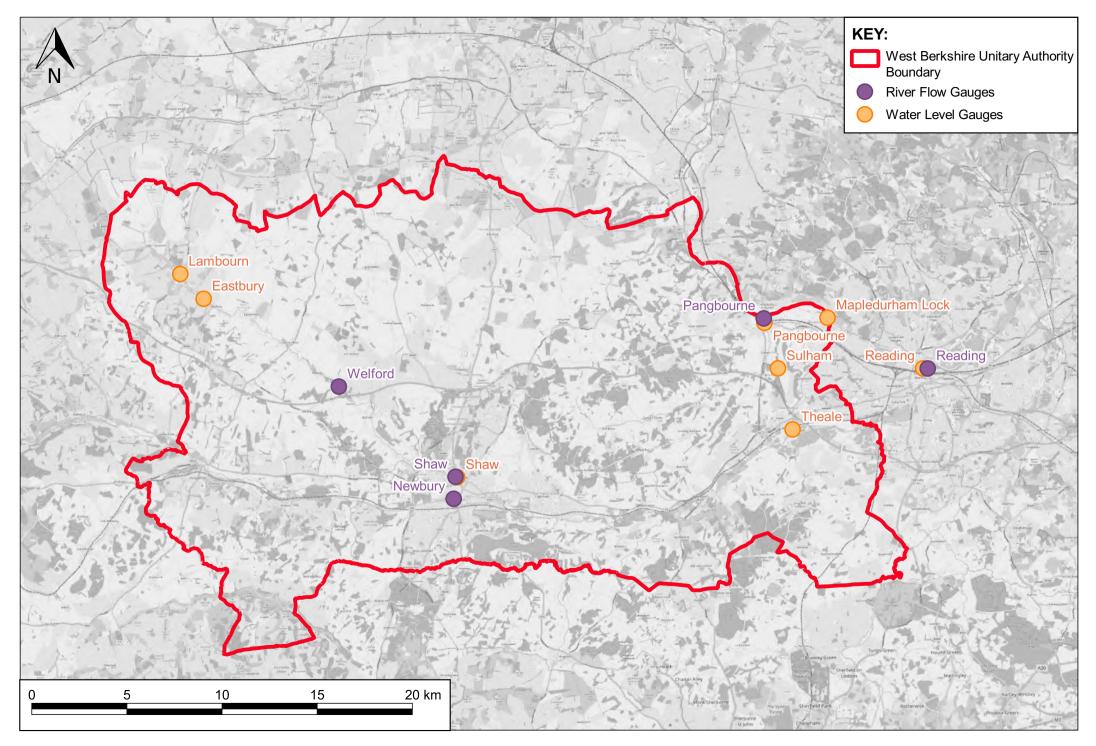
RAINFALL AND GROUNDWATER LOCATIONS





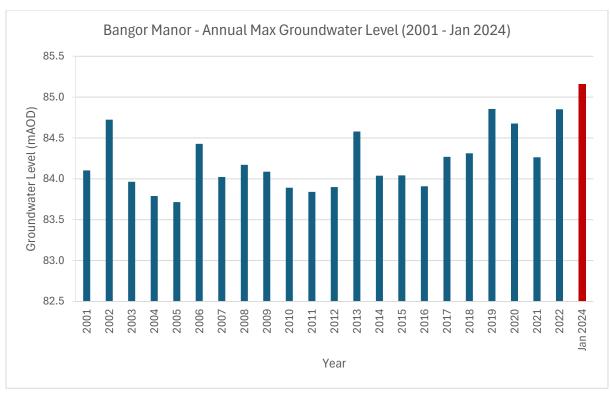
RIVER FLOW AND WATER LEVEL GAUGES

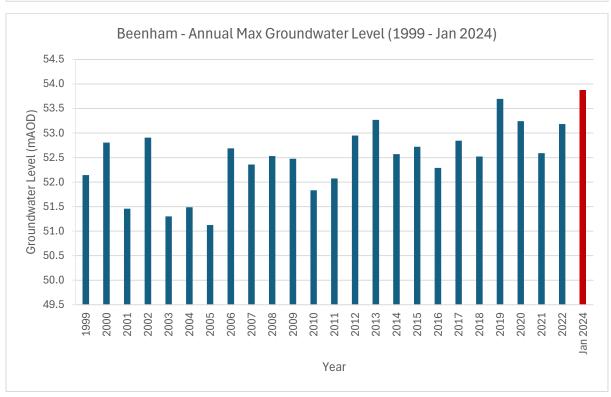




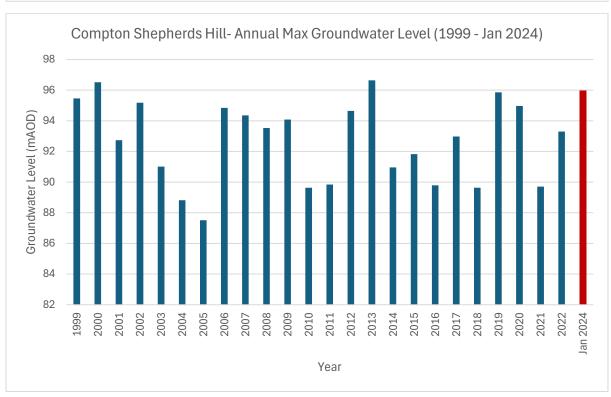
**AMAX GROUNDWATER LEVELS** 

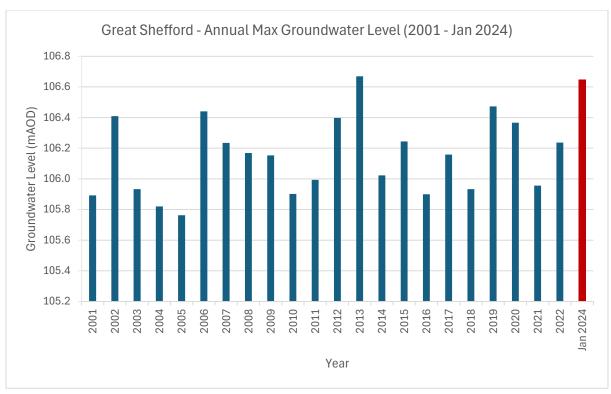














# **Appendix D**

**CONSULTATION CORRESPONDENCE** 



**ENVIRONMENT AGENCY** 





Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Burghfield
Time period	January 2024

### Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

#### **Environment Agency Response**

There are no flood defences in the area.

However, The EA do own the following assets in this area:

- Burghfield Weir (SU66883709380) and
- Burghfield Sluices (SU6700970873)

## Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

### **Environment Agency Response**

There are no gauges in this location that measure either river flows or river levels.

We do have a groundwater levels gauge called 'Burghfield Water Tower' (Station ID: SU66\_110). Please use this link <u>Hydrology Data Explorer - Burghfield Water Tower</u> to obtain the daily groundwater levels.

### Question 3

Details of fluvial flood return periods for the above storms.

#### **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.

## Question 4

Details of any flood warnings in place during the above dates



#### **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alerts

 River Kennet from Thatcham down to Reading (061WAF22LowerKen) – In force: 31/12/2023 – 04/02/2024

River Enborne and Foudry Brook (061WAF22EnbnFdry)
 In force: 02/01/2024 – 07/01/2024

#### Warnings

 Properties closest to the River Kennet at the Burghfield, Southcote, Coley and Holybrook areas (061FWF22XThlRdg)

In force: 02/01/2024 - 11/01/2024

River Kennet from Theale down to Reading (061FWF22ThealRdg)
 Not in force during dates provided

- Foudry Brook from Stratfield Mortimer to Green Park (061FWF22FoudryBk)
   Not in force during dates provided
- River Kennet for Thatcham and Colthrop (061FWF22Thatcham)
   Not in force during dates provided

### **Question 5**

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

### **Environment Agency Response**

Please find attached details of historic flood data in this location associated with river Lambourn. This document shows that we have recorded flood outlines for this location which was in 1971,1992, 1993, 2002/3 and 2009. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.



An extract of our "Properties affected" database for the Burghfield area is provided in the attached document below.





You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.

### Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

#### **Environment Agency Response**

I've attached the flood log document in the folder below. These are our official records of properties effected during this event. Only properties where we have an exact address and confirmation by either resident, EA staff, or professional partner, are listed in this document.



Flood\_log\_Burghfield\_Jan\_2024.zip

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.

We did not attend the location or deploy any of our resources in an operational capacity. However, we did send out Community Information Officers (CIOs) to the area on the 6<sup>th</sup> and 7<sup>th</sup> of January. The main focus of our CIOs is to provide information and advice to communities and gather intelligence about the latest flooding situation on the ground. They also capture information, such as property flooding information.

#### Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

### **Environment Agency Response**



We can confirm that there are no specific issues/constraints with the river Kennet in this location. Any flooding in this area was a result of the saturated soils, the (repeat) deluges of rain we received (esp. Stork Henk) and high groundwater levels.

## Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?

#### **Environment Agency Response**

There are no planned schemes in this exact area.

The Environment Agency have been investigating a wider Thames scheme called the Thames Valley Flood Scheme.

The Thames Valley Flood Scheme, led by the Environment Agency, is investigating slowing and storing water in across the River Thames catchment to reduce flood risk in the Thames Valley. The River Thames catchment is a large area, which includes the whole of the River Thames upstream of London and all the rivers that flow into it. It is likely to include a combination of flood storage and natural flood management. We have identified 17 locations that could work to store flood water and we continue to investigate these to establish if they provide the flood risk benefits needed. It could be that all, some or none of these sites continue to be of interest to us. You can see maps showing approximate locations of areas we are investigating on our website. The scheme is in the early stages and as with any large project it needs to follow a series of approvals and gain funding to continue.

Thames Valley Flood Scheme is looking to complement existing and planned flood schemes. With the expected impacts of climate change, it will be needed as well as local flood schemes. The scheme also seeks to reduce flood risk for many communities where it has not been possible to have a local flood scheme.

We will continue to engage with those who work, live and visit the Thames Valley as the project evolves. If you would like to find out more, please visit our <u>website</u>, where you can watch our videos explaining what the scheme is and how we have identified flood storage areas for further investigation. You can sign up to our newsletter to find out about our latest work by emailing <u>tvfs@environment-agency.gov.uk</u>.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Eastbury
Time period	January 2024

### Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

#### **Environment Agency Response**

At this location the EA own and operate the Eastbury Flood Alleviation Scheme.

The scheme was built to reduce flooding from the river Lambourn at Eastbury. It is a weir and dam structure and is located just above Eastbury. A regulated amount of water is allowed to flow downstream. As water flow increases some water is held back by the weir and dam, reducing flows downstream. The amount of flow that passes through the structure down to Eastbury can be adjusted. The scheme prevents flash flooding and gives residents notice of flood conditions so that preventative measures can be taken. The scheme opened in 2015.

### Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

### **Environment Agency Response**

There is no gauge in this location that measure river flows.

We do, however, have the Eastbury gauge (Station ID: 2254TH) which measures river levels.

Please use this link <u>Hydrology Data Explorer - Eastbury</u> to obtain the data for daily or sub-daily water levels.

We have checked this data and can confirm that:

#### Upstream data

For all the events (Storm Henk, Isha and Jocelyn) is reliable and good quality.

#### Downstream data



- Only the data during Storm Henk is reliable.
- During the events of storm Isha and Jocelyn, there were lots of spikes in the data which we believe was due to interference to our measuring equipment. This therefore makes the data less reliable and should not be considered.

## Question 3

Details of fluvial flood return periods for the above storms.

#### **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.

### Question 4

Details of any flood warnings in place during the above dates

#### **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alert:

 River Lambourn and its tributaries from Upper Lambourn down to Newbury (061WAF22Lambourn)
 In force (04/01/2024 – 05/06/2024)

#### Warning

River Lambourn from Upper Lambourn to Great Shefford (061FWF22UpLamGSh)
 In force (04/01/2024 – 11/02/2024)

### **Ouestion 5**

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

### **Environment Agency Response**

Please find attached details of historic flood data in this location associated with river Lambourn. This document shows that we only have a recorded flood outline for this location which was in 1992. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.





An extract of our "Properties affected database" for 2000 until 2014 for the Eastbury area is provided in the attached document below.

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



Properties\_affected\_Eastbury.zip

### Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

#### **Environment Agency Response**

I've attached the 'Property flooding log' document in the folder below. These are our official records of properties effected during this event. Only properties where we have an exact address and confirmation by either resident, EA staff, or professional partner, are listed in this document.



Property flooding log\_Eastbury.zip

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.

We did not attend the location or deploy any of our resources in an operational capacity. However, we did send out Community Information Officers (CIOs) to the area on the 11<sup>th</sup> and 16<sup>th</sup> of January. The main focus of our CIOs is to provide information and advice to communities and gather intelligence about the latest flooding situation on the ground. They also capture information, such as property flooding information.



## Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

#### **Environment Agency Response**

We can confirm that there are no specific issues/constraints with the river Lambourn in this location. Any flooding in this area was a result of the saturated soils, the (repeat) deluges of rain we received (esp. Stork Henk) and high groundwater levels.

## Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?

#### **Environment Agency Response**

We can confirm that the Eastbury location is not covered by any planned or active schemes and there are no plans to carry out improvement works to the river Lambourn in this location.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Great Shefford
Time period	January 2024

## Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

#### **Environment Agency Response**

#### Permanent assets

There currently no permanent flood defence assets (see below about building works).

#### Temporary/mobile assets

In Great Shefford we had a planned temporary flood barrier deployment. However through a national review we have concluded that the current plan is not viable or safe for the public, our partners and our staff, and therefore cannot be deployed. Our review highlighted safety and feasibility concerns due to the alignment of the barrier on the main A338 Wantage Road.

Instead, we have a pumping plan in place which aims to reduce flood risk for those properties that would have benefitted from the temporary barrier plan. This is an interim position in advance of the permanent Great Shefford flood alleviation scheme. This pumping plan was deployed in winter 2023/2024.

### Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

### **Environment Agency Response**

There are no river level or flow monitoring gauges along the Great Shefford Stream.

We do have a groundwater level measuring site: Great Shefford (station ID no: SU37\_1) in this location. Please use this link <u>Hydrology Data Explorer - Great Shefford</u> to obtain the data for daily or at 15-minute intervals.



We have checked this data and can confirm that the data is reliable and accurate.

### Question 3

Details of fluvial flood return periods for the above storms.

#### **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.

### Question 4

Details of any flood warnings in place during the above dates

#### **Environment Agency Response**

Please find below the details regarding the flood warning that was issued during this flood event:

Flood warning code: 061FWF22UpLamGSh

Flood Warning Area Name: River Lambourn from Upper Lambourn to Great Shefford

River Gauge: Eastbury FCS FD Lambourn

Time and Date issued: 04/01/2024 20:50
Time and date FW was removed: 11/02/2024 11:43

## Question 5

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

### **Environment Agency Response**

We have no historic flood outlines for this area. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.

An extract of our "Properties affected database" for the Great Shefford area is provided in the attached document below.

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data



should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



Properties\_affected\_Great\_Shefford.zip

# Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

We received the one report of flooding that occurred during Storms Henk, Isha, and Jocelyn in this location.

From January 10<sup>th</sup>, we mobilised pumps and pipes in the village to reduce the risk of property flooding from the watercourse. We also sent out our staff to check water levels. The pumps remained in place for several weeks. We highlighted that the pumping was there to control groundwater flowing through the stream and prevent overflowing from the stream down the road and into properties. The pumping will not reduce overall groundwater levels below the surface and this flooding may still impact cellars and properties.



Reports of flooding\_Great\_Shefford.zip

# Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

## **Environment Agency Response**

There are no specific known issues or constraints (in terms of capacity) associated with the Great Shefford Stream in this location beyond what is normal. We are aware that this location can often flood due to high groundwater levels and we are currently constructing a scheme to reduce the risk of fluvial flooding from the Great Shefford Stream caused by high groundwater levels. Any flooding in this area was a result of the saturated soils, the repeat and deluges of rain we received and high groundwater levels in the area.



# Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?

# **Environment Agency Response**

As previously mentioned in the response to question 1, construction of the Great Shefford Flood Alleviation Scheme is currently underway. When completed, it will provide the community with a more sustainable solution and far greater resilience than a temporary barrier plan.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Lambourn
Time period	January 2024

# Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

## **Environment Agency Response**

There are currently no flood defences in this area.

The geology of the Lambourn Valley is predominately chalk, which heavily influences the susceptibility of the area to ground water flooding and from high ground water levels raising water levels in rivers.

# Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

## **Environment Agency Response**

There is no gauge in this location that measure river flows.

We de however, have the Lambourn gauge (Station ID: 2251TH) which measures measure river levels.

Please use this link <u>Hydrology Data Explorer - Lambourn</u> to obtain the data for daily or at 15-minute intervals river levels. We have checked this data and can confirm that the data is reliable and of good quality.

# Question 3

Details of fluvial flood return periods for the above storms.

# **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.



# Question 4

Details of any flood warnings in place during the above dates

## **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alert

River Lambourn and its tributaries from Upper Lambourn down to Newbury (061WAF22Lambourn)

In force: 04/01/2024 - 05/06/2024

Warning

River Lambourn from Upper Lambourn to Great Shefford (061FWF22UpLamGSh)

In force: 04/01/2024 - 11/02/2024

## **Question 5**

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

## **Environment Agency Response**

Please find attached details of historic flood data in this location associated with river Lambourn. This document shows that we only have a recorded flood outline for this location which was in 1992. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.



An extract of our "Properties affected database" for 2007 until 2023 for the Lambourn area is provided in the attached document below.



Properties affected Lambourn.zip

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



# Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

Our records show that we did not receive any reports of flooding in this location.

We did however send out Community Information Officers (CIOs) to the area on January 11<sup>th</sup> 2024. The main focus of our CIOs is to provide information and advice to communities and gather intelligence about the latest flooding situation on the ground. They also capture information, such as property flooding information.

# Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

## **Environment Agency Response**

There are no specific known issues or constraints (in terms of capacity) associated with the River Lambourn in this location. Any flooding in this area was a result of the saturated soils, the repeat and deluges of rain we received and high groundwater levels in the area.

## **Question 8**

Are there any plans to carry out improvement works to the rivers within the local vicinity?

## **Environment Agency Response**

There are currently no plans to carry out improvement works to the rivers within the local vicinity. However, we are working in partnership with West Berkshire Council to raise community awareness and to help provide homeowners with advice on individual property level flood protection measures such as installation and deployment of a range of flood resistance and flood resilience measures.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Newbury
Time period	January 2024

# Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

## **Environment Agency Response**

There are currently no flood defences in this area.

# Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

## **Environment Agency Response**

There is the Newbury gauge (Station ID: 2250 TH) on the River Kennet and the Shaw Gauge (Station ID: 2270\_w1TH) on the River Lambourn in this location that measure river flows.

Please use these links <u>Hydrology Data Explorer - Newbury</u> and <u>Hydrology Data Explorer - Shaw</u> to obtain the data for daily or 15min river flow.

We have checked this data and can confirm:

#### **Newbury**

Due to an error with our equipment, the Newbury gauge was overreading by more than 10% during this event and is therefore not accurate.

#### **Shaw**

This data is considered to be reliable during all the events

# Question 3

Details of fluvial flood return periods for the above storms.



## **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.

# Question 4

Details of any flood warnings in place during the above dates

## **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alert

 River Lambourn and its tributaries from Upper Lambourn down to Newbury 061WAF22Lambourn

In force: 04/01/2024 - 05/06/2024

River Kennet and its tributaries from Berwick Bassett down to Newbury

061WAF22UpperKen

In force: 02/01/2024 - 07/03/2024

#### Warning

 Kennet at Newbury 061FWF22Newbury Not in force during dates provided

 River Lambourn from Donnington to Newbury (061FWF22LowLamb)

In force: 07/01/2024 - 30/01/2024

# Question 5

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

## **Environment Agency Response**

Please find attached details of historic flood data in this location associated with river Lambourn. This document shows that we only have a recorded flood outline for this location which was in 1971, 1979 and 2007. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.





An extract of our "Properties affected database" for 2007 until 2023 for the Newbury area is provided in the attached document below.

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



Properties\_affected\_Newbury.zip

## **Question 6**

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

I've attached the 'Property\_flooding\_log\_Newbury' document in the folder below. These are our official records of properties effected during this event. Only properties where we have an exact address and confirmation by either resident, EA staff, or professional partner, are listed in this document.

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



Property\_flooding\_log\_Newbury.zip

We did not attend the location or deploy any of our resources in an operational capacity. However, we did send out Community Information Officers (CIOs) to the area on various days in January. The main focus of our CIOs is to provide information and advice to communities and gather intelligence about the latest flooding situation on the ground. They capture information, such as property flooding information. According to the CIO plans for each day, our officers attended the Newbury and Shaw area from the 4<sup>th</sup> of January to the 12<sup>th</sup> of January. However, please note that they may have missed some locations due to incident response constraints.

## Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?



## **Environment Agency Response**

We can confirm that there are no specific issues/constraints with the river Lambourn or the river Kennet in this location. Any flooding in this area was a result of the saturated soils, the (repeat) deluges of rain we received (esp. Stork Henk) and high groundwater levels.

# Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?

## **Environment Agency Response**

There are currently two plans for improvement works to the rivers within the local vicinity. Firstly, the funding provided by us towards the study carried out by Berkshire County council in the Clay Hill area of Newbury. This is something that the West Berkshire County Council is aware of and something that the Environment Agency is not involved in.

Secondly, the wider Thames Valley Flood Scheme:

The Environment Agency have been investigating a wider Thames scheme called the Thames Valley Flood Scheme.

The Thames Valley Flood Scheme, led by the Environment Agency, is investigating slowing and storing water in across the River Thames catchment to reduce flood risk in the Thames Valley. The River Thames catchment is a large area, which includes the whole of the River Thames upstream of London and all the rivers that flow into it. The scheme is investigating a combination of flood storage and natural flood management. We have identified 17 locations that could work to store flood water and we continue to investigate these to establish if they provide the flood risk benefits needed. It could be that all, some, or none of these sites continue to be of interest to us. You can see maps showing approximate locations of areas we are investigating on our website. The scheme is in the early stages and as with any large project it needs to follow a series of approvals and gain funding to continue.

Thames Valley Flood Scheme is looking to complement existing and planned flood schemes. With the expected impacts of climate change, it will be needed as well as local flood schemes. The scheme also seeks to reduce flood risk for many communities where it has not been possible to have a local flood scheme.

We will continue to engage with those who work, live and visit the Thames Valley as the project evolves. If you would like to find out more please visit our website, where you can watch our videos explaining what the scheme is and how we have identified flood storage areas for further investigation. You can sign up to our newsletter to find out about our latest work by emailing tvfs@environment-agency.gov.uk.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Pangbourne
Time period	January 2024

# Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

## **Environment Agency Response**

The flood defences in this area are mainly in the form of river control measures (weirs) which are primarily navigation assets.

These would have been operated responsibly by our trained lock and weir keepers and would have been open in accordance with our procedures to maintain water levels in the Thames for Navigation purposes.

Although they are primarily navigation assets at some point in their operation, it is recognised that the local weirs do also have a small impact on mitigating flood risk (estimated at 10-20% in real terms).

## Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

## **Environment Agency Response**

There is the Pangbourne gauge (Station ID: 2190TH) that measure river flows on the River Pang and the Whitchurch lock (Station ID: 2004<sup>TH</sup>) in this location on the River Thames that measures river levels.

Please use this link <u>Hydrology Data Explorer - Pangbourne</u> to obtain the data for daily or 15min river flow data and this link <u>Hydrology Data Explorer - Whitchurch Lock</u> to obtain the river level data.

We have checked this data and can confirm:

Pangbourne gauge station



This data is considered to be reliable during all the events

Whitchurch Lock gauge station

Due to a large reset on site visit in March, this data is estimated. This data is therefore unreliable and should not be considered.

# Question 3

Details of fluvial flood return periods for the above storms.

## **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.

# Question 4

Details of any flood warnings in place during the above dates

## **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

- o Alert:
  - River Pang from East Ilsley to Pangbourne and Sulham Brook (061WAF21PangSulm)
    - In force: 04/01/2024 18/02/2024 in force between 31/12/2023 02/06/2024
  - River Thames from Pangbourne to Purley (061WAF23PrlyPang)
    - In force: 01/01/2024 14/01/2024
- Warning:
  - o River Thames at Pangbourne and Whitchurch (061FWF23PngWitch)
    - In force: 05/01/2024 14/01/2024
  - Sulham Brook at Pangbourne (061FWF21SulmPang)
    - Not issued during the timeframe
  - o River Pang at Pangbourne (061FWF21Pangbrne)
    - Not issued during the timeframe

# Question 5

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal



#### **Environment Agency Response**

Regarding details of historic flooding associated with the area, we have checked our properties affected database and found 265 records of property flooding around Pangbourne.

Additionally, we have checked our other database where we hold further reports of groundwater flooding, and there are 34 records of groundwater flooding around the location of interest.

Please note that these records are not all confirmed instances of property flooding.



Pang Historical Flooding Records.zip

Please also find attached historic flood map data for this location. This document shows that we have recorded flood outlines for this location for years which range from 1947 all the way through to 2009. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.



You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.

# Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

I've attached the 'Property\_flooding\_log\_panbourne document in the folder below. These are our official records of properties effected during this event. Only properties where we have an exact address and confirmation by either resident, EA staff, or professional partner, are listed in this document.

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data



should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



Property\_flooding\_log\_Pangbourne.zip

We did not attend the location or deploy any of our resources in an operational capacity. However, we did send out Community Information Officers (CIOs) to the area on the 4<sup>th</sup> and 5<sup>th</sup> of January. The main focus of our CIOs is to provide information and advice to communities and gather intelligence about the latest flooding situation on the ground. They capture information, such as property flooding information.

# Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

## **Environment Agency Response**

We can confirm that there are no specific issues/constraints with the river Pang and the River Thames in this location. Any flooding in this area was a result of the saturated soils, the (repeat) deluges of rain we received (esp. Stork Henk) and high groundwater levels.

# **Question 8**

Are there any plans to carry out improvement works to the rivers within the local vicinity?

## **Environment Agency Response**

There are no planned schemes in this exact area.

The Environment Agency have been investigating a wider Thames scheme called the Thames Valley Flood Scheme.

The Thames Valley Flood Scheme, led by the Environment Agency, is investigating slowing and storing water in across the River Thames catchment to reduce flood risk in the Thames Valley. The River Thames catchment is a large area, which includes the whole of the River Thames upstream of London and all the rivers that flow into it. The scheme are investigating a combination of flood storage and natural flood management. We have identified 17 locations that could work to store flood water and we continue to investigate these to establish if they provide the flood risk benefits needed. It could be that all, some or none of these sites continue to be of interest to us. You can see maps showing approximate locations of areas we are investigating on our website. The scheme is in the early stages and as with any large project it needs to follow a series of approvals and gain funding to continue.



Thames Valley Flood Scheme is looking to complement existing and planned flood schemes. With the expected impacts of climate change, it will be needed as well as local flood schemes. The scheme also seeks to reduce flood risk for many communities where it has not been possible to have a local flood scheme.

We will continue to engage with those who work, live and visit the Thames Valley as the project evolves. If you would like to find out more please visit our website, where you can watch our videos explaining what the scheme is and how we have identified flood storage areas for further investigation. You can sign up to our newsletter to find out about our latest work by emailing tvfs@environment-agency.gov.uk.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Purley
Time period	January 2024

# Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

## **Environment Agency Response**

Purley has a long history of flooding. The mechanisms here are complicated as it is a combination of fluvial, surface and groundwater flooding.

There is a flood bund behind Wintringham Way (approx. SU6684976381), which was put in place after the 2013/2014 flooding. In response to rising water levels in January 2024 we deployed 3 pumps in Purley. These continued to operate until the risk of property flooding was reduced.

# Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

# **Environment Agency Response**

There is no gauge in this location that measure river flows.

We do, however, have the Mapledurham Lock (Station ID: 2199TH) which measures river levels.

Please use this link Hydrology Data Explorer - Mapledurham Lock to obtain the daily river levels.

We have checked this data and can confirm that the data is reliable.

# Question 3

Details of fluvial flood return periods for the above storms.

# **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to do so.



# Question 4

Details of any flood warnings in place during the above dates

## **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alert

River Thames from Pangbourne to Purley (061WAF23PrlyPang)
 In force: 01/01/2024 – 14/01/2024

#### Warning:

River Thames at Purley Village (061FWF23Purley)
 In force: 03/01/2024 – 13/01/2024

## **Question 5**

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

## **Environment Agency Response**

Please find attached details of historic flood data in this location associated with river Thames. This document shows that we have recorded flood outlines for this location which was in 1947,1977, 2000, 2002/3, 2007 and 2008. However, please note, that we do not produce a flood outline for every event that occurs. Therefore, it is likely that other instances of flooding have occurred that are not represented in this document.



An extract of our "Properties affected" database for the Purley on Thames area is provided in the attached document below.



Properties\_affected\_Purley.zip

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



# Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

I've attached the 'flood log' document in the folder below. These are our official records of properties effected during this event. Only properties where we have an exact address and confirmation by either resident, EA staff, or professional partner, are listed in this document.



Flood\_log\_Purley.zip

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.

High-volume pumps were in operation at Purley-on-Thames to reduce flood risk to local communities. We also send out Community Information Officers (CIOs) to the area on various days in January. The main focus of our CIOs is to provide information and advice to communities and gather intelligence about the latest flooding situation on the ground. They capture information, such as property flooding information.

# Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

# **Environment Agency Response**

We can confirm that there are no specific issues/constraints with the river Thames in this location. The Thames weirs are adjusted gradually in response to changes in flows, to maintain levels within a range that allows for navigation. In periods of high river flow, and in advance of any significant flooding, the weirs are fully opened so that water is not held unnecessarily.

This winter has been the wettest on record across England, which resulted in widespread and prolonged flooding in the Thames floodplain.

# Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?



## **Environment Agency Response**

There are no planned schemes in this exact area.

However, the Environment Agency have been investigating a wider Thames scheme called the Thames Valley Flood Scheme.

The Thames Valley Flood Scheme, led by the Environment Agency, is investigating slowing and storing water in across the River Thames catchment to reduce flood risk in the Thames Valley. The River Thames catchment is a large area, which includes the whole of the River Thames upstream of London and all the rivers that flow into it. The scheme are investigating a combination of flood storage and natural flood management. We have identified 17 locations that could work to store flood water and we continue to investigate these to establish if they provide the flood risk benefits needed. It could be that all, some or none of these sites continue to be of interest to us. You can see maps showing approximate locations of areas we are investigating on our website. The scheme is in the early stages and as with any large project it needs to follow a series of approvals and gain funding to continue.

Thames Valley Flood Scheme is looking to complement existing and planned flood schemes. With the expected impacts of climate change, it will be needed as well as local flood schemes. The scheme also seeks to reduce flood risk for many communities where it has not been possible to have a local flood scheme.

We will continue to engage with those who work, live and visit the Thames Valley as the project evolves. If you would like to find out more, please visit our <u>website</u>, where you can watch our videos explaining what the scheme is and how we have identified flood storage areas for further investigation. You can sign up to our newsletter to find out about our latest work by emailing <u>tvfs@environment-agency.gov.uk</u>.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Streatley
Time period	January 2024

# Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

## **Environment Agency Response**

The flood defences in the area of Streatley mainly come in the form of river control measures (weirs).

These would have been operated responsibly by our trained lock and weir keepers and would have been open in accordance with our procedures to maintain water levels in the Thames for navigation purposes.

At some point in their operation, it is recognised that the local weirs do have a small proportion of flood risk mitigation purpose (10-20% in real terms). If conditions allow, the lock keeper can adjust different weirs and maintain a head of water at a balanced level for a short time.

In some cases this is not possible as the river is rising too fast for any slight adjustments and normal operating regime will ensue. During the named storms of early 2024 the river had risen and the lock and weir keepers adjusted weirs appropriately until they were fully drawn, and closed back in when appropriate. On this occasion weirs were only able to be part way shut back in before the next storm arrived and weirs were reopened.

When a weir is fully drawn there is no further adjustments to be made and the Thames operates as a natural river in terms of water levels from that point.

## Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

# **Environment Agency Response**

There is the Goring lock gauge (Station ID: 2003TH) on the River Thames and the Cleeve Lock Gauge (Station ID: 2002TH) on the River Thames in this location that measure river levels.



Please use these links <u>Hydrology Data Explorer - Goring Lock</u> and <u>Hydrology Data Explorer - Cleeve Lock</u> to obtain the data for daily or 15min river flow.

We have checked this data and can confirm:

#### **Goring Lock**

This data is considered to be reliable during all the events

#### Cleeve Lock

Due to a large reset on site visit in March, this data is estimated. This data is therefore unreliable and should not be considered.

# Question 3

Details of fluvial flood return periods for the above storms.

## **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to.

# Question 4

Details of any flood warnings in place during the above dates

## **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alert

River Thames and its tributaries from Days Lock to above Pangbourne (061WAF23WallGor)
 In force: 31/12/2023 – 15/01/2024

#### Warning

River Thames at Goring and Streatley (061FWF23Goring)
 Not in force during dates provided

## Question 5

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal

# **Environment Agency Response**

Please find attached details of historic flood data in this location associated with river Thames.



You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



An extract of our "Properties affected" database for 2007 until 2023 for the Streatley area is provided in the attached document below.



Properties\_affected\_Streatley.zip

# Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

Our records show that we received one report of flooding in this location. This was from the Goring Lock at the Paddle and Rymer weir, where there were reports of debris build up causing water to swirl into a residential property.

Due to relatively low impact of flooding in this area, limited number of resources were deployed in this incident. We shared any information about riparian owners' responsibility, and about EA's responsibility and resources, with any customers who did contact us.

## Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

# **Environment Agency Response**

There are no specific known issues or constraints (in terms of capacity) associated with the River Thames in this location. Any flooding in this area was a result of the saturated soils, the repeat and deluges of rain we received and high groundwater levels in the area.



## Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?

## **Environment Agency Response**

Thames Valley Flood Scheme

The Environment Agency have been investigating a wider Thames scheme called the Thames Valley Flood Scheme.

The Thames Valley Flood Scheme, led by the Environment Agency, is investigating slowing and storing water in across the River Thames catchment to reduce flood risk in the Thames Valley. The River Thames catchment is a large area, which includes the whole of the River Thames upstream of London and all the rivers that flow into it. Scheme investigations include a combination of flood storage and natural flood management. We have identified 17 locations that could work to store flood water and we continue to investigate these to establish if they provide the flood risk benefits needed. It could be that all, some or none of these sites continue to be of interest to us. You can see maps showing approximate locations of areas we are investigating on our website. The scheme is in the early stages and as with any large project it needs to follow a series of approvals and gain funding to continue.

Thames Valley Flood Scheme is looking to complement existing and planned flood schemes. With the expected impacts of climate change, it will be needed as well as local flood schemes. The scheme also seeks to reduce flood risk for many communities where it has not been possible to have a local flood scheme.

We will continue to engage with those who work, live and visit the Thames Valley as the project evolves. If you would like to find out more please visit our <u>website</u>, where you can watch our videos explaining what the scheme is and how we have identified flood storage areas for further investigation. You can sign up to our newsletter to find out about our latest work by emailing <u>tvfs@environment-agency.gov.uk</u>.



Data Requester	
Data Requester Organisation	West Berkshire Council
EA enquiry reference number	GE30387
Location of Section 19	Winterbourne
Time period	January 2024

# Question 1

Details of any flood defences in the area that might influence flooding at the site / surrounding area.

## **Environment Agency Response**

The Winterbourne flood alleviation scheme is the only flood defence scheme in the area that might influence flooding at the site / surrounding area.

The scheme comprised of the realignment of the Winterbourne Stream and the construction of a 300m long, 2.4m high flood defence bund on the land to the north of Winterbourne village. The project also included the construction of associated control structures to form a flood storage reservoir with a capacity of approximately 22,000m<sup>3</sup>. The aim of the scheme was to intercept fluvial and rainfall flows, and store and release them in a controlled manner.

# Question 2

Details of river flows during the above dates, specifically for the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal where relevant at each site.

# **Environment Agency Response**

There are no river flow or level gauges on the Winterbourne.

There is the Winterbourne Farm gauge (station ID no: SU47\_27) and the Winterbourne Manor gauge ((station ID no: SU47\_8) in this location that measures groundwater levels only.

Please use these links <u>Hydrology Data Explorer - Winterbourne Farm</u> and <u>Hydrology Data Explorer - Winterbourne Manor</u> to obtain the data for daily groundwater levels.

We have checked this data and can confirm:

Winterbourne Farm gauge station

Due to a large reset on site visit in March, this data is estimated. This data is therefore unreliable and should not be considered.

Winterbourne Manor gauge station

This data is considered to be reliable during all the events



# Question 3

Details of fluvial flood return periods for the above storms.

## **Environment Agency Response**

The Environment Agency have not defined the return period of this flood event. We are in discussions internally to decide if we are able to.

# **Question 4**

Details of any flood warnings in place during the above dates

## **Environment Agency Response**

Please find summary below of all the relevant flood alerts/flood warnings we have at this location & dates requested:

#### Alert

 River Lambourn and its tributaries from Upper Lambourn down to Newbury (061WAF22Lambourn)
 In force: 04/01/2024 – 05/06/2024

#### Warning

River Lambourn from Weston to Bagnor including Boxford (061FWF22MidLamb)
 In force: 04/01/2024 – 11/02/2024

Historic Severe Flood Warnings, Flood Warnings and Flood Alerts are all published online here: Historic Flood Warnings - data.gov.uk It may also be helpful to have further details of our Flood Alert and Flood Warning Areas (such as area code, and spatial extent). Our Flood Alert and Flood Warning Areas can be downloaded as shapefiles online. They will have additional information (such as Target Area name and code) in the metadata: Flood Alert Areas - data.gov.uk and Flood Warning Areas - data.gov.uk

# Question 5

Details of any historic flooding associated with River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal.

## **Environment Agency Response**

This location is not situated near the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal. Therefore, we have no details of any historic flooding in the town of Winterbourne associated with the River Kennet, River Lambourn, River Thames, and the Kennet and Avon Canal



# Question 6

Was the flooding that occurred during Storms Henk, Isha, and Jocelyn reported to the Environment Agency? If the answer to the above question is yes, how did the Environment Agency respond to the incidents?

## **Environment Agency Response**

I've attached the 'Property\_flooding\_log\_Winterbourne' document in the folder below. These are our official records of properties effected during this event. Only properties where we have an exact address and confirmation by either resident, EA staff, or professional partner, are listed in this document.

You must only use this information for the purposes laid out in the Flood and Water Management Act 2010 as part of your statutory duties relating to the management of flood risk. You may not include the details of individual properties within any published report and this data should not be accessible by any member of staff or the public who do not need access for the purposes laid out in the Flood and Water Management Act 2010.



Property\_flooding\_log\_Winterbourne.zip

Due to the relatively low impact of flooding in this area, we did not attend the location or deploy any of our resources.

# Question 7

Are there any known issues / constraints associated with the rivers listed above in terms of capacity?

## **Environment Agency Response**

We can confirm that there are no specific issues/constraints with any watercourses in this location. Any flooding in this area was a result of the saturated soils, the (repeat) deluges of rain we received (esp. Stork Henk) and high groundwater levels.

# Question 8

Are there any plans to carry out improvement works to the rivers within the local vicinity?

# **Environment Agency Response**

There are currently no plans to carry out improvement works to the rivers within this location.

# **Appendix D.2**

ROYAL BERKSHIRE FIRE & RESCUE SERVICE



From: FOIR <foir@RBFRS.co.uk> 04 March 2024 14:29 Sent:

To.

Subject: RE: S19 Information Request [RBFRS Request for Information No.2023-0120]

RBFRS 2023-120 - Photo 1.jpg; RBFRS 2023-120 - Photo 2.jpg; RBFRS 2023-120 - Photo 3.jpg; RBFRS 2023-120 - Photo 4.jpg; RBFRS 2023-120

- Photo 5.jpeg; RBFRS 2023-120 - Photo 6.jpeg; RBFRS 2023-120 - Photo 7.jpeg; Burghfield.PNG; Eastbury.PNG; Lambourn.PNG;

Newbury.PNG; Purley-on-Thames.PNG; Streatley.PNG

Categories: To do

Dear

Attachments:

I refer to your Request for Information of the 12th February 2024 and my subsequent acknowledgment e-mail on this subject.

Following a response from the appropriate departments, I am pleased to be able to provide you with a response to your enquiry. Please see below.

1. Any drone footage / photographs of the flooding that occurred as a result of the above storms.

We do not have any drone footage from the requested locations. We do however have several photos from an incident that occurred near Burghfield. Please see the attached.

2. Details of staff recounts of the flooding and events occurring as a result of the above storms.

Our official statements are available on our website via Latest News | Royal Berkshire Fire and Rescue Service (rbfrs.co.uk) and Incidents Royal Berkshire Fire and Rescue Service (rbfrs.co.uk).

3. Details of any responses undertaken by RBFRS either during or following Storms Henk, Isha, and Jocelyn at the above locations.

We attended only one incident that would fall within the remit of your request (within target locations specified and during storm dates). The Incident occurred in Newbury, during Storm Henk. This is the only incident of flooding, in the locations specified, that was called in and responded to by Royal Berkshire Fire and Rescue Service (RBFRS).

Additionally, Number of flooding incidents occurring in Newbury, Burghfield, Eastbury, Purley, Streatley during January 2024:

Newbury Burghfield

And number of Incidents occurring in Berkshire on dates of storms:

Storm Henk Storm Isha 4 Storm Jocelyn

Our official statements are available on our website via Latest News | Royal Berkshire Fire and Rescue Service (rbfrs.co.uk) and Incidents Royal Berkshire Fire and Rescue Service (rbfrs.co.uk).

I hope this information will be of assistance to you, and should you have any further queries please do not hesitate to contact me.

In conclusion, I would like to take this opportunity to advise you that if, at any time, you are dissatisfied with the way in which we deal with your Request for Information, you can submit a request for an internal review. Having exhausted our process, you may ultimately refer your complaint to the Information Commissioner, whose website is <a href="www.ico.org.uk">www.ico.org.uk</a>, for final determination.

Yours sincerely

#### **Emily Houghton**

Information Governance Officer

07795 302731 houghtone@rbfrs.co.uk

Newsham Court, Pincents Kiln, Calcot, Reading, Berkshire, RG31 7SD









🜃 RoyalBerksFRS - 🐹 @RBFRSOlficial 📵 royalberkshirefire 🛅 RoyalBerkshire Fire and Rescue Service 🚎 rbfrs.co.uk



Your privacy

Please refer to our privacy notice to understand what information we collect about you and your rights under Data Protection Legislation

From: FOIR < foir@RBFRS.co.uk >

Sent: Wednesday, February 14, 2024 11:12 AM

Cc: FOIR <foir@RBFRS.co.uk>

Subject: RE: S19 Information Request [RBFRS Request for Information No.2023-0120]

Regulations).

Once I have confirmed that the information you have requested is available and can be disclosed in accordance with the Regulations, I will arrange for a "redacted" copy to be sent to you. With regard to any "redaction", this should only apply to Data Protected material in accordance with Regulations 12(3) and 13 of the Environmental Information Regulations 2004, as well as the Principles of Data Protection Legislation, however we will inform you whether any other exceptions apply.

I do not anticipate that a fee will be charged in this case, however, we will inform you should this position alter.

Should the information you have requested not be available I will notify you, that said, I expect to be able to give you a definitive response within 20 working days, that is to say, on or before the 11<sup>th</sup> March 2024.

Yours sincerely

**Emily** 

#### **Emily Houghton**

Information Governance Officer

07795 302731 houghtone@rbfrs.co.uk

Newsham Court, Pincents Kiln, Calcot, Reading, Berkshire, RG31 7SD

# ROYAL BERKSHIRE FIRE AND RESCUE SERVICE













Your privacy

Please refer to our privacy notice to understand what information we collect about you and your rights under Data Protection Legislation

From:

Sent: Monday, February 12, 2024 3:57 PM To: Reception < Reception@RBFRS.co.uk > Subject: S19 Information Request

You don't often get email from

Learn why this is important

Dear Sir / Madam,

Burghfield, West Berkshire

Eastbury, West Berkshire

Newbury, West Berkshire

Streatley, West Berkshire

Purley, West Berkshire

Section 19 Flood Investigation - Enquiry

We have been instructed by our client, West Berkshire Council, to carry out an investigation of flooding that occurred at the above sites around the below dates

- 02/01/2024 Storm Henk
- 21/01/2024 to 22/01/2024 Storm Isha
- 23/01/2024 to 24/01/2024 Storm Jocelyn

Please could the RBFRS provide the following information:

- Any drone footage / photographs of the flooding that occurred as a result of the above storms. 1.
- 2. Details of staff recounts of the flooding and events occurring as a result of the above storms.
- 3. Details of any responses undertaken by RBFRS either during or following Storms Henk, Isha, and Jocelyn at the above locations.

We trust the above is clear, however, should you have any queries or require any further information from WSP to be able to answer the above queries, please do not hesitate to get in contact.

Kind regards,



Graduate Consultant - Water Risk Management BSc (Hons) She/her

WSP in the UK Matrix House, Basing View Basingstoke RG21 4FF

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#### Your privacy

Please refer to our privacy notice to understand what information we collect about you and your rights under Data Protection Legislation

# Appendix D.3

**THAMES WATER** 



From: EIR Requests < EIR. Requests@thameswater.co.uk >

Sent: 29 April 2024 19:04 To:

Subject: RE: S19 Information Request - EIR-23-24-720

Filed: -1

Filed Location: C:\Users\uklet002\Documents\\$19s\240429 190333 - EIR Requests - RE S19 Information Request - EIR-23-24-720(1).msg

Filed Location Folder: C:\Users\uklet002\Documents\\$19s

Thames Water Utilities Limited EIR Requests Clearw ater Court Vastern Road Reading Berkshire RG1 8DB

Email: EIR.Requests@thameswater.co.uk

29 April 2024

Our Ref: EIR-23-24-720

#### **Environmental Information Regulation (EIR) Request**

Dear

Thank you for your e-mail dated 1 March 2024 which has been passed to me to respond to. Please see our response below to your request.

#### **Your Request**

Burghfield, West Berkshire Eastbury, West Berkshire Newbury, West Berkshire Streatley, West Berkshire Purley, West Berkshire

Section 19 Flood Investigation - Enquiry

We have been instructed by our client, West Berkshire Council, to carry out an investigation of flooding that occurred at the above sites around the below dates:

02/01/2024 – Storm Henk 21/01/2024 to 22/01/2024 – Storm Isha 23/01/2024 to 24/01/2024 – Storm Jocelyn

Please could Thames Water provide the following information:

- 1). Details of any works undertaken by Thames Water either during or following Storms Henk, Isha, and Jocelyn at the above locations.
- 2). Details of any works that are planned to be undertaken in response to the above storms.
- 3). Any Thames Water reports which may have already been produced for these flood events that cover the above location.

#### Clarification (01/04/2024)

I can confirm the information you have detailed below in red is what we are requesting. Essentially, any actions Thames Water have conducted in response to the flooding issues will be useful for us.

We are also now investigating flooding in Great Shefford, Pangbourne, and Lambourn, so please see the updated list of sites that we request this information for.

- 1. Details of any works undertaken by Thames Water either during or following Storms Henk, Isha, and Jocelyn at the above locations. Can you confirm that you mean activities completed in the aftermath of the storm events (such as line cleaning etc), and not normal, planned and day to day activities that still went on (where possible) during the storms.
- 2. Details of any works that are planned to be undertaken in response to the above storms. Again, can you confirm that you mean making good any damage to assets etc and NOT planned site upgrades, GISMPs etc.
- 3. Any Thames Water reports which may have already been produced for these flood events that cover the above location. Finally, can you confirm that you mean any Sewer Flooding Incident (SFI) reports that may have been generated.

#### Updated request (09/04/2024)

Our scope of works has once again been increased so please see below the updated list of sites that we request information for.

Winterbourne

#### **Our Response**

Thames Water have considered your request under the Environmental Information Regulations (2004) (EIR).

This winter has been one of the wettest on record. The six-month period up to the end of February 2024 recorded above average rainfall with February being the wettest February since records began, some 150 years ago. The Environment Agency's Water Situation Report for February 2024 reports that the rainfall over the preceding 12 months has been exceptionally high. The Environment Agency advises that groundwater levels are similar to those last observed in 2014, which was the wettest winter on record at that point.

#### **Network Overview**

**Proactive planned works** – We carry out planned cleaning out each year and has become more tactical over the years as areas are targeted based on performance in areas e.g., blockages, floods, pollutions etc. The programme does not tackle the whole catchment but is specifically targeted on lengths which are either repeatedly generating reactive activity or have a history and have been shown to need regular intervention. Proactive work is also undertaken as we have increased the number of sewer depth monitors across the network which can indicate when levels rise, and which has led to many blockages or potential blockages being cleared before there is any impact to customers such as blockages or the environment pollutions.

**Pre-winter preparations** – In the summer months the Network teams work hard to deliver any work which has been identified from the previous winter period which relate to groundwater infiltration, or surface water inundation related issues. In preparation for winter, we manage our workloads to enable us to enter the winter period with as little outstanding work as possible, as we know that the winter and associated storms and wet weather bring with it higher volumes of reactive work.

**Proactive investigation** – During autumn and into the winter the network team investigate catchments known to us as having issues caused by infiltration from groundwater and inundation from surface water or rivers breaking their banks. We carry out these investigations every year in a drive to enhance the network to protect from such water entering the system. We do not just carry out investigations following named storms we have been active since September when the region experienced the first storm of the season in the Swindon area.

**Planned work following storms** – We have and are continuing with our investigations of how water is entering the system from many different sources. We are collating the data and will look to prioritise based on likelihood of impact and potential consequence.

The areas listed below are affected by wet weather-related issues which impact assets through groundwater and for some where rivers burst their banks which are not a responsibility for Thames Water. As it stands, there are no assets which are broken or need making good in these areas. Our investigations in some of these areas are ongoing on a priority basis.

Burghfield (specifically Burghfield Bridge area)

Eastbury

Newbury

Streatley

Purley-on-Thames

**Great Shefford** 

Panabourne

Lambourn

Winterbourne

In response to Question 3, "Any Thames Water reports which may have already been produced for these flood events that cover the above location":

We are unable to provide the requested data under EIR due to GDPR. In order to provide the requested data, a Data Licensing Agreement (DLA) must be signed by the Local Authority (LA), or we must receive confirmation that the requesting party is working on behalf of the LA. In this case, please contact the West Berkshire Council to make a request to Thames Water for this data. The request will be dealt with by Thames Water, however outside of the EIR process.

This concludes our response to your request.

We do our best to provide you with the information you have requested. If you feel we have omitted any data or misunderstood your request in any way, then please let us know. If you expand your request this will be dealt with as a new enquiry.

#### **Disclaimer**

The information provided with this letter is taken from the information we hold on our records as at the date indicated. We cannot guarantee the accuracy of this information and it should not be relied on for any purpose.

#### Retention

Please note that we will retain a record of your request to allow us to evidence our compliance with the law relating to EIR.

#### **Internal Review**

If you are not satisfied with the handling of your request, you have the right to ask for an internal review where the response will be re-examined. Please include a reason for why you are dissatisfied with the response. Internal review requests should be submitted within 40 working days of the date of receipt of this response and emailed to <a href="mailto:EIR.Requests@thameswater.co.uk">EIR.Requests@thameswater.co.uk</a>

If you are dissatisfied with the outcome of the internal review, you can apply directly to the Information Commissioner (ICO), who will consider whether Thames Water has complied with its obligations under the EIR. Generally, the ICO cannot make a decision unless you have already exhausted our internal review procedure.

The Information Commissioner can be contacted at: *The Information Commissioner's Office, Wycliffe House, Wycliffe Lane, Wilmslow, Cheshire, SK6 5AF.* More information can be found on their website: <u>Information Commissioner's Office (ICO)</u>. There is no charge for making an appeal.

Yours sincerely

Paul

Paul Bridgens
Data Protection Advisor
Data Protection Investigations

Sent: Tuesday, April 9, 2024 11:24 AM

To: EIR Requests < EIR.Requests@thameswater.co.uk > Subject: RE: S19 Information Request - EIR-23-24-720

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Dear Paul,

Our scope of works has once again been increased so please see below the updated list of sites that we request information for.

Burghfield (specifically Burghfield Bridge area)

Eastbury

Newbury

Streatley

Purley-on-Thames

**Great Shefford** 

Pangbourne

Lambourn

Winterbourne

Many thanks,



Graduate Consultant – Water Risk Management BSc (Hons) She/her

WSP in the UK Matrix House, Basing View Basingstoke **RG21 4FF** 

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From:

Sent: Monday, April 1, 2024 3:09 PM

To: EIR Requests < EIR.Requests@thameswater.co.uk > Subject: RE: S19 Information Request - EIR-23-24-720

Dear Paul,

I can confirm the information you have detailed below in red is what we are requesting. Essentially, any actions Thames Water have conducted in response to the flooding issues will be useful for us.

We are also now investigating flooding in Great Shefford, Pangbourne, and Lambourn, so please see the updated list of sites that we request this information

Burghfield (specifically Burghfield Bridge area)

Eastbury

Newbury

Streatley

Purley-on-Thames

**Great Shefford** 

Pangbourne

Lambourn

I look forward to hearing from you.

Many thanks,



Graduate Consultant - Water Risk Management BSc (Hons)

WSP in the UK Matrix House, Basing View Basingstoke RG21 4FF

Commontal
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From: EIR Requests < <a href="mailto:EIR.Requests@thameswater.co.uk">EIR.Requests@thameswater.co.uk</a>>

Sent: Wednesday, March 27, 2024 3:33 PM

To: Subject: S19 Information Request - EIR-23-24-720

Dear

Thank you for your recent request for information, re-produced below for ease.

Burghfield, West Berkshire Eastbury, West Berkshire Newbury, West Berkshire Streatley, West Berkshire Purley, West Berkshire

Section 19 Flood Investigation - Enquiry

We have been instructed by our client, West Berkshire Council, to carry out an investigation of flooding that occurred at the above sites around the below dates:

- 02/01/2024 Storm Henk
- 21/01/2024 to 22/01/2024 Storm Isha
  - 23/01/2024 to 24/01/2024 Storm Jocelyn

Please could Thames Water provide the following information:

- 1. Details of any works undertaken by Thames Water either during or following Storms Henk, Isha, and Jocelyn at the above locations.
  - Details of any works that are planned to be undertaken in response to the above storms.
- 3. Any Thames Water reports which may have already been produced for these flood events that cover the above location.

In order for me to assist you further, some clarification is required. Namely:

- 1. Details of any works undertaken by Thames Water either during or following Storms Henk, Isha, and Jocelyn at the above locations. Can you confirm that you mean activities completed in the aftermath of the storm events (such as line cleaning etc), and not normal, planned and day to day activities that still went on (where possible) during the storms.
- 2. Details of any works that are planned to be undertaken in response to the above storms. Again, can you confirm that you mean making good any damage to assets etc and NOT planned site upgrades, GISMPs etc.
- 3. Any Thames Water reports which may have already been produced for these flood events that cover the above location. Finally, can you confirm that you mean any Sewer Flooding Incident (SFI) reports that may have been generated.

Please note that the 20 working days allowed under the regulations to process your request doesn't start until we have all of the information, we need in order to reply to you. Please note that your request is currently on hold.

I look forward to hearing from you at your earliest convenience.

Regards.

2.

#### **Paul Bridgens**

Data Protection Advisor Walnut Court, Kembrey Park, Swindon SN38 6TW



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# Appendix D.4

**WEST BERKSHIRE COUNCIL** 



Location	08/01/24	09/01/24	10/01/24	11/01/24	12/01/24
Newbury area		Clive Tombs	Clive Tombs & lan Martinez		Ian Martinez
Lambourn Valley			Mike Dehonri		Peter, Andrew, Jon, Paul B.
Pang Valley		Jon Winstanley			Peter, Andrew, Jon, Paul B.
Purley				Paul Hendry	
Bughfield/Pingewood/Lower Kennet.		Neil Stacey		Neil Stacey	Neil Stacey
Coordinator		Jon Winstanley	Andrew Reynolds	Paul Bacchus	Jon Winstanley

Location	15/01/24	16/01/24	17/01/24	18/01/24	19/01/24
Newbury area	Clive Tombs		lan Martinez		Clive Tombs/ Sasha Baklanova
Lambourn Valley		Jon Winstanley		Andrew Reynolds	
Pang Valley	Andrew Alty		Mike Dehonri		Jon Winstanley
Winterbourne/ Boxford		Dan Coe		Mike DeHonri	
Purley					
Bughfield/Pingewood/Lower Kennet/ Crookham Hill.		Neil Stacey			
Coordinator	Jon Winstanley	Peter Walker	Andrew Reynolds	Paul Bacchus	Jon Winstanley

Location	22/01/24	23/01/24	24/01/24	25/01/24	26/01/24
Newbury area		Clive Tombs	Sasha Baklanova		Ian Martinez
Lambourn Valley		Mike Dehonri		Dan Coe	
Pang Valley		Jon Winstanley		Andrew Alty	
Winterbourne/ Boxford				Mike DeHonri	
Bughfield/Pingewood/Lower		Neil Stacey			
Kennet/ Crookham Hill.					
Coordinator	Jon Winstanley	Peter Walker	Andrew Reynolds	Paul Bacchus	Jon Winstanley

Road name	Date closed	Reason for closure	Date reopened	Comments
Burys Bank Road, Greenham	05/01/2024	Flooding	10/01/2024	
Carbinswood Lane, Woolhampton	05/01/2024	Flooding	05/01/2024	
Station Road, Woolhampton	05/01/2024	Flooding	18/01/2024	
Bucklebury Ford, Bucklebury	05/01/2024	Flooding	still closed	
Deans Copse Road, Burghfield	05/01/2024	Flooding	12/01/2024	
Padworth Road, Burghfield	05/01/2024		08/01/2024	
Wantage Road, Lambourn	05/01/2024		02/02/2024	
Winterbourne Road, Winterbourne	05/01/2024		19/04/2024	
St Marys Avenue, Purley on Thames	05/01/2024		13/01/2024	
Wintringham Way, Purley on Thames	05/01/2024		13/01/2024	
Chestnut Grove, Purley on Thames	05/01/2024		13/01/2024	
Sulhamstead Hill, Sulhamtead	05/01/2024		08/01/2024	
Crookham Hill, Thatcham	05/01/2024		23/01/2024	
Ufton Lane, Ufton Nervet	05/01/2024		03/03/2024	
Reading Road, Burghfield	05/01/2024		08/01/2024	
Two Rivers Way, Newbury	05/01/2024		24/01/2024	
Back Road, Eastbury	05/01/2024		19/01/2024	
Newbury Road, Eastbury	05/01/2024		?	
Hangar Road, Burghfield	08/01/2024	,	12/01/2024	
Amers Farm Road, Burghfield	08/01/2024		10/01/2024	
Kirtons Farm Road, Burghfield	08/01/2024		14/01/2024	
			10/01/2024	
Pingewood, Burghfield	08/01/2024		· · ·	
Northcroft Lane, Newbury	10/01/2024		14/01/2024	
Berrys Lane, Burghfeld	10/01/2024		14/01/2024	
Station Road, Kintbury	10/01/2024		15/02/2024	
Milkhouse Road, Speen	10/01/2024	Flooding	23/01/2024	and a sure of a storal also sure data. Only
Pike Street, Newbury	15/01/2024	Flooding	3	not sure of actual closure date. Only made aware on 15/01/2024
	15/01/2024	Flooding	?	not sure of actual closure date. Only
Maltan May Nousbury	15/01/2024	Flooding	3	made aware on 15/01/2024
Walton Way, Newbury	15/01/2024		22/02/2024	
Hungerford Hill, Lambourn	23/02/2024		23/02/2024	
Newport Road	23/02/2024		14/03/2024	
Station Road, Woolhampton	08/03/2024	Flooding	23/04/2024	alamada ada isa alamafan C/M and
DA40AWaster Basellandhamastard	06/02/2024	et a altra		planned order in place for C/W and
B4494 Wantage Road Leckhampstead	06/03/2024		on going	drainage repairs
Mill Lane, Tidmarsh	15/03/2024		21 days	
Holtwood Road, Hamstead Marshall	12/04/2024	Flooding	21 days	
Unnamed Road from Upper Green to				
Spray Road, Upper Green in the Parish		_, .,		
of Inkpen	12/04/2024		12/04/2024 17:00	
L		Drainage works due		
Park Lane, Hamstead Marshall	22/04/2024	to flooding	22/04/2024 15:53	
Newbury Road, Lambourn and Great				
Shefford	25/04/2024		25/04/2024 17:00	
		Urgent drainage		Pingewood Road South closure has
		works due to		been cancelled. The crew have had
		continuous severe		a mechanical breakdown and will be
Pingwood Road South, Burghfield	29/04/2024	flooding	29/04/2024 15:30	unable to attend now.
		This is an emergency		
		due to flooding		
		which has resulted in		
		the damage to the		
Water Street, Hampstead Norreys	02/05/2024	carriageway.	21 days	

## Appendix E

ENVIRONMENT AGENCY FLOOD MAPS

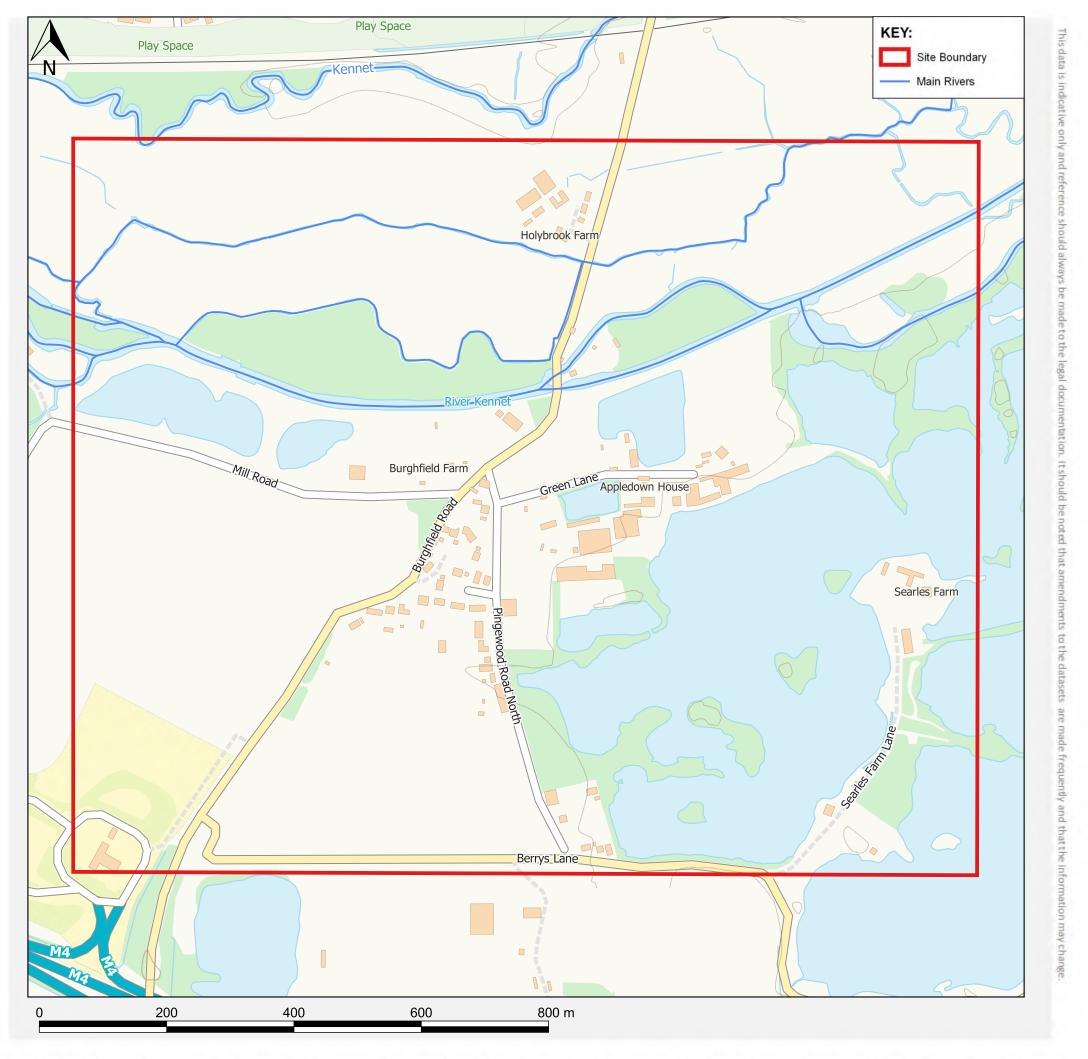


## **Appendix E.1**

#### **BURGHFIELD BRIDGE**



DISTANCE BETWEEN SITE AND CLOSEST MAIN RIVER 0m



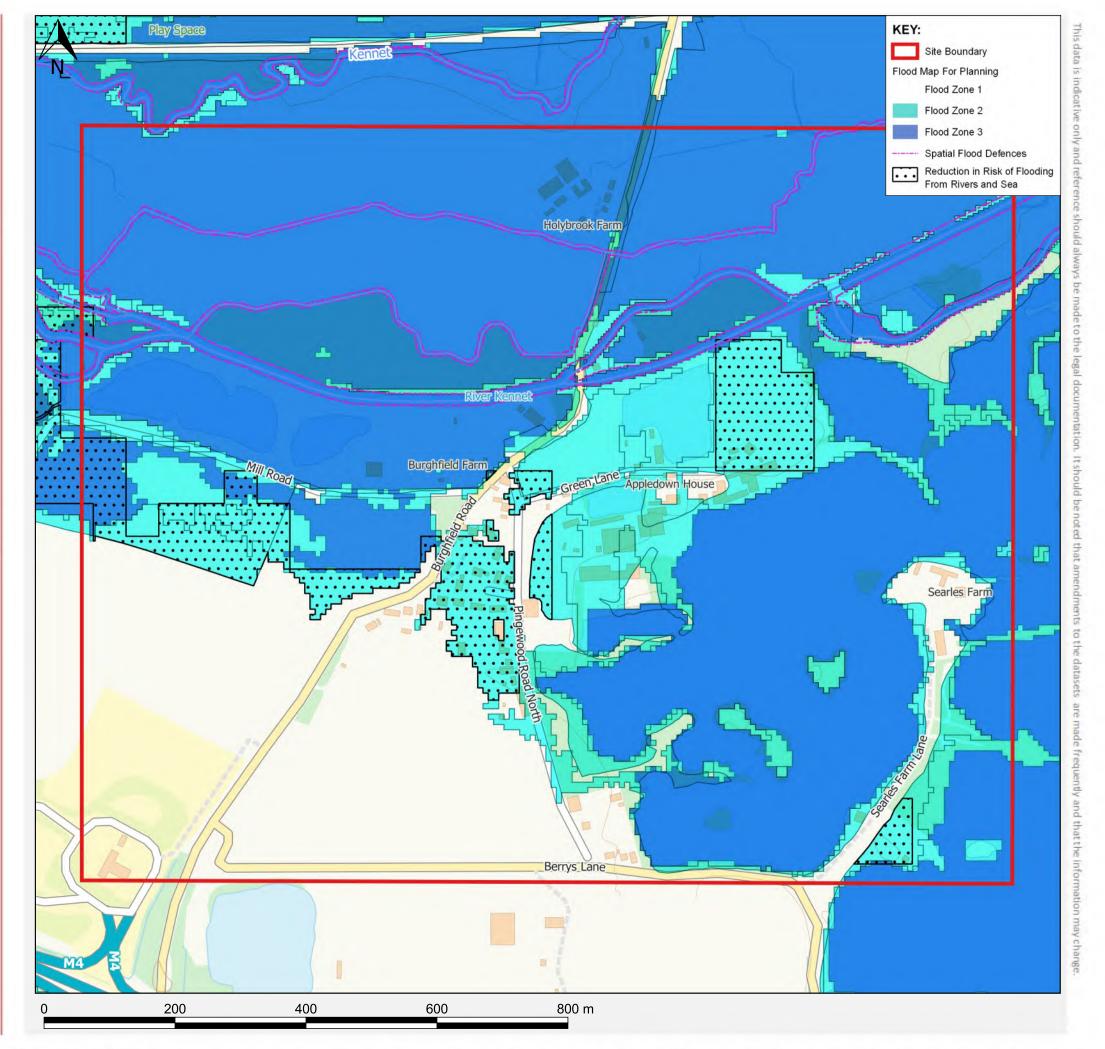


### Flood Map for Planning

Flood zone maps are modelled using local and national river and sea data. This information provides an indication of the likelihood of flooding and is intended for planning use only.

- Flood Zone 1 Land having a less than 1 in 1,000 annual probability (0.1% AEP) of river or sea flooding all land outside Zones 2 and 3).
- Flood Zone 2 Land having between a 1 in 100 and 1 in 1,000 annual probability (0.1% 1.0% AEP) of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability (0.1% 0.5% AEP) of sea flooding.
- Flood Zone 3 Land having a 1 in 100 or greater annual probability (>1.0% AEP) of river flooding; or Land having a 1 in 200 or greater annual probability (>0.5% AEP) of sea flooding.

Reduction in Risk of Flooding from Rivers and Sea due to Defences -Reduction in Risk of Flooding from Rivers and Sea due to Defences is a spatial dataset that indicates where areas have reduced flood risk from rivers and sea due to the presence of flood defences. The dataset has been created to help initiate conversations about the impact our flood defences have on the risk of flooding from the rivers and sea, and as a prompt to find out more about the flood defences in a particular area of interest. It does not replace any local, more detailed information.





## Risk of Flooding from Rivers and Sea

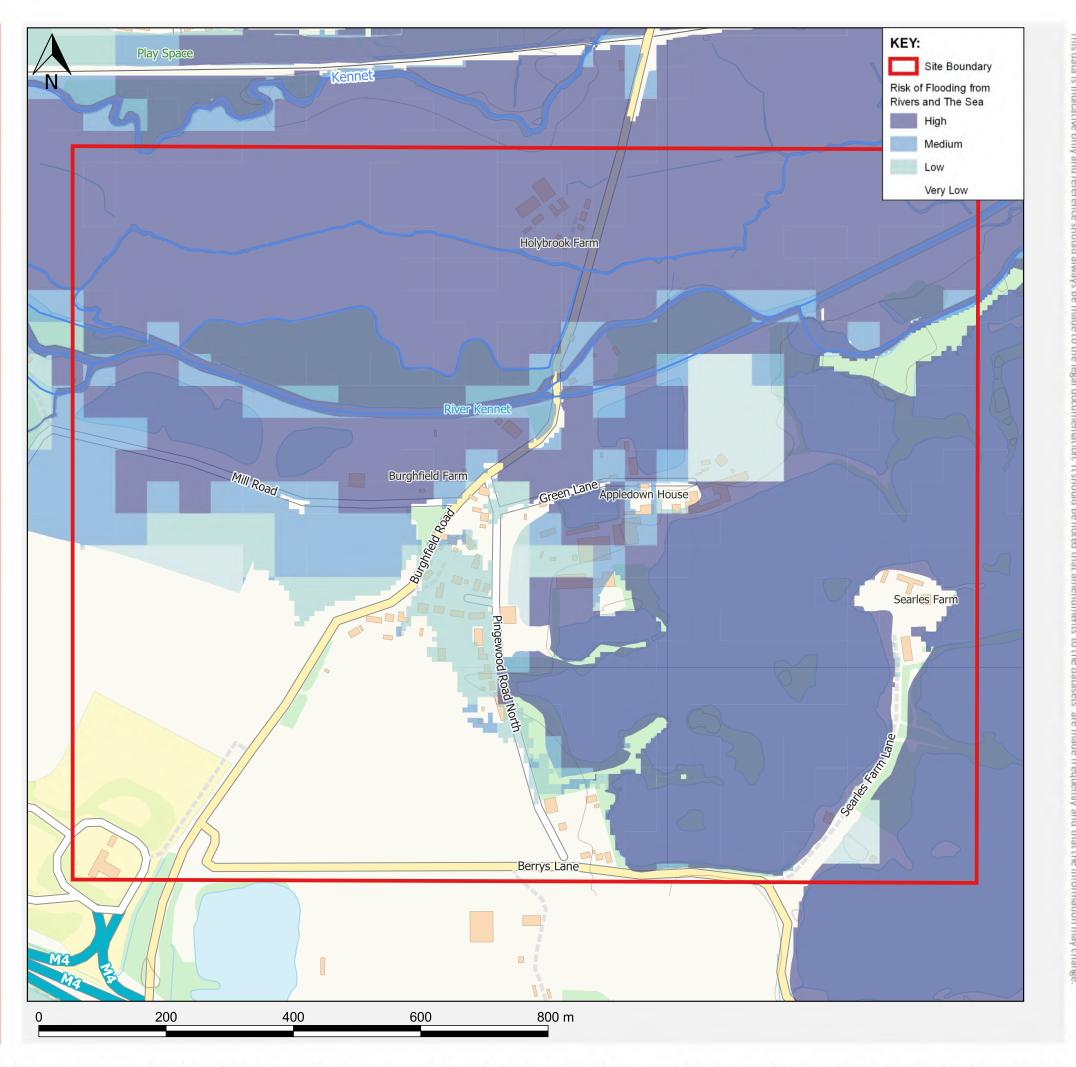
This map takes into account the effect of any flood defences in the area. These defences reduce but do not completely stop the chance of flooding as they can be overtopped, or fail.

**High Risk** - Land having a 1 in 30 or greater annual probability (>3.3% AEP) of flooding from rivers or the sea.

**Medium Risk** - Land having between a 1 in 30 and a 1 in 100 annual probability (1.0% - 3.3%) of flooding from rivers or the sea.

**Low Risk** - Land having between a 1 in 100 and a 1 in 1000 annual probability (0.1% - 1.0%) of flooding from rivers or the sea.

**Very Low Risk** - Land having a less than 1 in 1,000 annual probability (0.1% AEP) of flooding from rivers or the sea.



# 115

### Risk of Flooding from Surface Water

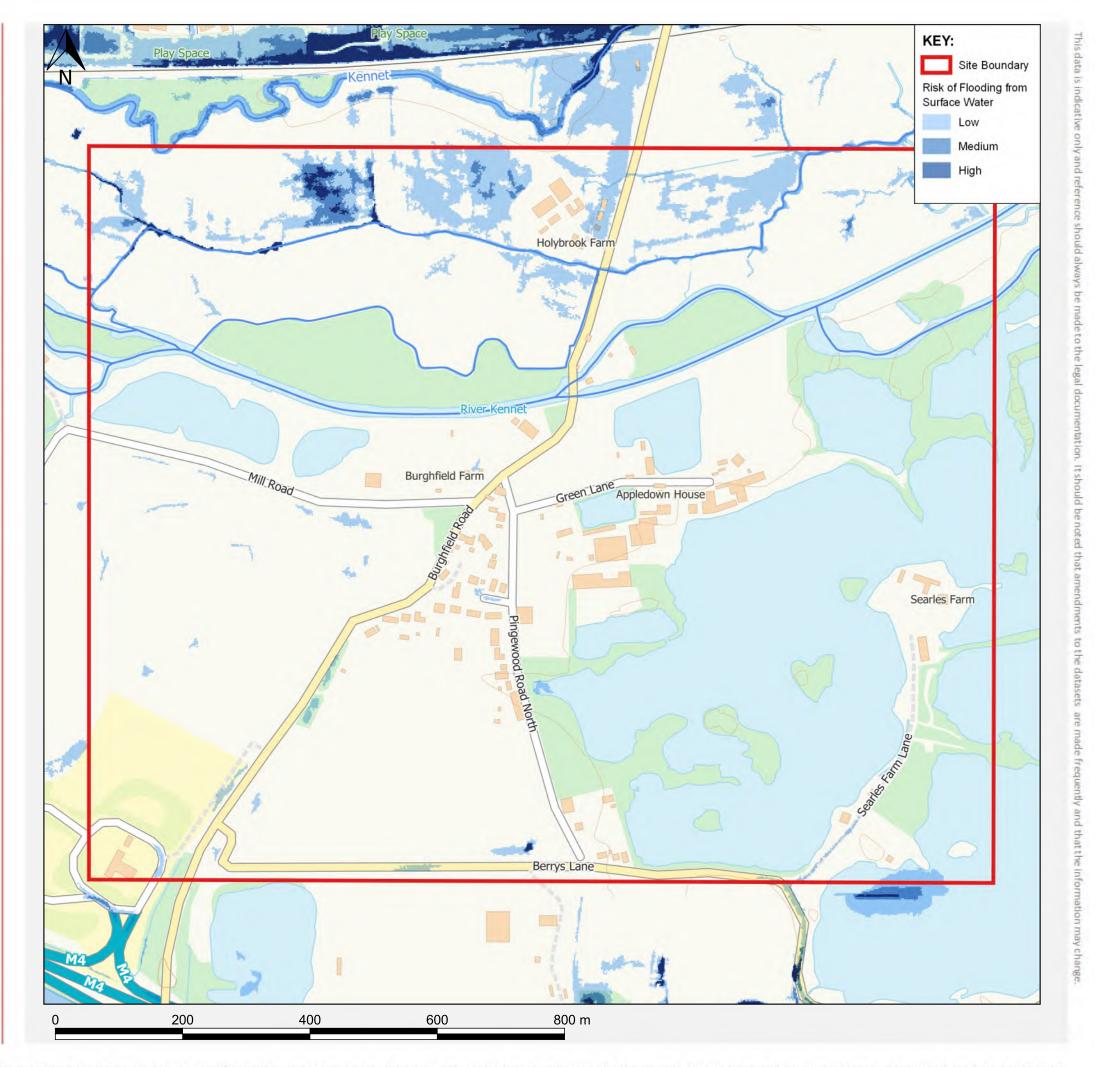
Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding.

**High Risk** - Land having a 1 in 30 or greater annual probability (>3.3% AEP) of flooding from surface water.

**Medium Risk** - Land having between a 1 in 30 and a 1 in 100 annual probability (1.0% - 3.3%) of flooding from surface water.

**Low Risk** - Land having between a 1 in 100 and a 1 in 1000 annual probability (0.1% - 1.0%) of flooding from surface water.

**Very Low Risk** - Land having a less than 1 in 1,000 annual probability (0.1% AEP) of flooding from surface water



# 115

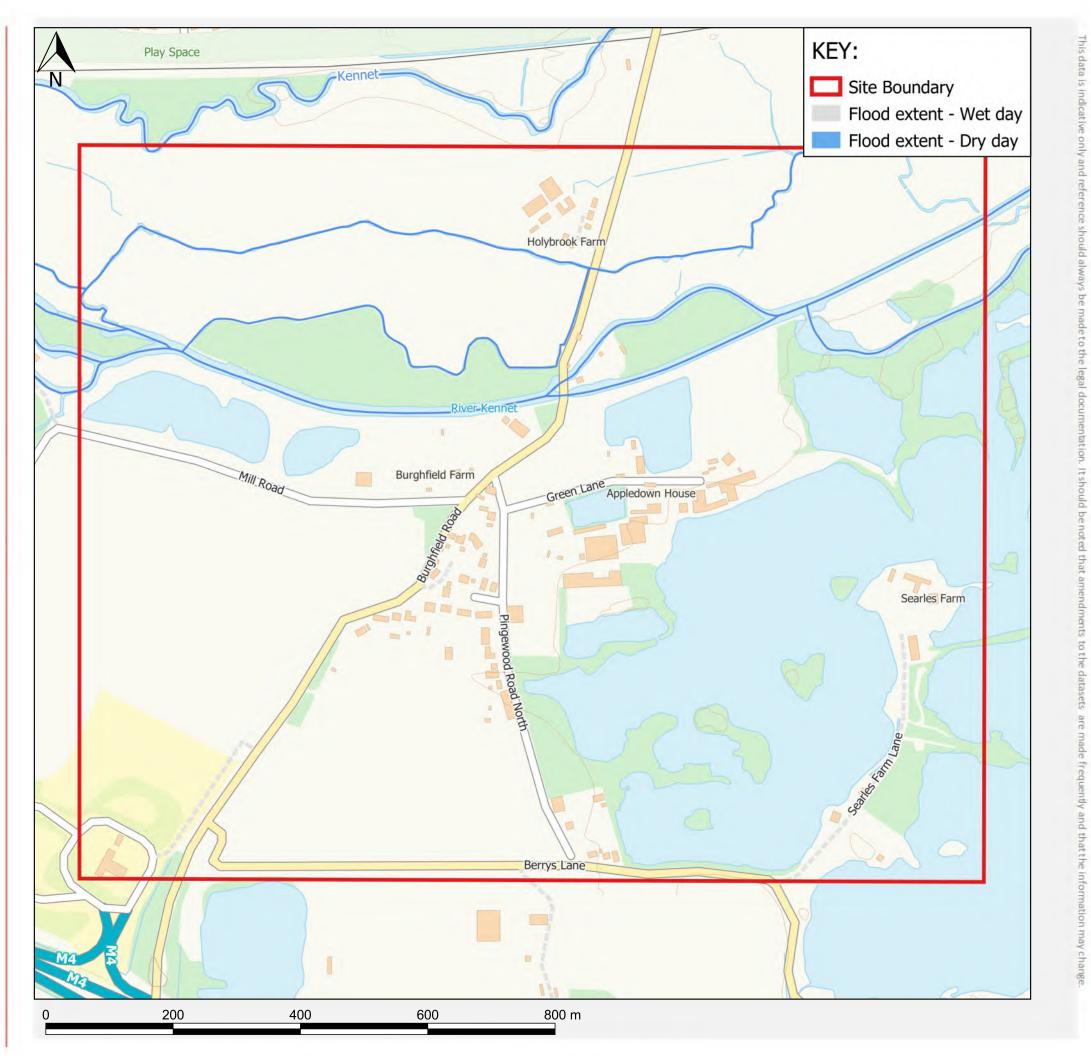
## Risk of Flooding from Reservoirs

The Risk of Flooding from Reservoirs (wet day) layer shows the individual flood extents for all large raised reservoirs in the event that they were to fail and release the water held on a "wet day" when local rivers had already overflowed their banks.

It represents a prediction of a credible worst-case scenario, however it's unlikely that any actual flood would be this large. The data gives no indication of likelihood or probability of reservoir flooding.

The Risk of Flooding from Reservoirs (dry day) shows flood extents for all large raised reservoirs in the event that they were to fail and release the water held on a "dry day" when local rivers are at normal levels.

These national datasets are "indicative" not "definitive". Definitive information can only be provided by individual local authorities and you should refer directly to their information for all purposes that require the most up to date and complete dataset.



#### **RECORDED FLOOD OUTLINES**

Recorded Flood Outlines shows all records of historic flooding from rivers, the sea, groundwater and surface water. The absence of coverage by Recorded Flood Outlines for an area does not mean that the area has never flooded, only that there are currently no records of flooding in this area. It is also possible that the pattern of flooding in this area has changed and that this area would now flood or not flood under different circumstances. The Recorded Flood Outlines take into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding. It includes flood extents that may have been affected by overtopping, breaches or blockages. Any flood extents shown do not necessarily indicate that properties were flooded internally.

#### HISTORIC FLOOD MAP

The Historic Flooding shows the maximum extent of individual Recorded Flood Outlines from river, the sea and groundwater springs that meet a set criteria. It shows areas of land that has previously been subject to flooding. This excludes flooding from surface water, except in areas where it is impossible to determine whether the source is fluvial or surface water, but the dominant source is fluvial. If an area is not covered by the Historic Flood Map it does not mean that the area has never flooded, only that the EA do not currently have records of flooding in this area that meet the criteria for inclusion. It is also possible that the pattern of flooding in this area has changed and that this area would now flood or not flood under different circumstances. Outlines that don't meet these criteria are stored in the Recorded Flood Outlines dataset. The Historic Flood Map takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding. It will include flood extents that may have been affected by overtopping, breaches or blockages. Flooding is shown to the land and does not necessarily indicate that properties were flooded internally.

If an area is not covered by these layers, it does not mean that the area has never flooded, only that there are not currently records of flooding in the area.

