

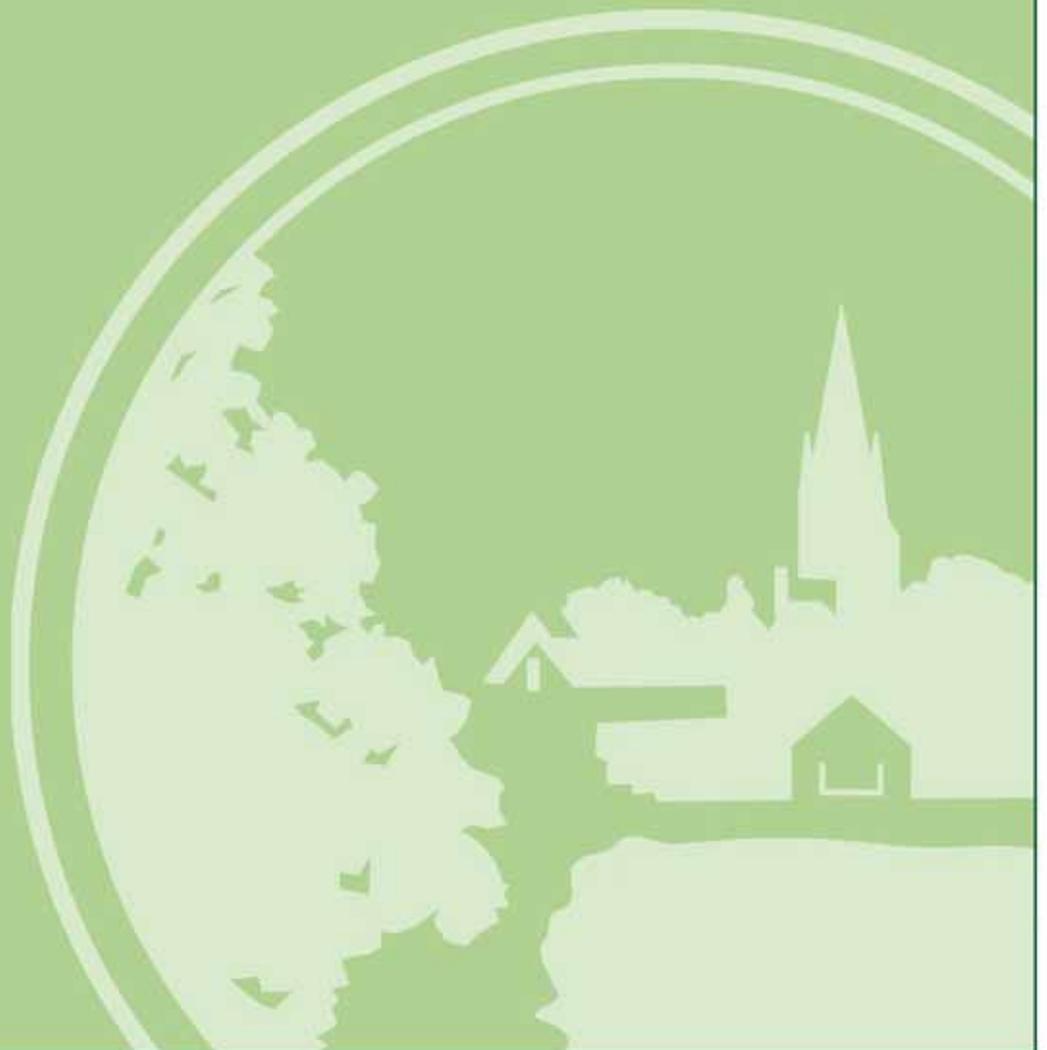


WEST OXFORDSHIRE
DISTRICT COUNCIL

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Parish Flood Report: Taynton

September 2008



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1.0 INTRODUCTION

On the 20th July 2007 large parts of the South of England were subjected to intensive storms. The scale and speed of the rainfall was unprecedented and took most communities by surprise causing widespread flooding of highways and property. On this occasion, unlike previous storms / flooding experienced, this impacted on many properties that had never been affected before, due to much of the flooding coming in the form of rain water run off from land.

A swathe of the district was particularly badly affected by the massive storms, which commenced in the morning and subsided in the evening. During the following days further disruption occurred due to rising river levels. At RAF Brize Norton, the records show that over 125 mm (5 inches) of rain fell in 12 hours, and this is a record going back over 100 years. Not only that, but the period from May to July had been the wettest on record since 1903 and meant that the ground was saturated and unable to absorb any more water.

On the 10th October 2007, the District Council's Cabinet considered a report of the Head of Street Scene and approved additional resources in order that a review of the affected areas could be carried out and further reports be prepared for the Council's considerations.

1.1 Purpose of the report

In response to requests from both the Parish and Town Councils and the general public West Oxfordshire District Council has produced a number of reports that identify each individual cause of flooding within the Parish / Town, what work is being carried out by external agencies (EA, Thames water etc); what the potential options are for future mitigation - and who might be best placed to fund such schemes. The reports themselves reflect the series of water systems that all played a part in the flooding experienced in July 2007 and will help all the organisations involved understand the need to sequence their activities.

This report has been prepared by a qualified Engineer in consultation with the key external agencies and seeks to explore the main reason behind why the floods happened in July 2007 and give an overview of the event itself. It will also provide an understanding of the different roles and levels of responsibility for the agencies involved.

This report should be used to make sure that all the agencies involved with flood prevention – like the Environment Agency, Thames Water, Oxfordshire County Council, Town / Parish Councils and private land owners – work in true partnership for the good of everyone in the local community.

A key outcome of the reports is that residents are given a broad overview of the complex linkages between the different organisations involved and also the range of options available.

1.2 Roles and responsibilities

One of West Oxfordshire District Councils key ongoing roles is to continue to lobby National agencies / Government on behalf of the residents and businesses of the district to secure funding and/or additional resources to assist with flood prevention and other relevant activities. The Council will also work closely with other agencies and organisations in order to highlight the local issues and actions identified in the report.

The legal responsibility for dealing with flooding lies with different agencies and is complex, so below is a simplified summary.

Environment Agency (EA) – permissive powers¹ for main rivers

Oxfordshire County Council (OCC) – Responsible for adopted highways and highway drainage.

Thames Water (TW) – Responsible for adopted foul and surface water sewers.

West Oxfordshire District Council (WODC) – duties as a riparian² land owner, and permissive powers¹ under Land Drainage Act 1991, Public Health Act 1936, Highways Act 1980 and Environmental Protection Act 1990.

Private land owners - duties as a riparian land owner.

1.3 Consultation and consent

The key organisations mentioned above are currently carrying out their own investigations, but operate independently of each other, have different methods of prioritisation and different funding criteria. The District Council has consulted with these agencies together with Parish Councils, Town Councils and individual property owners in order to prepare this report.

It is recognised that the majority of the options proposed in this report require further investigations / feasibility studies and / or consultation before they are carried out. Therefore these options may not be appropriate in every case when full costings, environmental, landscaping, biodiversity, built environment and historic factors are fully considered.

When considering protection against future flooding, it must be emphasised that the risk and impact of flooding can be mitigated against but in some cases not fully removed.

1.4 Response to this report

The options section of this report highlights the potential areas of work / activities under the responsible agency, for example the Environment Agency, West Oxfordshire District Council etc. If you have any specific questions relating to these activities please contact the relevant agency using the contact details provided at the top of the chart.

If you have any general questions please contact your Parish / Town Council who have been a key contributor to the production of the report and have agreed to act as the first point of contact.

The Council is also planning to hold a series of 'road shows' in the Parish areas where representatives from all the relevant areas will be available to answer any questions local residents have as well as provide more information on ways residents may help themselves.

¹ Permissive powers are when an organisation may choose whether or not to exercise their powers. I.e. they are NOT under a duty. In making this choice account must be taken of any factors required by the legislation, plus for example how urgent, how necessary they are, cost, likely result, etc

² Riparian owners are responsible for the maintenance of any watercourse within or adjacent to the boundaries of their property.
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1.5 Legal

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2.0 THE DISTRICT COUNCIL'S ACHIEVEMENTS OVER THE PAST 12 MONTHS

Flood Grants

- WODC Flood Grants totalling **£284,250** given out in West Oxfordshire.

Actions from the Council's Interim Report published in January 2008

- The table below provides a summary of some of the completed actions identified in the report

Bronze command procedure to be updated to recognise the need for ensuring shift rotas are in place in the early stages of an emergency
Consider producing a revised warning system that identifies a higher category of risk that is only issued in exceptional circumstances
The emergency plan specifically addresses the need to keep in regular contact with elected members
That the Emergency Plan recognises the role the elected members can play in emergency and recovery situations
That in future emergency situations District Councils ensure that they have a representative present at Silver Command from the start of the emergency to act as a conduit for information between Silver Command and the District Councils
The council should encourage all residents residing in a flood plain and in areas at risk of flooding to sign up to the EA Flood Alert system.
Provide clear information to residents and businesses about what type of waste we can collect and how it will be collected
Explanations to residents of our need for bulky waste to be placed on the roadside for collection
Commence a review of the mapping of the many thousands of privately owned ditches and culverts, and ensure they are kept clear and well maintained in accordance with the new policy (2 TOR 3)
Lobby central government for a single agency to take control of all land drainage issues
WODC continues to act in a coordination capacity with key external agencies
Continue to liaise with EA to ensure that procedures relating to planning consultations are robust.
Progress the Strategic Flood Risk Assessment
Consider producing a revised warning system that identifies a higher category of risk that is only issued in exceptional circumstances
Approaches to be made to the EA and Meteorological Office with regard to improving their predictive capability
WODC continues to act in a coordination capacity with key external agencies
During emergency events, have an external media person (BBC) in Bronze Command
Purchase digital TVs to assist with reviewing weather, local and national news to assist emergency management

3.0 EXECUTIVE SUMMARY

Following the flooding events of July 2007, West Oxfordshire District Council (WODC) has responded to requests from both Town and Parish Councils to aid the coordination of all the agencies and bodies that were undertaking their own investigations into the floods through the production of Parish Flood Reports.

This document is the Parish Flood Report for the village of Taynton and has been prepared by the Council's Engineering team. It pulls together information from external agencies and individual property owners. It identifies the causes of flooding in Taynton during July 2007 and potential mitigating solutions.

The report itself is broken down into a number of sections and will include;

- An overview of flooding history in Taynton and flood related issues raised by residents
- A presentation of the problems and causes of flooding in Taynton during July 2007.
- A summary of all the flooding issues and potential mitigation options.
- A breakdown of the recommendations for immediate, mid-term and long term actions including the responsible agency based on the options identified.

The summary below lists the main sources of flooding in Taynton that have been identified by the residents. More detail is provided regarding the specific locations and the causes in section 5 of the report.

Sources of flooding

- The Coombe Brook bursting its banks in the centre of the village and affecting 3 roads, 2 bridges and a number of properties. The brook is not enmained, so is therefore the responsibility of riparian owners rather than the Environment agency to maintain.
- A blocked ditch on the north-eastern side of the village, which takes water from a culvert originating from a field to the east
- Inadequate capacity of a culvert under the road and a pipe under the adjacent grassland, which carries the water directly from the above ditch, and outfalls into the Coombe Brook
- Blocked highway and kerb entry gullies causing inadequate drainage for highway runoff
- Blocked roadside ditches at the junction of Burford road and the B4437

4.0 SURVEY

4.1 Description of area

The Parish of Taynton is approximately 106 Hectares (811acres) in size. It is located on the Gloucestershire border, approximately 2 miles north-west of Burford and 10 miles north-west of Witney.

A map of the parish is shown in figure 1. The areas affected by flooding have been identified as (1) and (2)

2 Survey approach

A visual walk-over survey has been undertaken. Photographs of some of the flood affected areas are in Appendix 1.

4.3 Meetings

Details of key meetings attended by District Council representatives about the flooding of Taynton in July 2007 are given in Table below;

Date	Main participants and Venue	Description
14 th January 2008	Laurence King of WODC and Wayne Barker of OCC	A look at the flooding problem in the vicinity of the blocked ditch, the outfall into the brook and obstructions underneath the northern bridge
14 th July 2008	Kevin Jack of WODC and Michael Florey, Chairman of Taynton Parish Council	Information gathering exercise to identify all flooding areas in Parish.

4.3.1 Application for Grant Aid

The District Council has distributed a range of financial support to the residents of the district in the form of;

- Emergency Flood Relief Grant Aid of £250 per applicant

To date the owners of 4 residential properties in the Parish of Taynton have received Emergency Flood Relief Grant Aid, however it is acknowledged that this may not be the total number of properties affected as some owners may have been reluctant to claim.

4.3.2 Flooding History

A flooding history relevant to the Parish of Taynton has been compiled since July 2007 by WODC and is stored electronically.

5.0 PROBLEMS AND CAUSES

5.1 Plans

Appendix 2 contains 2 maps:-

1. Fig 1 – Areas affected by flooding within Taynton Parish

2. Fig.2 – Environment Agency plan showing:-

- Taynton parish boundary
- Main rivers and enmained water courses in the area
- Flood Zone 2, January 2008 - 0.1% annual probability of flooding occurring or low to medium risk. Previously referred to as 1:1,000 year flooding
- Flood Zone 3, January 2008 - 1% annual probability of flooding occurring or high risk. Previously referred to as 1:100 year flooding

Note – this EA map has been updated to reflect the events of July 2007. All references to flood zones in this report refer to the previous EA flood zone map i.e. pre July 2007.

5.2 Area 1 – North- western end of village

4 properties applied for the flooding grant after July 2007, close to Coombe Brook. Other properties may also have been affected that did not apply for a grant.

Flooding mostly originated from:-

- The brook bursting its banks
- An overgrown ditch on the north-eastern side of the village, which forms part of a culverted drainage system
- Surface water from the highway

The cause of flooding is ascertained to be:

- 5.2.1** The volume of water being carried by the Brook. The Brook originates 5 miles north of Taynton in Upper Rissington, and collects water from a number of springs along its course, in addition to there being a large catchment area for surface water runoff from the adjacent farmland.
- 5.2.2** The brook itself has a gravel bottom and is not silted up, but requires overgrowing vegetation to be cut back.
- 5.2.3** The ditch being overgrown, with water spilling into the grounds of the properties and onto the road
- 5.2.4** The culvert under the highway and pipe under the grassland, which outfalls into the brook, being undersized with water consequently backing up in the obstructed ditch
- 5.2.5** Irregular cleaning of highway and kerb-entry gullies

During the site visit in January 2008 between officers of WODC and OCC, the outfall into Coombe Brook was found to be obstructed and was immediately cleared. In February 2008, OCC returned to site to alleviate flooding in this area by jetting the culvert under the road and laying a new pipe under the dry stone wall into the grassland.

5.3 Area 2 – South –eastern end of village, at junction of Burford road and B4437

No properties applied for a flooding grant after July 2007

The cause of flooding is ascertained to be:

- 5.3.1** Blocked roadside ditches at the junction of Burford road and the B4437 and a blocked culvert underneath an access on the north-west side of the B4437

6.0 OPTIONS

The following table shows the possible options available for flood alleviation schemes throughout the Parish, and their potential effectiveness, as assessed by the District Council Engineers.

Many of these options will require further detailed investigation along with the agreement of the responsible landowner, identification of budget and a cost benefit analysis to be carried out before they can be implemented.

Some of the options shown are also mutually exclusive, that is if one option is carried out then another will not be necessary. To find if this is the case for an option, please look at the detailed description in the Conclusions and Recommendations (Section 7.0).

If you require further information regarding a particular option, please contact the agency that would be responsible for implementation of the proposal, where this has been shown, using the contact information at the top of the column. If no contact details are shown, there may be a private landowner responsible. If this is the case the District Council will ensure that private landowners are made aware of their responsibilities, and can use enforcement powers under the Land Drainage Act 1991 to ensure they carry out their duties if necessary.

Area 1 – North – western end of village

Area		1				
Flooded Properties & Causes		4 properties applied for flooding grant, although others may also have been affected. 3 roads and 2 bridges also affected. Estimated frequency every 6 months <u>Primary causes</u> – (i) Volume of water being carried by the Coombe Brook, (ii) Ditch on the north-eastern side of the village and Coombe Brook overgrown with vegetation, (iii) and (iv) Culvert under road and pipe under the grassland which connects the ditch to the brook being undersized, (v) Irregular cleaning of highway and kerb entry gullies				
Options		1	2	3	4	5
Description of options		Investigate some form of attenuation upstream of the brook	Arrange for riparian owners to clear ditch and banks of brook	Upsize culvert under road	Upsize culvert through grassland	More regular cleaning of highway drainage system
Responsible Agencies	EA For queries Tel: 08708 506506					
	OCC For queries Tel: 08453 101111			OCC to undertake	OCC to help fund	OCC to undertake
	Thames Water For queries Tel: 08459 200800					
	WODC For queries Tel: 01993 861000	WODC to co-ordinate works	WODC to co-ordinate works		WODC to co-ordinate works	
	Private/Other Organisations	Discuss with private landowners	Funding to be arranged by riparian owners		Discuss with private landowners	
Effectiveness/ Effects on adjacent land		Will help to prevent flooding of properties, roads and bridges	Will help to prevent flooding of properties	Will help to prevent flooding of properties and road, but only if problem with brook capacity is also addressed	Will help to prevent flooding of properties and road, but only if problem with brook capacity is also addressed	Will help to prevent flooding of properties and roads
Cost		£20K - £50K	Up to £5K	£5- £10K	£5 – £10K	Up to £5K

Area 2 – South – eastern end of village, at junction of Burford road and B4437

Area		2
Flooded Properties & Causes		No properties were affected, but 2 roads were flooded. Estimated frequency every 6 months. <u>Primary cause</u> – Blocked ditches along Burford road and B4437
Options		1
Description of options		
Responsible Agencies	EA For queries Tel: 08708 506506	
	OCC For queries Tel: 08453 101111	OCC to help fund works as riparian owner on roadside of ditch
	Thames Water For queries Tel: 08459 200800	
	WODC For queries Tel: 01993 861000	WODC to co-ordinate works
	Private/Other Organisations	Funding to be part arranged by riparian landowner, who should ensure regular maintenance of ditches and culvert underneath access on north-west side of B4437
Effectiveness/ Effects on adjacent land		Prevents flooding of roads
Cost		Up to £5K

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Area 1 - North – western end of village

7.1.1 Maintenance

The following on-going maintenance is recommended:

- Action 2 – riparian owners to clear ditch and banks of brook and maintain on regular basis
- Action 5 – OCC to ensure highway and kerb entry gullies are cleaned more frequently

7.1.2 Flood defence improvement schemes

The following flood defence improvement schemes are recommended:

Mid-Term (under 1 -2 years)

- Action 1 – WODC to investigate attenuation measures for Coombe Brook with riparian landowners
- Action 3 – OCC to upsize culvert under road
- Action 4 - Private landowner / OCC to upsize culvert / pipe under grassland adjacent to brook

7.2 Area 2 – South – eastern end of village, at junction of Burford road and B4437

7.2.1 Maintenance

The following on-going maintenance is recommended

- Action 1 – Riparian landowner / OCC to clean roadside ditches and culvert underneath access on north-east side of B4437 and ensure regular maintenance is carried out

Appendix 1: Photographs



Area 1 – Coombe Brook



Area 1 – Coombe Brook, from southern bridge



Area 1 - Culverts into grassland adjacent to Coombe Brook



Area 1 – Vicinity where ditch maintenance is required



Area 1 – Roads affected by flooding



Area 1 – Roads affected by flooding



Area 1 – blocked kerb inlet gullies



Area 2 – blocked ditch on north side Burford road looking towards Taynton



Area 2 – blocked ditch on north - west side B4437



Area 2 – blocked culvert underneath access on north – west side B4477



Area 2 – blocked ditch on south –east side B4437