Flooding in Thatcham
July 2007 – September 2008
A year in perspective

FINAL REPORT

This report was adopted by Thatcham Town Council on 20 October 2008 and incorporated into the Thatcham Parish Plan (Thatcham Vision – Action Plan for Thatcham).

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## Part 2: Key Issues

Appendix 1: Resident’s comments on drainage, insurance, rebuilding and temporary accommodation
(Separate file: Appendix A Residents’ comments.doc)
A list of comments made by residents at meetings held in June and July 2008, plus additional comments received verbally or by email.

## Part 2: Key Issues

Appendix 2: Maps (separate pdf documents)
Appendix 2a Flood Maps: maps showing flood pathways on 20th July 2007 (Source: WBC highways review, Vol 3) and surface water sewers
Appendix 2b: Maps showing major culverts and streams.

## Part 2: Key Issues

Photos: A collection of photographs taken in 2007 and 2008 can be viewed on line at http://picasaweb.google.com/admin.thatchamflooding. In due course further photos can be uploaded to this site.
ACKNOWLEDGEMENTS

This report was compiled by Sue Everett, an environmental consultant, on behalf of Thatcham Town Council. The author wishes to acknowledge the numerous contributions made to this report by residents of Thatcham, particularly those who were adversely affected by the flooding.

Certain officers and councillors of Thatcham Town Council have also made significant contributions to advancing the interests of Thatcham residents in the year following the flooding. These are especially Elaine Hare (Clerk), Lee Dillon (Chair, Flooding Working Party chairman) and other members of the Flooding Working Party and Finance and General Purposes Committee, who had the foresight to commission the work involved in working and communicating with residents that was vital for this report.

Information was also provided by officers at West Berkshire Council, especially Stuart Clark, who is committed to overseeing improvements in Thatcham’s drainage system, many of which are all ready under way and some completed.

Thatcham’s experience in July 2007 will not be forgotten; this report adds to the definitive record. Additional information that can add to this record is invited. Please send your contributions to admin.thatchamflooding@googlemail.com or write c/o Thatcham Town Council, Brownsfield Road, Thatcham RG18 3HF.

Rainfall data

Rainfall and other weather data from Thatcham used for this report are available on line from www.thatcham-weather.info and www.wunderground.com (which receives data from the former). Data for these websites is collected and averaged from three weather stations in Thatcham. The latter website is a good source of information indicating the duration and intensity of rainstorms.

It is the intensity of rainfall, not the total quantity in a 24-hour period, that is often more important in generating volumes of surface water that can overwhelm urban drainage systems. A rainstorm of 10mm in less than 15 minutes (as occurred on 6 July 2008) or of >30mm over less than 2 hours (as occurred on 12 September 2008) will be more threatening than 30mm of rain falling steadily over a 24-hour period. The state of the land, i.e. whether it is saturated, is another factor that will affect flood risk. Over the past 18 months the ground has remained sodden, due to the consistent wet weather in spring and summer. Rainstorms falling in these conditions will result in much more surface water than under more normal, drier conditions. Rainstorms are often very localised, and are by their nature fickle; the quantity of rain falling in areas only 1km apart can be very different. For this reason, rainfall readings taken from different parts of Thatcham on a given day may vary widely. Rainfall measurements for a specific location must be interpreted with care.

It should also be borne in mind that it isn’t just the rain that falls on the built up area of Thatcham that counts. Rain falling to the north, on land between The Ridge and north of the built up area of Thatcham has a major impact. Indeed it was water from this land, draining southward, that largely overwhelmed the drainage system on 20th July 2007.

Knowing the amount of rain which falls in a specific location, and matching this with observations on the behaviour of the drainage system, is important to enable engineers to assess at what point, and under what circumstances, the drainage system is likely to be overwhelmed. Computer modelling is now being used to look at this.
INTRODUCTION

This report was commissioned by Thatcham Town Council. It aims to provide a strictly Thatcham perspective on flooding, and issues that have arisen as a result of flooding in 2007. It takes into account recent local and national reviews into the July 2007 floods, as well as other information that has been provided by residents and key agencies, including Thames Water and West Berkshire Council.

This report also includes information provided by residents at three meetings organised by Thatcham Town Council held in June and July 2007, as well as knowledge imparted by phone, email and face-to-face between July 2007 and August 2008.

The report identifies measures that could be taken to, in particular:
- reduce future flood risk and protect property
- protect the town’s drainage system
- improve the emergency response
- provide an acceptable quality of construction in new-build housing estates
- reduce the risk of causing pollution to streams and rivers
- provide other benefits to residents and businesses in Thatcham.

The force and speed of the flash flooding experienced on 20th July 2007 took everyone by surprise.

1 Thatcham Town Council is a ‘local’ council, employing a small number of paid staff with decision-making through its committees and Council of elected members (Councillors). Councillors are local residents, who provide their time voluntarily. The Town Council also, from time to time, employs specialists on a consultancy basis where this is cost-effective to do so and where the expertise is unavailable from within the employed staff. For further information on the work of Thatcham Town Council see www.thatchamtowncouncil.gov.uk.

Torrential rain caused torrents of surface water to enter the built-up area of Thatcham from higher land on the north side of the Kennet Valley above Thatcham. The flash flood caused extensive devastation and damage to vehicles, gardens and property. It was a miracle that no lives were lost.

The impacts of the flooding, especially on the health and well-being of residents, were severe and will be felt long into the future.

However, many lessons were learned and since last July, numerous activities initiated that will benefit Thatcham and its residents.

Thatcham Flood Forum

Thatcham Town Council has agreed to support the running of a Thatcham Flood Forum for a period of two years. This will be affiliated to the National Flood Forum and will be able to share information and experience with other similar groups around Britain. Thatcham Flood Forum will also be given responsibility for following up and monitoring actions identified by this and other reports.

To contribute to the work of proposed forum, which will be an independent group of residents and business representatives, please contact Thatcham Town Council. The first meeting of the Forum will take place in autumn 2008.

Kennet Heath Residents’ Association

This newly formed association has set up a Kennet Heath Online Community Forum (www.kennetheath.co.uk) with a view to enabling improved communication between residents. The Association has also set up a Flooding Sub-group.
PART 1: FLOODING REVIEW

1.1 Flooding 1947-2006

Flooding has occurred in Thatcham prior to 2007. However, currently there is no definitive account of where and when flooding occurred. Thatcham Historical Society, as part of its Oral History Project, is currently gathering information on past flooding. For further information and to contribute to the historical record, please contact the Society via http://thatchamhistoricalsociety.org.uk or call Sue Broughton on 01635 861836 or 07766611705.

March 1947

During the winter of 1947 England and Wales experienced their worst snowfall for 150 years. In March this was followed by heavy rain over frozen ground. Many areas across England were flooded due to a combination of rain and rapid snowmelt.

Houses on Cold Ash Hill were flooded at this time, and local roads were impassable owing to flash flooding. No information is available on whether other properties in Thatcham were flooded. At this time much of Thatcham was undeveloped; the population was around 5,000.

Rainfall in July that year in some parts of the country matched the events in July 2007; on 16th July between 110 and 130mm rain fell in just a matter of hours in the Wisley - Byfleet area. In Wisley just over 100mm rain fell in 75 minutes. This was more than that experienced in Thatcham on 20 July 2007 (84 mm), over several hours.

1950s

In 1959, a report was produced on flooding in south-east Thatcham. Further information on surface water drainage and flooding in Thatcham was subsequently presented in 1961. These reports highlighted the following locations where flooding had occurred:

**Thatcham Station – Pipers Lane.** Storm water “builds up at the north side of the railway station, overflows from the ditch there and floods the level crossing and roads in the vicinity of the station including the lower end of Piper’s Lane. Water flows eastwards through the area of the new mills where it is joined by floodwater overflowing from the Nightingale Stream; the build up of water at the station prevents the free discharge of the surface water sewers from the Government Depot and sections of the Depot itself are flooded.” This flooding was considered due to the culvert under the railway being of insufficient capacity, but also thought to have worsened because of “development in the Station Road area” and the fact that the surface water sewer in Station Road, when running full, couldn’t effectively deal with the discharge from the depot. The 1961 report mentions “severe flooding in recent years”, including of four houses in Longcroft Road and noted that flooding “extends along Station Road from Thatcham House to the railway”, “Piper’s Lane has been flooded to a depth of two feet” and “Longcroft Road has also been flooded; large areas of the War Department Depot have been covered with water, speed restrictions have had to be enforced on the railway, and an overland flow of water has taken place from the station towards Colthrop, where flooding of parts of the mills has occurred.” Sewage overflows in Station Road and “severe flooding during the 1958/9 winter” are also mentioned.

**Cold Ash,** “during exceptional rainfall – some overflow of surface water occurs” (at

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3 Flooding at Thatcham. Howard Humphreys & Son, Report to Newbury District Council, Dec. 1959


5 In due course the full reports will be retyped and posted on line as pdf documents.
this time a deep ditch carried water down the east side of Cold Ash Hill).

**Bourne Ditch** – in "near flood condition this watercourse overflows where it crosses **Bowling Green Road**, and near **Link Way**, and considerable flooding of agricultural land occurs **immediately south of the Bath Road**". Houses were built on this area in the early 1970s (Paynesdown Road/Ashbourne Way/Swansdown Road).

"In times of heavy rain surface water follows **Muddy lane** and flooding across **Lower Way**" was also said to occur.

The County Surveyor in his 1961 report, incidentally, concluded that there had been unsatisfactory maintenance of the surface water drainage system in Thatcham and highlighted the "much divided responsibility and some neglect due to maintenance not being accepted by any person or authority". He recommended that "all the vital watercourses in the built-up area of Thatcham should be declared public sewers."

The 1959 and 1961s reports proposed considerable improvements to the surface water drainage system, including an enlarged culvert under the railway station and canal to take water away from the eastern area of the town via a ‘siphon’, as well as improvements to the Bourne Ditch and to a watercourse "serving land between Park Lane and Northfield Road". The need for "considerable works" on land between Bath Road and Lower Way is highlighted for the period 1964 and 1973, when housing development was anticipated. The 1961 report also refers to completed works to widen a watercourse west of Longcroft Estate, and the construction of a new culvert from "north of Chapel Street to this watercourse, just south of Station Road". By 1961, 9 local organisations had signed up to support the necessary flood relief works.

**Early 1970s (1971?)**

Part of the Paynesdown Road estate was flooded at this time, shortly after new houses were built, following which a new and enlarged surface water sewer was constructed between the A4 and Lower Way. No information is available on the extent of flooding in the town at this time, or the weather conditions, although it is reported by local people that travelling around West Berkshire was difficult owing to roads being flooded.

**September 1978**

Some flooding occurred during a heavy thunderstorm. This affected properties at the southern end of Northfield Road and The Firs, where some garages and driveways were flooded. One back garden was reported to have been under water approximately half-a-metre deep. Water was believed to have originated from Cold Ash. The extent of flooding at this time is not known.

**1980s**

Some properties on the Kennet Lea estate were reported to have flooded at some point in the 1980s (possibly 1986?). However, this flooding, according to residents, was largely related to poor construction work and impeded drainage experienced shortly after the development was completed and prior to its adoption.

**December 30 2006**

Records indicate that 29.5mm fell on this day, but most rainfall was concentrated over a short time – less than 2.5 hours. This caused the stream beside Muddy Lane to back up and spill over its bank at a sharp corner adjacent to the Nature Discovery Centre car park, with much of the flow going down the lane and then into one of the flooded gravel pits beside the railway, south of the former tip. Sewer overflows were experienced in part of Longcroft Road,

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6 This is the Surface Water Sewer running under back gardens at Ashbourne Way and Road.
7 www.thatcham-weather.info
but no properties were themselves flooded. This ‘event’ formed part of, overall, a very wet period beginning in 2006 and extending into 2008, related to the Jet Stream moving further south than normal, this being related to global weather patterns such as ‘La Nina’. There was also heavy rain on 14 September but no information on whether this caused any problems.

2006: rainfall days >20mm

<table>
<thead>
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<th>Date</th>
<th>mm rain</th>
</tr>
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<tr>
<td>14-Sep</td>
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</tr>
<tr>
<td>20-Oct</td>
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</tr>
<tr>
<td>7-Dec</td>
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</table>

2007: rainfall days >20mm

<table>
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<td>27-May</td>
<td>0</td>
</tr>
<tr>
<td>22-Jun</td>
<td>0</td>
</tr>
<tr>
<td>20-Jul</td>
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1.2 Flooding on 20 July 2007

The flooding on 20\textsuperscript{th} July 2007 resulted from an intense rainstorm that got ‘stuck’ over Thatcham and its catchment to the north. This followed a prolonged period of wet weather that had already caused the ground to be saturated. As a consequence very little absorption occurred during the storm, resulting in a high volume of run-off.

According to the Environment Agency, the storm that occurred on the 20\textsuperscript{th} of July in Thatcham had a return period of 1 in 169 years, well beyond any standards used to design surface water drainage systems. 84mm rain was measured at Lower Way (Newbury Sewage Treatment Works), while the Thatcham weather stations providing data to www.thatcham-weather.info measured 97.3mm (see notes on p.3). This was equivalent to an average of three months rain falling in less than one day.

Torrents of water entered the town from the north, causing extensive devastation and damage to vehicles, gardens and property. Fortunately, no human life was lost although reports were received that some pets had been killed.

The inhabited area of over 1100 properties was flooded, of which over 200 were owned by the main provider of social housing, Sovereign Housing Association. Additional properties (not recorded) experienced flooding of sheds, gardens and garages.

Critical infrastructure

The sludge treatment area of Newbury STW was flooded. This was caused by surface water from Lower Way. Some electrical damage occurred but Thames Water shut down the sludge treatment process until the floodwater went. The inlet pumping station at the works became overloaded with flow. This caused the sewer to back up and overflow between the STW and the The Moors, where the main sewer from south-east Thatcham to the STW overflowed across public open space owned by Thatcham Town Council (Moors playing field) and private land (car boot field/Wallis’s field). An electricity substation at Thatcham Station was unaffected, although close to the station floodwater was reported to have reached two metres deep.

Among the flooded properties was Gilbert Court, an elderly care home, and one of Thatcham’s main dental practices located just north of the A4 (Bath Road) to the NW of the town centre.

Thatcham was affected by flash flooding, not river flooding, and the principal source of floodwater was runoff from farmland to the north of Thatcham. This ‘rural’

\footnote{Highway gullies are currently designed to cater for storms experienced on a 1-2-year frequency, with surface water sewers designed to cope with a 1 in 30 and balancing ponds a 1 in 30 – 1 in 100-year event. For full details see www.westberks.gov.uk/CHttpHandler.ashx?id=15174&p=0 (page 11).}
catchment extends to the edge of a gravel plateau on the north side of the Kennet Valley above Thatcham at The Ridge between Cold Ash and Upper Bucklebury. The source of the water was aptly demonstrated by a sign from a shop in Upper Bucklebury ending up at Station Road after the flood! Rain falling on the town added to the volume of surface water.

The volume and speed of surface water was so great that it was unable to enter much of the town’s drainage system, resulting in massive overland flows that followed the natural geography; floodwater followed (above ground) the course of streams and ditches that run through and under the town. Most of these run underground in concrete pipes (Culverted Watercourses) into which drainage off private properties and highways also flows. The majority of flooded properties were close to these Culverted Watercourses. Some properties in south-east Thatcham were flooded by the Pipers Way Balancing Pond overflowing.

Water subsided quickly after the rain stopped, with the exception of part of the Kennet Heath estate where houses were flooded for nearly 24 hours.

Full details of where the flooding occurred, and the pathways for floodwater are given in Volumes 2 and 3 of the review produced by West Berkshire Council (Highways and Transport Team) and reproduced in the separate document Appendix 2: Maps to this report. This document also includes maps showing the major culverts and streams.

It was subsequently realised that the extent and duration of flooding was made worse due to blockages in the town’s drainage system.

Flooding of houses at Kennet Heath was caused by the huge volume of water that entered the estate from Station Road, where a Culverted Watercourse was overloaded due to the volume and speed of flow, originating from land to the north of Thatcham.

Surface water drainage from the highway and from properties is managed by a combined system of highway drains and surface water sewers.

Two thirds of the site (central and east) drains towards the south-east corner. Water is lifted by pumps into a new gravity sewer that flows into the culvert under Station Road and then into the River Kennet via the Rainsford Farm outfall and ditch. On the new sewer there is a control structure that limits the quantity of water into the Station Road culvert. When the water being pumped into this control structure exceeds the allowable discharge the excess water flows into the adjacent balancing pond, where it is held until conditions allow the water to flow back into the sewer.

Water on the west side of Kennet Heath drains south via a balancing pond and then is pumped under the railway into the old Moor Ditch. (See Appendix 2 for map of Kennet Heath drainage). A control structure limits the quantity of water flowing through the pumping station.

A ditch was constructed, after July 2007, along the southern side of the site, which will take excess water if the balancing pond at the SE corner of the estate overflows. The ditch takes water into the culvert under the railway to the SW of the site. Ground levels around this pond have also been altered to improve drainage of the public open space around the balancing pond. This has also increased the capacity of the balancing pond.

Additional pumps on the SE side of the site operate at times of high flow, when the control structure limits the flow off the estate, pumping water up into the balancing pond for temporary storage. The flow off the estate is controlled in this way because a condition of the development was to limit the quantity of surface water discharging into the Station Road drainage system so that it is no more than that generated from the former MOD depot.

Foul water (from toilets, baths and sinks) is lifted by pumps into a new sewer, which flows into the existing Moors pumping station. This is situated just outside Kennet Heath, in the south west corner. From here it is pumped to Newbury Sewage Treatment Works on Lower Way.

On the 20th July 2007, residents have reported that the pumping station on the south-east of the site stopped working before the balancing pond had become full. This resulted in floodwater building up on the southern side of the estate, which wasn't dispersed until the pumps were manually switched on the following day. The pumping station is the responsibility of the developer (Redrow), who has not provided residents or West Berkshire Council with any official explanation of why the drainage to two thirds of the estate did not appear to operate satisfactorily on 20th July 2007.

Currently the majority of drainage, including the main spine sewer, on Kennet Heath is unadopted and the responsibility of the developer. It is unlikely that
adoption will be completed until 2009 at the earliest (Statement from Mark Wickstead, TW, July 2008).

Information on the drainage provided by Ray Fendley, Drainage Engineer, West Berkshire Council. Source of information on flooding on 20th July: WBC flooding review maps (Volume 3 of highways review) & Kennet Heath residents.

1.3 Reviews of the 2007 flooding

During autumn 2007 West Berkshire Council (WBC) carried out two reviews of flooding in the district. These describe the events of that day, where flooding occurred, issues that the flooding highlighted and made recommendations for improving drainage infrastructure and maintenance, and emergency planning. Ms Carolyn Murison, of WBC’s Civil Contingencies Team, has been given responsibility for overseeing implementation of the actions identified in the WBC reports. A group of WBC officers from different departments has also been established to take forward actions relevant to their area of work, and to improve communication inside the Council over emergency planning, drainage and flooding.

These reports can be downloaded from www.westberks.gov.uk (search on ‘flooding’). Document copies are also available to view at the office of Thatcham Town Council and at Thatcham Library (ask for the ‘flooding’ box file).

Three national reviews of the 2007 floods were also completed.

West Berkshire Council, Overview and Scrutiny Commission: Review of the flooding of 20th July

This review, published January 2008, looked at the impact of the flooding, the emergency response, how recovery was handled, what needed to be done to prepare for future emergencies, infrastructure, planning and maintenance. Evidence from members of the public was collected to inform the review.

West Berkshire Council, Highways and Transport: Flooding in 2007

Published in Spring 2008 by WBC, this reviewed the weather conditions at the time, the origin and path of floodwater (mapping the extent of the flooding by property – see Vol. 3). It also identified some of the causes and contributory factors to the flooding. A number of remedial measures were identified, including clearing blocked drains, improving the maintenance regime for road drains, repairing and renovating drains and investigating the potential for new balancing ponds to store floodwater coming off farmland to the north of the town. See Annex B to this report for the complete list of measures for Thatcham. An outcome of this is that one drainage engineer at West Berkshire Council is now responsible for overseeing the implementation of the recommendations made for Thatcham and taking forward other actions that are identified. West Berkshire Council and Thames Water are also now committed to working together – this is vital, as they have a shared responsibility to maintain much of Thatcham’s drainage system.


This is a report of a Parliamentary committee inquiry into the 2007 floods and the Government’s response, which contributed to the Pitt Review (see below).

The Pitt Review: Learning Lessons from the 2007 floods, and proposed Floods and Water Bill

The Pitt Review makes 92 recommendations covering drainage, emergency planning, reducing flood risk and locating future housing development.

11 www.westberks.gov.uk/CHttpHandler.ashx?id=13185&p=0.

12 www.publications.parliament.uk/pa/cm200708/cmselect/cmenvfru/49/49.pdf

13 www.cabinetoffice.gov.uk/thepittreview/final_report.aspx
Many of the recommendations, if implemented, will have an impact in Thatcham. Some of the recommendations will be taken forward shortly in the draft Floods and Water and Bill to be introduced to Parliament in 2009\textsuperscript{14}. The draft bill will specifically introduce measures to improve the management of surface water flooding. Local authorities will be given powers to lead on this matter, with the Environment Agency given an overview national supporting role.

**Water UK report: Lessons Learned from Summer Floods 2007**\textsuperscript{15}

The Water UK Review Group on Flooding was established in the immediate aftermath of the floods of summer 2007. The review process considered from the viewpoint of the water industry what went well, what went less well, and what lessons can be learned especially if drinking water supplies and waste water services come under threat from extreme weather events. The Review Group initially reviewed the emergency response before addressing the longer-term policy issues that arose. The report makes a number of recommendations concerning managing and improving drainage.

**Further information: Defra web pages**

The Department for Environment, Food and Rural Affairs provides regular updates on its Flood and Coastal Erosion Risk Management web pages\textsuperscript{16}. Recent updates include:

- Consultation on managing surface water drainage
- Publication of guidance on permeable surfacing of gardens
- Consultation on property level protection and resilience
- Information relating to the Floods and Water Bill.

\textsuperscript{14} [www.defra.gov.uk/environ/fcd/floodsandwaterbill.htm](http://www.defra.gov.uk/environ/fcd/floodsandwaterbill.htm)
\textsuperscript{15} [www.floodforum.org.uk/waterukfloodreportphase2-final.pdf](http://www.floodforum.org.uk/waterukfloodreportphase2-final.pdf)
\textsuperscript{16} [www.defra.gov.uk/environ/fcd/default.htm](http://www.defra.gov.uk/environ/fcd/default.htm)

### 1.4 Rainfall and flooding January-September 2008

2008 is also proving to be a wetter than average year, with one event of over 55mm rainfall and a larger than average number of events when more than 20mm rain fell in a single day.\textsuperscript{17} On days when some surface water flooding occurred, rain was concentrated over short periods of one or two hours.

![2008: rainfall days >20mm](image)

By mid-August, the ground was saturated, a state similar to that of July 2007. The level of water in the River Kennet was also high.

In August 2008 parts of Scotland and Northern Ireland suffered from flooding associated with heavy downpours, similar to the one experienced last July in Thatcham. South Wales\textsuperscript{18}, parts of the Midlands and northern England also suffered flooding in early September, associated with a storm that moved across Britain on 5\textsuperscript{th} and 6\textsuperscript{th} September.

Two rainstorms in September also resulted in localised road flooding in Thatcham.

**10-15 January 2008**

76.9mm rain fell over six days, culminating in a heavy rainstorm on 15\textsuperscript{th} January, concentrated over a few hours and resulting in 26.6 mm of rain. There were fears that the Pipers Way Balancing Pond would overspill again, to the extent that West

\textsuperscript{17} There were fourteen days when >20mm rain was recorded in Thatcham, compared to five in 2007, and four in 2006.
\textsuperscript{18} Flooding resulted from rainstorms of between 32 and 38mm concentrated over a short time.
Berkshire Council officers were considering pumping the water out. It was at this time that the main outfall for East Thatcham’s drainage, at Rainsford Farm, was inspected by the Environment Agency and West Berkshire Council. It was found to be overgrown by vegetation and 80% blocked by litter and debris (silt, gravel, branches) that had lodged against the wire screen in front of the outfall. Overhanging vegetation was removed by West Berkshire Council. Litter and loose debris (about half the blockage), was removed by a Thames Water engineer, enabling the balancing pond to drain more quickly.

The rain on this day demonstrated the significance of the Rainsford Farm outfall for providing effective drainage to south-east Thatcham.

Sewer overflows were experienced along Chapel Street—a main thoroughfare for children going to a local primary school and the Kennet Secondary School.

3 June 2008

A heavy rainstorm over a few hours resulted in 55.6mm of rain in Thatcham—this is >5.6 mm more than the estimated designed-for capacity of the town’s Surface Water Sewer system. Pipers Way Balancing Pond filled up to the brim, to the extent that, much to the disquiet of adjacent residents, later that evening someone used a jet ski on it. The pond was still brim full at 19.30, despite the rain having stopped around 2pm.

19 This is located south of the canal and railway station.

20 Overflows were also experienced in March 2008 and on 3rd June 2008.

21 As calculated by the Met Office, a 1 in 30 year event is calculated as experiencing 50mm rain.

22 Pers. Comm. Stuart Clark, West Berkshire Council
Culverts carrying watercourses and surface water overflowed out of manholes in Stoney Lane, Northfield Road and at Sargood Close. On the east of the town, water flowing down the stream from Bucklebury (Nightingale Stream/Bucklebury Flashe) backed up on Dunstan Green, flooding an adjacent garden and part of the A4. The localised flooding here and the fact that the Pipers Way Balancing Pond filled again (and did not drain quickly) were almost certainly related to the continuing blockage of the outfall at Rainsford Farm. There was minor road flooding of the A4 at the junction of Floral Way and on Lower Way near the sewage works (not sufficient to prevent the passage of traffic).

Part of Bowling Green Road, as well as a garage in BGR and Elmhurst Drive were flooded. Flooding of the inhabited areas of the properties was prevented by the efforts of residents, sandbagging and pumping organised by West Berkshire Council. This flooding was considered due to a blocked ditch running through properties at Florence Gardens (nos 3-15); flow was impeded by various objects that had been placed in it by property occupiers, resulting in water overspilling into Bowling Green Road, instead of flowing into a culvert at the south-east corner of Florence Gardens.

The flows from the culverts carrying watercourses and surface water draining west Thatcham were very high, but contained (just) by the recently-cleaned culverts that exit at Muddy Lane/Lower Way. Recently completed work behind the Nature Discovery Centre, to remove a bank across the ditch into which water from these culverts flows, and to build up the bank on the south side of the ditch behind the centre, resulted in the successful diversion of water into the NDC lake. Without this work having been done the NDC would have been at risk from flooding again. On 30 December 2006 less than half the amount of rain fell, compared to 3rd June 2008, and the stream overspilled into Muddy lane. With twice as much rain falling on 3rd June the Centre would have been at considerable risk.

This event came as a shock, and again revealed weaknesses in the town’s drainage system – although no houses were flooded internally. However, many of the improvements called for after the July 2007 flooding had not been started. For instance,
local councillors had requested West Berkshire Council to ask owners to clear obstacles out of a watercourse in Florence Gardens, as well as undertake other work to manage the inflow from farmland to the north of Tull Way.

New relief ditch north of Tull Way, taking water eastwards and into the main surface water sewer west of Florence Gardens.

West Berkshire Council had itself been pressing Thames Water, since January 2008, to clear the Rainsford Farm outfall and replace the unsuitable wire screen across it. Residents were quite rightly getting extremely agitated that, nearly a year after the flooding they had seen very little action. On 3rd June, the Chief Executive and Leader of West Berkshire Council visited Bowling Green Road just after the water had receded. Work designed to at least partly address the problems on this location started virtually the next day and was completed during July.

The wire screen at Rainsford Farm was replaced, and the outfall cleared by Thames Water at the end of June.

![New relief ditch north of Tull Way, taking water eastwards and into the main surface water sewer west of Florence Gardens.](image)

**6 & 9 July 2008**

A brief but intense rainstorm on 6th July resulted in 10mm rain falling in less than 15 minutes. Approximately 24mm rain fell on this day. Recent work on clearing the Rainsford Outfall proved beneficial – Pipers Way Balancing Pond remained empty despite the deluge.

At least one garden at Battalion Way on Kennet Heath was ‘washed away’. This was because a road drain had been blocked by tarmac having been dumped into it by construction workers. Most of the drainage on the estate is unadopted and residents continue to report drainage problems on parts of the estate due to road drains being blocked by construction waste.

40.1mm was recorded on 9 July, when no reports of flooding were received and the Pipers Way Balancing Pond remained dry, as it did during subsequent rainstorms in September.

**5 September 2008**

Parts of Wales, south-west, central and northern England suffered flooding as a rainstorm worked its way across the country. At least six people were killed. Thatcham was, fortunately, on the edge of this storm, receiving overall around 34 mm rainfall on the evening of Friday 5 September, although the majority was concentrated over less than 2 hours. Only

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23 Although, by this time some work to clear a ditch at Southend and to repair headwalls on Bowling Green Road and at Florence Gardens had been done.

24 Rain gauge, Derwent Rd, Thatcham
minor road flooding, at Lower Way, was reported.

12 September 2008

The majority of >35mm rain fell during a rainstorm between 15.30-16.45. Residents reported the following:

- Lower Way: c.200m road flooding by Newbury Sewage Treatment Works
- Fir Tree Lane, Newbury: manhole cover blown off.
- “Torrents of water were pouring down Fir Tree Lane, temporarily turning it into a river”.
- Minor flooding across Tull Way (near the Garden Centre) and quite bad flooding at Hambridge Road traffic lights.
- “The A4 was flooded at intermittent points and there was flooding near the Robin Hood roundabout.” (Observed c. 17.00)
- Chapel Street opposite Dunstan Green: “I am relieved to say that on Friday, everything seemed to work as it should. Where previously, with that volume of rain, the gully across Dunstan Green and the main sewer would both have been overloaded, there was no real problem. Having been flooded several more times since 20/7/07, and always due to the sewer in the A4 blocking and backing up in to our property, we were very relieved on Friday. Fairly extensive work has been carried out in our immediate area and it seems, so far, to have paid off.”
- House on corner Bury’s Bank Road/Crookham Hill: “The bow wave came up to entrance and recycling boxes were washed away. 2 men came and shovelled up 3 barrow-loads of mud and three gravel deposits, each about 20ft long. Haven’t had water of that ferocity since the concrete runways were dug up on the Common. Although our stream took a lot of water on 3rd June, the road did not flood to anything like this depth. Our stream ran high but still made the culvert – we had built 2 weirs further up and 2 waterfalls nearer the house, which helped manage the water. I don’t think any water flows under the road and our driveway into the culvert as it should.”
- Two local radio stations BBC Radio Berkshire and Kick FM reported traffic delays on Friday on the A4 at Thatcham due to road flooding.
- Piper’s Way balancing pond was “dry as a bone”.
- At least one house (no 84) Paynesdown Road was ‘millimetres’ away from being flooded (again), due to surface water coming off the A4, down Bourne Road and into Paynesdown Road.
- It is understood a house on the north side of the A4, near Fir Tree Lane, was flooded.
- Gardens of 10 houses on Stoney Lane/Ashmore Green were flooded.
- Sewage overflow, house at N end of Northfield Road (no 94) – a ‘regular’ occurrence but Thames Water had failed to record on their database although the resident had reported overflows by phone (TW does not appear record phone reports on their sewer flooding database).
- 18 Ashbourne Way: “there was a large build up of water in my back garden following Friday’s rain; a neighbour also has the same problem following the same line across their garden”. [This follows the line of the culverted watercourse taking the Ash Bourne]. “The sewer drain was completely blocked with manholes full to top. This had to be rod cleared by the residents on that same Friday afternoon. The problem has been ongoing for years.”

25 The stretch of road adjacent to Newbury Sewage Treatment Works is often liable to flooding during heavy rain (and has always been!)
Part 2: Key issues
2.1 Surface Water Drainage

One of the biggest problems related to drainage in urban areas is identifying who is responsible for managing surface water.

That the situation requires urgent clarification by changing the law has been acknowledged in the recent national review of flooding. An attempt is made in this section of the report to describe the situation in Thatcham.

Surface and foul water drainage

Surface water is created when rain is unable to soak into the ground, resulting in water that runs off the land (runoff). The quantity of surface water increases:
- during and soon after a heavy rainstorm
- when new houses are built on farmland,
- gardens or other green spaces
- when impermeable surfaces, such as concrete or block paving, are used and the areas of flowerbeds and grass reduced
- when the ground is already saturated
- if gutters or drains are blocked.

There is a separate network of underground drains (sewers) for surface and foul water in Thatcham. Surface water is carried by gravity to watercourses south of the railway through a network of drains that begin at the gutter, down pipe and road gully. Away from private property the drainage system is the responsibility of West Berkshire Council, Thames Water Utilities, developers and other landowners. Streams and ditches flowing above-ground are the responsibility of the landowner. Most of those in Thatcham are on public open space owned by West Berkshire Council or Thatcham Town Council.

Duties of local authorities for road drainage

West Berkshire Council (the Highways Authority)26 is responsible for “making reasonable arrangements for dealing with water that falls on the public highway, pavements and open spaces under its ownership or management (and for preventing silt and rubbish from entering the highway drains from these areas). The Highway Authority is not required to deal with run-off from the catchments above Thatcham or from private properties which have surfaced or extended driveways that shed water onto the highway.”

Pers. Comm. Stuart Clark/West Berkshire Council

Section 41(1) of the Highways Act 1980 (HA 1980) provides that a highway authority is under a duty to maintain those highways in the area for which it is responsible, which are highways “maintainable at the public’s expense” (public highways). Section 329 of the HA 1980 defines “maintenance” as including repair.

A legal judgement in 1968, reaffirmed by a Court of Appeal, ruling in 200627, confirmed this duty extends not only to the surface of the highway, but also to drains beneath or beyond the surface or central reservation. The Court also ruled that the duty to maintain road drains extends not only to the repair of physical defects in the fabric of the drains, but also to clearing blockages in drains that are otherwise in good physical repair as well as to dealing with the consequences of inadequate drainage.

Thames Water Utilities – responsibilities

Thames Water is responsible for maintaining the 52km of Public Surface Water Sewers it has adopted in the town. In Thatcham, the major ones running north-south also carrying watercourses that drain land to the north of the town, as well as runoff from private properties and roads. Technically these drains are both Culverted Watercourses28 and Public Surface Water Sewers29. Thames Water is also responsible for maintaining the inlets and outlets to the Balancing Ponds that it has adopted.

Sewerage undertakers have a general duty to provide, maintain and operate systems of public sewers and works for the purpose of draining their areas – enforceable only by the Director of Ofwat (Office of Water Services), with ministerial responsibility being with Defra (Dept. Environment, Food & Rural Affairs).

In return for providing a sewerage service, covering surface and wastewater, property-holders pay an annual fee (‘water rates’). For instance, the average annual fee payable to Thames Water for management of surface water from a 3-bedroomed house is £1931. Over Thatcham as a whole this will amount to roughly £152,000 per year32.

Water Industry Act 1991. Part IV, Chapter 1. General Functions of Sewerage Undertakers. Section 94: General duty to provide a sewerage system

It shall be the duty of every sewerage undertaker:

26 Local Government has been reorganised twice since 1974, with highways and highways’ drainage responsibilities shifted each time. Since 1974 responsibility for road drainage has been passed from Newbury Rural District Council, to Berkshire County Council and, in 1996, to West Berkshire Council.

27 www.wrighthassall.co.uk/resources/articles/Section_41_highways_act_1006.aspx

28 Surface water sewers have not been adopted by Thames Water Utilities on the Dunston Park estate (see note 24), and there is no intention to adopt them there. The majority of the surface water drainage system at Kennet Heath has not been adopted, as yet, but is to be.

29 Culverted Watercourse: a naturally occurring flow of water, e.g. a stream, in a defined channel, which has been piped or covered over. A culverted watercourse is not a public sewer.

30 Designed to take water away from roofs and paved areas, for which residents and businesses pay Thames Water an annual Surface Water Charge.

31 For a 3-bedroomed house in Thatcham, as at August 2008.

32 £19 x 8,000 properties.
to provide, improve and extend such a system of public sewers (whether inside its area or elsewhere) and so to cleanse and maintain those sewers as to ensure that that area is and continues to be effectually drained; and
(b) to make provision for the emptying of those sewers and such further provision (whether inside its area or elsewhere) as is necessary from time to time for effectually dealing, by means of sewage disposal works or otherwise, with the contents of those sewers.

Balancing ponds
Balancing ponds have been constructed in the following locations:
- South of Floral Way/west of Foxglove Way roundabout (DWH)
- NE of the Junction A4/Floral Way (TW)
- Off Meadowsweet Close (west of Marsh Meadows NR and Hartshill Road) (TW)
- Off Simmonds Field (TW)
- Piper’s Way (TW)
- Kennet Heath (2 ponds, Redrow/developer – to be handed over to WBC)

These are designed to hold surface water at times of heavy rain and release it in a controlled way to surface water sewers. Ownership and responsibility is different for each:
- DWH – David Wilson Homes (developer for Dunstan Park) – there is no intention for TW to adopt these
- WBC – West Berkshire Council
- Thames Water
- Other developer.

Unadopted sewers and drains serving more than one property
There are several areas of the town where the drainage has not been adopted by either Thames Water or West Berkshire Council, including Loundyes Close, part of Dunstan Park and Kennet Heath. Incomplete information is available on this, but West Berkshire Council is currently compiling full details of drainage and responsibilities in Thatcham. Responsibility for maintenance lies with the developer for newer developments, but for some older ones it may be the case that property owners are jointly responsible. This requires clarification.

Pumping stations
Surface water drainage is facilitated in two areas (Kennet Heath and Glebelands) by the use of pumps. At Glebelands the pump is operated by Thames Water.

At Kennet Heath the majority of the surface water drainage and highway drainage system, including the main spine sewer and pumps, has not yet been adopted and the developer is responsible for maintaining these.

Surface water from land north of the built up area: rights to drain to lower ground
Under common law, the owner of higher ground has a right to drain natural surface water onto lower ground, and the owner of lower ground is obliged to accept it (this is just another way of saying that water flows downhill). Owners of the rural catchment to the north, therefore have a right to drain towards Thatcham (downhill). Thames Water Utilities has adopted a surface water system that collects run-off from fields draining towards Thatcham at various inlets on the north side of the town, designed to cope with a 1 in 30 year storm event. Where the storm event exceeds this standard design and the systems are overwhelmed, householders in Thatcham (who occupy lower ground) are obliged under common law to accept the overground flows from the northern catchments which could not be accommodated in the surface water sewers.  

Surface water that is handled by Thatcham’s drainage system originates from:
- Farmland and other land to the north of the town, including Ashmore Green, Cold Ash and part of Upper Bucklebury;
- Rain falling on the town and running off roads, paths, gardens, open spaces and buildings.

On farmland, any surface water that isn’t absorbed into the soil runs into ditches and streams. As the ground becomes saturated, water will also flow into piped land drains – often these have replaced open ditches as fields have been enlarged to make farming operations easier. Water collected in these drains ends up in watercourses that run southward to and through Thatcham. All this water eventually ends up in the main river (the Kennet).

Drainage – west Thatcham
In West Thatcham the main streams draining farmland to the north (the Ash Bourne or Bourne Ditch, and Cold Ash Stream) are channelled under the town in concrete pipes (culverts) with inlets to the north of Tull Way, Bowling Green Road, Heath Lane and Cold Ash Hill. The flow from

33 The way Thames Water Utilities deals with balancing ponds has changed over the last 10-15 years. Prior to this TW would adopt the balancing pond and take ownership of the land. More recently it does neither and, provided it meets certain design criteria, simply requires consent to discharge sewers to the balancing pond in perpetuity. TW does not adopt sewers if they are associated with an “in line” balancing pond as this would mean its sewer network would be broken by a private pond over which it had no control; TW would adopt the sewers if the associated balancing ponds were off line and the consent to discharge to them was in place. (Mark Wickstead, TW, September 2008)

34 Pers. Comm. Stuart Clark/WBC
these, plus runoff collected from roads and housing estates across the west side of the town, come together at Ashbourne Way and exit into an open ditch at the junction of Muddy Lane and Lower Way, near the Nature Discovery Centre. The flow from this ditch subsequently passes through a pipe under the railway south-west of the fishing lakes called ‘Willows and Alders’. The flow used to discharge into the Moors Ditch, which is now cut off, so water tends to dissipate into reedbeds at Thatcham Reedbeds Local Nature Reserve.

Drainage – central Thatcham

A watercourse that used to exist between Park Lane and Northfield Road, is now entirely culverted underground. Thames Water’s map shows two main surface water sewers originating at the south-east corner of Shakespeare Road and the junction of Park Lane with Sagecroft Road. This drains south, passing immediately to the west of Gilbert Court, via Meadow Close and to the west of Beancroft Road on The Moors before exiting into the Moor Ditch south of the railway.

Drainage – east Thatcham

The Nightingale Stream (also known as the Bucklebury Flashe) drains land to the north east of Thatcham. It enters the town south of Floral Way to the north-west of Bradley-Moore Square and flows in an open ditch until reaching the A4 at Dunstan Green. It then runs into a culvert under the A4, Stoney Lane and Station Road before running east along Pipers Lane then south under the railway and canal before exiting to a ditch at Rainsford Farm. This discharges into the River Kennet.

Three balancing ponds serve the Dunstan Park estate, west of Foxglove Close, north of Meadowseet Close and west of Simmonds Field.

A balancing pond on the NE corner of the Floral Way/A4 junction has no connecting surface water sewers\(^{35}\), and presumably was constructed to manage the flow of water coming off farmland to the north.

A further Balancing Pond at Pipers Way is located south of Grassmead, and serves the Seige Cross estate.

These balancing ponds are normally empty. They should not fill up with water unless there is a heavy rainstorm and a high volume of surface water.

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\(^{35}\) Pers. Comm. Mark Wickstead, Thames Water
2.1.1 Insufficient capacity: design and new development

Most modern urban drainage systems are designed to cope with rainfall events that occur with a one in thirty year probability (or substantially less), equivalent to dealing with a 50mm rainstorm\(^{36}\). Older parts of the system may operate at a lower standard. This means that, on occasions, the capacity of culverts, urban watercourses, balancing ponds and other piped outlets is exceeded.

Is capacity sufficient?

Rainfall on 20\(^{th}\) July 2007 was 84mm (the system didn’t cope) and on 3\(^{rd}\) June 2008 was 55.6mm. On the latter date, no properties (other than several garages) were flooded but some sewer overflows and minor road flooding occurred. The culvert carrying the Ash Bourne and surface water from west Thatcham (Bowling Green Road-Lower Way) were at maximum capacity, with the water level just a few inches below the top of the culverts at the Lower Way outfall. However, a considerable volume of surface water did not enter this culvert to begin with, owing to the flooding at Bowling Green Road. The culvert in Northfield Road did overflow, but not to the extent that properties were flooded (although residents requested sandbags). On the east side of town, the main surface water sewer between Stoney Lane and Rainsford Farm overflowed through manholes along several points and the Piper’s Way Balancing Pond filled to the brim. However, on this side of town the blockage at Rainsford had not been fully cleared, and accumulating litter had blocked it almost completely.

The minor flooding experienced on 3\(^{rd}\) June was associated with the fact that the drainage system was not operating to capacity because of blockages. Had these blockages been removed, and faulty highway drainage repaired, it is anticipated that the surface water sewer system in Thatcham between Tull Way and Lower Way, and Stoney Lane-Rainsford Farm, should be able to cope with the level of rainstorms that it has been designed for, i.e. 50mm/a 1 in 30 year event, and perhaps a little more, depending on the intensity of the storm. However, it is questionable whether the surface water system between Cold Ash Hill and along Northfield Road, is of sufficient capacity. This area has been identified a priority for investigation by Thames Water and West Berkshire Council.

The 2007 flood, and the rainstorm of 3\(^{rd}\) June, also revealed that some aspects of the town’s drainage system were badly designed and prone to collecting debris (e.g. inlets at Tull Way and South End, outfall at Rainsford Farm). The wire screen at Rainsford Farm, and blockages encouraged by its design, was subsequently considered as a contributory factor preventing effective drainage from the eastern part of Thatcham until the screen was replaced in late June 2008. Culverts in two banks across the stream by the Nature Discovery Centre also restricted capacity, owing to flow being restricted through small diameter pipes. One of these banks has since been removed.

New housing development has also added to the quantity of water entering the drainage network. Infill developments are becoming commonplace, with one or two properties being replaced by three or four times as many houses or blocks of flats. These create additional surface water that enters the existing drainage system, which has not been enlarged. Examples include housing built at Church Lane, in various locations along the A4, north of Heath Lane and at Florence Gardens. The latter was built on land that was formerly flood pasture, bounded either side by watercourses.

\(^{36}\) Met. Office, 2008
Looking north across the permanent pasture, north of Tull Way, bounded on the east side by the Ash Bourne and by a field ditch to the west. This pasture was truncated by the construction of Tull Way, which sits on an embankment (from which this photo was taken). Florence Gardens (built on appeal) was subsequently built on the rest of the field, south of Tull Way and this picture. Water from farmland collects here and enters Thatcham via two inlets each side of the field. Photo: 3 June 2008.

Future development poses a challenge that needs to be carefully considered by water industry, government and local authorities. Funding will be needed for necessary upgrades to the drainage infrastructure, which will need to be designed to cope with more rain.

**Sewer capacity and climate change**

Bigger pipes are not the solution to bigger storms. The water industry can build extra resilience into the sewer network at a cost but sewers and drains are not flood defences. There will be occasions when the network will not be able to deal with the volumes of water associated with extreme floods. New designs need to consider overland flow routes, sustainable drainage and sacrificial areas for flooding as an alternative to piped sewerage systems for the disposal of surface water. [However] Water companies should develop plans to improve the sewer network where this is the best option.

Extract from *Lessons Learned from the 2007 July Floods* (Water UK, 2008)

Currently there is an automatic right, under Section 106 of the Water Act (1991), for new developments to connect to the public sewer system. The proposed Floods and Water Bill intends to change this situation.

Additionally, many property owners have extended their properties or hardsurfaced part of their front or back gardens. This will have created more surface water than the drainage system was originally designed to have coped with. A new law has recently been introduced, requiring planning permission to control this change of use, but currently this only covers front gardens. Sir Michael Pitt has proposed that the requirement should be extended to cover back gardens as well.

See also section 2.3.

**Development and sewerage provision**

Current legislation allows surface water drainage to be connected directly to the sewer system without prior consultation with the local water company. This automatic right is at the root of water company concerns that there is little control over the volume of surface water that may be discharged into the sewer network, thus affecting its operating capacity.


A number of residents who have lived in the town for 40 years or more believe that the capacity of the town’s drainage is inadequate, and is now overloaded due to the scale of development that has taken place. Others have reported how the drainage characteristics of their properties have changed following construction of new houses nearby or when adjacent gardens have been paved.

**2.1.2 Runoff from land to the north**

The available capacity of culverts that receive runoff from properties and roads is substantially reduced during high rainfall events because the major ones also carry watercourses that collect runoff and springs from agricultural and other land at Ashmore Green and Cold Ash that form the watershed above Thatcham. These communication would be prejudicial to the undertaker’s sewerage system

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38 Developers must apply to Thames Water for consent to connect; they may need to pay an infrastructure charge to do so. However, TW is only given 21 days to refuse an application, in which time it must provide evidence that “the mode of construction or condition of the drain or sewer is such that the making of the

39 From 1 October planning permission is required for the construction of hard surfacing over 5sqm in front gardens.

40 Comments made at meetings held by Thatcham Town Council in June and July 2008.

41 The watershed was also described in the 1959 report.
watercourses are ‘flashy’ in nature when there is heavy rain, as the land falls steeply from the top of the watershed (The Ridge between Cold Ash and Upper Bucklebury, 135m O.D.) to the receiving main river (65m O.D.), with most of the fall occurring over a distance of less than 1 km.

During the July 2007 flood, the volume and speed of water from the farmland above Thatcham (the ‘rural catchment’) exceeded the capacity of Thatcham’s drainage system. This resulted in substantial overground flows that roughly followed the old stream courses. At least some of this surface water flowed above ground as it travelled south because it was unable to access either the highway drainage network or the Surface Water Sewer network. This was due to the speed and volume of the flow, but to some (unknown) extent due to drains, inlets and outlets to drainage structures being partially blocked.

2.1.3 Blockages affecting culverts (surface water sewers/culverted watercourses) and balancing ponds

Following the July 2007 floods it became apparent that much of the town’s drainage network had not been regularly checked or maintained. The reasons given for this, by both West Berkshire Council and Thames Water, are that such inspections and maintenance are reactive, i.e. once a problem is suspected it will be investigated.

Key parts of the system had become blocked so that water was unable to drain properly through and away from the town.

For example, a culvert was found to be blocked at Bourne Arch, the outfall at Rainsford Farm was found to be overgrown and blocked, and problems were discovered with a Surface Water Sewer on the north side of the Bath Road/junction with Floral Way. A considerable volume of gravel and silt was also removed by Thames Water from the Surface Water Sewer between Lower Way and Link Road in early 2008. It is not known how much of this debris was in the pipe before last July, but residents reported that flooding of properties in this area originated initially from surface water, when culverts were not full.

A full list of ‘problem’ locations is given at Annex B; many were revealed when West Berkshire Council commissioned an investigation of drainage in Thatcham shortly after the July 2007 floods.

**Rainsford Farm outfall**

The outfall at Rainsford Farm is critical as all the water from the east side of Thatcham exits via this.

If blocked, it is now known that water fails to effectively drain parts of south-east Thatcham. Specifically, during high rainfall events, blockage here causes water to back up in the Surface Water Sewers to the north, causing overflows from manholes (as occurred on 3rd June 2008). The Pipers Way Balancing Pond also fails to effectively drain. On 20th July 2007 a number of houses were flooded because this Balancing Pond overflowed and the resulting floodwater entered properties (e.g. at Bramwell Close). That the Rainsford outfall was blocked at this time is widely believed to have contributed to the extent of the flooding in this part of the Kennet Lea estate. However, modelling of rainfall and surface water, recently undertaken by West Berkshire Council, indicates that the balancing pond would have overfilled on 20th July, due to the exceptional rain, even if the Rainsford Farm outfall had been clear.

In January 2008, during another high rainfall event, the outfall was found to be overgrown with vegetation and 80% blocked by silt and litter. It very clearly had not been inspected by the responsible agency, Thames Water, for some considerable time, despite its vital function in draining water away from the town, and despite the fact that a large number of properties ‘upstream’ had been flooded the previous July. Residents at Fokerham Road have also reported that during the past 20 years their gardens have been constantly waterlogged. However, only two weeks since the clearance of the Rainsford Farm outfall in June 2008, substantial improvements were noticed, indicating that the inadequate maintenance of the

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42 They suddenly fill up with water. Similarly, the volume of water quickly recedes once the rain stops.

43 Ordnance Datum

44 The catchment of the River Kennet, north of Thatcham, extends from The Ridge to Upper Bucklebury. It includes farmland, woodland and built up areas in Ashmore Green, Cold Ash and part of Upper Bucklebury.

45 Blocked by a post, subsequently removed by Thames Water.
outfall had been having a significant adverse impact on drainage in this part of the town.

Half of the blockage was caused by litter that was trapped by a wire screen across the outfall.

In addition, the siphon (a ‘U’ bend) under the railway and canal, according to an engineer’s report produced by West Berkshire Council, was thought to contain silt and other debris. This Siphon takes all runoff from east Thatcham, which is then discharged into a ditch at Rainsford Farm (which flows into the River Kennet). As part of the Surface Water Sewer network, Thames Water is responsible for keeping this clear. The siphon was jetted in late June 2008, and Thames Water considers that it is now operating effectively.

Culvert Link Way – Lower Way
Substantial quantities of silt and gravel were also found in parts of the Surface Water sewer network, which were subsequently removed between Link Way and Lower Way by Thames Water in early 2008. Some of this debris may have accumulated during the 2007 flood. However, Thames Water does not undertake routine maintenance so debris could have been in place for some time. A CCTV survey was completed in July 2008, and Thames Water reported “the sewer was clean and clear of silt” but that “we are going to re-visit one small section which has twin pipes and where we feel one of the lines requires more work. This should be completed in September.”

2.1.4 Blocked highway drains

Drainage from roads is the responsibility of West Berkshire Council. Water enters the drainage system through road gullies, then flows by gravity into pipes that lead into main road ‘carrier’ drains. In Thatcham, most of these drain into the culverts adopted by Thames Water as Surface Water Sewers, sometimes via balancing ponds, before emptying into watercourses south of the railway.

Road gullies are designed to trap small debris, and prevent silt from entering the main drainage system. According to West Berkshire Council, gullies are emptied every other year.

However, the rest of the highway drainage is not usually checked or cleared at the same time. The implication is that, where many road gullies have been reported as ‘blocked’, the blockage may be in the receiving pipes or main carrier drains under the road and these are not routinely inspected.

West Berkshire Council, in its Highways review of flooding identifies this shortcoming and recommends that its road cleansing service “should be extended to include pipe connections, catchpits, manholes and soakaways”.

Some 15 months after the 2007 flood, a considerable number of road gullies across Thatcham do not drain water away. In some places this may be because the main road drains are blocked or have been damaged by road works, construction waste of the sheer weight of traffic. Examples include:

- along the A4 throughout the town
- Northfield Road
- Lower Way
- Church Gate

Drainage on the A4 (Bath-London Road)

Much of the original drainage on this road currently appears to be ineffective, with many road gullies that do not drain water away, even in light rain. During heavy rain, the fact that surface water cannot readily access highway drainage and thence surface water sewers, during a rainstorm on 12 September 2008, one house on Paynesdown Road was reported to be ‘millimetres’ away from being flooded again, owing to surface water flowing from the A4, down Bourne Road and into Paynesdown Road. Drainage on the A4 needs to be urgently repaired and improved, with consideration given to increasing the size of road gullies in order to protect vulnerable properties to the south of the Bath Road.

As a consequence of problems in the highway drainage highlighted by last July’s flooding, West Berkshire Council has undertaken to carry out a complete inspection of highway drains with work on the A4 timetabled for autumn 2008. In other areas, if gullies are discovered as blocked, a high pressure jet will be used to clear them. In the case of a blockage

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46 The true state of this cannot be determined without a remote-sense survey. This is planned by Thames Water.

47 See Map on www.thatchamtowncouncil.gov.uk for details of Surface Water Sewers which have been checked and cleared since January 2008

48 Confirmed in a letter from Thames Water Customer Services to a resident, December 2007

49 Blocked drains should be reported to Streetcare on 01635 519080, streetcare@westberks.gov.uk
remaining, the drains will be inspected by CCTV. Any remedial works needed will be put into a capital works programme.

West Berkshire Council has given a commitment to make 2008 a priority for addressing problems with the highway drainage in Thatcham. However, its work on improving highways drainage appears to be constantly under threat due to dumping of waste into road drains, including by contractors the Council has engaged to undertake road repairs and improvements.

### Road flooding, Lower Way

Minor road flooding is a regular occurrence at Lower Way between Herons Way and Pound Lane during heavy rainfall. The road flooding here does not threaten properties, except perhaps those on Thames Water’s sewage works site. However, it is potentially dangerous, especially when occurring at night. The last incidents of road flooding were on 5th September 2008 during heavy rain between 7 and 9pm (over 25 mm rain) and on 12th September during another rainstorm. The erection of warning signs relies upon a member of the public calling West Berkshire Council, which rarely happens. This means that there is often no warning given of the flooded road to unsuspecting drivers, while the flooding creates a significant hazard if occurring at night.

West Berkshire Council (Highways) is also responsible for maintaining roadside ditches that have ‘specifically been cut for the purpose of draining the highway’. Otherwise they are the responsibility of the adjoining landowner. There are only a few roadside ditches in Thatcham, most have been replaced by underground pipes (culverts). For example, substantial ditches used to exist along both sides of the A4 throughout Thatcham, along the south side of Heath Lane, along Stoney Lane, Station Road, on the east side of Cold Ash Hill and along Northfield Road. Most of these were culverted between the early 1960s and early 1970s.

### 2.1.5 Litter, fly tipping and debris

Between January and June 2008 it became clear that litter in the drainage system is a substantial problem. For instance, after having cleared litter from the wire screen at Rainsford Farm on 2nd June 2008, an intense rainstorm on 3rd June resulted in the outfall becoming almost completely blocked again, with litter, twigs and leaves contributing to nearly half the blockage.

Inlets and outlets to Balancing Ponds were also found to be partially blocked by debris and litter after the 2007 flood.

Litter is routinely thrown into drains and dropped on public open spaces which double as balancing ponds.

The area between Bradley-Moore Square, Meadowsweet Close and Marsh Meadows (off Hartshill Road) is a particular litter hotspot.

During storms there can be a substantial drop of leaves and twigs from trees, which can accumulate over and in highway gullies. Unless roads are swept after such storms, this debris can enter the drainage system. Road sweeping and litter clearance are clearly vital for preventing the drainage network from becoming blocked. Both are the responsibility of West Berkshire Council.

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50 The work may need to be budgeted for a later date, depending on the finances available.

51 A report was received on 14 October 2008 stating that contractors were seen sweeping waste tarmac into a road drain in Station Road.

52 According to older residents
Grass cuttings are also left lying across drains. This was particularly bad in Spring 2008 when West Berkshire Council contractor’s grass-cutting schedule slipped. In some places large clumps of grass cuttings were left across road gully inlets after cutting long grass. Outlets to balancing ponds are also vulnerable to becoming blocked either by overgrowing vegetation or cut grass. Road drains next to grass verges are also vulnerable.

After the 20th July floods, all balancing ponds in Thatcham were checked by Thames Water; inlet and outlet wire screens were checked and minor repairs carried out.

Gardeners have also been observed to blow leaves and other litter off footpaths and into the side of the adjacent road. This risks blocking road gullies.

2.1.6 Waste from construction and road works
Flood victims have reported that while working on property renovation, builders were regularly dumping building waste down the roadside drains.

All around the town there is widespread evidence of this kind of abuse of the roadside drains.

Contractors for West Berkshire Council were observed sweeping waste tarmac down a road drain in Station Road in October, following work to reduce the height of speed humps.

Some problems with drainage on Kennet Heath can be attributed to at least one blocked road drain, where tarmac dumped by contractors working for the developer was found to have created the blockage. On 6 July 2008 a garden was flooded due to this blockage. Residents of Battalion Way have complained about poor drainage in that area, which may be related to this blockage.

Some residents of Kennet Heath also report many outstanding problems relating to the construction of this development.

Residents of Kennet Lea have also reported that problems with drainage were experienced on this estate soon after it was built, owing to drains being blocked by builders’ waste.

See also 2.3.2 Drainage on unadopted development sites.

2.1.7 Infilling of ditches
A ditch, close to Pipers Way (formerly beside the old Pipers Lane), was recently infilled by contractors working on behalf of Scottish and Southern Electricity. Other reports have been received of ditches on development sites being filled in with gravel or soil.

Several tree-lined ditches within the Dunston Park development remain unadopted. There is a risk that residents will extend their gardens into these ditches and fill them in, thus further reducing the capacity of this part of the town to deal with surface water during a storm. Planning permission has already been given to some residents, allowing them to extend their back gardens into this area.

Over the past 40 years, some of the fields to the north of the town have been enlarged as fields have been converted from pasture to arable land, or to intensify arable farming. The loss of hedges and ditches in this area will have reduced the capacity of the rural catchment to hold water back from Thatcham. Water from the majority of land drains ends up either in ordinary watercourses or in the surface water sewer system/culverted watercourses piped under the built up area. One land drain empties directly into the Floral Way balancing pond.

See www.kennetheath.co.uk for the residents’ discussion forum.

2.1.8 Obstacles impeding watercourses

In several locations, streams draining water off farmland and through the town, flow above ground in ditches. Obstructing these watercourses will impede the flow of water and increase the risk of water being diverted and causing flooding.

In July 2007, at Florence Gardens, a ditch passing through the back gardens of properties backing on to Bowling Green Road was reported be partially blocked owing to obstacles placed in it. Posts, concrete blocks and planters were among some of the obstacles observed. After Bowling Green Road was flooded on 3 June 2008, notices were issued to landowners and the obstacles were removed. However, a shed and decking have been built across the ditch in several places.

A similar situation was identified at South End, Cold Ash and the ditch cleared.

West Berkshire Council has confirmed it will use its enforcement powers against owners (riparian owners) of ditches and streams (ordinary watercourses), to require maintenance or clearance needed to reduce flood risk.

‘Nature Discovery Centre’ ditch (Muddy Lane railway)

At the Nature Discovery Centre, owned by West Berkshire Council, two banks had been constructed some time ago across a ‘Critical Ordinary Watercourse’ carrying the combined flow of two streams that rise in Ashmore Green and Cold Ash. This watercourse also takes surface water from highways and properties in west Thatcham. Flow through the banks was restricted by the presence of single small diameter pipes. These banks created back pressure in the watercourse to the north and west. On previous occasions, during high rainfall events, such as on 30 December 2006, the flow would overspill into Muddy Lane, which relieved the pressure. On 20 July 2007, this also occurred, but the Nature Discovery Centre was also flooded – the amount of rainfall being far greater than on previous occasions.

Remedial works were carried out in spring 2008 – one bank has been removed, the south side of the channel bank raised to the north of the centre and a spillway into the NDC lake created. The new works were ‘tested’ on 3rd June, following an intense rainstorm. Water spilled over the causeway between the NDC and lake, as the volume of water was too great to be accommodated by the pipes that had been inserted between the watercourse and lake.

However, effective flow during a high rainfall event is still slowed down due to the presence of a right-angle bend in this watercourse, while the second embankment (to the east) remains in place and continues to create a barrier for effective flow of water during high flow periods. The bank, and its small diameter pipes, are also prone to collecting debris. Ideally it should be removed to improve the flow and reduce the need for ongoing maintenance.

West Berkshire Council is a main riparian landowner in Thatcham at Marsh Meadows Nature Reserve (Hartshill Road), Thatcham Reedbeds and other land near the Nature Discovery Centre. There is evidence that routine maintenance has been neglected in some of these areas. However, some watercourses are more important than others in terms of their function to urban drainage.

Thatcham Town Council is also a minor riparian owner, e.g.:
- Cemetery (ditch)
- Dunstan Green (ditch carrying the Nightingale Stream)

These are both considered in a satisfactory state and under a maintenance programme.

55 and on previous occasions (pers. Comm. West Berkshire Council countryside rangers

56 Also known as the ‘Bucklebury Flashe’
It is vital that both Councils carry out a full survey of watercourses on their land, assessing their size, state and function, and identifying any needs for clearance, repair and maintenance where the watercourse has an important urban drainage function. Schedules for routine inspection and maintenance should be formalised as an integral part of a management plan for the relevant open spaces and responsibility for maintenance clarified.

2.1.9 Sluice gates

Several sluices are sited on the River Kennet east and west of Chamberhouse Mill. These can be operated to control flow in the river to protect properties in this area. In July 2007, power was lost to the sluices and Grundons were unable to access the sluice to the east of Chamberhouse Mill to open the gates. Several meetings were subsequently held between British Waterways and the Environment Agency, and it has been agreed that local residents will be included in the emergency call-out system for sluice gates.  

2.1.10 Property maintenance

This was not investigated, but the author considers it likely that, based on observations, there is less frequent maintenance carried out to gutter systems on residential property. This may be resulting in additional surface water as gutters that are in a poor state of repair overflow during heavy rain.

2.2 Sewage overflows

The July 2007 flood, and on several occasions since (and in some locations on previous occasions over the last 12 years), resulted in sewage overflowing from manholes.

On 20 July, this was inevitable owing to the volume of surface water that infiltrated areas that became flooded.

However, in some parts of the town, sewer overflows have occurred more regularly when there is heavy rain, e.g.:

- Northfield Road (both at N and S ends) & at least one house on the A4 near NR
- On parts of the A4 (e.g. Chapel Street and east of junction with Northfield Road)
- Longcroft Road
- Bowling Green Road (since the houses at Florence Gardens were built to the north)
- Loundyes Close
- Rivers estate (part)
- Ashbourne Way.

Overflows may occur for a variety of reasons:

- Old sewer network overloaded, due to sewage from new houses and flats being piped in;
- Inappropriate use, i.e. disposal of nappies and sanitary products down the toilet; putting fat down the sink;
- Illegal connections to the foul sewer network, including new soakaways and surface water drains constructed on properties;
- Infiltration of surface water into the foul sewer network;
- Damaged sewers.

Thames Water is responsible for maintaining the 67km of adopted foul sewer network in Thatcham, but has no choice (although is consulted when developers put forward their plans for drainage) in accepting additional sewage piped into old infrastructure when new houses are built. No funding is normally provided through developer contributions for increasing the capacity of the existing sewer network. Water companies and local authorities have asked for this situation to be changed.

Blocked sewers cleared on private properties by Thames Water may be caused


58 There are parts of the town where the foul sewer network is unadopted, including Loundyes Close (built in the 1960s) and most of Kennet Heath.
by misuse of the drainage system by people ‘upstream’, but the property owner will usually be liable to pay for clearing the blocked sewer (when they have not caused the blockage). Currently little is done to communicate with the residents ‘upstream’ who may have contributed to the blockage.

Another issue is that public footways affected by sewage should be closed but in practice this has not happened. Overflows from Chapel Street that affect footways to the local schools create a particular hazard and public access in this area should be prevented when an overflow occurs.59

In the event of another flood, Thatcham Town Council should similarly close off the Lower Way Sports Field, if there is a risk of the main foul sewer overflowing, as occurred on 20th July.

The database is important because it enables Thames Water to identify where there are sewer flooding hotspots and locations where improvements to the sewer network are needed.62

The organisation Water Voice Thames, recommended in 2002, that Ofwat should take the lead in establishing a consistent recording system for sewage flooding based on actual incidents, rather than perception of risk and with a greater onus on companies to uncover problems rather than mainly relying on reports from customers, as is still currently the case.63

2.3 Development, flooding and drainage
2.3.1 Sustainable drainage

No development in Thatcham has followed Sustainable Drainage principles, with the exception of Kennet Heath where drainage off the site is limited to that generated by the previous occupier (Ministry of Defence Ordnance Depot). However, construction methods did not follow sustainable drainage guidelines for individual properties, roads or footways, only implementing temporary storage of water in balancing ponds to reduce flow off-site.

Since 1970, a managed agricultural landscape of mixed farming (hedgerows, ditches, grassland and arable fields) has been transformed by the construction of roads and housing estates. The population of Thatcham has nearly trebled since this date. The major change has been the creation of large areas of impermeable surfaces, creating volumes of surface water that has limited options in terms of where it goes before reaching the main receiving watercourses south of the railway.

59 Thames Water has recently carried out work on sewers in this area, to reduce the risk of future overflows.
60 However, Thatcham Town Council notified residents (via its February newsletter) about completing the form in early 2008, when this shortcoming was realised.
61 Pers. Comm. Mr I Butcher, Ashbourne Way
62 Large capital schemes are mostly programmed into its five-year Asset Management Plans that have to be agreed by Ofwat (Office of Water Services), which determines the price that water utility companies can charge customers to cover both services and capital schemes.
This development was accompanied by the burying of all the springs and most streams underground (in concrete pipes) and the loss of the ditch network that would have been managed by farmers. Large ditches, formerly present along main roads, such as the A4, were also (according to residents) regularly kept clear. These ditches would have to some extent dissipated water coming off the valley slopes and ridge down to the River Kennet.

Planning policy has changed since the 1970s (e.g. see Planning Policy Statement 25 Development & Flood Risk). Streams must now remain above ground with adjacent green buffer zones.

Thatcham’s drainage was also changed longer ago, in the 19th century, when the railway was built. For instance, at this time, the Goose Green Ditch, which drained an area now occupied by The Moors and Kennet Heath, was thought to have been cut off. This may have contributed to past flooding on the former MOD depot, where Kennet Heath has since been built.

The majority of properties that were flooded in 2007 lie in the vicinity of the former streams that were subsequently culverted, because these naturally occur in lower-lying areas into which water will naturally drain into or through. In a nutshell, the lie of the land is very relevant to the location of flooded properties as is the scale and nature of development that has, and still is, taking place in this part of the Kennet Valley.

If green corridors had been left along the routes of surface watercourses, and the latter had remained above-ground, the number of flooded properties would have been substantially reduced.

The most recent development, Kennet Heath (880 units, part still under construction) is being built in the lowest lying part of the town in a location that, according to older residents and a report on flooding in Thatcham produced in 1959, has been liable to flooding in the past.

The increase in impermeable surfacing in the town has been accelerated within the existing built up area due to infill development, house extensions and paving or decking of gardens. See 2.1.2 for further details.

Houses on the Kennet Heath Estate have been built without raised floors or front door steps, to facilitate disabled access. Therefore there is level access from the street. Some houses have also been built with the damp proof course below the street level, increasing the risk of flooding at times of high rainfall. In July 2007, water was readily able to enter via the front door and flood the lower floor. Older properties with steps elsewhere in the town, even when surrounded by up to 16 cm of water, were not flooded but would have been if they had been built to a similar design.

To cope with rainstorms and the potential for flash flooding, all new properties should be built with their access points above...
street level. It is vital that design guidelines for new developments are updated by West Berkshire Council to ensure that new properties in all areas are more flood resilient.

No developments in Thatcham have incorporated permeable hard surfaces. However, new guidance on using permeable surfaces was published by the Department for Local Government and Communities in September 2008. After the 1st October 2008 planning permission will be required to convert more than 5 square metres of domestic front gardens to impermeable hard surfacing.

**2.3.2 Drainage on unadopted development sites**

Problems experienced with surface water drainage at Kennet Heath, and knowledge of the adoption process on other sites in Thatcham (e.g. Dunston Park), have revealed significant weaknesses in the adoption process.

A ‘twilight’ zone exists between properties on a new development being occupied and the drainage infrastructure being formally adopted by the highways authority (WBC) and water utility company. During this time problems with ‘common’ drainage (i.e. unrelated to individual properties) can arise that appear difficult to resolve.

In practice, it can also take many years for common drainage infrastructure, such as balancing ponds, to be adopted, e.g. more than 10 years for balancing ponds at Dunston Park. One balancing pond serving this estate (west of Foxglove Way) is to remain unadopted and will stay under the control of the developer (David Wilson Homes).

On this estate there also remains at least one significant former field drainage ditch, which the local authority refused to adopt, and which some residents are taking into their gardens. The chances are that this ditch could be incrementally built over and filled in.

Residents of Kennet Heath have experienced ongoing problems with drainage (see 2.1.6), in some cases caused by road drains being blocked by construction waste65.

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**Responsibility for drainage on unadopted developments**

Until formally adopted by either West Berkshire Council or Thames Water, common drainage infrastructure is normally the responsibility of the developer. In some areas, such as the David Wilson Homes development at Dunstan Park, ‘common’ drainage will not be adopted by Thames Water, remaining under the ownership and responsibility of the developer.

Drainage is controlled through Building Regulations. Building Control is a local authority function but can be carried out by private sector Approved Inspectors; most volume builders choose this option.

Where local authorities do the building control they have powers to test the drains. The local authority has no powers to inspect drains when an Approved Inspector is involved.

Any part of the drainage system that is not intended to form a public sewer is part of the general drainage system and should comply with the Building Regulations. This was clarified in 2002 when Part H of the regulations that deals with drainage was amended. Drains that serve more than one property that are not intended to be adopted are the responsibility of the owners of the properties they serve.

Drainage infrastructure that is intended to be adopted by a sewerage undertaker can be inspected by the sewerage undertaker (i.e. Thames Water) under Section 104 of the Water Industry Act 1991.

The adoption of highway drainage is linked to adoption of roads by the local (highways) authority, i.e. West Berkshire Council. Highway drainage may, by agreement, be transferred to the sewerage undertaker as storm sewers. The developer will normally be responsible for roads and their drainage until formally adopted, but this may need checking in title to properties or the sales contracts linked to them.

Where problems are such that buildings are not effectively drained the local authority (usually Environmental Health and Building Control acting together) can take action under section 59 of the Building Act 1984.

Information provided by Michael Johnson, Principal Technical Policy Officer (Water and Flooding) Sustainable Buildings Division, Department for Communities and Local Government.

**Thames Water and adoption of drainage on new developments**

Drainage still responsibility of the developer until adopted by either WBC or TW. The developer is

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65 Verified by an inspection carried out by West Berkshire Council in early July
Future housing provision for Thatcham is currently under review; during 2009, housing sites must be allocated for the period until 2025. Land to the north of the town, e.g. to the west of Cold Ash Hill, is being put forward as potential location for several hundred new houses. However, given the knowledge of the 2007 floods, this land must be considered as ‘critical’ in terms of its hydrological function. More development in this area will be likely to increase the risk of flooding to Thatcham. The new houses may themselves be at risk of flooding and potentially uninsurable. Outline proposals for a large housing scheme in this area has already received overwhelming opposition from the residents living in both Cold Ash and Thatcham.

2.4 The Emergency Response and aftermath

This report does not intend to cover in detail many of the issues that are well-described in West Berkshire Council’s review (Overview and Scrutiny Commission) and full details of the response as it affected Thatcham is not documented here. However, the following sections provide a brief overview. Should residents wish to add to this section of the report they are invited to submit comments at any time.

2.4.1 During the flood

The flooding of 20 July 2007 was a shocking and surprising event. Although warnings of severe weather were given, with no recent history of severe flash flooding in the area, everyone, from the individual to the agencies with formal responsibilities for providing an emergency response, were unprepared.

The Emergency Services and Emergency Response Centre at West Berkshire Council were poorly prepared, unable to provide an effective response and effort was

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67 Properties to the north, e.g. Poplar Farm, were flooded from surface water coming down the hill and following the routes of old drainage channels that are now piped.
uncoordinated. For example, at least one garage on the Dunston Park estate was being pumped by the fire brigade to remove floodwater when many inhabited areas of properties were being inundated lower down in the town. Pumping from one place just displaced floodwater to another!

This was the last day of the school term before the summer holiday. While it was still raining heavily, parents were advised, through the local radio, to collect their children from school, despite the fact that roads were becoming impassable and school was the safest place for the children, at least until the floodwater receded.

Children were released from school while roads were still flooded with water contaminated by sewage. Manhole covers had been blown off, creating a further hazard.

During the flood, usually dry roads, such as Pipers Way, Stoney Lane (beside Kennet School) and Station Road, became raging torrents with cars swept along them. This was a life-threatening situation and it was fortunate that no one was killed.

Residents of most ages were seen walking through floodwater, much of which was contaminated by sewage. Children were also seen playing in floodwater, e.g. at Lower Way sports field, where the main foul sewer between The Moors and the sewage works overflowed.

Phone lines became overloaded and mobile networks could not be used. The call centre at West Berkshire Council was unable to cope. Due to ambiguous instructions being provided via local radio stations, Thatcham Town Council received numerous phone calls, which it had to refer to the Emergency Response Centre at Newbury.

Sandbags (which would not have been of much use in many cases) were unavailable or could not be transported owing to flooded roads. In any case, with flooding widespread across West Berkshire there was no possibility of getting sandbags to residents before their properties were flooded\(^68\).

As houses became flooded, the only immediate help available was from neighbours. The uniqueness of the incident meant that few knew the essentials of coping with this sort of emergency, such as switching off the gas and electricity or putting ducting tape around the toilet to stop sewage backflowing into the property. For people who were away at the time, little could be done, especially if neighbours had no key or were unable to contact the residents of the flooded property.

Many residents lost irreplaceable personal possessions.

Although many roads were flooded, a substantial number of people continued to use them, creating more problems as their cars broke down. Four-wheel drives caused bow waves, as they ploughed through floodwater, worsening the flooding of nearby properties and, in some cases, causing properties to flood. There was no ability within local communities, such as Thatcham, to close roads until the floodwater receded. It is alleged that assistance with traffic management on the A4 outside the Doctors’ and Dentists’ Surgeries was refused by the West Berkshire Council and Thames Valley Police, each body referring callers to the other.

Later that day, arrangements were made for two local halls to be used as rest centres, but many flood victims were unaware they were available.

**Thatcham Town Council: on 20\(^{st}\) July**

Staff manned the telephones during the afternoon until 18.20 hrs to deal with the enquiries and point the enquirers in the direction of the Emergency Response Centre. Arrangements were put in place for WBC to use Frank Hutchings Community Hall and Burwood Centre as Rest Centres.

\(^68\) There is no automatic right for residents to expect delivery of sandbags during or prior to a flood. West Berkshire Council provides sandbags according to priority, e.g. to vulnerable residents.
2.4.2 After the flood

Over the next few days and following week, the Neighbourhood Wardens (employed by Thatcham Town Council and Sovereign Housing Association) provided invaluable support, helping residents to clear their houses. They were also asked to patrol areas where thefts from front gardens and skips were occurring.

Sovereign Housing Association provided skips and hippo bags, re-deployed 45 maintenance staff across West Berkshire to help with the clean-up, and worked with the Community Furniture Project (CFP) to deliver basic furniture to their tenants. The CFP also offered low cost items to all flood victims.

Residents of privately owned properties largely made their own arrangements to clear their properties.

All the flood victims faced considerable difficulties with finding alternative accommodation, and rented property rapidly became in short supply. Many were temporarily housed in local hotels.

During this difficult time, residents were angry and said they felt isolated and abandoned by the authorities. A drop-in meeting was subsequently organised by Thatcham Town Council on 27th July, and attended by over 150 people.

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**After the flood: role of Thatcham Town Council**

During the Weekend staff manned phones from 09.00 am-18.00 on Saturday. On Sunday, the office was manned from 10 until 13.15. The reason for this was that it was thought better to hear a “real” voice, rather than an answerphone message telling people to ring WBC.

Members from Thatcham Rotary Club offered Rotarian help and were referred to WBC Emergency Response Centre. During the following Week assistance was sought from WBC to hand out information leaflets to residents affected by floods. On Monday and Tuesday, this was done by Councillors, staff and other volunteers in the Broadway. On Tuesday and Wednesday Councillors, staff and wardens delivered more information leaflets to houses affected.

TTC paid for extra hours for Neighbourhood Wardens in order that help could be given to flood victims. A Flood Victim Support Drop-in on 27th July was organised. Attendees included: West Berkshire and Thatcham Town Council Officers, West Berkshire District and Thatcham Town Councillors, Sovereign Housing Association, Community Furniture Project, Thatcham Rotary Club, Neighbourhood Wardens, Churches Together in Thatcham. Feed The Children provided a selection of toiletries. Barratt Homes, Redrow, CAB and A2 Housing Association were invited but were unable to send a representative. Issues raised included: Communication, Drainage, Sandbags, Alternative Accommodation, Security, Ill health, Clear up (e.g. removal of flood damaged items), Support (mainly financial).

Following the meeting, and subsequent meetings of Thatcham Town Council, a number of actions were taken forward: A full investigation into the condition and maintenance of the existing drainage was called for; The responsible agencies were asked that short, medium and long term strategies be put in place to prevent the recurrence of such devastation; A public meeting was organised for flood victims in November, at Kennet School.

The Town Council submitted a number of comments to West Berkshire Council as a contribution to its flooding review, including: improved and accurate information should be given to radio stations; more personnel be made available to man the emergency lines at WBC while the problems are at the height; that the out of hours message be updated every night with specific instructions for victims; that more ways of disseminating information regarding the siting of rest centres be identified; that information be made available more quickly regarding the removal of flood damaged goods; that Thatcham Town Council’s limited resources be used earlier in the emergency/recovery process to disseminate hard copy information to residents, collect data, and in any other areas where this would be practicable.

Thatcham Relief in Need Charity: The Town Mayor made an appeal for financial support for the victims. Trustees and Councillors processed applications for funds from those in need. Within several months, Town Councillors had visited over 100 flood victims seeking financial support from the charity, resulting in over £19,000 being paid to flood victims. This was in addition to the £200 emergency flood relief grant paid by West Berkshire Council.

A public meeting for flood victims was organised in November, attended by over 300 people. However, emotions were high and it was too early for many pressing questions to be satisfactorily answered. The Town Council promised to organise a follow up meeting. It set up a Flooding Working Party and subsequently employed a consultant to carry out follow up work and improve liaison with residents and other agencies, culminating in three public meetings held in June and July 2008 and the publication of this report. A submission was also made on behalf of Thatcham to the national review carried out by Sir Michael Pitt. See www.thatchamtowncouncil.gov.uk for details.
2.4.3 Improving the emergency response – what is being done?

The failures in the emergency response have been acknowledged and investigated, in the report of West Berkshire Council’s Overview and Scrutiny Committee (OSC)\(^69\). This makes numerous recommendations, which are now being taken forward with the Civil Contingencies Team at WBC taking the lead to ensure they are acted upon. The WBC Civil Contingencies Team is also part of the Thames Valley Local Resilience Forum\(^70\), which is coordinating emergency planning over a larger area. A group of officers from West Berkshire Council has also been formed to take forward the various recommendations made by the Council’s Overview and Scrutiny Committee (OSC) review.

Among the recommendations made by the OSC is for all parishes, including Thatcham Town Council, to prepare a Community Emergency Plan. A consultant has been engaged to do this work\(^71\), which will involve close cooperation with relevant groups and the public. West Berkshire Council (Civil Contingencies Team) is providing guidance to all parishes on preparing their plans.

The relevant agencies are better prepared, but an optimal response will depend upon the implementation of the Community Emergency Plan. This will need to involve key people in Thatcham to provide help, whether manning rest centres, closing roads or communicating with the local Emergency Response Centre.

From June 2008, the office of Thatcham Town Council has become the official Emergency Response Centre for Thatcham (the overall command centre being manned by West Berkshire Council, at Newbury). The Thatcham centre will be the focus for community-based activity. Members of Town Council staff are nominated as Emergency Liaison Coordinators for Thatcham. This means there is one person on permanent standby in case of an emergency incident occurring.

In an emergency, Emergency Rest Centres will be established. Designated sites for these are the Frank Hutchings Community Hall, the Burdwood Centre and Thirtover House (Ashmore Green).

Full details will be included in the Emergency Plan for Thatcham.

In the future it is possible that an emergency incident may be of a rather different nature, perhaps a widespread and prolonged power cut, or a strike of HGV drivers that will cut food supplies. The Emergency Plan will need to consider all possible scenarios to ensure that residents are offered safety and security in an emergency.

2.4.4 Personal Emergency Plans

It is recommended that all residents and businesses have their own Personal Emergency Plan in place, which will help them cope with any kind of an emergency, such as a fire, lengthy power cut or a strike that might affect the delivery of food. The bottom line is that agencies can only do so much; individuals need to take a significant degree of personal responsibility to secure the safety of their families if there is an emergency that affects a large area and a lot of people. Resilience in the face of an emergency of a widespread nature affecting lots of people will be most effectively faced if individuals and the local community are well prepared.

Further advice on preparing personal emergency plans is available on the internet. The local authorities in Berkshire have also issued a leaflet Major emergencies and you! Copies may be obtained from Thatcham Town Council.

Before last year’s flooding, many people were unprepared and didn’t know what to do during or immediately after the flood. Much better, consistent, advice is now

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\(^{69}\) Full reference.


\(^{71}\) As at July 2008
available[72], that can also be used if facing different types of emergency.

2.5 Insurance

Information in this section of the report was collected during two meetings held in June and July 2008 for flood victims. A questionnaire, undertaken in groups, was used to collect information.

Residents’ experiences, reported at the two flooding meetings held by Thatcham Town Council, proved highly variable. For many, it was too soon to know if the cost of their premium, or their excess, was to be increased because their insurance had not become due for renewal since their flood claim was made.

2.5.1 Cost of premiums

Of 100 people participating in the questionnaire session of Thatcham Town Council’s two flood meetings, 66 had experienced an increase in their insurance premium (64: less than £250; 2: more than £250). A Cold Ash resident also reported that their premium had trebled, as Cold Ash was now considered a flood risk area.

2.5.2 Excess and risk for flood or storm damage

For those whose insurance had been renewed, it appeared that the excess for flood damage had been increased to amounts between £200 and £8,500. In two cases, an insurer had proposed a £10,000 excess, which was challenged, resulting in a reduction of £100 and £500 respectively.

Several residents contacted us by phone outside the meeting, or were met face-to-face. One resident reported receiving a renewal with a £15,000 excess for flood damage, which she was advised to challenge[73]. Another resident told us she had unsuccessfully challenged a £2,500 excess.

Several cases of successful challenges to insurers were reported.

OFWAT recognises that 2007 was exceptional and can issue a statement to this effect to support insurance challenges.

The point was raised that insurers differentiate between ‘flood’ and ‘storm’ damage. They also required evidence from West Berkshire Council and Thames Water, of remedial action taken to reduce the chances of future flooding, and from the Environment Agency, to confirm that the house isn’t located in a flood risk zone. Although both TW and WBC are now in a position to provide information on some remedial work that has been undertaken, neither are in the position to guarantee that flooding would not recur, given a similarly extreme weather event in the future.

The following information may be of value when householders are considering challenges to their insurers:

1. The rainstorm of 20 July was, according to the Environment Agency, a 1 in 169-year event and, according to Thames Water, a 1 in 350-year event.

2. The vast majority of houses in Thatcham are not located in the floodplain of a main river. However, Environment Agency flood risk maps currently show only locations at risk of flooding from main rivers. Locations at risk of flash flooding will be mapped in the future. It is likely that parts of Thatcham will be considered at risk of flash flooding during extreme weather events; these locations will be shown on the revised maps.


[73] Based on advice received via the National Flood Forum.
2. Thatcham and its rural catchment immediately to the north bore the brunt of the storm, with 84mm rainfall. This was bad luck, not part of a long-term trend necessarily related to climate change. The uniqueness of the event should be factored in to the risk analysis of insurers – it cannot be considered a regular occurrence. However, more intense rainstorms are a forecasted feature of climate change, so insurers may consider that risk from flash flooding will increase.

3. The majority of properties flooded in 2007, and that had been built between 25 and 40 years ago, had not been flooded before.

4. A small number of properties in Thatcham, built over 25 years ago, have flooded in the past and were also flooded on 20th July 2007. It will be more difficult to challenge excesses in these cases, unless it can be shown that flooding was specifically due to a blocked drain.

5. It may be possible to reduce the flood excess in the future if householders can be shown to have taken adequate measures to prevent surface water from entering their property. This would be possible for some properties. The cost involved could be offset against gains in the property value, which will have been adversely affected by the flood.

6. Flooding of some properties may have been partly due to, or exacerbated by, blocked or obstructed highway drains or culverts. However, evidence from modelling indicates that the over-arching cause of flooding was the extreme nature of the rainstorm. However, insurers are requesting details of remedial work to the drainage system carried out by Thames Water and West Berkshire council. One resident reported that their insurer has re-insured a flooded property after it was sold, on the basis that the flooding was from surface water owing to a blocked surface water sewer (since unblocked).

2.5.3 Changing insurer

One flood victim tried to obtain insurance quotes from different companies than those he was currently insured with. In both cases (Lloyds TSB and A-Plan) this request was refused, indicating that flood victims are ‘stuck’ with their current insurer. This situation was also indicated to us by the National Flood Forum and mirrors experiences elsewhere.

2.5.4 Insurance renewal

No reports were received of insurance being refused.

Members of The Association of British Insurers have recently committed to continue to provide flood insurance to the vast majority of UK customers.

Revised Statement of Principles on the Provision of Flood Insurance (July 2008)

The Association of British Insurers says it will continue to offer cover residential property and small businesses if the flood risk is not significant (1 in 75 year or less probability of flooding) and to those at higher risk if this risk is reduced to below 1 in 75 within 5 years. The commitment will not apply to new properties occupied from 2009. Guidance for insuring new developments is to be provided. The commitment is to be annually reviewed. The cost of premiums and imposition of excesses, however, will continue to remain the prerogative of individual insurance companies, enabling them to reflect the commercial nature of their business that takes into account risk factors.

The implication of the Statement is that insurance companies may refuse to insure new properties built in flood-risk areas. This consideration will need to influence planning policy for new developments in


76 New flood risk maps are currently being developed, and will identify locations at risk from flash flooding under different rainfall scenarios. See www.projectatlantis.net/
and around Thatcham, particularly on rural land to the north of the town.

2.5.5 How good were insurers at handling claims?

From our survey, the majority (just under three quarters) of those insured had either an ‘acceptable’ or ‘good’ experience. However, over a quarter (27%) had an ‘unsatisfactory’ experience or had rejected the work. See Appendix 1 for a full list of comments made by residents.

Owing to widespread flooding across England last June and July, most insurance companies were overwhelmed by the number of claims. Their response was seriously compromised by the sheer volume of phone calls received on and after 20th July 2007.

At two meetings of flood victims, held in June and July 2008, several questions were asked about experience with insurance companies and loss adjusters. Responses are summarised in charts in the following pages. Numerous comments were also put on ‘post-it’ notes – see Appendix 1.

One ‘hidden’ issue, anonymously reported to us, indicated that some insurance companies were failing to pay contractors promptly, in some cases ‘dribbling’ small amounts of money in order to keep building firms happy. However, lack of cashflow meant that some companies and their subcontractors had insufficient money to carry on working. As a consequence, we were told that some small building firms were folding up. One subcontractor reported that, because he hadn’t been paid he was about to lose his own house, and now refused to work on projects that were funded by some of the major insurance companies.

We did not undertake any specific research on this issue, but the numerous complaints about building work, including the length of time it took, might be partly explained by cashflow problems directly related to insurers failing to promptly pay their contractors.

2.5.6 Loss adjusters

Some significant problems with Loss Adjusters were reported, especially where these were located far away, e.g.:

- Difficult to contact, e.g. didn’t return calls or answer emails
- Loss adjusters changed – in one case 7 loss adjusters.
- “No page long enough for complaints”
- “Offered Argos vouchers for damaged goods.”
- “Loss adjuster turned up in September and complained we had thrown damaged goods away”
- “Said one thing and did another”
- “Will not part with money”.

Chart 1: Experience with insurance company (includes loss adjuster), east Thatcham.
(71 respondents)

- Unsatisfactory
- Acceptable
- Good
- Rejected

Chart 2: Experience with insurance company only (west Thatcham, 39 respondents).

- Unsatisfactory
- Acceptable
- Good
- Rejected
Approximately one third of those responding to the question about loss adjusters (west flood meeting) said their experience was unsatisfactory. A similar question had been asked at the east flood meeting but was combined with insurance company experience – 29% had an unsatisfactory experience or had rejected work. However, from discussion at that meeting it was clear that the most complaints were with loss adjusters (hence the question was split for the second meeting).

2.5.7 The uninsured

No information was collected for this report on the extent to which residents were uninsured, although it is probably a minority. However, anecdotal reports indicate that more social housing tenants than property owners had no insurance cover for their personal belongings.

2.6 Rebuilding

2.6.1 Quality and duration

Social housing renovation

The main provider of social housing, Sovereign Housing Association, was faced with having to renovate 200 of its properties and relocate residents while houses were dried out and repaired. Owing to a shortage of available builders, property renovation had to take place in a phased way. Work was unable to start on some properties for many months, with the forecast finish date October 2008 – 13 months after the flood. The estimated cost of the renovations is £7.2 million, with an average cost of £30,000 per house.

Rebuilding after the flood was, for some, a very lengthy affair. Even before a house could be renovated:

- Plaster, floor coverings and electric fittings had to be removed
- The house had to dry out – to start with there was a shortage of dehumidifiers owing to the widespread flooding across England.

For some, there was a considerable time lapse between drying out and building work starting, e.g. plaster removed in September 07, replastering January 08.

Different contractors had to be employed for different types of work in the house as renovation proceeded. Builders and decorators were stretched – often working on lots of properties and trying to fit in their work as other contractors had finished.

Time delays were also experienced as quotes were requested and considered by the insurance company and its loss adjuster.

2.5.7 Knowing what to do after the flood

Having never faced such a situation before, residents were unsure what to do, once the floodwater receded, particularly with respect to dealing with damaged furniture and other personal property. Advice from insurers was inconsistent.

Before making an insurance claim

- Make an inventory of belongings – all householders should do this; the inventory should be kept somewhere safely in case the house is destroyed, e.g. on a remote server, copy with family member.
- Take photos and keep receipts for valuable items.
- If flooded, the depth of the floodwater should be marked inside the property.
- Clear the house of flood-damaged items and carpets immediately, but photograph everything before it is disposed of.
- Do not dispose of anything before talking to the insurance company.
- Throw away damaged food, but make a list and take a photo of what is thrown away.
Sometimes there was little coordination between different contractors – which caused delays and other problems.

Those with the best experiences were most frequently reported where local firms were used, and where the flood victims themselves took overall charge of directing and monitoring the rebuilding work. There were several reports of flood victims negotiating a cash settlement, after which they did not have to deal with insurance companies, loss adjusters or builders on contract to someone else.

From comments made, it was more difficult for residents when the building contractors were employed by the insurance company, as that company had to issue instructions to redo work or sack the contractors. This further lengthened the time taken for rebuilding.

One resident who had employed a building surveyor to oversee contractors, reported that the surveyor felt unable to oversee internal work, such as decorating and plastering.

Numerous reports were received of building work having been rejected because of incorrect or poor quality work. In some cases, builders were accused of causing further damage to the property. One person reported, “every contractor, except the decorators, had their work rejected, some more than once”. Roughly one quarter (24.5%) of those participating in the flooding questionnaire considered the rebuilding work as ‘unsatisfactory’. 15% had rejected at least some building work.

Some larger firms were considered to have taken on too much work, which compromised their ability to carry out work efficiently on individual properties. Quality was also reported to have been compromised as a result of employment of unsuitable subcontractors. One resident reported that a furniture delivery resulted in her floors being damaged and having to be re-laid.

Loss Adjusters didn’t always satisfactorily monitor building work. Some were located far away, e.g. Ireland, Scotland.

Some residents decided to delay rebuilding, because they foresaw problems in getting the work done well and over a reasonable period. Moving out and renting a property elsewhere for up to a year, may have proved to be less stressful (compared to living in a caravan in the garden or upstairs in a flood-damaged house).

Handling insurance claims and rebuilding work
- Set your own ground rules for builders and give them a copy, whether or not they are employed by the insurer or yourselves.
- When employing builders, provide a clear specification and contract for work; ask to see their public liability insurance certificate and take a copy; use a qualified building surveyor or other suitably qualified person who can coordinate, instruct and monitor all work, whether inside or outside the property – this is essential if you are living away from the property and unable to monitor work yourself on a regular basis.
- Keep full records of all work, instructions, receipts and complaints. Make written records, or record, telephone calls. Take photos of incorrect work.

Over one third of respondents to our questionnaire said the duration of building work77 had been ‘unsatisfactory’. For the majority (81%), rebuilding had taken over three months (49% >3-6 months, 31% >6 months). 20 respondents (26%) also said that rebuilding still wasn’t finished – 11 months after the flooding. By the 2\textsuperscript{nd} July, 77 Duration of reconstruction, from the beginning of rebuilding not the date since flooding).
over four-fifths (86%) of flood victims answering our questionnaire had returned to their homes. One resident called us in October, reporting that work on renovating her house had not begun and that she was experiencing constant problems with the loss adjuster.

In at least one case (possibly more) asbestos was discovered but insurers refused to pay the extra cost of dealing with this, due to the ‘like for like’ clause in the policy. Residents had to pay for additional work where problems of this nature were encountered.

2.6.2 Use of flood-resistant building materials and incorporation of flood protection

The questionnaire data from Thatcham revealed that the vast majority of rebuilding work did not incorporate any measures that would reduce the cost and risk of future flooding.

Such measures were not recompensed by insurance companies, which only paid on a ‘like-for-like’ basis, so any measures that were incorporated were at residents’ personal expense.

78 The data collected from the questionnaire cannot be interpreted accurately, as it is possible some respondents were ‘double’ counted. If this were the case, there may have been a larger number who did not incorporate any flood resistant products.
This situation is mirrored elsewhere. For example, data collected by Norwich Union found that 95% of householders chose not to take measures to improve the flood resilience of their property.\(^79\)

The National Flood Forum (NFF)\(^80\) told us that insurers consider that such measures will improve the value of a property, and may make properties more attractive to other insurers. As the benefits accrue to the property owners, the insurance industry says that property owners should pay for such improvements. The NFF continues to challenge this.

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**Protecting property from flood damage**

There are many ways to reduce the rebuilding time and costs should a property be flooded, and that can reduce the risk of water entering your house. These range from installing permeable driveways to raising the electrics in the ground floor. The National Flood Forum website\(^81\) has links to many useful sources of information on this subject.

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### 2.6.3 Temporary accommodation

Many flood victims were housed in temporary accommodation, although some stayed in their houses. Alternatives reported to us were:

- Lived with relatives or friends, sometimes away from Thatcham;
- A caravan or mobile home placed in the front or back garden;
- A rented flat or house, that may not have been in Thatcham;
- Lived in upper floor of flooded house – sometimes because there was no alternative offered by the insurance company;
- Lived in a hotel to start with.

Some had to move several times, e.g. one family reported of having to move four times in six months. One family told us they lived in a converted garage and the upper floor of their house. One couple, who worked out of the area, were still living in hotels in October 2008 and having considerable difficulty in getting the renovation of their house started.

Rented accommodation became hard to find due to the large numbers of displaced people. Those with pets found it particularly hard to find rented properties that would accept pets.

### 2.6.4 Security

Immediately after the flood, properties were emptied of belongings, sometimes while being temporarily stored in front gardens while drying out or before they were collected for disposal. Lots of unusable furniture, appliances and other belongings were put into skips.

However, this attracted unwanted visitors in the form of gangs prowling the flooded areas who removed, without permission, damaged (and undamaged) goods from skips and gardens. It is widely believed that goods stolen in this way would have been cleaned up and subsequently sold despite the fact that some will have been contaminated by sewage in the floodwater.

During the renovation period, residents reported that properties were broken into. One resident in south-east Thatcham told us they had observed and reported a suspected break-in of unoccupied properties during July 2008, and the perpetrators were subsequently arrested by the police.

The fact that criminals were at large, looking out for opportunities to make a profit out of the flooding, added to the stress and misery of some flood victims.

The Neighbourhood Wardens increased their patrols in Thatcham as soon as they were advised by Thatcham Town Council of areas where theft from skips and other anti-social behaviour were occurring. They were also asked to patrol areas where homes were uninhabitable and where residents were concerned about the security of the properties.

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81. [www.floodforum.org.uk](http://www.floodforum.org.uk)
2.6.5 Utilities

A straw poll of residents attending the second Town Council flooding meeting revealed that many who were living in temporary accommodation had encountered difficulties when attempting to suspend billing for services such as gas, electricity, phone and internet. Many of the service providers did not appear to have a facility for suspending services when occupiers of properties had to move out due to a disaster.

One resident said, “The Utilities ... have been appalling.” The same resident had experienced problems with most of his service providers, including BT, TV Licensing, Thames Water, NPower and Virgin Media. Detailed comments are included in Appendix 1 (Residents’ comments), which is a separate document to this report.

An action arising from this is for this issue to be raised with the regulatory bodies for the utility companies. This could be an action for the proposed Thatcham Flood Forum, which will need to collate evidence to present to the regulatory bodies, along with a general complaint and proposal for reform.

2.9 Health and well-being

2.9.1 Health impacts

The impact of the flooding on the health and well-being of flood victims was significant, and will be felt for some time into the future.

Impacts were:

- **Anger and frustration**, often leading to **despair**, related to both experiences during and after the flooding;
- **Resentment** when some were ousted from their homes and barred from their properties while renovation was underway; some residents returned to find their properties had been looted;
- **Ill-health** related to living in damp accommodation or due to being in contact with floodwater polluted with sewage;
- **Stress** – related to the numerous issues that flood victims had to deal with after the flood.

According to Dr Clifford Smith, senior partner of Thatcham Medical Practice, of all the problems, anger, distress and anxiety proved the most common symptoms.

The catalysts for these impacts, included

- The lack of a coordinated emergency response during and immediately after the flood and the perceived lack of any leadership within the community over what to do – residents reported feeling abandoned and isolated;
- 4 x 4s driven fast along roads which should have been closed to traffic, causing waves and flooding of properties that might otherwise have escaped;
- **Foul sewer overflows** – floodwater in many areas was contaminated, but many people were not made aware of the health risks until after they had been exposed to contaminated water; having to deal with pollution in their property; for some, living in a property where contaminated fabric was not removed for a considerable time;
- The physical upheaval of taking furnishings and fittings out of properties and the delays in having these removed from the premises;
- Loss and damage to property and irreplaceable personal items; for a few, loss of pets;
- Financial loss and additional costs incurred, for example, in having to travel a longer distance to work or
to take children to schools; cost of having to house pets in kennels, which for some wasn’t covered by insurance;
• Problems in finding suitable alternative accommodation, especially for those with pets;
• Theft of belongings from front gardens and skips, by roaming gangs;
• Knowledge that unoccupied properties are vulnerable to burglary;
• Variable and sometimes unacceptable experiences with insurance companies and loss adjusters (see previous section);
• Threatening letters received from utility companies and West Berkshire Council over ‘unpaid’ bills sent to unoccupied properties;
• Problems faced by less able and vulnerable people who were flooded and subsequently needed rehousing;
• Problems with property renovation and builders and, in some cases, workmanship that was so bad it had to be rejected;
• Living in temporary accommodation, caravans and away from area with family and friends (some families were split up);
• Untested and poorly working appliances were discovered in caravans used as temporary accommodation: a potentially life-threatening situation;
• Cold and/or damp conditions in temporary accommodation or houses that had been flooded;
• Some landlords were unhelpful;
• Perceived inequality of attention received by flood victims, e.g. prioritisation of repair and renovation work;
• Realisation that the town’s drainage system had been poorly maintained, when there was an expectation that it ought to have been in good working order as maintenance had been paid for through the Council Tax and Water Rates;
• Delay on the part of both Thames Water, and West Berkshire Council, in addressing deficiencies in the town’s drainage system (remedial work began in May 2008 and will be ongoing for some time);
• For those on Kennet Heath, the lack of any admission of responsibility or cause for the failure of the pumping system that led to prolonged flooding there; ongoing problems with drainage owing to builders waste being dumped into drains and blocking them; continuing problems in getting developers to carry out remedial work on properties and infrastructure; realisation that most of the area’s drainage system was unadopted and so in the hands of developers;
• A larger than average number of intense rainstorms experienced since 20th July 2007, leading to fears that flooding would recur; in fact sewage overflows and minor flooding, e.g. of garages and gardens, have been experienced several times since this date.

Floodwater and belongings contaminated by sewage posed a very real health risk to the public both during and after the flood. At this time, few people appeared to be aware of the health risks82, but reports were received of flood victims having stomach bugs and flu-like symptoms, which may have been caused by exposure to rats urine (risk of Weiles Disease), E-coli and other nasties. In the case of a similar occurrence, it is vital that basic public health information is communicated to the public at the onset of and soon after a flood, by word of mouth and via local radio.

After the flood, residents were also concerned about contamination of their gardens from sewage. However, bacteria are readily broken down outside, once water has receded, returning to background levels between 9 days and one month, depending on the weather conditions83.

82 At the drop in meeting held on 27th July 2007, at least one resident presented with acute flu-like symptoms, having spent all week clearing out his house; he was advised to immediately report to WestCall out of hours in person.
83 www.shrewsbury.gov.uk/Public/health/pollutionhousing/sewageflooding.htm
2.9.1 Rats

As properties were empty for periods of between several months to over a year, some gardens became unkempt, often containing rubbish and skips, while renovation was underway. A complaint was made to West Berkshire Council (Environmental Health) by one resident about a rat infestation on a nearby property, as the long vegetation and rubbish provided ideal harbourage for rats to burrow and breed.

Dealing with rats

The Prevention of Damage by Pests Act 1949 places an obligation on owners or occupiers to control rats and mice on their property and to inform the local Council (West Berkshire Council, Environmental Health) of infestations. Council officers are unable to enter premises without permission of the occupier.

Rat control is the responsibility of the responsible landowner, and the council has enforcement powers to ensure that rat control is carried out. Rat control is normally undertaken by private companies on behalf of private landowners. The council does not employ a rat control officer.

Members of the public are prohibited from using rat poison (and any other pesticide) on land that they do not occupy unless they are licensed to do so. Rat poison, if used, must be dispensed in secure containers that cannot be accessed by pets or children. See HSE and CSL guidelines for further information on bait boxes and rat control.

84 CSL guidelines on best practice rat control:
www.csl.gov.uk/newsAndResources/resourceLibrary/articles/RatControlGuidelines.pdf
HSE guidelines on controlling rats in urban areas:
www.defra.gov.uk/wildlife-countryside/vertebrates/reports/misc515.pdf;

Rats are encouraged by food (especially bread and cereals) left out for birds, or rabbits and chickens kept in gardens. Such food should not be left on the ground and, wherever possible, put in proper feeding containers or on bird tables.

When controlling rats, to reduce the chances of secondary poisoning, the Barn Owl Trust suggests:
• Find the rodents’ source of food and prevent their access to it.
• Remove their hiding places, block access holes with stone or balls of squashed wire netting.
• Use non-toxic products such as Eradibait (a cellulose-based product) or alternative methods of killing such as traps, cats, terriers or ferrets.

2.10 Long-term financial consequences

The flooding may have long-term consequences for property owners. There is already some evidence that some flooded properties sold since the flood have depreciated in value (in one case by £50,00085) because of the flooding.

Flood victims are fearful that it will be more difficult to sell their properties, especially in the areas where lots of properties were flooded and where Culverted Watercourses are close by.

Initially, some estate agents advertised properties for sale as ‘not flooded’ to attract buyers, giving the impression that the property market in Thatcham is tainted by the 2007 flooding. Fortunately, this practice appears to have ceased.

Insurers have increased the excesses payable for flood cover. In some cases insurance premiums have increased. It may be difficult for existing or new owners of flooded properties to switch insurers and get cheaper cover.

Some residents were uninsured – for them the financial impact of the flooding will have been most severe.

2.11 Benefits

The flooding brought out the worst in some people, but there have been some plus points.

2.11.1 Community spirit

In many roads where flooding occurred, neighbours met and talked to each other for the first time. In some cases the floods initiated a new sense of community spirit – something that is often missing from neighbourhoods, where residents are separated by six-foot fences and rarely meet. Some new, and potentially long-standing friendships have been created as a result of the flooding.

85 Pers. Comm. Resident, Kennet Heath
On the day of the floods it was a case of neighbours helping each other, with many reports of selfless actions as one flood victim helped out another.

2.1.2 Renovated houses
Some residents said that by having complete redecoration and new furnishings, this to some extent compensated for the destruction and displacement resulting from the flood. A number of residents said they would not have been able to afford having their properties improved, and that the renovations were really good. However, for others, the loss of memories was not compensated for by the new décor and fittings. To them they had lost their home, not just a house.

2.11.3 Drainage improvements
The flooding proved to be a major wake-up call. The deficiencies in maintenance and capacity of Thatcham’s drainage system are now much better understood. The public will, in addition, not tolerate a continuation of the status quo. All relevant agencies will need to demonstrate a commitment, and sufficient funding, for improving Thatcham’s drainage. However, it is apparent that everyone will be paying for these improvements through increased water services bills.

Substantial changes in the way drainage is planned and maintained will happen, and the experience from Thatcham has contributed to the national reviews of flooding carried out by Sir Michael Pitt and the Environment, Food and Rural Affairs Committee of the UK Parliament.

A Floods and Water Bill will be presented to Parliament within the next year, which will improve the law covering drainage and sharpen responsibilities. Things can only get better.

2.11.4 Housing, development control and infrastructure
A strategic flood risk assessment has been completed for West Berkshire, and will form part of the statutory Sustainability Appraisal required for the strategic plan (Local Development Framework). The assessment covers risk of ground and surface water flooding as well as river flooding.

The flooding was timely, occurring immediately prior to the consultation for allocating housing sites for the Local Development Framework.

The pathways and extent of flooding in Thatcham and its associated catchment are, following last July, known. Flash-flooding risk maps are to be developed. This information should influence where development should, and shouldn’t go, in and around Thatcham.

If the flooding hadn’t happened, it is likely that some areas that are ‘critical’ in terms of adding to flood risk could have been allocated for inappropriate development.

The recurrent issues relating to sewer overloads, which have been particularly frequent in the past year in some locations, have also been highlighted, as has the relationship of these overloads with recent infill development in and close to Thatcham. This factor should influence future policy on cramming high-density developments into small plots without sufficient funding to improve the capacity of the town’s drainage infrastructure.

The law has also been changed, introducing a requirement for planning permission when residents’ wish to replace more than five square metres of soft landscaping in front gardens with hard surfaces.

Information on the use of permeable surfaces has also been published and people will be encouraged to use it.

2.11.5 Improved emergency response
The 2007 floods revealed major deficiencies in how all agencies, individual residents and businesses responded to a widespread emergency.

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86 due for publication autumn 2008

87 www.communities.gov.uk/publications/planningandbuilding/pavingfrontgardens
The outcome will, in time, be a much-improved emergency response, including local emergency plans that will need to involve the local community.

West Berkshire Council has already improved its response to dealing with the threat of flooding, by providing a drainage team to deal with specific problems –tested on several occasions in Thatcham during January and June 2008.

Those affected by the flooding will be better prepared to deal with an emergency in the future. Their experience will be vital, to cascade to other residents and agencies, when the new system for emergency planning is rolled out over the next two years.
Annex A.

Thatcham Town Council: Flooding working party and follow up work

A Flooding Working Party of Town Councillors was established in late 2008. Given the severity of flooding and ongoing issues, coupled with current staff working to capacity, it was agreed to employ a consultant to support the Working Party and take forward actions arising from the flooding, including communicating with residents, organising follow up meetings with residents and initiating work on an Emergency Plan for Thatcham. Sue Everett, an environmental consultant, was employed to do this work.

Communication and liaison

A Flooding Update Newsletter was produced in early 2008. Extracts from this were included in the Thatcham Town Council newsletter issued in February 2008. The Newsletter was also placed on the website.

Two box files of information, including reports from different agencies, were put together for consultation by residents. One each at Thatcham Town Council offices and Thatcham Library. As new information becomes available, copies will be put into these box files.

A briefing note Flooding and Thatcham was produced. This has been placed on the Town Council website and was produced in response to enquiries that were beginning to be received, e.g. by potential purchasers of property and some flood victims.

An electronic newsgroup was initiated in the spring. This will be extended to include additional people who completed forms at the June and July meetings.

Through the work of the consultant, Town Council staff, Councillors and the Flooding Working Party, there has been regular liaison with representatives of Sovereign Housing, West Berkshire Council (Highways and Civil Contingencies) and Thames Water.

The e-news plus the work of the consultant has also improved lines of communication between the Town Council, residents, West Berkshire Councillors and agencies. Enquiries that could not be answered by the Consultant or Council staff were forwarded to relevant agencies for action, and followed up if there was a lack of response.

Meetings

Three meetings were organised in June and July 2008, to provide flood victims with an update of actions being taken to improve the town’s drainage system and also to enable flood victims to contribute their views, especially concerning insurance and rebuilding. Information from these meetings has been included in this report and in Appendix 1.

The meetings were publicised by fliers posted through letterboxes of flood-victims’ houses and in the Newbury Weekly News (both as copy and adverts).

A number of leaflets were issued at the meetings covering:
- Drainage in Thatcham
- Before, during and after a flood (Environment Agency)
- Sandbag policy
- Information and a volunteer form for the proposed Thatcham Flood Forum and Kennet Heath Residents’ Association

A display of photographs, maps and other information, put together by Thatcham Town Council was provided at two of the meetings.

A further, joint meeting with Cold Ash Parish Council, was held in September 2008, to provide residents with information concerning speculative development proposals for land to the north of Thatcham.
Thatcham Flood Forum

Thatcham Town Council has agreed to support the running of a Thatcham Flood Forum for a period of two years. This will be affiliated to the National Flood Forum and will be able to share information and experience with other similar groups around Britain.

Kennet Heath Residents’ Association

One meeting was specifically organised by Thatcham Town Council for Kennet Heath residents, to enable residents to debate drainage-related issues and with a subsidiary aim of initiating a Kennet Heath Residents’ Association. The first meeting of the embryonic Association was subsequently organised by residents on 2nd August. Formal establishment of a KHRA is under way. A Kennet Heath Online Community Forum was also set up by residents in July (www.kennetheath.co.uk) with a view to enabling improved communication between residents. By 4 August this had 144 members. A flooding sub-group has been established.
Annex B: Summary of drainage issues

**KEY**

Surface Water Sewer (SWS): in this Annex this term is used to describe the main culverts (underground pipes) that collect and carry (1) surface water from properties and many roads and, in many cases (2) watercourses. Thames Water has adopted the majority of these.

WBC/H: action listed in the WBC flooding review by Highways Department or identified later by WBC Highways

WBC/OSC: recommendation of the WBC Overview and Scrutiny Commission

NEW: additional recommendation made by author of this report

TW: Other action taken or proposed by Thames Water

RO: Riparian owners

P: photo available

Red – action awaited

Yellow – action initiated

Table 1a: Surface Water Drainage – areas identified for improvement

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>Action/result</th>
<th>Responsible Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST THATCHAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve drainage, Ashmore Green Road (WBC/H)</td>
<td>A works order for various improvements is to be issued Autumn 08.</td>
<td>WBC</td>
</tr>
<tr>
<td>Improve control &amp; management of inflow from farmland N of Tull Way &amp; Bowling Green Road (WBC/H):</td>
<td>Completed June 08</td>
<td>WBC</td>
</tr>
<tr>
<td>Create new ditch alongside (N) of Tull Way to divert water from ditch on W side of field into main drain to E taking the Ash Bourne under Tull Way; construct sluice to control inflow.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigate forming a new attenuation storage area north of Tull Way and west of Ashmore Green Road.</td>
<td>Investigation initiated June 08. If feasible, will require landowner agreement and covenant. Completed Spring 2008</td>
<td></td>
</tr>
<tr>
<td>Redesign and rebuild inlet headwalls north of Tull Way and Heath Lane, and adjacent (west) of Florence Gardens (WBC/H)</td>
<td>Completed Spring 2008</td>
<td>WBC</td>
</tr>
<tr>
<td>Clear blocked ditch/drainage on Regency Park Hotel land and adjacent land owned by T Billington (WBC/H) [along N side of Bowling Green Road, between Regency Park Hotel and Junction with Northfield Road]</td>
<td>In progress Sep 08</td>
<td>WBC</td>
</tr>
<tr>
<td>Clear the ditch, running through gardens of Florence Gardens, that takes flow from farmland ditch N of Bowling Green Road, (WBC/H)</td>
<td>WBC issued a letter to owners (June 08); Obstacles in ditches have been removed. P</td>
<td>WBC/RO</td>
</tr>
<tr>
<td>▪ Remove obstructions;</td>
<td>Decking and a shed have been built over the watercourse in several places.89</td>
<td>WBC/RO</td>
</tr>
<tr>
<td>▪ Re-profile existing watercourse through Florence Gardens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWS Florence Gardens, Bowling Green Road, Severn Close, Trent Crescent – Elm Grove – Bally Ave</td>
<td>Completed</td>
<td>TW</td>
</tr>
</tbody>
</table>

---

89 Planning permission will have been required for constructing a shed in this location; the position needs to be checked with WBC Planning department.
### Visual inspection via manholes

| **SWS Link Way – Ashbourne Way – Lower Way** | **Blockage (post) removed at Bourne Arch. Gravel & silt removed (early 2008). CCTV survey completed July 2008. TW says this SWS appears to be operating effectively, although said ‘further work’ in one location was planned for September 2008.** |
| **Replace wire screen at outfall, Lower Way/Muddy Lane.** | **Update: The culverts were being pumped 21-22 October 2008.** |
| **Cold Ash – Heath Lane – Lower Way** | **Survey under way. There are plans to put a diagonal pipe across CAH.** |
| **Cold Ash Hill – inspect and improve drainage (WBC/H):** | **Completed 08. A large drain was blocked at the entrance to Southend and the stream overflowed then followed its normal route overground.** |
| - Inspect and assess capacity of culvert on E side of road<sup>90</sup> | **WBC/owners** |
| - Undertake general survey of drainage including across farmland to NW and W of the road, and connections into road drains at bottom of the hill (liaise with local farmers) | **WBC** |
| - Clear and re-profile blocked ditch, South End (WBC/H) | **WBC** |
| **Heath Lane – Tull Way: Inspect and assess capacity of the culverts.<sup>91</sup> (WBC/H)** | **A new SWS here is suggested in WBC review (as above). Detailed investigation planned autumn 2008. TW has done a CCTV survey of SWS in the upper part of Northfield Rd.** |
| **Investigate the feasibility of an attenuation pond on the NW junction of Heath Lane and Bowling Green Road, to hold flows from Cold Ash [RECOMMENDATION, THIS REPORT]** | **WBC** |
| **Northfield Road: address recurrent problems with drainage including sewer overflows and overloaded surface water sewer taking Cold Ash Stream – full inspection and remedial plan required<sup>92</sup>. (WBC/H)** | **WBC/TW** |
| **Investigate the feasibility of enlarging the SWS and realigning the flow from Cold Ash between Matthews Close and Lower Way via Paynesdown Road<sup>93</sup> [WBC/H]** | **WBC** |

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<sup>90</sup> An open ditch until c.40 years ago; flow forms part of the Cold Ash Stream

<sup>91</sup> Takes flow of Cold Ash Stream

<sup>92</sup> The main surface water sewer takes flow of Cold Ash Stream; there is a photo in one of Peter Allen’s books of the culvert being built at the turn of the century

<sup>93</sup> This may not be possible owing to the land rising here.
### Loundyes Close
- **Repair damaged road drains.** (WBC/H)
- **Completed**
- **WBC**

### Bath Road/A4.
- **Resolve major problems with highway drainage:** inspect main carrier drain east of Turnpike Roundabout. (WBC/H)
- **Gullies have been checked.** Inspection of carrier drains timetabled for late summer 08.
- **WBC**

The existing ditch on the southern side of the A4 in front of Ns 136 to 148 Bath Road, near to the Bourne Ave junction, could be cleared of debris and deepened to accommodate additional surface water. (WBC/H)

Consider increasing the size of road gullies between Bourne Rd and Beverley Close to improve drainage off the highway, and to prevent surface water flowing down Bourne & Paynesdown Road (NEW - THIS REPORT)

### Ditch/stream behind (N of) Nature Discovery Centre:
- **Remove bank across ditch; install new footbridge and spillway into lake** (WBC/H)
- **Completed.** Bank raised between Muddy Lane and spillway to protect NDC.
- **WBC**

Remove bank across ditch to east of spillway (NEW)

### Lower Way between Pound Lane and Heron Way
- **Erect permanent 'road liable to flooding signs on Lower Way, west of Pound Lane, at the south end of Pound Lane and east of Heron Way.** (NEW - SE)
- **Clear blocked road drains**
- **Gullies have been jetted but the road still floods here (e.g. on 3 June, 5 & 12 Sep 08). Some gullies are not working effectively in light rain.**
- **WBC**

### Central Thatcham

- **'Balancing' pond between Park Lane/Floral Way/Foxglove Way**
  - **Clear overgrown balancing pond.**
  - Inspected by TW but will not be adopted.
  - Developer/David Wilson Homes

- **SWS and road drains between The Waverleys and Bath Road/Crown Mead in the vicinity of Thatcham Medical Practice, Gilbert Court and Cedar Dental Practice.**
  - **Inspect.**
  - Survey of road drainage on A4 timetabled autumn 08 by WBC
  - WBC/TW

- **Park Lane**
  - Replace existing surface water sewer in Park Lane with a larger diameter pipe between The Waverleys and Sagecroft Road (WBC/H)
  - **WBC**

- **Bath Road/London Road/Chapel St (A4)**
  - **Inspect main carrier drain (WBC/H)**
  - Survey of road drainage on A4 timetabled autumn 08 by WBC
  - WBC/TW

- **Thatcham High Street**
  - **Repair to the existing damaged highway drains (WBC/H)**
  - Works due autumn 08

- **Church Gate**
  - **Clear blocked road gully (NEW)**
  - Reported, to be jetted.
  - **WBC**

- **Lower Way**
  - **Clear blocked road gullies (various).** (NEW)
  - Reported.

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**at Ashbourne Way.**
### EAST THATCHAM

<table>
<thead>
<tr>
<th>Location/Description</th>
<th>Action/Outcome</th>
<th>Responsible Party/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North of Floral Way and west of Harts Hill Farm estate (WBC/H):</strong></td>
<td>Investigate forming a new attenuation storage area</td>
<td>WBC</td>
</tr>
<tr>
<td><strong>Bradley-Moore Square – Marsh Meadows (off Hartshill Road) – litter hotspot</strong></td>
<td>Take action to enforce anti-litter law and other action as appropriate.</td>
<td>WBC, managers of B-M Square.</td>
</tr>
<tr>
<td><strong>Dunstan Green:</strong> Investigation into creating a balancing/attenuation pond; Re-profiling the area and increasing the storage capacity of the ditch could help to limit and delay the volume of run-off draining to the culvert under Stoney Lane (WBC/H)</td>
<td>Investigation is under way; DG is common land + has protected species nearby – there will be legal issues to overcome if the BP is feasible, incl. need for permission from the Sec of State</td>
<td>WBC (land owned by TTC)</td>
</tr>
<tr>
<td><strong>Ditch west of Hartshill Road, adj. Meadowsweet Close and Marsh Meadows Nature Reserve (west)</strong></td>
<td>Re-profiled P</td>
<td>WBC</td>
</tr>
<tr>
<td><strong>Balancing ponds: Piper’s Way, Meadowsweet Close, Floral Way/A4</strong></td>
<td>- Outlets cleaned</td>
<td>TW</td>
</tr>
<tr>
<td></td>
<td>- Minor repairs completed to outlet (SW BP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Added to regular inspection regime plus reactive inspection in extreme wet weather.</td>
<td></td>
</tr>
<tr>
<td><strong>East of Hartshill Road</strong></td>
<td>Clear outlet to road drain, and ditch on E side of Hartshill Road, between cycleway/footway to Simmonds Field and Marsh Meadows Nature Reserve.</td>
<td>WBC</td>
</tr>
<tr>
<td><strong>Balancing Pond on NE side of junction of Floral Way/A4 (TW)</strong></td>
<td>Enlarge the pond to increase its storage capacity</td>
<td>TW</td>
</tr>
<tr>
<td><strong>Ditch carrying the Nightingale Stream/Bucklebury Flashe between Floral Way and Hartshill Road</strong></td>
<td>Completed, summer 2008 P</td>
<td>WBC</td>
</tr>
<tr>
<td><strong>Chapel St, London Road (A4) to Floral Way</strong></td>
<td>Address major problems with highway drainage: inspect main carrier drains (WBC/H)</td>
<td>Gullies have been checked. Inspection of carrier drain timetabled for late summer 08.</td>
</tr>
<tr>
<td><strong>Piper’s Way</strong></td>
<td>Reinstate vestigial ditch on NW side of P Way filled in by contractors. [Notified by Terry Port.]</td>
<td>Contractors</td>
</tr>
<tr>
<td><strong>Pipers Way Balancing Pond</strong></td>
<td>Address ongoing problems experienced with drainage from the pond, e.g. prior to July 2008 took up to 2 days to empty P</td>
<td>TW, WBC</td>
</tr>
</tbody>
</table>

---

54 This used to mark the boundary of the old Piper’s Lane
<table>
<thead>
<tr>
<th>Task Description</th>
<th>Status/Action Required</th>
<th>Responsible Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relocate dog waste bin from the bottom of the pond as when it fills the bags of dog mess float around. (REQUESTED BY RESIDENTS)</td>
<td>Completed</td>
<td>Countryside service</td>
</tr>
<tr>
<td>Grass cutting contractors need to clear grass around the inlet/outlet and prevent grass cuttings from falling against it. (NEW – REQUESTED BY RESIDENTS)</td>
<td>Action required to instruct and monitor contractors by WBC</td>
<td>WBC</td>
</tr>
<tr>
<td><strong>Rainsford Farm SWS outfall</strong> Clear blocked outfall and replace wire screen to prevent build up of litter and other debris (WBC/H)</td>
<td>New design wire screen installed, outfall cleared of litter &amp; silt (June 08).</td>
<td>TW</td>
</tr>
<tr>
<td><strong>SWS south of Pipers Way Balancing Pond</strong> Inspect and, if necessary, clear or repair (WBC/H)</td>
<td>Under investigation?</td>
<td>TW</td>
</tr>
<tr>
<td><strong>Public open space north of Agricola Way</strong> Excavate new land drainage ditches in the open area and install a surface water drain connecting the ditches to the Pipers Way balancing pond. (WBC/H)</td>
<td>Plans drawn up (Oct 08). Work scheduled for autumn 08.</td>
<td>WBC</td>
</tr>
<tr>
<td><strong>1 Sargood Close, Stoney Lane, Station Road</strong> Inspect SWS Stoney Lane-Station Road (NEW, WBC/H)</td>
<td></td>
<td>TW/WBC</td>
</tr>
<tr>
<td><strong>Kennet Heath</strong> Construct ditch to take overflow from balancing pond on SW of site. Improvements to land around balancing pond to improve drainage there and increase capacity of the balancing pond.</td>
<td>Completed by the developer after 2007 flooding.</td>
<td>Developer</td>
</tr>
<tr>
<td><strong>Kennet Heath Pumps to balancing pond on SE of site:</strong> Ensure pumps are working correctly (they are reported to have failed on 20th July)</td>
<td>According to the developer the pumps are now in full working order and on a maintenance regime</td>
<td>Developer</td>
</tr>
<tr>
<td>Address vandalism (reported by residents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Kennet Heath</strong> Address recurring problems with highway drainage due to blocked drains caused by builders' rubble, tarmac, etc.</td>
<td>Inspected by WBC, developer asked to remedy.</td>
<td>Developer</td>
</tr>
<tr>
<td><strong>Surface water sewer ‘siphon’ between Pipers Lane and Rainsford Farm</strong> Inspect and clear (WBC/H)</td>
<td>The siphon has been jetted and appears to be in good working order (Jun 08). To be surveyed</td>
<td>TW</td>
</tr>
</tbody>
</table>

---

95 This takes the flow of the stream from Upper Bucklebury (‘Bucklebury Flashe’). Overflows were experienced on 3rd June 2008 and 20th July 2007, but may have been related to the blocked outfall at Rainsford Farm.

Table 1b: Sewage overflows and management of foul water: action list

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>Action/result</th>
<th>Responsible Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northfield Road – NE (e.g. no 93) – sewer overflows,</td>
<td></td>
<td>TW</td>
</tr>
<tr>
<td>under-recording of sewer overflows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ashbourne Way: ongoing sewer blockages</td>
<td></td>
<td>TW</td>
</tr>
<tr>
<td>“On 12 Sep 08: The sewer drain was completely blocked with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>manholes full to top. This had to be rod cleared by the residents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on that same Friday afternoon. The problem has been ongoing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for years. The issue is the elbow bend further down the road,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>which is too shallow to allow waste to flow through it; if too</td>
<td></td>
<td></td>
</tr>
<tr>
<td>much is passing through this point it cannot cope and the knock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>on effect is a blockage. Residents have invested in a set of rods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and regularly clear the drain due to this regular occurrence. It is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>poor design more than inappropriate waste - but as this is sewage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>related we are told it is our responsibility to pay for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>improvements. I do not know if surface water is also getting in.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The blockage was noticed on the Friday afternoon when</td>
<td></td>
<td></td>
</tr>
<tr>
<td>someone took the cover off to inspect it due to the build up of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>water in the surrounding area.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One family, having finally moved back into their property in</td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 2008 was subsequently forced to move into a hotel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>because the foul sewer under his property had broken,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>apparently “due to the flooding”.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower part of Northfield Road sewer overflows</td>
<td>CCTV survey completed</td>
<td>TW</td>
</tr>
<tr>
<td>Bluecoates, The Henry’s, Thatcham Broadway, Church Gate</td>
<td>Sewer cleaned</td>
<td>TW</td>
</tr>
<tr>
<td>Chapel Street: sewer overflows</td>
<td>Sewer CCTV’d and cleaned</td>
<td>TW</td>
</tr>
<tr>
<td>Bowling Green Road</td>
<td>Sewer overflows since houses at</td>
<td></td>
</tr>
<tr>
<td>Sewer overflows since houses at Florence Gardens were built</td>
<td>Florence Gardens were built</td>
<td></td>
</tr>
<tr>
<td>Rivers estate (part) – no details</td>
<td>Visual inspection via manholes</td>
<td>TW</td>
</tr>
<tr>
<td>Bath Road east of Northfield Road: sewer overflows,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>under-recording of sewer overflows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loundyes Close – history of sewer overflows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South of Pipers Way: Commission 2nd pumping station and new</td>
<td>Commissioned</td>
<td>TW</td>
</tr>
<tr>
<td>rising main</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This report did not consider flooding of properties to the north of Thatcham in Ashmore Green and Cold Ash. However, one resident of Ashmore Green reported, “Every time there is heavy rain our sewer overflows. We have been in contact with Thames Water, but they have so far been unhelpful. We have sewerage over our back garden every time there’s heavy rain.”
Table 2. Drainage & flooding: Summary of key issues, recommendations and actions

<table>
<thead>
<tr>
<th>KEY</th>
<th>Action proposed or under way</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTC</td>
<td>Monitori...</td>
<td></td>
</tr>
<tr>
<td>WBC</td>
<td>Monitoring and maintenance by Thames Water and West Berkshire Council</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There has been a lack of routine monitoring and maintenance of most of the highway drainage and surface water sewers by the water utility company (Thames Water) and the highways authority (West Berkshire Council). The expected service paid for by residents, prior to 2008, had not been provided.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Many blocked drains, inlets and outfalls were not identified until after July 2007 due to lack of routine checks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flooding on 20th July was probably more prolonged and extensive than might have been the case had the highway and surface water sewer drainage systems been in good order.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>West Berkshire Council has relied on gully sucking to maintain highway drainage. This did not maintain an effective drainage system for roads in Thatcham. There is evidence that complaints about blocked drains were not dealt with effectively – i.e. a lack of a sufficiently thorough follow up inspection and repair when complaints were made about blocked drains.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There is evidence of inadequate maintenance on watercourses in Thatcham owned by West Berkshire Council. Their function in handling surface water from</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>M1</strong> Write to OFWAT, on behalf of residents, requesting that a proportion of the surface water charge paid over the past 10 years is repaid by Thames Water, unless evidence is available for expenditure on maintenance and management of surface water drainage in Thatcham.</td>
<td>TTC or TFF</td>
</tr>
<tr>
<td></td>
<td><strong>M2</strong> Highway drainage needs to be inspected and maintained more frequently. A maintenance plan needs to be published. Introduce a tighter procedure and audit trail for following up reports if blocked drains, including feedback to the complainant and informing nearby properties.</td>
<td>WBC/H</td>
</tr>
</tbody>
</table>

West Berkshire Council proposes to increase the frequency of maintenance to the highway drains and gullies throughout Thatcham and (Recommendation 6.10.2, Highways review of flooding) proposes to extend maintenance to pipe connections, catchpits, manholes and soakaways. See also Recommendation 41, OSC Flooding Review. WBC is currently (08.08)
urban development is not fully documented.
carrying out a prioritised survey of all highway drains to identify where they are and to ascertain their state. A tighter procedure is in place for following up reports of blocked drains.\(^\text{97}\)

**M3** Thames Water needs to increase the frequency of inspection of its drainage assets in Thatcham and carry out a survey of all surface water sewers in Thatcham
Balancing Pond inlets and outlets (Meadowsweet Close, Pipers Way, Floral Way and Simmonds Fields), and outfalls at Lower Way and Rainsford Farm, are now on a 3-monthly inspection regime. However, the frequency of inspection should increase during months when heavy rainfall is experienced. A limited number of surface water sewers have been inspected, via manholes\(^\text{98}\), with WBC. TW has targeted inspection and cleaning on certain high-risk surface water sewers; spot checks of manholes have been carried out to check flows in other areas. TW says it will endeavour to repeat this exercise in other areas as deemed necessary.

1.2 Maintenance of watercourses by riparian owners (owners of ditches and other above-ground watercourses)

There is considerable evidence of a lack of maintenance of ditches and watercourses by ‘riparian’ owners, including farmers, businesses, owners of residential property and West Berkshire Council.

**M4** Enforcing duties of riparian owners
West Berkshire Council will use its powers to enforce maintenance and clearance of drainage of watercourses on private land. It is now doing so. A leaflet has been published that advises riparian owners of their responsibilities.

**M5** A survey of ‘hidden’ ditches within the developed area is needed, e.g. on Dunston Park, and residents pro-actively contacted to inform them of their responsibilities. WBC has no budget to do this work.

**M6** West Berkshire Council needs to comply with its duties as a riparian landowner. The Council needs to develop and adopt a comprehensive

\(^{97}\) Blocked drains should be reported to streetcare@westberks.gov.uk, tel: 01635 519080

\(^{98}\) There are 3,500 manholes in Thatcham (TW, 2008)
water and land drainage policy that acknowledges and addresses these responsibilities. This policy needs to include measures for cooperation and coordination between the different departments of West Berkshire Council that occupy land owned by the Council as well as to cover other matters as recommended by the Overview and Scrutiny Commission. Maintenance plans should be put in place for watercourses owned by WBC.

**M7** Thatcham Town Council should ensure that it has a comprehensive record of ditches and watercourses that are present on its land holdings, and that a maintenance regime is in place for them.

**2 Location and responsibility for drainage**

| 2.1 | There is no comprehensive record of the drainage assets in the town other than for surface water sewers, balancing ponds and an inventory of road gullies. |
| 2.2 | There is confusion about who is responsible for different parts of the drainage system. |

**M8** Compile a map and record of drainage assets and responsibilities. West Berkshire Council is compiling a comprehensive record of drainage and who is responsible for them. This is likely to become a statutory duty of the local highways authority and included in the Floods & Water Bill. TW has provided WBC with a map of surface water sewers. (2.1, 2.2)

**M9** West Berkshire Council should carry out a full survey of watercourses on its land holdings in Thatcham. This should identify their state and drainage function, so that an appropriate scheme of maintenance can be developed for them. (2.1, 2.2, 1.1 – M8)

**M10** Critical Ordinary Watercourses in Thatcham should be formally designated, e.g. the Ash Bourne and Bucklebury Flashe. (2.1)

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99 A comprehensive policy was recommended by the Council’s Overview and Scrutiny Commission review of flooding (published January 2008). However, subsequently an extremely ‘narrow’ policy, confined to WBC’s duties to use its powers against riparian landowners was drawn up and adopted. This does not fulfil the recommendation of the OSC recommendation 35: A Land Drainage Policy should be developed to cover all aspects of the management of drainage (main rivers, surface water and foul sewers, highway drainage, watercourses).
Responsibilities for drainage need to be clearer.
West Berkshire Council will be provided with powers to be the lead agency for matters relating to drainage and surface water flooding, with the Environment Agency given a national overview supporting role for management of all types of flood risk. (In the proposed Floods and Water Bill.) (2.2) West Berkshire Council and Thames Water are now working together to address drainage-related issues in Thatcham.

### 3 Drainage on unadopted developments

3.1 Full water rates and Council Tax are paid by occupiers of new unadopted developments, but services for surface water drainage are not provided by either West Berkshire Council or Thames Water.

3.2 A ‘twilight’ zone exists between properties on a new development being occupied and the drainage infrastructure being formally adopted by the highways authority (WBC) and water utility company. During this time significant problems with drainage can arise that are difficult to resolve, as this relies on individual residents dealing with developers, who are legally responsible.

3.3 It can also take many years for common drainage infrastructure, such as balancing ponds, to be adopted, e.g. more than 10 years for balancing ponds at Dunston Park.

On behalf of residents, write to OFWAT and West Berkshire Council requesting that rates/Council Tax be reduced to allow for the reduced service provision on unadopted housing estates. Request a repayment of surface water rates paid over the past 10 years by Thatcham residents unless evidence and itemised costs can be provided of the service provided by Thames Water to ‘effectively drain’ Thatcham, i.e. evidence of its maintenance and inspection regimes for the surface water drainage system. (3.1)

The local authority should be given stronger powers of enforcement; sanctions are needed against developers to prevent them selling houses until the infrastructure is in a satisfactory state. (3.2)

An enquiry has been made to the Department of Local Government and Communities to clarify the law on this matter (SE/TTC).

The adoption procedure, notably the length of time taken for local authorities and water utility companies to adopt common infrastructure, should be tightened. (3.3)

Write to the West Berkshire MP & Sir Michael Pitt, highlighting these issues, asking them to take

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100 Reduced services also cover policing and road sweeping.
<table>
<thead>
<tr>
<th>4</th>
<th>Misuse of the drainage system</th>
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| 4.1 | There is evidence of widespread abuse of the drainage system & a lack of understanding about how it functions (e.g. the fact that road drains eventually empty out into streams and rivers and that is illegal to dump substances into them):  
- Dumping of paint and oil down drains by householders (ultimately causing pollution of watercourses);  
- Ditches on private properties have been filled in;  
- Dumping litter in balancing ponds and down road drains – litter found to contribute to blockages in the drainage system, e.g. in balancing pond outlets and at Rainsford Farm;  
- Dumping of building and construction waste in drains by builders (existing housing estates), including when renovating flooded properties;  
- **Disposal of waste tarmac from road repairs, by contractors employed by developers or the Highways Authority; (ADDED OCT 08)**  
- Disposal of nappies, sanitary products, etc. down the toilet, fat down the sink, causing foul sewer blockages and overflows. |
| **PUB** | There is need to improve awareness about use and misuse of drains, especially for all those employed or training in the building trade. (4.1) |
| **PUB1** | Develop a public information and awareness campaign about the function, use and abuse of the drainage system. This needs to be promoted through schools and colleges of further education, and through Council Tax and water rate billing. (4.1, 4.2) |
| **PUB2** | Request for Thames Water to be more proactive when dealing with sewer overflows, by notifying ‘upstream’ residents and so reduce further abuse and blockages. (4.1) |
| **PUB3** | Sign up to the CPRE’s Stop the Drop campaign. (4.1) |

4.2 Ditches on private properties have been obstructed, filled in or had decking and sheds built over them.

5 | Drainage capacity, development and flood risk |
|---|---|
| 5.1 | The need to withdraw the automatic right of connecting new developments to sewer network  
There is an automatic right for new developments to connect to old infrastructure without contributing funding to enhancing capacity – lots of new developments in the town, both infill and Greenfield, have increased the loading (both surface and foul water) on an older drainage network. |
| **DEV1** | The right for automatic connection is to be withdrawn via the proposed Floods and Water Bill. (5.1) |

5.2 | Illegal connections to sewers  
Illegal connections to the sewer system have been made by developers and householders. |
| **DEV2** | Thames Water needs to identify such connections where it is able to so that the Environment Agency can take enforcement action. TW has stated a commitment to work with the EA to |
### Controlling the pace and location of new development

Many thousands of new houses (within the past 15 years) been built on greenfield land to the north of older (1970s/80s) development, e.g. Florence Gardens, off Lawrence’s Lane, Dunston Park. These have increased the loading on surface water and foul sewers, and on highway drains on the built up area to the south. Note: Florence Gardens was built on former flood-pasture cut off by the northern distributor road in the early 1990s. Land now occupied by Dunston Park was mostly poorly-drained permanent pasture holding numerous intermittent springs.

There is continuing pressure to develop further areas in and on the boundaries of Thatcham. Sites for new housing developments must be identified for the Local Development Framework during 2009. Speculative proposals have already been made for development of land in areas north of the town, which were affected by flooding in July 2007.

Insurance companies may refuse to insure new properties built in flood-risk areas\(^1\). This consideration will need to influence the location of new developments in and around Thatcham, particularly on rural land to the north of the town.

### Conversion of gardens and other green space by decking, paved and concrete parking areas

There are many instances where front and back gardens have been covered in hard, impermeable surfaces that create additional surface water.

It is currently rather difficult to obtain good information on the most suitable types of permeable surfacing that can be used, e.g. to replace concrete driveways.

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\(^1\) New flood risk maps are currently being developed, and will identify locations at risk from flash flooding under different rainfall scenarios. See [www.projectatlantis.net/](http://www.projectatlantis.net/)
Residents are unaware of the impacts that hard surfacing can have on adjacent properties.

A publicity campaign to promote the use of permeable surfacing should be developed.

There should be a presumption against the creation of further areas of hard, impermeable surfaces on public open green spaces in Thatcham.

5.5 Assessing flood risk and drainage capacity

The Strategic Flood Risk Assessment produced for the Local Development Framework does not consider surface water flooding.

In some areas, several surface water sewers meet, making some locations more vulnerable during an extreme storm event. Many residents believe that Thatcham’s drainage system is overloaded.

Assessment of flood risk and drainage capacity should be undertaken, to identify whether it is sufficient and to where capacity needs to be increased or changed. The computer model will assist this.

Recommendation 34 of the OSC flooding review: The Strategic Flood Risk Assessment for West Berkshire should be amended to incorporate risk from flash and groundwater flooding, as well as flooding from rivers. This review is under way and due for publication autumn 2008: a 3D computer flood risk model has been developed, using Thatcham as a pilot (part of The Atlantis Initiative).

Assess the capacity of the current surface water drainage system, to identify whether it is sufficient and to where capacity needs to be increased or changed. The computer model will assist this.

Improving the flood resilience of new buildings

Flood risk has not been considered in the design of recently-built houses, e.g. Houses have recently been built with the damp proof course below street level and no steps, to allow for disabled access. Sustainable Drainage System principles have not been adopted in the design of individual properties.

Design guidelines for new houses and other buildings should be updated to include flood resilient designs. New buildings, with level access to the street, or with the damp course below street level, should be refused planning permission.

New buildings should be designed to minimise their risk of being flooded and to minimise the contribution they make to adding surface water to the town’s drainage system.

The guidance on incorporating Sustainable Urban Drainage to new developments, provided in Planning

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102 [http://www.projectatlantis.net/](http://www.projectatlantis.net/)
### 5.7 Ensuring adequate drainage of developments under construction

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<tr>
<td>5.7.1</td>
<td>New developments have proven vulnerable to the dumping of construction waste in their drainage system by contractors.</td>
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<tr>
<td>5.7.2</td>
<td>It has become apparent that the drainage infrastructure at Kennet Heath was (and is) not in a state enabling effective drainage of the estate from the point at which houses were/are sold and occupied and the drainage under agreement for maintenance or adoption by the highways authority and Thames Water. Currently (08.08) this is the situation on the majority of the estate, including the main spine surface water sewer. Similar problems with drainage on other housing estates have been reported from Thatcham (e.g. Kennet Lea in the 1980s). Gloucestershire County Council are also preparing a report that will make recommendations that developers should have responsibility for drainage on new developments prior to adoption, due to similar problems identified in Gloucester in 2007.</td>
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### 5.7.2 Ensuring adequate drainage of developments under construction

- Policy Statement 25, should be mandatory for all new developments.
- Recommendation 6.10.6 of WBC Highways review of flooding: West Berkshire Council should seek to ensure that un-adopted highway drainage on part-completed sites where occupations have taken place is fully operational and not impeded by builders’ debris or materials.\(^\text{103}\)

See [P2](#)

**DEV13** The obligations of developers to provide and maintain an effective drainage system should be clarified, and enforced. This may require amending current legislation. An independent inspection and sign-off procedure should be required before houses can be sold. A public body should be responsible for this and also given enforcement powers (e.g. the local planning authority) that would refuse permission to developers to sell houses until the vital infrastructure is in good condition and fully operational. There should also be an independent inspection procedure in place during the period between site occupancy and formal adoption of infrastructure by the highways authority and water utility company, with powers given to the local authority to stop further construction work and take other meaningful enforcement action, e.g. close sales show rooms on site if infrastructure is found not to be in full working order.

### 6 Action when flooding is threatened

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| 6.1 | West Berkshire Council response

#### West Berkshire Council response

The absence of a response to deal drainage related matters with the onset of flooding in July 2007 has been acknowledged and is being addressed by West Berkshire Council.

However, the Streetcare call centre did not appear to have been properly briefed

- WBC Highways Flood Review Recommendation 6.9.1. At the onset of a flood event crews should be mobilized to inspect and clear trash screens on culvert entry and exit points and on balancing pond overflows and that this operation be continued throughout the event to prevent debris building up. Note: crews have attended Thatcham twice during 2008 and taken action to reduce

\(^\text{103}\) However, it appears the local authority can only refuse to adopt the infrastructure until the problems are remedied (M Edwards/WBC, Nov 07)). In the meantime houses are occupied and residents may be experiencing continuing problems with drainage.
when flooding was threatened on 3rd June, according to one resident who reported an incident at 11.00hrs at Thames Road that day, which was not responded to.

the threat of flooding in north and east Thatcham.

Recommendation 6.7.2, WBC Highways Flood Review/HT9: The Council should set up an Emergency Technical Database highlighting "Hot Spots" so that emergency action may be focused in the event of future emergencies.

CS1 The Streetcare call centre needs to be properly briefed so those answering calls know how to deal with them effectively and an effective response provided.

6.2 Sandbags

Residents have complained that sandbags were not available last July. Residents threatened with flooding in June 08, also expected WBC to provide sandbags to protect their property but said there was a delay in receiving them.

Many residents do not seem to realise that it is WBC policy to offer sandbags according to priority, e.g. initially to vulnerable people and to protect ‘critical’ infrastructure and buildings, such as doctors’ surgeries and hospitals.

Recommendation 6.2 West Berkshire Council has published a sandbag policy. Thatcham Town Council has produced an advisory leaflet.\[104\] Better publicity is required

CS Residents & landlords worried about flooding should be encouraged to take preventative measures to reduce the risk of future flooding, including purchasing their own supply of expandable flood sacks. Residents & landlords who consider their property is at risk of flooding should consider other measures, such as airbrick covers and flood doors.

CS Look into the feasibility of establishing a strategic sandbag store in Thatcham. WBC is looking into this but has no budget to pay for such stores. (See also HT7 of Highways flooding review).

6.3 Operation of sluices

During the July 07 flood, there was a problem opening sluice gates on the River Kennet at Chamberhouse Farm.

Recommendation 6.10.5 of Highways flooding review: West Berkshire Council should seek to ensure that ownership details and depth gauge boards are fixed to all sluices and that emergency contact telephone numbers are clearly marked on each structure.

6.4 Closing roads that cause a hazard to safety and property

During the July 07 flood, residents tried unsuccessfully to stop cars, especially 4wd, driving through flooding. Some properties were flooded from bow waves created by inconsiderate drivers. No authority (police/WBC) was available or

Recommendation 6.10.4 of Highways flooding review: Nominated Thatcham Town Council staff and volunteers should be provided with the authority to close roads during a flood or other emergency. A strategic store of ‘Road closed’ signs should be available for use in Thatcham. WBC is currently

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104 Sandbags and protecting your property from flooding (see www.thatchamtowncouncil.gov.uk or call 01635 863592 for a copy). WBC’s full sandbag policy is given on www.westberks.gov.uk
considered themselves responsible for closing roads in a hazardous condition.

considering this (see Recommendation 24: OSC flood review)

**F5** A map showing locations where roads are at risk of flooding should be drawn up.
Recommendation 6.7.2, WBC Highways Flood Review: (Emergency Technical Database). The 3D computer modeling work will inform this.

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<tr>
<th>7</th>
<th>Management of agricultural and undeveloped land</th>
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<tr>
<td>7.1 Improving control of surface water from land to the north of Thatcham</td>
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On 20th July Thatcham’s drainage was overwhelmed by the volume of water coming into the town from the north part of its catchment.

Surface water sewers in Thatcham must cope with flashy flow originating from agricultural land between the town and the top of the valley (The Ridge – Bucklebury Common), as well as runoff from properties and roads from all areas in Thatcham, Ashmore Green, Cold Ash and the south-west part of Upper Bucklebury.

More intensive farming methods have resulted in bigger fields, fewer ditches and hedgerows on some land to N of Thatcham – this has reduced the capacity of land to absorb and hold back water.

The volume of surface water entering the town from land to the north needs to be better controlled and reduced.

**CM1** Investigate the feasibility of initiating a farming and landscape project, targeted on land to the north of Thatcham. Such a project would aim to encourage landowners to improve the capacity of land to control the speed of runoff into Thatcham, e.g. reinstatement of smaller fields, hedgerows and networks of ditches. This needs to be a pro-active project, not reliant on voluntary take up of Environmental Stewardship options, as they will not necessarily provide the necessary landscape or hydrological improvements. A meeting of landowners could be held initially, to identify potential benefits, barriers and take-up for such a scheme. Some funding may be available via the England Rural Development Programme.

See Table 1 for specific improvements to the drainage system completed, planned or initiated.

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<thead>
<tr>
<th>8</th>
<th>Sewage overflows</th>
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<tr>
<td>8.1 Sewage overflows are under-recorded on Thames Water’s database.</td>
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| 8.2 Sewage overflows have occurred regularly in some locations in Thatcham, but no plans appear to be in place for addressing them. The locations include: Chapel Street (south side, affecting properties, footway and highway on main route to Kennet and Francis Bailey Schools), 1 Northfield Road and property on NW side of junction with Northfield Road, Bowling Green Road – various properties, since | SW1 Thames Water should improve its methods for collecting data on sewage overflows for its database (8.1), including: |

- The company should be pro-active in collecting information on sewage overflows, especially in areas where flooding has occurred.
- A reporting form to report sewer flooding on public property should be provided. |

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105 This is also a project identified in the Thatcham Parish Plan (Thatcham Vision First Action Plan) projects ENV10 and ENV12
| 8.3 | construction of Florence Gardens, Rivers Estate. Overflows in some of these areas were recently reported during heavy rain (e.g. 3 June 03). When public footways and open space have been contaminated by sewage overflows they have remained open, despite being a hazard to the public. | - Sewer flooding report forms should be available on line.  
**SW2** Residents should report each incident to TW and more publicity should be given to encourage them to do so. (8.1)  
**SW3** A plan for addressing sewage overflow hotspots in Thatcham is required (8.2)  
Some investigations and remedial works have been completed, but not in all the areas that appear to have been suffering from sewer overflows prior to 2007.  
**SW4** TW and WBC should agree and implement a procedure for closing public footways and public areas contaminated by sewage, and inform TTC what this is. (8.3)  
**SW5** TTC should close access to Lower Way Sports Field in the event of a sewer overflow here. (8.3) | TW, TFF, residents  
TW, WBC/EH  
TTC |
| 9 | Property maintenance |  |
| 9.1 | There is some evidence that good practice for managing surface water drainage on residential property is not fully understood by property owners, and that control structures are not sufficiently frequently maintained. (See also 5.4) | **PM1** Publish standards for general maintenance of surface water control structures (e.g. gutters and drains) on residential property, and ensure these are communicated to property owners, whether privately owned and occupied or landlord owned and rented.  
Central Government (DLGC) with the water industry and local authorities |
Appendix 2a to Flooding in Thatcham - a Year in Perspective.

20 July 2007 Flood Survey Maps (Thatcham and South End, Cold Ash)

The information shown on these drawings was compiled by consultants on behalf of West Berkshire Council after the 2007 flooding. The information on direction of flow and properties affected is based on site observations and accounts of the flooding provided by the parish council and local residents to the consultants. These plans should be read in conjunction with the corresponding parish flood reports for Cold Ash and Thatcham (Volume 2) produced by West Berkshire Council, which can be found on www.westberk.gov.uk (search on ‘flooding’).

Not shown: Thatcham south-west - The Nature Discovery Centre, several buildings at the sewage works, and a cottage on the east side of Princehold Lane were also flooded.

The maps in this document were scanned by Thatcham Town Council from large-scale plans produced by West Berkshire Council. A copy of the plan showing all of Thatcham can be viewed at the offices of Thatcham Town Council, Brownsfield Road, Thatcham RG18 3HF. The Council also holds reference documents comprising various reviews of the 2007 floods carried out locally and nationally.

Thatcham Town Council
Brownsfield Road
Thatcham RG18 3HF

Tel: 01635 863592
Email: enquiries@thatchamtowncouncil.gov.uk
Web: www.thatchamtowncouncil.gov.uk

KEY TO MAP SYMBOLS

- - - - - Thames Water surface water sewer and manhole

→ Direction of flow

● Affected properties

Existing balancing pond
South End, Cold Ash

Reproduced from the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office. Crown Copyright 2001. Thatcham Town Council LA 100034794
Internal areas of properties on south side of Florence Gardens were flooded.
Appendix 2b to Flooding in Thatcham - a Year in Perspective

Maps showing major culverts (carrying surface water & streams) and open watercourses, in Thatcham (2008)

Information taken from a large-scale plan produced by West Berkshire Council in 2007. This plan can be viewed at the offices of Thatcham Town Council, Brownsfield Road, Thatcham RG18 3HF or Thatcham library.

The major culverts that run N-S, carry streams piped underground, as well as runoff from roads and properties.

These maps do not show highway drainage or surface water sewers that have not been adopted by Thames Water (except at Kennet Heath where the majority of the drainage infrastructure has not yet been adopted.

September 2008

[Diagram]

- Culverts, adopted by Thames Water as Surface Water Sewers
- Open watercourses
- BP Balancing Pond, designed to hold water at times of high rainfall and release it slowly into the piped surface water drainage system. All those, except
Major culverts carrying surface water & streams in west
Thatcham (2008)

Information taken from a large-scale plan produced by West Berkshire Council, that also shows the location of properties that flooded on 20 July 2007. This plan can be viewed at the offices of Thatcham Town Council, Brownsfield Road, Thatcham RG18 3HF, Thatcham library, or can be emailed (contact admin.thatchamflooding@googlemail.com.)

The major culverts that run N-S, carry streams piped underground, as well as runoff from roads and properties.

- Culverts, adopted by Thames Water as Surface Water Sewers
- Open watercourses