



WEST OXFORDSHIRE
DISTRICT COUNCIL

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Parish Flood Report: **Leaffield**

July 2008

Version 1 – This report may be revised in the future to incorporate ongoing consultation results



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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 organisation 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.

1.5 Legal

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

Ditch Clearance

- 1731 Linear metres WODC owned ditches cleared overall
- 1923 Linear metres Privately owned ditches cleared overall
- Overall 2.27 miles of ditches have been cleared

Flood Grants

- 1137 WODC Flood Grants totalling £284,250 given out overall
 - 7 (£1,750.00) for Leafield
- 112 Red Cross Flood Grants totalling £211,590 administered by WODC overall
- 301 Hardship Grants totalling £155,050 given out overall

Reports

- Interim Flooding Report published October 2007
- 12 Parish Flood Reports completed by June 2008, 1 report for Leafield

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 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 the 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. Seminar being arranged to take place during 2008 to progress this
Progress the Strategic Flood Risk Assessment
Approaches to be made to the EA and Metrological Office with regard to improving their predictive capability
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 Leafield and has been prepared by the Council's Engineering team. It pulls together information from external agencies and individual property owners and seeks to identify the causes of flooding in Leafield during March and July 2007 and potential mitigating solutions.

Leafield is a rural parish located approximately 4 miles to the north west of Witney and 7 miles south of Chipping Norton.

There are no watercourses shown on maps in the village and this was confirmed during a visual walkover survey. The visual walkover survey of the flooded areas and the general environs of the village was undertaken on 18th July 2008. A meeting in the village was also held with Simon Hoare, who as a councillor and former resident of Leafield represented local residents.

Flooding experienced in Leafield has been assessed as four separate areas and all incidences of flooding can be attributed to surface water run-off, as there are no watercourses within the village. Area 1 is the area around The Green in the centre of the village, which suffered flooding due to surface water run-off in January 2007 and again to a lesser extent in July 2007. Area 2 is situated on Lower End, where two individual properties suffered from flooding in July 2007. Area 3 and 4 are located on Greenwich Lane and Buttermilk Lane respectively and again suffered from flooding in July 2007.

WODC have record of 7 applications for Grant Aid in Leafield.

Conclusions and recommendations, including flood management and mitigation / alleviation works and a programme, are shown in Section 7.

This report also includes Appendix 1 detailing the Options Summary, Appendix 2 showing Photographs and Appendix 3 Maps.

4.0 SURVEY

4.1 Description of Area

The village of Leaffield is situated on a hillside and is an upland village. It is located approximately 4 miles to the north west of Witney and 7 miles south of Chipping Norton. OS mapping indicates that there are no watercourses within the village and this was confirmed during a site visit on 18th July 2008 and at a meeting with Councillor Hoare. There are springs reported to be located beneath the village green (adjacent to the school) and the area is underlain by chalks, clays and corn brash.

From discussions with Councillor Hoare, it is understood that the majority of the flooding within the village can be attributed to surface water runoff, both from the field to the north of the properties flooded within The Green area and also from the highway at Lower End and the highway and fields on Greenwich Lane and Buttermilk Lane. Indeed, the flooding from the field to the north of The Green is also believed that have been exacerbated by the compacted nature of the ground (pasture), upon which cattle used to graze.

4.2 Survey Method

A visual walk-over survey of the area affected by the November 2006, January 2007 and July 2007 flooding has been undertaken, including the properties and the highways adjacent to The Green, Lower End, Greenwich Lane and Buttermilk Lane.

See Appendix 2 for photographs.

4.3 Meetings

Table 1: Summary of meetings and correspondence and flooding descriptions

Date	Location	Description
17.07.2008	Leaffield	<ul style="list-style-type: none">• Meeting with Simon Hoare (Councillor) in relation to flooding in January 2007 and July 2007, initial discussions relating to potential mitigation.• Flooding has occurred in the village to properties adjacent to The Green and also at Lower End, Buttermilk Lane and Greenwich Lane. All incidences of flooding can be attributed to surface water run-off.• Initial consultations have been held with the owner of the land to the north of the properties affected by flooding in and around The Green. Discussions included the possibility of constructing a cut-off drain on the land to help alleviate flooding.• Initial consultations have been undertaken with the Parish Council to determine the possibility of utilising open grassland adjacent to The Green as (usually) dry flood basins.
June 2008	Leaffield/Fordwells	<ul style="list-style-type: none">• Correspondence from residents of Fordwells regarding OCC highways drainage improvement works and excess runoff from agricultural fields along Langley and Leaffield Roads.
January	Leaffield/Leaffield	<ul style="list-style-type: none">• Surface water flooding reported to WODC in

2008	Greens	The Greens and Barrow Hill Field.
March 2008	The Ridings Leafield	<ul style="list-style-type: none"> Correspondence from residents along the Ridings regarding surface water flooding as a result of improved road re-surfacing work in 2007.

4.4 Stakeholder Consultation

Table 2: Stakeholder Communications and actions

Stakeholder	Description
TW	<ul style="list-style-type: none"> Flooding in Leafield has not been caused by foul water, therefore Thames Water have not been contacted.
WODC	<ul style="list-style-type: none"> A meeting with WODC Street Scene is to be arranged to discuss the local flooding issues, which will prioritise the response of the engineering team.
OCC	<ul style="list-style-type: none"> OCC Highways team were contacted in July 2008 to discuss issues of highway flooding. Curb raising was undertaken in June 2008 in some areas (Fordwells Area).
EA	<ul style="list-style-type: none"> Initial consultation with the EA has confirmed that they hold no fluvial flooding records for Leafield.

4.5 Application for Grant Aid

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

- Emergency Flood Relief Grant Aid of £250
- 'Hardship' Grants
- Red Cross Grants

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

Whilst the Emergency Flood Relief Grant Aid was not paid to industrial and commercial properties, the Council did provide advice and support to local business affected by the flooding on funding available from Business Link and other organisations.

5.0 PROBLEMS AND CAUSES

5.1 Plans

Figure 1 in Appendix 2 shows areas in Leafield where properties have flooded in January 2007, July 2007 and also where owners have made claims for grant assistance. It can be noted that there are no watercourses in Leafield and all previous flooding can be attributed to surface water run-off.

The flooding can be broadly split into four areas being:

5.2 Area 1 – The Green

During January 2007 and July 2007, flood water affected properties adjacent to The Green, particularly those properties to the immediate east of the Fox Inn and also those to the south west of the school. The resultant flooding of the properties in this location and adjoining land have been attributed to surface water run-off from the land to the immediate north of The Green.

It is understood that run-off from the land initially flooded the properties which immediately abut the land. The floodwaters then flowed across The Green and also affected properties to the south west of the school. Paths and roads in the area generally acted as flow routes channelling water across The Green and through the centre of the village.

On the road to the immediate north of the school, it was noted that there was a lack of kerbing, thus providing an unimpeded flow route for floodwaters through the village, from north to south.

5.3 Area 2 – Lower End

Surface water flooding from the highway is believed to have caused flooding to two properties on Lower End. From a site inspection, it is obvious that these two properties are situated in a relatively low area. Flooding is exacerbated by the lack of kerbs along the southern edge of the highway and also the relatively low thresholds of the properties, compared to the highway. One property has a threshold below the level of the adjacent road and the other property has a threshold at a similar level.

5.4 Area 3 – Greenwich Lane

Flooding is reported to have occurred at two properties at the southern extent of Greenwich Lane. The flooding has been attributed to surface water run-off, with the main flow route being the recently re-surfaced lane itself. Greenwich Lane falls from north to south and there are no clear routes for surface water to discharge. As such, water is able to flow with gravity along Greenwich Lane, causing flooding of the properties at the southern extent of the lane. There is no evidence of highway drainage along Greenwich Lane.

It was noted that some 'private' works have already been undertaken to protect one of the properties, with the construction of a boundary wall.

5.5 Area 4 – Buttermilk Lane

In July 2007, flooding is reported to have come from agricultural fields and directly from Buttermilk Lane and affected two properties just outside the parish boundary of Leafield (properties are located in the parish of Asthal). Due to the nature of the local topography, surface water run-off from Buttermilk Lane and adjacent land is channelled towards the two affected properties.

It was noted that some 'private' works have already been undertaken to protect one of the properties, with the construction of a boundary wall and provision of an linear drain to the front of the drive way.

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. The areas affected by flooding within the Parish have been given unique area numbers, i.e. Area 1. Several options for flood alleviation projects are identified for each area as "Actions" or "Options".

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 could 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.

Parish Flood Options										
Leaffield										
Version 1 – July 2008										
Option ref	Flood Overview	Description of work required					Key issues			Comments
	Options	Environment Agency	Oxfordshire County Council	Thames Water	WODC	Private	Effectiveness	Affects on adjacent land	Cost	
		For queries Tel 08708 506 506 Or email enquiries@environment-agency.gov.uk	Main switchboard: 0845 310 1111 Or e-mail: online@oxfordshire.gov.uk	Enquiries: 0845 200 800	Switchboard: 01993 861 000					
Area 1 – The Green										
	Flooding to properties to both sides of The Green due to surface water run-off from field to the north.									
A	Flood resilient measures on properties.	The EA website contains reference information on flood resilient measures to properties				Homeowners to provide protection against flooding to their properties e.g. flood boards, flood proofing of exterior walls, sand bags.	Only effective if defences are put in place before the water level rises.		Up to £5,000	Onus is placed upon residents to provide own measures.
B	Construction of cut off drain within private land to the north of The Green to intercept run-off. Storage of run-off in open green areas within the village with lowered areas (basins).				WODC to act in a coordination role.	To be undertaken in cooperation and agreement with Leaffield Parish Council and landowners.	Will redirect run-off from private land and alleviate flooding of properties.	No major effects, although will cause flooding in basins.	to £5,000 study to £20,000 construction	Parish Council have previously objected to the use of open land as flood storage basins. Also introduces a potential open waterbody into central part of village during flooding.
C	Construction of cut off drain within private land to the north of The Green to intercept run-off. Storage of run-off in enclosed and concealed tanks. Discharges from tanks to be limited.		To be undertaken in cooperation and agreement with OCC Highways, if discharge to highways drainage.	To be undertaken in cooperation and agreement with TW, if discharge to TW network.			Will redirect run-off from private land and alleviate flooding of properties.		to £5,000 study £5,000 to £20,000 for construction	Consultation will be required with OCC and TW to see whether they are willing to accept attenuated discharges.
Area 2 – Lower End										
	Flooding to two properties on Lower End, due to run-off from the highway.									
A	Flood resilient measures on properties.	The EA website contains reference information on flood resilient measures to properties				Homeowners to provide protection against flooding to their properties e.g. flood boards, flood proofing of exterior walls, sand bags.	Only effective if defences are put in place before the water level rises.	May increase flood risk to adjacent properties as flood water will be displaced	Up to £5,000	

Option ref	Flood Overview	Description of work required					Key issues			Comments
		Environment Agency	Oxfordshire County Council	Thames Water	WODC	Private	Effectiveness	Affects on adjacent land	Cost	
	Options	For queries Tel 08708 506 506 Or email enquiries@environment-agency.gov.uk	Main switchboard: 0845 310 1111 Or e-mail: online@oxfordshire.gov.uk	Enquiries: 0845 200 800	Switchboard: 01993 861 000					
Area 2 – Lower End (continued)										
B	Provision of additional localised highway drainage to intercept water and prevent properties from flooding.		To be undertaken in cooperation and agreement with OCC Highways.		WODC to provide a coordination role.		Will intercept floodwaters from the highway and divert away from the affected properties.		to £10,000 construction	OCC Highways may not wish to accept run-off.
C	Provision of kerbing to the edge of the highway to keep water within highway and prevent properties from flooding, until kerbing is overtopped.		To be undertaken in cooperation and agreement with OCC Highways.				Will keep floodwaters within the highway, until the kerbing is overtopped.	May increase flood risk to adjacent properties as flood water will be displaced.	to £10,000 construction	May cause localised highway flooding, or push the problem elsewhere.
D	Construction of walls around property fronts and incorporation of flood proof gates to act as a barrier to floodwaters.				WODC to provide coordination role and advice	Residents to undertake work.	Will provide protection to the effected properties.	May increase flood risk to adjacent properties as flood water will be displaced.	£5,000 to £10,000 construction	Would require residents to close gates if there is a threat of flooding.
E	Undertake maintenance of existing drains, gullies and culverts.		To be undertaken by OCC on adopted public highways		WODC to provide coordination role		Increase capacity of highways drains	Reduce flooding of roads	To £5,000	
Area 3 – Greenwich Lane										
	Flooding at southern extent of Greenwich Lane. Surface water run-off flows down Greenwich Lane and has not means of escape due to presence of grass verge and dry-stone wall.									
A	Flood resilient measures on properties.	The EA website contains reference information on flood resilient measures to properties				Homeowners to provide protection against flooding to their properties e.g. flood boards, flood proofing of exterior walls, sand bags.	Only effective if defences are put in place before the water level rises.	May increase flood risk to adjacent properties as flood water will be displaced	Up to £5,000	
B	Introduce a camber and gullies onto Greenwich Lane to intercept run-off and prevent flooding at southern extent of lane.		To be undertaken in cooperation and agreement with OCC Highways.		WODC to provide a coordination role.				to £10,000 construction	
C	Introduce localised drainage (gullies) adjacent to properties, to intercept run-off.		To be undertaken in cooperation and agreement with OCC Highways.		WODC to provide a coordination role.				to £5,000 construction	
D	Construct further localised defences (walls etc.) around affected properties.				WODC to provide coordination role and advice	Residents to undertake work.			to £5,000 construction	

Option ref	Flood Overview	Description of work required					Key issues			Comments
		Environment Agency	Oxfordshire County Council	Thames Water	WODC	Private	Effectiveness	Affects on adjacent land	Cost	
	Options	For queries Tel 08708 506 506 Or email enquiries@environment-agency.gov.uk	Main switchboard: 0845 310 1111 Or e-mail: online@oxfordshire.gov.uk	Enquiries: 0845 200 800	Switchboard: 01993 861 000					
Area 4 – Buttermilk Lane										
	Flooding of two properties at southern extent of Buttermilk Lane. Flooding due to surface water run-off.									
A	Flood resilient measures on properties.	The EA website contains reference information on flood resilient measures to properties				Homeowners to provide protection against flooding to their properties e.g. flood boards, flood proofing of exterior walls, sand bags.	Only effective if defences are put in place before the water level rises.	May increase flood risk to adjacent properties as flood water will be displaced	Up to £5,000	
B	Introduce measures to north of properties to manage surface water run-off. Measures to include ground re-profiling and works on highway drainage (i.e. new gullies).		To be undertaken in cooperation and agreement with OCC Highways.		WODC to provide coordination role	Landowners to undertake works.		Re-profiling may increase flood risk to adjacent areas.	to £5,000 study to £10,000 construction	
C	Construct further localised defences (walls and floodgates) around affected properties.				WODC to provide coordination role and advice	Residents to undertake work.	Will provide protection to the effected properties.	May increase flood risk to adjacent properties as flood water will be displaced.	to £10,000 construction	

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Area 1 – The Green

7.1.1 Flood Defence Improvement schemes

Immediate (under 1 year)

- Option A - Individual properties to be fitted with flood defence systems such as flood gate and walls and homeowners to improve flood resilience of property.

Mid-Term (under 1 -2 years)

- Option B/C – Construction of cut off drain north of the Green, incorporating attenuation basins and/or storage tanks.

7.2 Area 2 – Lower End

7.2.1 Maintenance

The following ongoing maintenance is recommended:

- Option E - Undertake maintenance of existing drains, gullies and culverts.

7.2.2 Flood Defence Improvement schemes

Mid-Term (under 1 -2 years)

- Option B – Undertake upgrades and maintenance to highways drainage where necessary.
- Option C – Provision of kerbing to the edge of the highway to keep water within highway and prevent properties from flooding, until kerbing is overtopped.

Long-Term (3 years or more)

- Option D – Construction of localised defences such as flood walls around affected properties.

7.3 Area 3 – Greenwich Lane

7.3.1 Flood Defence Improvement schemes

Immediate (under 1 year)

- Option A – Individual properties to improve flood resilience of property.

Mid-Term (under 1 -2 years)

- Option C – Introduce localised drainage (gullies) adjacent to properties, to intercept run-off.
- Option D – Construct further localised defences (walls etc.) around affected properties.

Long-Term (3 years or more)

- Option B – Introduce a camber and gullies onto Greenwich Lane to intercept run-off and prevent flooding at southern extent of lane.

7.4 Area 4 – Buttermilk Lane

7.4.1 Flood Defence Improvement schemes

Immediate (under 1 year)

- Option A – Flood resilient measures on properties.

Mid-Term (under 1 -2 years)

- Option B – Introduce measures to north of properties to manage surface water run-off. Measures to include ground re-profiling and works on highway drainage (i.e. new gullies).
- Option C – Construct further localised defences (walls and floodgates) around affected properties.

Appendix 1: Photographs



Field generating surface water run-off to the north of The Green.



Track leading from field towards The Green, acts as a flow path during flooding.



Parish Council owned land where flood storage may be feasible .



Flow route from northern side of The Green, across the village green towards affected properties to the south.



Southern view towards village green. Flooding has affected properties shown in distance.



Low property threshold to the south of the village green. Also a visible lack of significant kerbing.



Low property thresholds to the south of the village green. Also a visible lack of significant kerbing.



Ad-hoc gullies to the south of the village green.



Two affected properties on Lower End in the foreground. Flooding caused by surface water run-off from highway.



Threshold of affected property on Lower End below highway level, no kerbing to edge of highway.



Threshold of affected property on Lower End below highway level, no kerbing to edge of highway.



Gullies on northern edge of Lower End, no drainage shown adjacent to affected properties.



View north along Greenwich Lane. Dry stone wall (left of picture) and grass verge (right of picture) prevent surface water from exiting lane. No evidence of highway drainage (gullies).



View south along Greenwich Lane towards affected properties. Again dry stone wall and grass verge prevent flood waters from exiting lane. Lane acts as a flood flow route, conveying water towards affected properties.



New boundary wall to one of affected properties at southern extent of Greenwich Lane.



Affected properties on Buttermilk Lane. Mitigation measures have been implemented to property in distance (wall and linear drain).



New boundary wall to property on Buttermilk Lane. Flooding affects two properties from fields and road to the north.



Surface water run-off from field affects properties on Buttermilk Lane. Mitigation proposals include re-profiling of field to direct flows away from properties.