

Flood Investigation Report

Silver Street, Stevington

1. Introduction:

1.1. Background

The Flood and Water Management Act 2010, establishes unitary and upper tier authorities as Lead Local Flood Authorities (LLFAs). Section 19 of the Act gives LLFAs the duty to investigate a flood event when considered appropriate and to the extent it deems necessary. The LLFA will identify the relevant Risk Management Authority (RMA) and record any actions which have been taken or they are proposing to action in response to the flood event.

When an investigation is carried out under section 19 of the Act, the LLFA will publish the results of the investigation and notify any relevant risk management authorities.

1.2. Risk Management Authority Responsibilities

Table 1.1 shows RMAs responsible for managing the flood risk from different sources that the BBC investigation procedure applies to.

Flood Source	Environment Agency	Lead Local Flood Authority	Drainage Authority	Water Company	Highway Authority
		Bedford Borough Council		Anglian Water	Bedford Borough Highways
Main River	X				
Surface Water		X			
Surface Water (on or coming off the highway)					X
Sewer flooding				X	
Ordinary Watercourse			X		
Groundwater		X			
Reservoirs	X				

Owners of land adjoining, above or with a watercourse running through it are termed 'riparian owners' and have responsibilities to maintain and allow the free flow of water through their land. Further information on riparian owner rights and responsibilities can be found in the Environment Agency publication 'Living on the Edge' [here](#).

2. Flood Incident, Extent and Impact:

The flooding at Silver Street, Stevington is a recurring issue. The most recent flooding event was reported to the Council on 26th November 2012 following the heavy rainfall events of this period. The impact of this event was flooding to the road resulting in a road closure, ingress of water into a garage and restricted vehicular access to a number of properties.

3. Likely Cause of Flood Incident

Investigation work undertaken by the Highways Authority and the Council's drainage engineer identified a land drain (approximately 250m in length) running from the grille on the ditch on Silver Street through the field and discharging at the back of the field into an ordinary watercourse. The condition of this pipe is believed to be poor following attempts to cleanse the system via jetting from both ends. It is believed the pipe is a plastic corrugated pipe which has been butt jointed (where two ends are 'butted' together with no other method of joining). Over time the joints have separated slightly and, along with the corrugations inherent to the pipe, multiple blockages have developed resulting in water backing up and causing the flooding to Silver Street. The outfall to the pipe is also believed to be partially submerged during periods of heavy flow which will impede water from exiting the system further.

4. Responsible Risk Management Authority

The landowner is responsible for maintenance of the land drain and the road side ditch. As the land drain is causing the flooding issue in this instance, it is the responsibility of the landowner to repair and maintain the land drain.

5. Recommended Action

Replacing and repairing the land drain to allow free flow through the pipe should alleviate the flooding to Silver Street by clearing water from the roadside ditch. Maintenance of the pipe will be important to limit future blockages. Installation of inspection chambers along the length of the pipe will assist in future cleansing of the system. However it should be noted that the capacity of the system may not be adequate for an exceptional rainfall event even if working at full efficiency. Due to the lay of the land, it is unlikely that properties in the vicinity would flood and therefore the costs of upgrading the system would be considered disproportionate to the risk.

There is also no proportionate solution for the partially submerged outfall due to the topography of the land and available gradient afforded. However, with a fully cleansed pipe the effects of this should be negligible.

Table 5.1 highlights the recommended actions by Bedford Borough Council for the responsible body and a suggested timescale of responses required to confirm that the responsible body is aware of the flood incident and is taking appropriate action.

Table 5.1: Recommended actions for the responsible body and timescale for a response required.

Responsible Authority	Action	Timescale for response required
Landowner	To replace, maintain and ensure the free flow of the land drain from Silver Street to the watercourse Install inspection chambers along the length of the pipe to allow future cleansing of the system	By May 2013 (dependent on receding water table)

6. Next Steps

The next steps for the LLFA are to ensure the report is forwarded to the responsible body identified in table 5.1 and that they are aware of their flood risk management responsibilities. The LLFA will follow up with the authorities to determine progress against the recommended actions.