

CHAPTER SEVENTEEN - FLOOD RISK MANAGEMENT

Each chapter in the draft Neighbourhood Development Plan is under constant review and refinement. Not all of the Appendices are yet available but they will be posted on the website as and when they are ready. The text in the chapters should be sufficient, however, to enable you to respond to the questions which are in the leaflet and repeated at the end of the section for your convenience.

OBJECTIVES

- To prevent or, at least minimise, flood events in Lower Street.
- To avoid new developments increasing the flood risk.
- To ensure clearance and maintenance of roadside gullies thus reducing risk of flooding.

Location of waterways in and around Stansted Mountfitchet

Stansted Mountfitchet is located on the north-western edge of the River Thames catchment. All waterways in the Parish drain west and south and will eventually link into the Thames. There are four main watercourses within the Neighbourhood Plan Area, Ugley Brook, Stansted Brook, The Bourne and the River Stort. The Ugley Brook flows along the eastern edge of the village where it joins the Stansted Brook, just upstream of the railway station, thence onwards to the River Stort. The Bourne comes from the east of the parish and joins the Stansted Brook west of Durrel's Wood. The combined flow of The Bourne and the Stansted Brook has caused flooding on land east of the railway (see map below)

MAP FROM P69

The Ugley Brook is a relatively small watercourse but much of it is classified by the Environment Agency as a 'Main River', south of Bollington Hall. It has a predominantly rural catchment area, but the Brook has been heavily modified and straightened in the past. The final 333 metres flows through a culvert which has a capacity of 825mm. At the entrance to the culvert there is a non-standard trash screen as well as pre-trashing wooden poles upstream.

Flooding – The Concerns

Lower Street – This is an important commercial (and residential) street in the lower part of the village. Periodically, but not frequently, there have been serious floods most recently in 2001 (three times) and 2014 (see photograph). In the latter case twenty properties, both commercial and residential, were flooded. These events have been fluvial in nature i.e. excessive rainfall over an extended period of time which caused the waterway's capacity to be exceeded. From time to time pluvial flooding has occurred when an extremely heavy downpour of rain, usually in a short time, has overwhelmed the drainage system as the excess water has nowhere to go.

Elsewhere in the village – Flooding issues relating to recent new developments are as follows:

- Walpole Meadows – The developer failed in its obligations in delivering the approved design of the SuD's ponds not least in landscaping. Perhaps of more concern is the increased volume of surface water likely to flow directly into the Ugley Brook following the construction of the B1383 roundabout and junction with High Lane.
- Elms Farm – The Flood Management work carried out here has reduced the instances of overload at the outlet points of the Ugley Brook into Stansted Brook which, in the past, created a back flow and flooding in Lower Street.

Flooding in other areas is mostly pluvial in nature and as such is unpredictable

Three causes may be identified:

- Pluvial flooding which, by its nature, is difficult to predict but is regularly evident in Lower Street where the consequences could be significantly mitigated by the installation of a further two drains.
- The historic road system whereby a number of documented watercourses within the village bounds have been largely overlooked by the regulatory authorities. The topographical nature of the village and surrounding countryside has been largely ignored in the past resulting in private roads with no surface drainage prescribed for them. As a result, the lowest part of the village including Lower Street, Station Road and Water Lane have a high priority. Within this area Sunnyside deserves a specific mention as it drains water as far away as the Recreation Ground with no gullies to take this run-off.
- Poor design issues – Church Road now floods owing to badly designed and positioned traffic calming measures with footpath widening possibly having blocked a known watercourse.
- Blocked gullies – This problem is common since regular maintenance was discontinued and is a major factor contributing to pluvial flooding.

Actions taken and Policies needed in the next fifteen years

Mitigating the impact of flooding in Lower Street

- Flood warning system installed in Gall End to measure level of Ugley Brook which triggers alerts to identified individuals. System is in the process of moving to solar power.
- Volunteer flood wardens are ready to respond to close Lower Street, if it floods, between Grove Hill and Chapel Hill junctions. This is necessary to prevent vehicles from creating a 'Bow Wave' wash of water into vulnerable properties. Failure to do this quickly in early flood situations resulted in substantial damage to a number of properties.
- Necessary equipment and clothing has been purchased by the Parish Council and is stored conveniently in premises in Lower Street.
- Clearing the debris which builds up at the culvert trash screen is critical as it inhibits the flow of water into the culvert which then builds up and overflows. As Essex County Council is unable to fulfil its responsibility, the task of clearance has fallen to a tiny number of volunteers. Such dependence is unreasonable and risky. The Parish Council is considering ways of supplementing this voluntary effort not least by providing equipment conveniently and ensuring safety measures are in place. Expenses should be met by Essex County Council.
- Property owners will continue to be encouraged to take prevention measures on their premises hopefully with a funding contribution from an Environment Agency scheme.

Preventing flooding in Lower Street

- The Environment Agency has spent several years commissioning and reviewing possible schemes to prevent flooding.
With encouragement from the Parish Council the Environment Agency is in discussion with willing landowners to deliver a viable Natural Flood Management Plan (NFMP). The principles of NFMP are 'Slow the Flow-Divert-Store' so as to find ways to reduce the flow of water, divert the flow to hold it and then let it trickle back into the watercourse.
Current proposals focus on two areas – one to the north around Bollington Hall and one much closer to the village. Implementation of this, or a similar scheme is a priority and urgent. (see Appendix ** for a map showing proposals)
- The installation of a second set of pre-trashing wooden poles further away from the culvert trash screen.

Reducing the risk of pluvial flooding

- The most important requirement is the clearance of roadside gullies which is the responsibility of Essex County Council. However, ECC no longer undertakes regular maintenance. It, therefore, falls to the Parish Council to ensure that blockages are reported and to ensure, as far as is possible, that appropriate action is taken **preferably by agreeing a schedule with ECC (see Appendix ** for location map)**
- The Parish Council is holding a stock of sandbags which residents can take if their properties are threatened with flooding.

Plans for new developments need to be scrutinised to ensure that not only do plans not increase the potential for flooding to occur but will reduce the risk of flooding in the Neighbourhood Plan area. Any drainage proposals (SUDS) must be effective and landscaped with planning conditions enforced if necessary.

POLICIES

- SMFL 1 -** To ensure assessment in new developments undertakes sequential testing and a Flood Risk Assessment in Flood Zone 2 and 3 areas, in accordance with national planning policy.
- SMFL 2 -** To maximise opportunities to reduce the causes and impacts of flooding through appropriate SUDS with all proposals accompanied by a comprehensive management plan with regard to maintenance in perpetuity and public safety.
- SMFL 3 -** To acquire land for the implementation of natural flood management features and to ensure such schemes are carried out in appropriate locations on Ugley Brook.
- SMFL 4-** Applicants for development proposals located within eight metres of a watercourse or within flood Zone 3 are required to consult with the Environment Agency prior to the submission of a planning application to discuss Natural Flood Management options alongside SUDS.
- SMFL 5-** Regular monitoring of roadside gullies in areas likely to contribute to serious flooding should be undertaken through the auspices of the Parish Council with the appropriate maintenance work carried out promptly by Essex County Council.

CONSULTATION QUESTIONS

- 1** **Have you experienced flooding in the village? If so, please give the location and an indication of how frequent.**
- 2** **Are the drains in the area where you live kept clear? If not, please indicate the location.**
- 3** **If your property is vulnerable to flooding, what steps have you taken to reduce flood risk and what can other authorities do to help you?**

ADD

RELEVANT POLICIES IN ULP AND UDLP

RELEVANT EVIDENCE BASED DOCUMENTS

DRAFT