

Flood Investigation Report



Image courtesy of Mark Lovett

Shroton Flood Event of 26–27 January 2026

This flood investigation report has been produced by Dorset Council as a Lead Local Flood Authority under Section 19 of the Flood and Water Management Act 2010.

Contents

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1. Introduction

The Flood Risk Regulations 2009 and the Flood and Water Management Act 2010 (the Act) have established unitary and upper tier local authorities as the Lead Local Flood Authority (LLFA) for their area. This has placed a number of responsibilities on the LLFA in relation to flood risk management and in particular Section 19 of the Act which states:

Flood and Water Management Act 2010: Section 19 – Local Authorities: investigations

- 1) On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate -
 - a) Which risk management authorities have relevant flood risk management functions, and
 - b) Whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.
 - 2) Where an authority carries out an investigation under subsection (1) it must -
 - a) Publish the results of its investigation, and
 - b) Notify any relevant risk management authorities.
-

When considering if it is necessary or appropriate to investigate a flood event Dorset Council will review the severity of the incident, the number of properties affected and the frequency of such an occurrence. Dorset's Local Flood Risk Management Strategy clearly sets out the criteria to be used when considering a Flood Investigation Report.

This report has been produced to comply with legislation and to determine the main causes of the flooding. Each affected area will have several recommended actions to be taken forward by the relevant Risk Management Authorities (RMA's) or in some cases, by the landowner or local community action group.

2. Risk Management Authority Responsibilities

The general RMA responsibilities in relation to flood risk and surface water management are outlined below:

- **The Environment Agency (EA)** is responsible for managing the risk from the sea, main rivers and reservoirs and has a strategic overview role for all flood risk management, making it a key partner for Dorset Council, especially when managing the risk from combined sources and in the event of a large flood incident. The EA also

provides a flood warning service throughout England and Wales in areas at risk of flooding from rivers or the sea.

- **Dorset Council as the Lead Local Flood Authority (DC LLFA)** is responsible for the management of the flood risk from ordinary watercourses, groundwater and surface water runoff. It is also responsible for consenting to works on and enforcing the removal of any unlawful structure or obstruction within ordinary watercourses. Dorset Council must also prepare a Local Flood Risk Management Strategy, maintain a record of flood risk assets and undertake flooding investigations. It is also a statutory planning consultee for the management of surface water drainage to major developments (ten or more houses and commercial development of floor space greater than 1,000m² or sites larger than 1Ha)
- **Dorset Council as the Highway Authority** maintains the highway drainage system to reduce the amount of standing water on the highway. This is achieved by limiting the water on the roads and ensuring that they are kept clear of surface water; including the maintenance of highway gullies and culverts.
- **Water and Sewerage Companies (Wessex Water)** Water and Sewerage Companies are responsible for managing the risks of flooding from surface water and foul or combined sewer systems providing drainage from buildings and yards.
- **National Highways (NH)** is responsible for managing, maintaining and improving the motorways and trunk roads across England and any associated drainage and flood risk.
- **Land/Property Owners** that have a watercourse in or adjacent to their land have riparian responsibilities on that watercourse. This means the landowner must:
 - To let water flow through their land without any obstruction, pollution or diversion which affects the rights of others.
 - Accept flood flows through their land, even if these are caused by inadequate capacity upstream.
 - Keep the banks clear of anything that could cause an obstruction and increase flood risk, either on their land or downstream if it is washed away.
 - Maintain the bed and banks of the watercourse and the trees and shrubs growing on the banks and should also clear any litter or debris from the channel and banks, even if it did not come from their land and to keep any structures, such as culverts, trash screens and debris grills, weirs and mill gates, clear of debris.

All RMAs have a duty to co-operate and to share information in relation to their flood risk management functions.

3. Flood Incident Summary

Winter 2025–2026 in Dorset was characterised by exceptionally high and persistent rainfall, with total precipitation reaching 576.8 mm, approximately 197% of the long-term average, making it the second wettest winter on record since 1836. (Met Office).

This was driven by a sustained pattern of Atlantic weather systems producing frequent and near-continuous rainfall, particularly during December, January and February, with January alone being around 50% wetter than average. The prolonged nature of the rainfall, rather than isolated extreme events, led to saturated ground conditions and significantly elevated flood risk across the county.

Much of the rainfall infiltrated the permeable chalk and superficial deposits rather than immediately running off. The groundwater table rose as the aquifer became saturated.

River flows rose sharply and were recorded as exceptionally high across the region. Groundwater levels in the Chalk aquifer reached near-record levels, particularly across central and southern Wessex. Soil moisture deficit fell to 0–10 mm, leaving the ground fully saturated.

In Shroton, levels in the River Iwerne and Meadow Brook rose sharply and overtopped their banks, with water levels reaching the soffit of the Frog Lane Bridge.

The primary causes of flooding in Main Street and at The Cross were groundwater emergence and surface water runoff from an already saturated and elevated catchment. Bessell's Lane, Telegraph Street and The Corner acted as flow pathways.

The intensity of the storm overwhelmed highway drainage systems. Groundwater infiltration likely reduced the capacity further of the drainage network and contributed to increased baseflow within local watercourses.

Storm Chandra resulted in internal flooding being reported to four properties at Shroton. The worst-affected areas were Main Street and The Cross.

Local observations indicated conditions like those experienced during Storm Bert in November 2024.

Floodplain inundation from the River Iwerne often indicates that the catchment has experienced prolonged recharge, the groundwater table is near its seasonal maximum, groundwater discharge to the river is very high, and the risk of groundwater flooding to nearby properties is increasing.

In hydrogeological terms, river levels, groundwater levels and floodplain water levels become hydraulically connected. The ordinary watercourses in the area, surrounding soils and shallow groundwater are essentially part of the same saturated system. Historically, Shroton had more open ditch features which would have better managed water in the environment, making inspection and maintenance easier. In some areas, particularly in Main Street these ditches have been culverted following the loss of the former Mill, most likely aiding development growth within the village.

Shroton lies within the Iwerne Valley, an area known to be susceptible to groundwater flooding during prolonged wet winters. Similar valleys throughout Dorset and Cranborne Chase have experienced property flooding when groundwater levels approached or exceeded those recorded during major flood events such as 2013–14 and 2025–26.

River overtopping and property flooding are both consequences of an exceptionally high groundwater table. An overtopped river effectively acts as a visible indicator that the surrounding groundwater system is full; once groundwater levels rise sufficiently, water can enter properties from below even where floodwater never directly reaches the building.

4. Groundwater

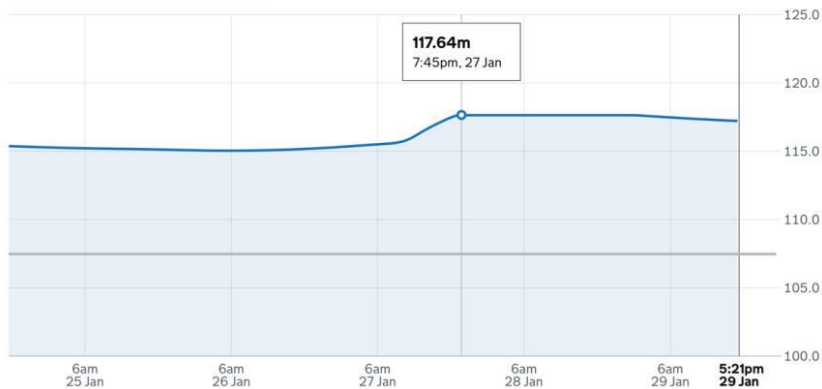
On the 3rd February the Environment Agency provided a 'Groundwater Flooding Community Briefing' document and advised that 32 of the 35 groundwater Flood Warnings in force across Dorset remained in place.

The briefing advised:

Groundwater levels remained at or near record highs, matching or exceeding 2013/14 levels.

Normal range 0.00m to 107.50m

Height in metres over the last 5 days



Groundwater borehole data recorded at Iwerne Hill Farm

Between October 2025 and January 2026, the Wessex area received 629mm of rainfall across areas at risk of groundwater flooding. On top of this, in the 8-day period following Storm Chandra a further 120mm of rainfall fell in areas at groundwater flood risk.

5. Incident Summary

Flooding in Shroton during Storm Chandra (26–27 January 2026) was primarily caused by a combination of saturated ground conditions, intense rainfall, surface water runoff, and elevated groundwater and ordinary watercourse levels.

Highway drainage systems were overwhelmed due to exceedance of their design capacity, sediment blockages and asset failures.

The Frog Lane bridge is a significant flow constraint, although there is a bypass alleviation culvert it is unable to prevent high flows reaching the soffit level of the bridge and the watercourse breaking its banks, contributing to flooding of upstream land and Frog Lane.

In Shroton, the correlation between river overtopping, rising groundwater levels, and internal property flooding is usually because they are all symptoms of the same hydrological process, rather than one directly causing the other. The villages of the Blackmore Vale and Cranborne Chase sit in catchments strongly influenced by groundwater from chalk aquifers.

In chalk catchments, raising river or pond levels can sometimes raise local groundwater levels and prolong wet conditions.

Ongoing, prioritised maintenance, infrastructure improvements, and catchment management measures are required to improve the movement of water through the catchment drainage channels and piped assets to reduce the recharging of groundwater aquifers, it is important that flows remain within the river channel and its banks.

Implementation of the quick wins and recommended actions in this report will improve resilience, reduce runoff, and enhance drainage system performance.

Table 5.1 List of localised areas in Shroton affected

Location	Number of properties internally flooded	Incident Date	Main source(s) of flooding during incident
Frog Lane	1 (dwelling)	27/1/2026	Surface water runoff, Groundwater
Main Street	3 (dwellings)	27/1/2026	Surface water runoff, Groundwater, blocked drainage assets.
Location	Areas that suffered highway flooding and/or external property flooding	Incident Date	Main sources of flooding during incident
Telegraph Street	Highway	27/1/2026	Surface water runoff
Bessell's Lane	Highway	27/1/2026	Surface water runoff, Groundwater
Frog Lane	Highway & Property	27/1/2026	Overtopping of the River Iwerne & Surface water runoff
The Corner	Highway & Property	27/1/2026	Surface water runoff, Groundwater

Table 5.2 Rainfall recorded

Date	Rainfall (mm)
Storm Chandra 26th ~ 27 th January	63.3mm

This data in table 5.2 had been recorded by the Dorset Council rain gauge at Durweston. The event is estimated to represent a 1-in-45-year return period rainfall event.

Dorset Council rain gauge data gives an average rainfall for the winter period (between Nov 2025 to Feb 2026) across Dorset of 732.95mm. For the Shroton area, the recorded rainfall data had been 1049.2mm.

The long-term average winter (December–February) rainfall for Dorset is approximately 293mm. During the winter of 2025–2026, total rainfall reached 576.8 mm, equivalent to 197% of the long-term average, (Met Office data).

5.3 Historic Flooding

There has been previous flooding experienced in Shroton, the formally reported flooding incidents (FORT) can be seen in Table 5.4.

Table 5.4 Historic flooding events in Shroton

Date	Area
January 2014	Frog Lane (1 property)
January 2014	Shroton Cross (1 property)
December 2025	Main Street (1 property)
January 2025	Main Street (1 property)
February 2025	Main Street (1 property)

6. Data & Information Collation

This report is based on information submitted via Dorset Council's Flood Online Reporting Tool (FORT), partner organisations, the public, and site investigations.

It may not represent a complete record of all flooded properties.

7. Extent & Impact of Flooding

Access to Main Street and Frog Lane became impassable for some vehicles and those on foot, affecting transport services and access to healthcare. Residents likely experienced disruption, including increased insurance costs. Pedestrian and vehicular access was restricted, potentially impacting vulnerable residents.

No schools, commercial properties, or critical infrastructure were reported as flooded.

7.1 Main Street

The northern area of Main Street experienced flooding due to a combination of significant surface water runoff and elevated groundwater levels. Water depths reached approximately 200-300 mm.

Three properties suffered internal flooding, with one property at The Glebe experiencing external flooding.

Environment Agency's surface water flood maps indicate a high-risk area at the northern extent of Main Street.

7.2 Frog Lane

One property experienced internal flooding from surface water runoff, with bow waves from vehicles contributing to water ingress.

Flood depths reached approximately 300 mm.

The Frog Lane bridge restricts fluvial flow. Although a bypass culvert exists, it appears insufficient during times of high watercourse flow as levels reach the soffit of the bridge, this leads to watercourse overtopping upstream and flooding to adjacent land.

Ditches along the lane are heavily silted and currently provide limited storage capacity, or ability to efficiently discharge to receiving water bodies.

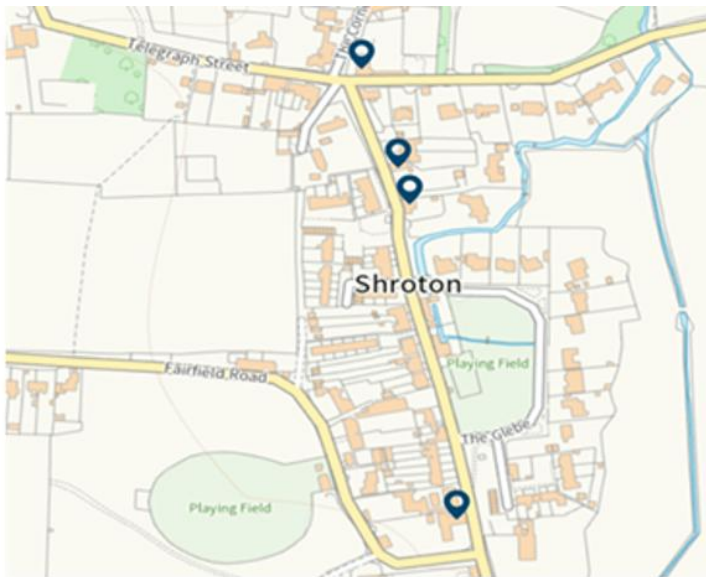
The community reports that the flooding of Frog Lane and rising groundwater levels in the surrounding area appear to coincide with the River Iwerne breaking its banks.

It should be noted that the Environment Agencies online surface water mapping indicates a 'medium' surface water flood risk to the Frog Lane highway.

7.3 The Corner

The Corner experienced external property and highway flooding due to surface water runoff and high groundwater levels. Flood depths reached approximately 200 mm.

7.4 The map below in Figure 7.5 shows the locations of properties internally flooded on 27 January 2026 at Shroton



7.5 Map extract from Dorset Explorer

8. Highways Drainage

Highway drainage systems from Bessell's Lane, Telegraph Street, and The Corner converge at The Cross before discharging to the River Iwerne in Main Street.

High river levels, significant catchment surface water runoff and elevated groundwater reduced the efficiency of highway drainage assets. Sediment blockages and asset failures further reduced performance.

During a site visit on 27/7/2026 a manhole had been lifted within the footpath south of the entrance to 'The Glebe' (X385993 Y112606) and high sediment level could be seen.

Highways drainage asset information indicates a number of sediment 'catchpits' being present at The Cross, The Corner and Main Street.

In respect of the highway's drainage assets the community have commented;

There was a not insignificant proportion of gullies and culverts across the village that were blocked or flow restricted because of debris/sediment accumulation. There was no routine clearance of these assets. This really did not help. The village community has now organised to flag these problem drains to DCC Highways to ensure that they work at their design spec. Easy small win.

Also kerb side gutters are not ever cleared - quite minor but swift early flows to drains are important.

Image of the Bessell's Lane Runoff Pathway



9. Sewage Infrastructure

There are no mapped public surface water sewers in Shroton.

Wessex Water have provided the following comment;

Following an extreme weather event on the 26/27 January 2026, Storm Chandra, one incident was reported to Wessex Water from Shroton. The incident was originally classified as internal flooding, however upon arrival the crew found evidence of localised surface water flooding in the road and ground water entering in the house. There was no evidence of sewage flooding at the property.

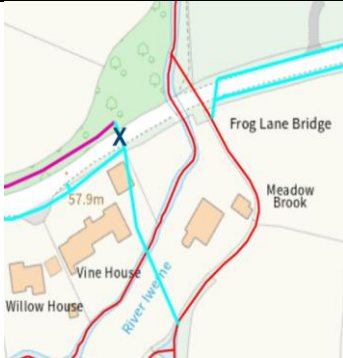
Wessex Water is currently trialling the installation of sewer monitors in the network, 3 monitors have been put in Shroton so far and more are awaiting installation. Additionally, 72 metres of the network are under 6 monthly routine maintenance.

As part of our ongoing investment plan, we are planning to invest into the water recycling centre to reduce the level of phosphorus. In addition, an investigation is going to relocate the discharge location of the final effluent to reduce any possible summer impact.

10. Quick wins

- Clean and clear highway drainage assets
- Regular maintenance of highways scheme catchment pits and drainage assets
- Regular reporting of blocked drains
- Maintenance of Frog Lane ditching and culverts, the removal of flow constraints

Action By	Recommended Action	How
Highways Authority	Cleanse, investigate & remove flow constraints and blockages, sediment and tree roots etc. from the Highway drainage scheme assets at The Corner, The Cross, Main Street and in Telegraph Street.	Highways Authority jetter crew, and local workforce.
Highways Authority, LLFA, Riparian Landowners	Cleanse, investigate the efficiency of the highways culvert under Frog Lane that manages discharge from the ditch along the northern edge of Frog Lane. Investigate for any flow constraints through to the outfall location.	Highways Authority jetter crew, and local workforce. Third party access to adjacent land will be needed.

	 BNG; X386098 Y112931	
Highways Authority, LLFA	During a site visit on 27/7/2026 a manhole had been lifted within the public footpath south of the entrance to 'The Glebe' in Main Street, BNG; X385993 Y112606. High sediment levels could be seen. It would be helpful to investigate the highway drainage scheme efficiency, to locate the point of discharge and understand the source of the sediment.	Highways Authority jetter crew, and local workforce. 

11. Recommended Actions

Key recommendations include:

- Maintenance of riparian owned ditches and ordinary watercourse.
- Investigation of sediment loss and measures to manage.
- Discuss Frog Lane bridge flow capacity issues.
- Investigate efficiency of Highway's drainage systems.
- Discuss maintenance regime of Highway's drainage assets.
- Increase community resilience and awareness.
- Develop a Community Flood Plan.
- Work with landowners to reduce surface water runoff and sediment loss.

As a result of this investigation report, several recommendations have been made for actions to be taken in specific locations. These are either because of initial site or desktop investigations, or the continuation of works or investigations already in progress.

The following actions in Table 11.1 below are recommended for the areas affected.

Action By	Recommended Action	How
Highways Authority, LLFA, Riparian Landowners, PC.	The suggestion of a large sediment trap within the highway's drainage scheme in Bessell's lane, a detailed investigation is required around the interception and management of surface water run-off and sediment loss in the area. To reduce flood risk to property and the highway drainage scheme, this has the potential to reduce the need for more frequent downstream drainage scheme maintenance of existing catchment pits and drainage scheme assets.	Work with all stakeholders to investigate opportunities to manage surface water run-off and sediment loss. Dorset Council rural run-off project assistance. Contact details for the 'Farm Cluster' group have been obtained.
PC, LLFA, Highways Authority, Riparian Landowners.	The maintenance of the ditching along Frog Lane is required. Removal of waste materials from the downstream end of the ditch to enable discharge to the River Iwerne.	The ditch is riparian owned, contact to be made with the riparian landowner to discuss their maintenance responsibility, and the removal of sandbags placed on the banks of the River Iwerne.
Highways Authority, LLFA.	There are several catch pits within the existing highway drainage scheme at The Cross, Telegraph Street & Main Street. Historically the scheme may have been designed to be more frequently maintained. Red dots on drawing below indicate catchment pit assets on the current DC Highways Dorset Explorer asset layer.	Highways Authority jetter crew, and local workforce. Increase inspection frequency.

		
Highways Authority.	Suggest undertaking an annual pre-winter inspection and cleansing programme of all gullies, catch pits, culverts and outfalls within the Main Street, The Cross, Telegraph Street, Bessell's Lane and Frog Lane catchments.	Inspect during autumn each year and maintain a record of asset condition, sediment accumulation and any defects.
Highways Authority, LLFA, PC, DC Highways Structures Team, Riparian landowners.	Investigate opportunities to increase fluvial flow at the DC Highways bridge in Frog Lane and reduce flooding of upstream during high flow events which leads to the River Iwerne overtopping its banks. Discuss the riparian management of flow control structures downstream of the Frog Lane bridge. In chalk catchments, raising river levels can raise local groundwater levels and prolong wet conditions, the bridge is causing river levels to rise. The community advises that the rising river level correlates with ground water flooding to property in the area.	Dorset Highways Bridges Team officers. Further discussion with all stakeholders, on site to discuss watercourse maintenance and the management of flow control structures. Consider funding investigations and improvements at the Frog Lane Bridge via the £5 million capital flood resilience budget. This requires prioritisation to reduce the increased level of recharging of groundwater aquifers.

Highways Authority, LLFA.	CCTV survey suggested of the highway's drainage assets in Main Street to confirm hydraulic performance and efficiency through to the river outfall.	Highways Authority jetter crew or external provider.
Highways Authority.	To ensure efficient operation of 'grips' along the northern edge of Frog Lane.	Highways Authority to inspect and raise jobs as required.
PC, LLFA, EA.	Increase community resilience.	Advise & inform those affected and those at risk of flooding of resistance and resilience measures available to them, provide links available to information. Sump and pump arrangements etc where groundwater flooding is the source of the flooding.
Riparian Landowners, PC, LLFA.	Increase community resilience.	Inform riparian landowners along the River Iwerne at Shroton of their individual maintenance responsibility, to ensure an unobstructed flow within or bordering their land boundaries.
LLFA, Wessex Water	Increase community resilience.	The LLFA at Dorset Council will monitor progress of the work described in the comment provided by Wessex Water
PC, Highways Authority, LLFA	To discuss ways of reporting blocked highways drainage assets.	Online reporting by residents of visibly blocked drainage assets or to the local Communities Highway team.
LLFA, Parish Council.	Increase community resilience.	Investigate maintenance responsibility for the weir structure to the rear of 3 The Glebe;

		 BNG; X386020 Y112785
LLFA, PC, EA.	Increase community resilience.	Assist the Parish Council to produce an updated Community Flood Plan. Support available from the LLFA & the EA. Monitoring EA flood alerts and warnings. Include operation and maintenance responsibility of sluice and weir structures and features along the Meadow Brook and River Iwerne.
LLFA, PC, Riparian Landowners, EA.	Increase community resilience.	Work with upstream agricultural landowners to better manage catchment surface water flows and sediment loss using natural flood management techniques. Assistance available via Dorset's Rural Run-off Project (DRRoP). Subject to financial support being available.
LLFA, PC, EA.	Increase community resilience.	Regular ongoing community engagement, preparedness, monitoring of flood warnings and alerts.

Table 11.1 Recommended Actions

12. Next Steps

Dorset Council, in its role as Lead Local Flood Authority (LLFA), will coordinate the actions identified within this report and present the recommendations to the relevant Risk Management Authorities (RMAs), including Dorset Highways, the Environment Agency, Wessex Water, Shroton Parish Council and riparian landowners. The LLFA will monitor progress through regular reviews and partnership working to ensure that opportunities to reduce flood risk are progressed wherever practicable.

The immediate priority will be the implementation of the identified quick-win measures, including the cleansing and inspection of highway drainage assets, increased maintenance of catch pits and gullies, investigation and removal of flow restrictions within culverts and ditch systems, and improved reporting of blocked highway drainage.

Community engagement will form a key part of the ongoing flood risk management programme in Shroton.

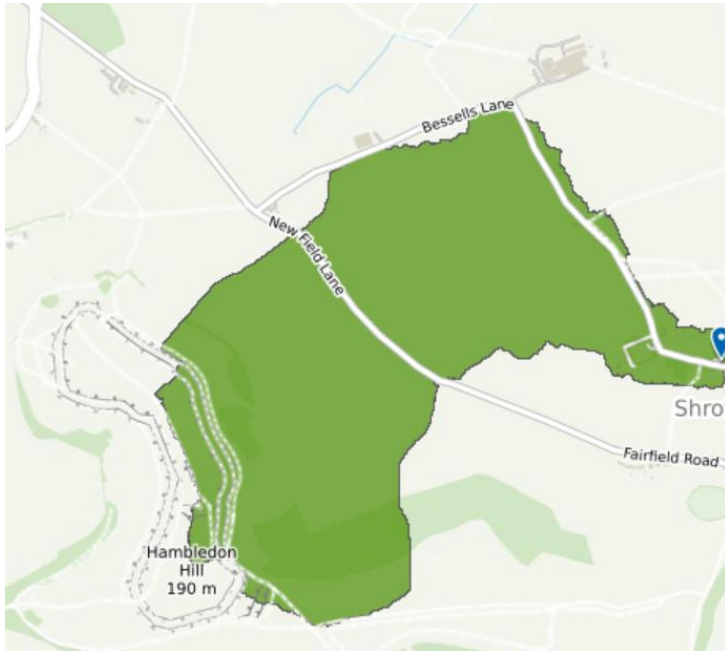
Dorset Council, the Environment Agency and Shroton Parish Council will work collaboratively with residents to improve flood awareness, preparedness and resilience. This will include supporting the development of an updated Community Flood Plan, promoting registration for Environment Agency Flood Alerts and Warnings, and providing guidance on property-level flood resilience measures, particularly for properties at risk from groundwater flooding.

13. Roles & Responsibilities

Risk Management Authority (RMA)	Responsibility
Dorset Council Highways Authority	Highways Drainage
Dorset Council Lead Local Flood Authority (LLFA)	Surface water, groundwater, ordinary watercourses
Wessex Water	Public sewers
Environment Agency	Main rivers
Riparian Landowners	Ordinary watercourse and asset maintenance

Table 13.1 Risk Management Authorities and their responsibilities.

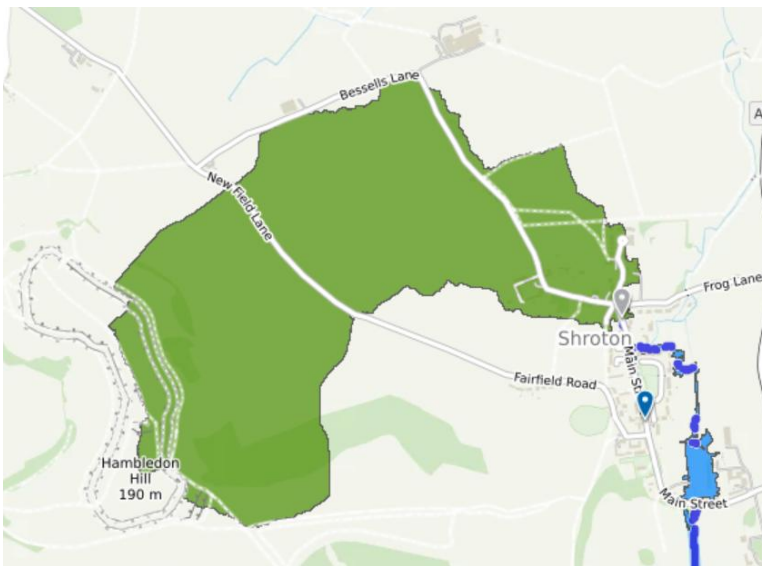
14. Appendix - Catchments of the Study Area



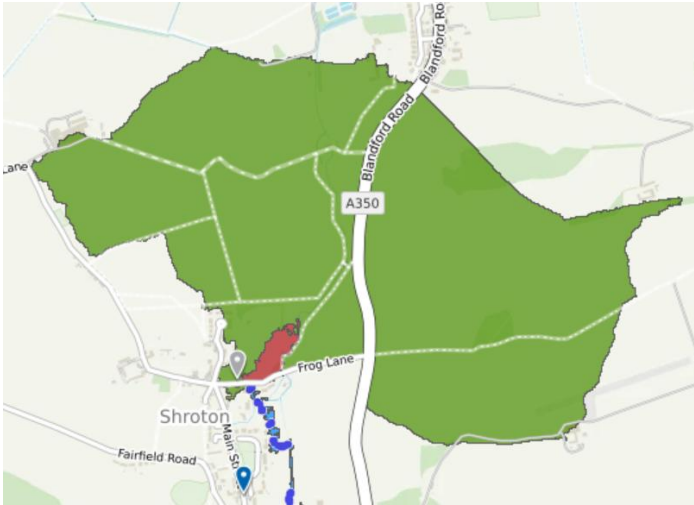
14.1 Telegraph Street



14.2 The Corner



14.3 Main Street



14.4 Frog Lane



14.5 Fairfield Road