

**REPORT FROM: NEIGHBOURHOOD SERVICES MANAGER**

**TO: WEST CRAVEN COMMITTEE**

**DATE: 3 NOVEMBER 2015**

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## **POSSIBLE FLOOD ALLEVIATION WORKS IN EARBY**

### **PURPOSE OF REPORT**

As requested at the October meeting of this Committee, to inform members of potential flood alleviation works in Earby to be carried out by the Environment Agency, Yorkshire (EA) to decrease flood risk to homes and businesses in Earby. Also, to discuss the potential for increasing the scale of this scheme to incorporate works on Earby Beck, subject to obtaining funding from external contributions and making efficiency savings by combining schemes.

### **RECOMMENDATIONS**

- (1) That the report be noted.
- (2) That a report on progress be submitted to a future meeting of this Committee.

### **REASON FOR RECOMMENDATIONS**

To advise the Committee of the latest position regarding recent and future flood alleviation works in Earby.

### **BACKGROUND**

1. Flash flooding in Earby has been a problem for many years due to what are known as “rapid catchment areas”. Earby is surrounded on all sides by steep hilly catchments plus the high presence of springs. Flooding has resulted from a combination of problems linked to the watercourses (three designated main rivers passing through Earby), sewers, highway drains and surface water runoff.
2. Severe flooding has occurred in Earby in the past. The last major one in July 1964 caused devastation –see the web link below.

[http://www.cravenherald.co.uk/nostalgia/nostalgia\\_history/11480865.Earby\\_devastated\\_by\\_floods\\_\\_\\_50\\_years\\_ago\\_/?ref=var\\_0](http://www.cravenherald.co.uk/nostalgia/nostalgia_history/11480865.Earby_devastated_by_floods___50_years_ago_/?ref=var_0)

## CURRENT ISSUES

3. On behalf of the Environment Agency, JBA Consultancy (JBA) undertook a study of the culverted (main river) watercourse known as Victoria Clough in January 2011 titled "Culvert Blockage Sensitivity Testing". This study identified areas in Earby likely to flood as a result of failure of the Victoria Clough culvert. Their assessment covered depth, hazard and flood velocity of the floodwater. The peak flows in this system were approximately 15,000 litres per second (for a 1 in 5 year return period storm, ie one which is statistically likely to be encountered once every five years), 20,000 litres per second (1 in 25 years) and 26,000 litres per second (1 in 100 years). During a 1 in 100 year storm, failure of this culvert would likely result in flooding to 145 residential properties and 158 non-residential properties.
4. Following on from this, a CCTV survey of Victoria Clough culvert was carried out in March 2012 by Lanes for Drains for the EA. The culvert is approximately 460 metres in length and 750mm diameter (at its largest point). The inlet is located in a field to the east of Salterforth Lane and the outfall is adjacent to Victoria Bridge on Victoria Road where it discharges into the New Cut main river. Various problems were noted along its length and the EA has roughly estimated the cost of repairs to be somewhere in the region of £450,000. These proposals are being submitted in their Medium Term Plan (MTP) and will include section repairs, some replacement works and a new trash screen at the inlet.

The attached plan refers.

5. Discussions held with the EA on 14 September 2015 identified the potential for incorporating further flood alleviation works in Earby along with their proposed works on Victoria Clough. This would be subject to obtaining match funding from other parties, including Pendle Council. By applying for funding for two schemes and running them side by side, potential savings could be made that may enable both schemes to achieve the points required to obtain funding from the Department of Environment, Food and Rural Affairs (DEFRA).
6. The secondary scheme suggested was the flow diversion route on Earby Beck main river, first considered in 2008. This scheme was brought to the attention of West Craven Committee on 2 December 2008 following a pre-feasibility study undertaken by JBA in May 2008 which identified both minor and major schemes for flood alleviation in Earby. One of the major schemes was a flow diversion route to bypass the high flood risk area in the low-lying part of Earby, which has a gradient of around 1:250 compared to the upper reaches of Earby Beck where the gradient is as steep as 1:20 in places. Two possible flow diversion routes were identified in this study and Option 2 was considered to have the highest benefit-cost ratio, achieving a DEFRA score of 19 at that time. This scheme indicated a reduction in the number of properties at risk of flooding from 191 to 70 at an estimated cost of £450,000. However, due to changes in funding, the EA is trying to revive this scheme by undertaking a more detailed assessment as a follow-on from the original pre-feasibility study undertaken in 2008. By considering the possibility of external funding and carrying out works in conjunction with the recent proposals for Victoria Clough, the EA has indicated that this would likely enable Earby flood alleviation works to attain more points within the funding matrix. Further assessments are already being undertaken by the EA to check the feasibility of this.

## PREVIOUS SCHEMES

7. In relation to minor schemes identified in the pre-feasibility study undertaken in 2008, Pendle Council and Lancashire County Council (as lead local flood authority) have already carried out various works to reduce the flood risk in Earby, including:
  - infilled sections of Earby Beck wall, near to the Conservative Club (LCC); and

- structural repairs of Earby Beck wall (between Keb Bridge and the library), including increasing the wall heights and channel clearance works to increase flow capacity in the channel (PBC).
8. In addition to this, Pendle Council has also constructed a sump (plug hole) at Earby bus station. This sump has not reduced the risk of Earby Beck overtopping but is intended to provide a relief for floodwater rising to such high levels as seen historically in the centre of Earby. A contribution of £15,000 to the cost of the scheme was made by LCC.
  9. A possible future scheme is to remove surface water discharge into a foul sewer in Stoney Bank Road (discussions with Yorkshire Water are ongoing).
  10. Another scheme put forward was the positioning of a temporary stank (flood barrier) in New Cut between Sough Bridge and the old railway line to hold back the water. This would be used only in times of severe weather warnings from the Meteorological Office. However, following a meeting with the Earby and Salterforth Internal Drainage Board, the Earby Flood Group and Pendle Council in June 2014, this option was discounted.

## **PENDLE'S FINANCIAL INPUT**

11. £40,000 was included in the corporate capital programme 2014/15 for flood alleviation works in Earby. The balance was slipped to 2015/16.
12. Section 106 funding for flood alleviation works in Earby was obtained from two planning permissions:
  - Bawhead Road (£30,000); and
  - Grove Street (£20,000).
13. The Section 106 monies have been spent but the remaining balance of PBC and LCC capital monies is £50,738.

## **DISCUSSION**

14. This is an initial report for the Committee to be made aware of potential flood alleviation schemes in Earby.
15. The matter will be discussed next at the Making Space for Water meeting on 11 November 2015 (this is a meeting of all agencies involved in flooding/flood prevention issues).
16. Further updates will be submitted to this Committee.

## **IMPLICATIONS**

**Policy:** None arising directly from the report.

**Financial:** As set out in the report.

**Legal:** None arising directly from the report.

**Risk Management:** The possible flooding of properties.

**Health and Safety:** None arising directly from the report.

**Sustainability:** Recent years have seen an increase in extreme weather conditions and flooding events due to climate change.

**Community Safety:** The possible flooding of properties.

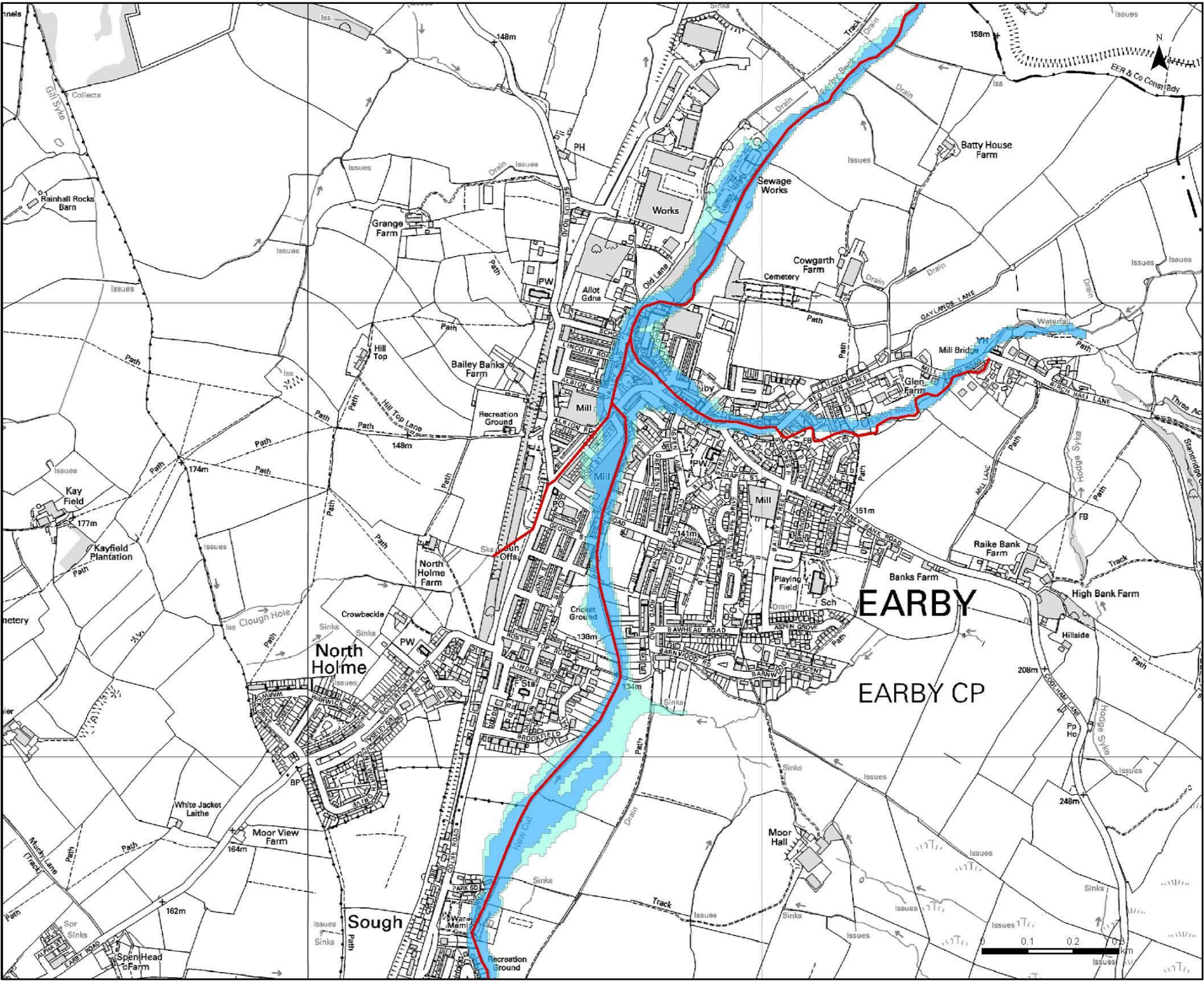
**Equality and Diversity:** None arising directly from the report.

## **APPENDICES**

Appendix: Earby Flood Zones.

## **LIST OF BACKGROUND PAPERS**

None.



Legend

- 10th River
- Flood Zone 3 (22)
- Flood Zone 2 (22)