Report on Increased Surface Water Flood Risk on Common Road, Weston Colville, Cambridgeshire (Updated)

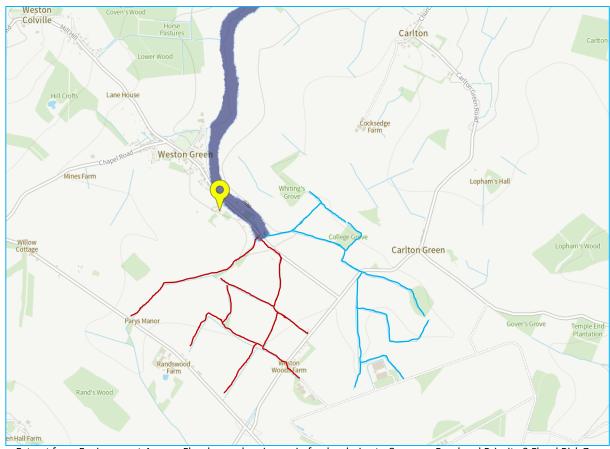
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17 April 2022

A Report on the Increased Risk of Surface Water Flooding on Common Road, Weston Colville, Cambridgeshire CB21 5NS

Introduction

The eastern end of Weston Green (Weston Colville parish) sits at the confluence of two large drainage systems (the Western (red) and the Eastern (blue) systems). Following a period of heavy rain the River Stour headwater can quickly becomes a torrent of water that overwhelms the ditches and spreads onto adjoining land. Properties along Common Road and those adjoining the watercourse are at risk of flooding.



Extract from Environment Agency Flood map showing main feeder drains to Common Road and Priority 3 Flood Risk Zone

The stretch of the river Stour headwater that is the subject of this report is a Priority 3 Flood Risk area (see Annex A – EA Flood Map for Planning). This report highlights an increase in the risk of surface water flooding to properties along the river Stour headwater caused by:

- 1. An alteration to the watercourse following the removal of a dilapidated bridge (with Cambs CC approval), which will increase the flow of water in flood conditions and has resulted in the loss of floodplain capacity.
- 2. The raising of the banks opposite Stour House and at land adjacent to College Farm which has resulted in an additional loss of floodplain capacity.
- 3. The piping of a key ditch now restricts the release of water from a stretch of highway that is known to flood.

Continued....

These alterations to the watercourse are in addition to other factors that are also acting to increase the frequency and severity of flooding:

 An accelerating climate change means that our weather is now wetter in Winter and increasing summer temperatures means that storm events in Summer are going to occur more often and be more intense when they do occur.

2020 was the third warmest, fifth wettest and eighth sunniest on record.

No other year is in the top 10 on all three criteria.

In the space of 30 years, the UK has become 0.9C warmer and 6% wetter.

UK State of the Climate report 2021

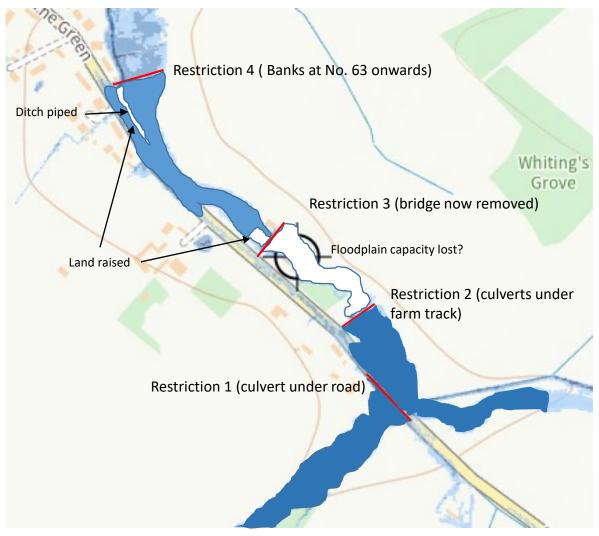
2. All the major drainage systems converging on Common Road have been dredged and cleared in recent years as part of periodic maintenance. But not all property owners have done the same and they are at increased risk of flooding because they have made their property a restriction to the flow of flood water and may have put other properties at risk as well as their own.

Extract 1 below shows the flow of water in flood conditions. The road quickly floods at point A (photograph 1). The water floods the adjacent fields (photographs 2 & 3) and can flood down Common Road itself (photographs 15 & 16). At point B the river overtops the wall to flood Common Road below Fox Hall and down to Stour House (photographs 13 & 14).



Extract 1 - taken from Environment Agency High Risk Velocity Map 22 February 2022 (College farm is the target marker)

If one looks at the flood map of Common Road we can see that there are effectively 3 natural balancing ponds i.e. floodplains caused by restrictions in the water flow. A $4^{\rm th}$ floodplain is formed by water backing up one of the drains in the Western system.



Extract 2 - taken from Environment Agency High Risk Depth Map 22 February 2022 (College farm is the target marker) with the floodplains highlighted by the author.

These natural balancing ponds have worked well in the past to restrict the flow-rate and hold the surface water in storm events over the last 20 years. The worst event being the storm on 25 June 2016. During that event there was some flooding to College Farm and the water level reached the rear doors to No.63 The Green. Even if one cannot be definitive, it is certainly the case that the situation was finely balanced.

The removal of the bridge at College Farm has undoubtedly lost much, if not all, of the effect of the floodplain between restriction 2 and 3. The raising of the land opposite Stour House down to Barbury Cottage and adjacent to College Farm, whilst minor in itself will nevertheless reduce the capacity of that floodplain. Whether a property is flooded or not can be a matter of inches. All interferences with the flow or reductions of the floodplain capacity have a cumulative effect.

The piping of the ditch referred to above presents a different problem. The ditch that was opposite "Old Orchard" took the water from the road drains and from the ditch running between "Old Orchard" and "Stour House". It is also the path for floodwater to escape when the road is flooded. As it is at the lowest point it acts as the outlet for the new balancing pond formed by the raising of the land opposite Stour House. With the piping of the ditch that outlet is now restricted. Note: It is illegal to pipe a ditch without the authority of (in this case) Cambridgeshire County Council.

I remind the Council that many of the flooding problems experienced in the village are the result of landowners piping ditches or failing to carry out their riparian responsibilities. Even as this report was being prepared, yet another property owner has filled in/piped? the ditch in front of their property. Others have altered the watercourse banks to narrow the flow or have placed footbridges across the banks that then restrict the flow in flood conditions. Some have raised their land thus reducing floodplain capacity and increasing the risk to other properties.

As the Parish Council's responsibilities do not extend to flood control I have drawn the matters raised in this report to the attention of the County Council's Flood Risk officers and I have met with the County Council's Principal Flood Risk Officer on site, who will now consider what if any remedial action is required.

Recommendations:

I recommend that the Parish Council remind parishioners that it is a legal requirement to obtain the authority of the County Council before piping ditches. It is also a legal requirement to obtain the authority of the County Council flood risk officer before altering the flow or bank of a watercourse if the effect could be to increase the risk of flooding to other properties.

I recommend that property owners are advised to check their risk of surface water flooding using the Government's flood risk website (https://check-long-term-flood-risk.service.gov.uk/postcode) and ensure that the risk of flooding is notified to and is covered by their home insurers.

I recommend that the Parish Council advise the owners of no's.63, 62 and 62a The Green to restore the original bank of the watercourse, clear its bed of silt, and raise any bridges that are currently too low and which will act to restrict the flow of water in a flood event. Only by removing the restriction to flow that these properties currently present can they mitigate the increased risk of flooding identified in this report.

A Durham 17 April 2022 Photographs in support of this report – working downstream.



Photograph no.1 taken of Restriction 1 on 29 February 2020 . The flooded van gives an indication of depth.



Photograph no.2 taken of land between Restriction 1 and 2 on 29 February 2020.





Photographs no.3 a & b taken of Restriction 2 on 29 February 2020 . Note the difference in height of the water level.





Photographs no. 4a & b. The bridge at College Farm prior to its removal in 2021. The difference in water level between the two sides in surge conditions is similar to that at restriction 2



Photograph no. 5 taken of land adjacent College Farm on 21 February 2022. There had been some rain in the preceding days. Note the level of the site compared to the land beyond in photograph no.6 below.



Photograph no. 6 taken of the site and adjacent land on 21 February 2022.



Photograph no. 7 taken of the land adjacent to the site on 21 February 2022. Note the levels of the banks on either side.



Photograph no. 8 taken of the land from Fox Hall to 63 The Green (White house in distance)



Photograph no. 9. The R.Stour running opposite Stour House on 21 February 2022 (note: the land is now much higher on the right than the other bank).



Photograph no. 10. The piped ditch on 21 February 2022.



Photograph no. 11. Common Road end of piped ditch opposite "Old Orchard" on 21 February 2022.



Photograph no. 12. The R.Stour running through 63 The Green on 21 February 2022. On 25 June 2016 the water was above the bank on the left.



Photograph no. 13 taken of Common Road 135m north-west of the site on 23 November 2014. This has happened several times in the last 20 years.



Photograph no.14 taken of Common Road two hours later than photograph 14. Note the picnic table sitting in the water. This land has subsequently been raised. This photograph emphasises the importance of both this and the land adjacent College Farm as flood plain.



Photograph no. 15 taken of Common Road adjacent College Farm on 25 June 2016.



Photograph no. 16 taken of Common Road outside College Farm on 25 June 2016. Part of College Farm (grade 2 listed building was flooded).

Annex A – EA Flood Map for Planning



Flood map for planning

Your reference Location (easting/northing) Created

College Farm 563061/251877 22 Feb 2022 19:38

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- · you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/quidance/flood-risk-assessment-standing-advice)

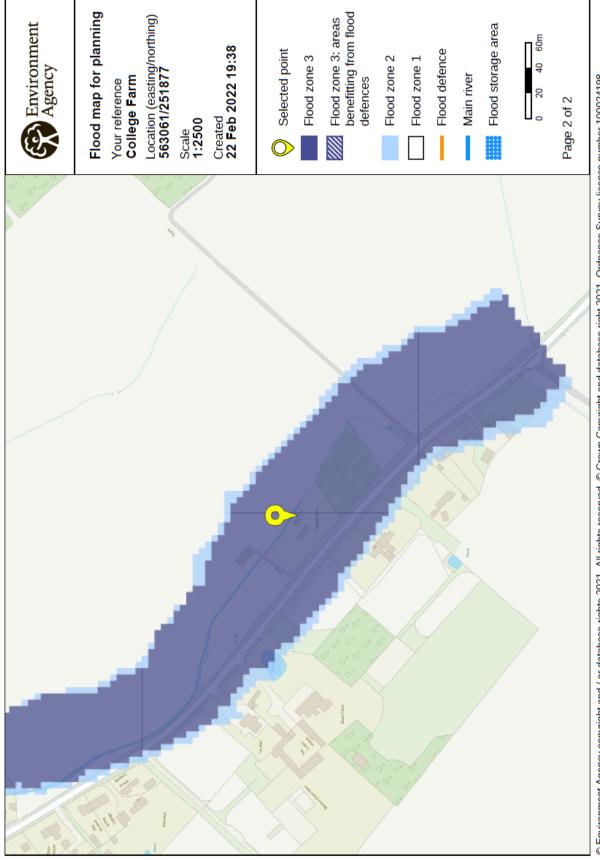
Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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