



**Somerset
Council**

Flood Investigation Report

*Section 19 Flood and Water
Management Act 2010*

Central Cam Valley

9-10th May 2023

Organisation	Somerset Council
Title	Section 19 Report: Central Cam Valley
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Protective Marking	None
Primary Legislation	Flood & Water Management Act 2010: Section 19

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Executive summary

On 9th May 2023, a severe rainfall event resulted in an extraordinary level of surface water and river flooding in Sparkford, Queen Camel and Wales as a result of the River Cam overtopping, affecting access and flooding properties.

Water depths reached 2 to 3.5 feet in a number of properties, with contamination concerns. Local businesses suffered financial losses, and emergency responses were in attendance.

This report includes recommendations such as Natural Flood Management, education, and drainage network assessments.

Introduction

2010 Flood and Water Management Act

Legislated within the Flood & Water Management Act 2010, the Lead Local Flood Authority (in this locality, Somerset Council) is required to investigate flood events within their jurisdiction. This function and responsibility was inherited from Somerset County Council under whom this policy was first adopted.

Somerset Council has set a threshold of ten internally flooded properties within a locality, this threshold having been exceeded in several instances throughout the throughout the county in 2023.

Flood investigation and reporting are often known as 'Section 19 reports' as under Section 19 of the Flood and Water Management Act. Lead Local Flood Authorities have a responsibility, to the extent it deems necessary, to investigate flood incidents under this item of legislation. The function of a Section 19 report is to gather information on the happenings during a particular flood event. The legislation states:

1. On becoming aware of a flooding in its area, a Lead Local Flood Authority must, to the extent that it considers 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.

In addition, a Section 19 report will often detail any ongoing work with regards to flooding in the area, and will signpost additional work that should be considered, usually in the form of recommendations.

It is not the function of a Section 19 to provide firm solutions to flooding, this requiring far more detailed technical analysis, liaison with landowners, and decision making about schemes in concert with the public and other stakeholders. A Section 19 report can help in demonstrating the need for this work and act as evidence in any future funding bids.

Scope of the Investigation

The area covered by this report will include Queen Camel, Sparkford and Weston Bamfylde. These locations have been grouped together for the purpose of this report because they share a river catchment. This report covers the heavy rainfall incident on 9th May 2023.

Queen Camel is a village and civil parish that lies on the intersection of the River Cam and the A359 road in Somerset, with a population of c. 910. It includes the hamlet of Wales and lies southwest of Sparkford. Sparkford is situated southeast of the A303 and is village and civil parish with a population of roughly 620.

This report covers the combination of surface water (pluvial) and river (fluvial) flooding which was experienced by these communities in May 2023. The report will give an overview of the flooding that occurred, describe the conditions which led to the flooding, consider the response to the flooding thus far and make technical recommendations for the flood risk authorities concerned.

Location	No. properties internally flooded	Property type
Sparkford	1	Residential
Sparkford	1	Business
Weston Bamfylde	1	Residential
Queen Camel	18	Residential
Queen Camel	3	Business
<i>Total</i>	<i>24</i>	

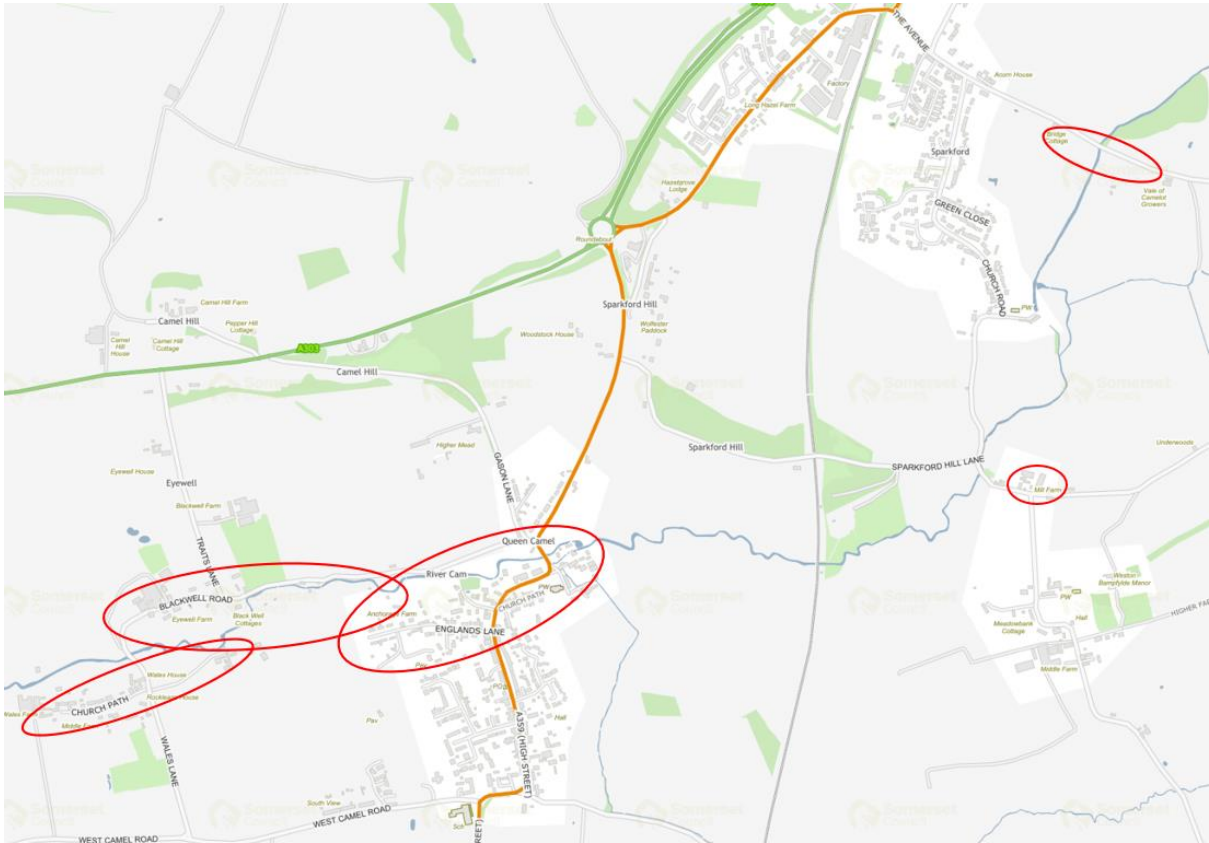


Figure 1 Map highlighting areas impacted by flooding in Central Cam Valley on 9th May 2023

Data Collection

Much information has been received from residents and stakeholders, providing a thorough picture of the events that occurred and some indication as to potential causes. This data has been scrutinised, filtered and analysed to support the conclusions in this report. Maps in this report assume north at the top, unless a north arrow is otherwise placed.

Community Engagement Officers

The SRA funds Community Engagement Officers, hosted by the Emergency Planning, Response and Recovery team in Somerset Council. Their role is to support communities to build resilience to flooding. This includes attending community drop-in events following a flooding event to obtain information and provide advice on immediate recovery activity.

Flooding inbox (flooding@somerset.gov.uk)

Members of the Flooding and Coastal Team manage this council-owned email inbox, which receives many enquiries from residents, parishes, and internal communications regarding flooding events, as well as testimonials and evidence of flooding from residents. The inbox often receives images and videos of an event (both during and after), which helps to influence the content of a Section 19 report.

Flood Online Reporting Tool (FORT)

This system allows property owners, flood risk authorities and volunteers to share details of flood reports and observations to assist with flood risk planning. Participants can record current flooding for information or record recent flooding in the last five years. The system is hosted by Dorset Council and is strictly for information, rather than triggering an immediate response from agencies.

FORT reports are the simplest and most suitable way for residents to inform Section 19 investigations. This is how the council will recognise the minimum threshold of internally flooded properties, triggering a Section 19 investigation. The data is recorded automatically and will therefore systematically feed into any report that may be written.

LLFA data

As the LLFA receives reports of flooding via the abovementioned channels, each piece of correspondence is categorised, logged and captured on a shared council-owned drive.

EPRR Reports

The Emergency Planning, Response & Recovery Team (EPRR) is responsible for coordinating the front-line local authority response to an emergency in Somerset. This

includes developing emergency plans, processes, and training to ensure that the local authority can respond promptly and effectively to emergencies to support residents and communities. EPRR debriefs after a flooding event will feed into a Section 19 investigation to help agencies learn how to better respond to future events.

Rainfall data

Both the Met Office and the Environment Agency have provided rainfall data, imagery, and meteorological insight into the event, as well as topographical data, river catchments, information about local flood zones and a detailed river network. The Environment Agency holds data on recorded river levels, which helps form an understanding of the level of water passing through the area on this date. The data is limited, however, due to the geographical constraints of these rainfall gauges. Nonetheless, it has been used to construct a rough picture of the rainfall and water levels during this event.

Flood Estimation Handbook

The Flood Estimation Handbook (FEH) Web Service delivers catchment descriptors and rainfall data to support the methods outlined in the Flood Estimation Handbook, and implemented in the FEH software, for estimating floods and site runoff rates across the UK.

Resilience Direct

Resilience Direct is a secure on-line file sharing platform for use by agencies with an emergency responder function. It includes mapping capabilities.

iShare GIS

This application provides a geographical overview of an affected area, including natural data such as river data, topographical information, and river catchments, as well as structural data on potholes, drains, culverts and other mechanical flood defences.

Engineering analysis

The collated data has been analysed by flood engineering experts to gain insight into the mechanisms, possible solutions and recommendations in this report. This includes a hydraulic and topographical analysis of catchments and desktop studies of surface water sensitivities.

Missing data

Due to the time delay between the flooding events and writing this report, there is a risk that some data could be missing in the final investigation. This is due to a number of factors, including the development of systems for logging flooding reports, data archiving, and a lack of reporting from the community.

There may be more numbers of flooded properties than are reported for a Section 19 investigation. This can be due to the perceived impact on insurance or saleability, as well as a lack of awareness of how to report flooding, or even the necessity of reporting to trigger an investigation.

It must therefore be stressed that a Section 19 investigation may not give a complete picture of all the properties flooded in a major event. Despite this challenge, the report should still provide thorough recommendations based on the available information.

Stakeholder Engagement

The following describes relevant flood risk management authorities, sources of data and affected parties, whose feedback is essential in creating the full picture of a flooding event, feeding into the Section 19 report.

Residents

Many households flooded internally during this event, with varying levels of recovery.

The community impacted by this flooding have participated in local community drop-in events, which have helped local response authorities to understand what support is required and have also been a source of data for the report, through providing testimonies and images.

Some residents and Flood Wardens have contributed significantly to the Section 19 investigation by providing comprehensive reports into the flooding event.

Local Flood Wardens and Flood Groups

Many communities have designated Flood Wardens, who are volunteers responsible for supporting a cluster of homes and linking with local authority co-ordinators on the ground during a flood event. Flood Wardens may also provide information on the flooding event and collate information from residents to support a Section 19 investigation.

Flood Groups lead on community resilience by working with Parish Councils to create Community Flood Resilience Plans that aim to reduce the severity of future events and aid residents in improving their property flood resilience.

Parish and Town Councils

Local councils play an important role in managing flood risk at the community level, through the preparation of community flood plans and Flood Warden schemes. The Parish Council has been invaluable in gathering information on the flooding and reporting on the flood incident.

Somerset Council

Somerset Council is the Lead Local Flood Authority (LLFA) responsible for managing flood risk from surface runoff, groundwater and ordinary watercourses, development of a Local Flood Risk Strategy, Asset Plans and investigations under the Flood and Water Management Act 2010. Somerset Council also has responsibility for some coastal erosion risk management. The LLFA is not a response team but has several

statutory roles including the following responsibilities in helping to manage a flood event.

As Highways Authority, the council is responsible for helping to manage flooding through planning, investigation and supporting community recovery by maintaining and effectively draining the public highway.

Within the council, the Emergency Planning, Response & Recovery Team (EPRR) is responsible for coordinating the front-line local authority response to an emergency in Somerset. This includes developing emergency plans, processes, and training to ensure that the local authority can respond promptly and effectively to emergencies to support residents and communities.

Shortly after the event, officers from Somerset Council visited the site to speak to residents and listen to their experiences of the flood and their impressions of possible causes, as well as to understand the impact of the event on the community.

National Highways

Formerly “Highways England”, National Highways is the government company which plans, designs, builds, operates and maintains England’s motorways and major A roads, known as the Strategic Road Network (SRN). They are another Risk Management Authority who share some responsibility for managing flood risk.

Farming and Wildlife Advisory Group (FWAG)

This charity supports farmers and landowners by providing environmental advice, conducting research into Natural Flood Management (NFM) and “Slow the Flow”. They aim to help improve land management and soil husbandry in order to manage flooding.

Environment Agency

The Environment Agency (EA) manages the risk of flooding from main rivers, estuaries, the sea and reservoirs, as well as coastal erosion, across England on behalf of central Government. The EA has permissive powers to undertake main river and coastal risk management work. It issues flood warnings, has a strategic overview of all forms of flooding and maintains a National Flood and Coastal Erosion Risk Strategy. The EA is arranged into areas and Somerset is covered by its Wessex area teams.

Water & Sewerage Companies

Water supply and sanitation in Somerset is provided by companies including Wessex Water, Southwest Water and Bristol Water, who deliver many of the water services across the southwest of England. They also provide funding for projects which safeguard homes and businesses from flooding. Sewer flooding from public sewers is also managed by water companies.

Emergency response

Within the Avon and Somerset police force area, agencies with emergency response responsibilities come together for planning and emergency response under the banner of the Avon and Somerset Local Resilience Forum

Under the *Fire and Rescue Services Act 2004*, English and Welsh Fire and Rescue Authorities (FRAs) have a power to respond to floods. However, they do not have a statutory duty to do so. [Part 2](#) of the Act contains statutory duties to provide for fire safety, fire-fighting and dealing with road traffic accidents.

Riparian landowners

Riparian landowners are those who own land adjoining a watercourse and have certain responsibilities, including the following:

- They must maintain the bed and banks of an open watercourse, and the trees and shrubs growing on the banks.
- They must clear any debris, even if it did not originate from their land. This debris may be natural or man-made.
- They must keep any structures that they own clear of debris. These structures include culverts, trash screens, weirs and mill gates.

If they do not carry out their responsibilities, they could face legal action under the Land Drainage Act 1991. Details of a riparian landowners' responsibilities can be found on the Environmental Agency website: www.gov.uk/guidance/owning-a-watercourse

Hydrological Analysis

Rainfall



Figure 2 Environment Agency - Daily Rainfall Totals in millimetres from 00:00 to 23:59 for 9 May 2023 (Met Office)

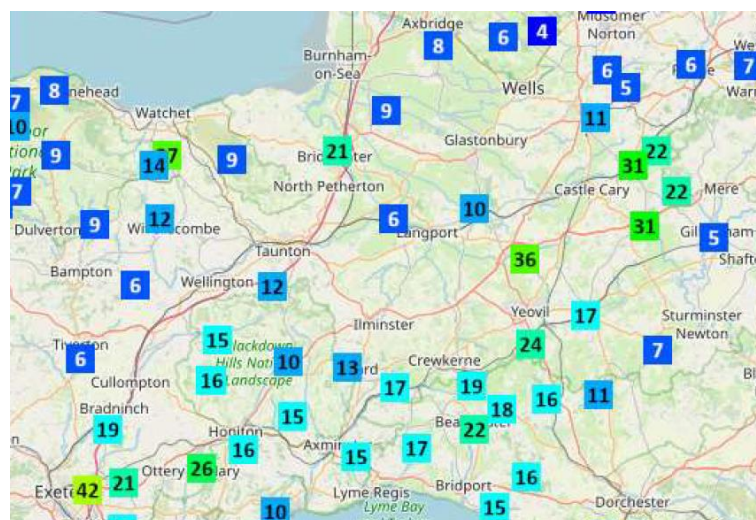


Figure 3 Met Office – 24-hour rainfall totals (mm) across Somerset 9 May 2023

Environment Agency Wessex Area Monthly Water situation report:

“May was drier than the previous two months with 54mm of rain which is 88% of the long term average (LTA). There was a wet start to the month with 47mm of rain falling in the first 9 days however the rest of May was predominantly dry. Overall rainfall was normal for the time of year but the exceptionally high rainfall in March and above normal rainfall in April make it the wettest for this March to May period since 2000. Soil moisture deficit (SMD) increased by around 60mm due to the dry weather, so by the end of May it was higher than the LTA and similar to the SMD observed last year.”

Wessex received 54mm of rainfall in May (88% LTA) which is normal for the time of year. The majority of the month's rain (47mm) fell from 1 to 9 May. No other day received more than 2mm and the second half of the month was predominantly dry.”

Soil moisture deficit decreased early in May before increasing by around 60mm in the last few weeks of the month. At the end of the month the deficit was higher than the LTA but similar to May last year.”

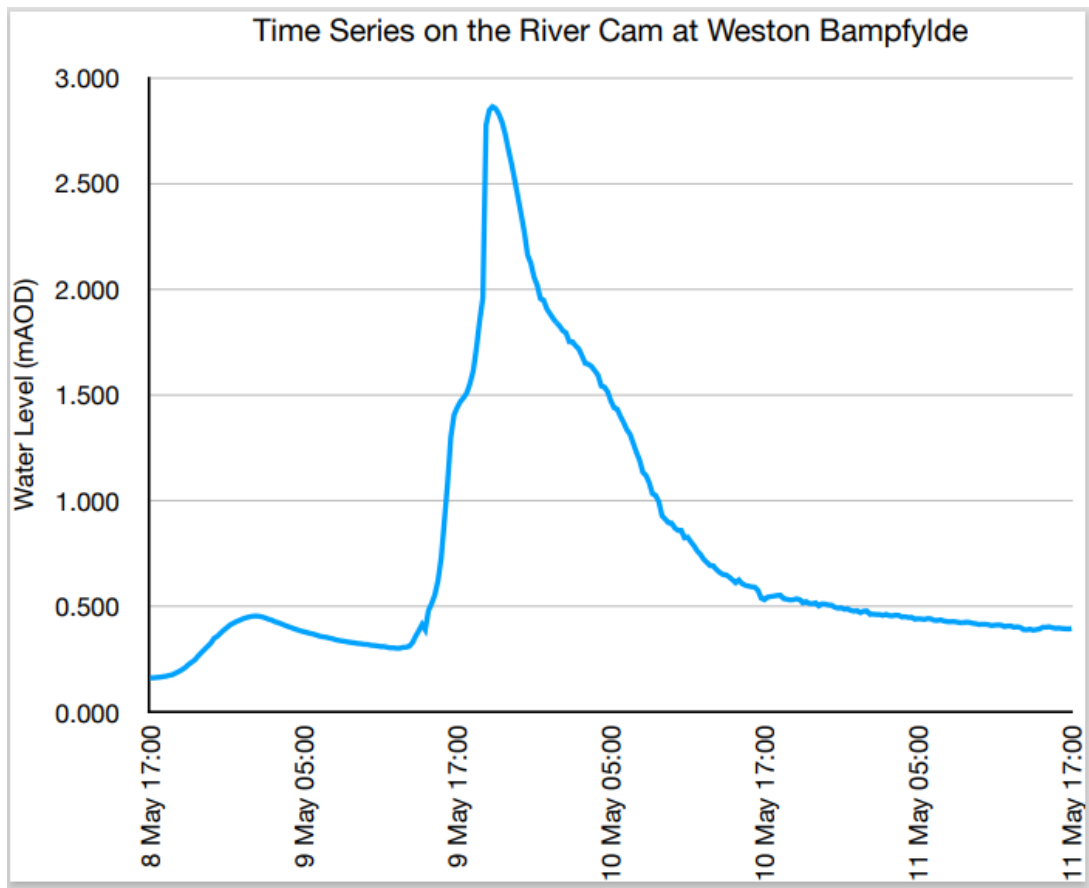


Figure 4 Environment Agency rainfall data for River Cam at Weston Bampfylde on 9th May 2023

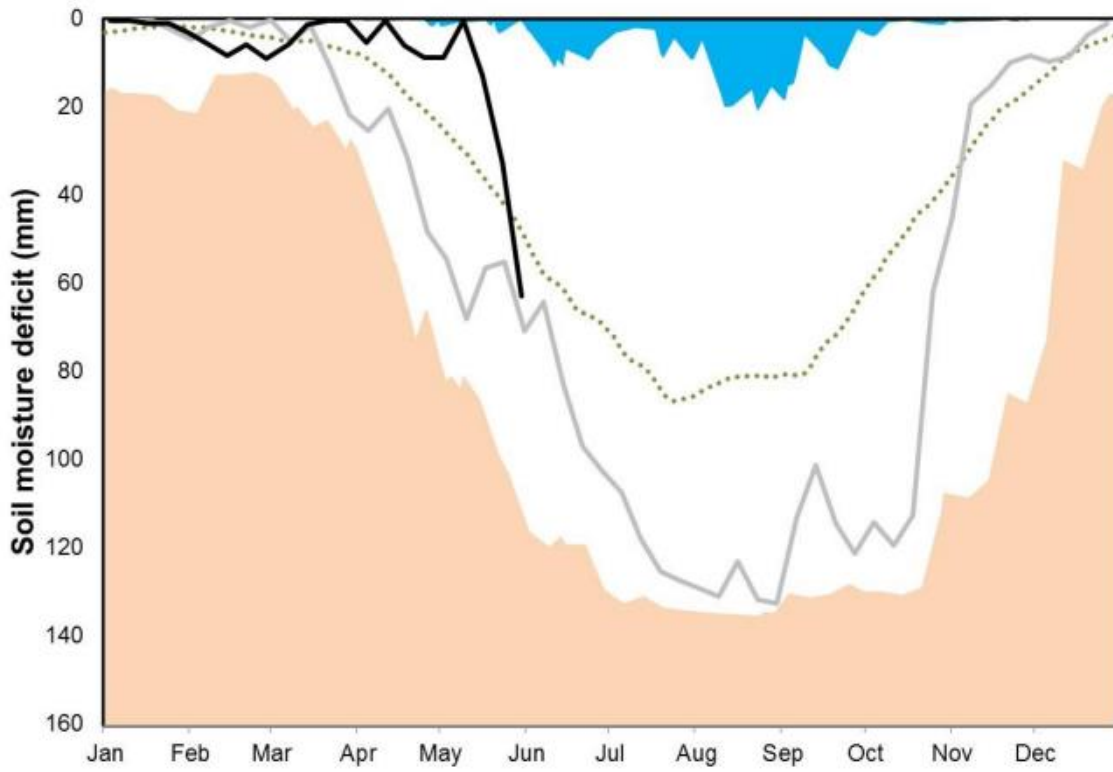


Figure 5 Latest soil moisture deficit compared to previous year, maximum, minimum, and 1961 to 1990 long term average. Weekly MORECS data for real land use (Met Office) [\[SP1\]](#) [\[JM2\]](#) [\[AF3\]](#) Source: Met Office. Crown copyright, 2023). All rights reserved. Environment Agency, 100024198, 2023

Geography

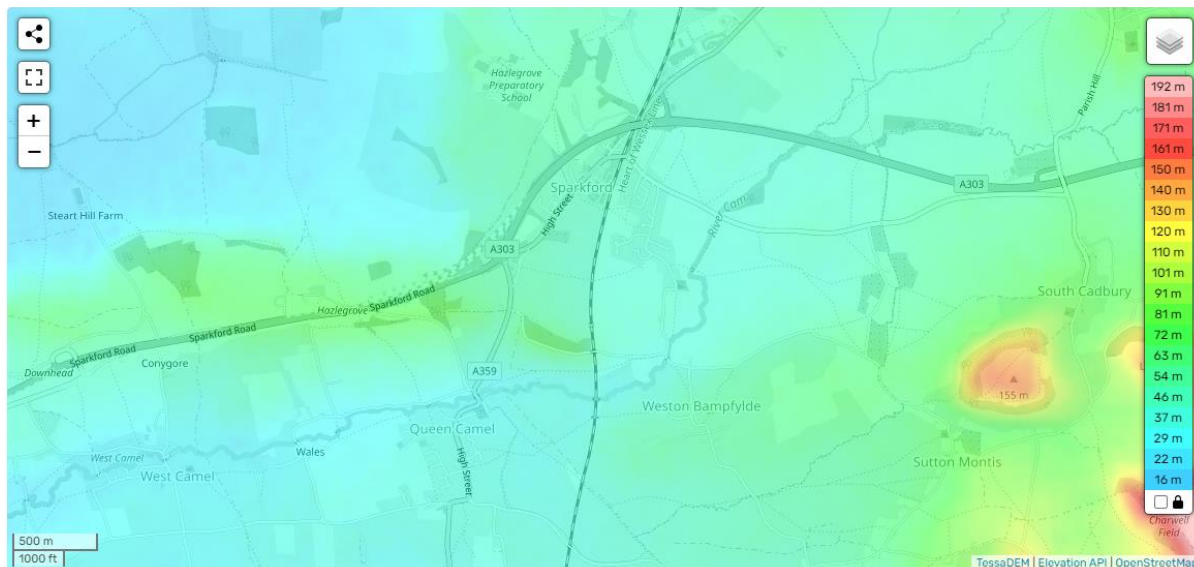


Figure 6 Topographic Map of Queen Camel, Sparkford, Weston Bampfylde (Topographic-Map.com)

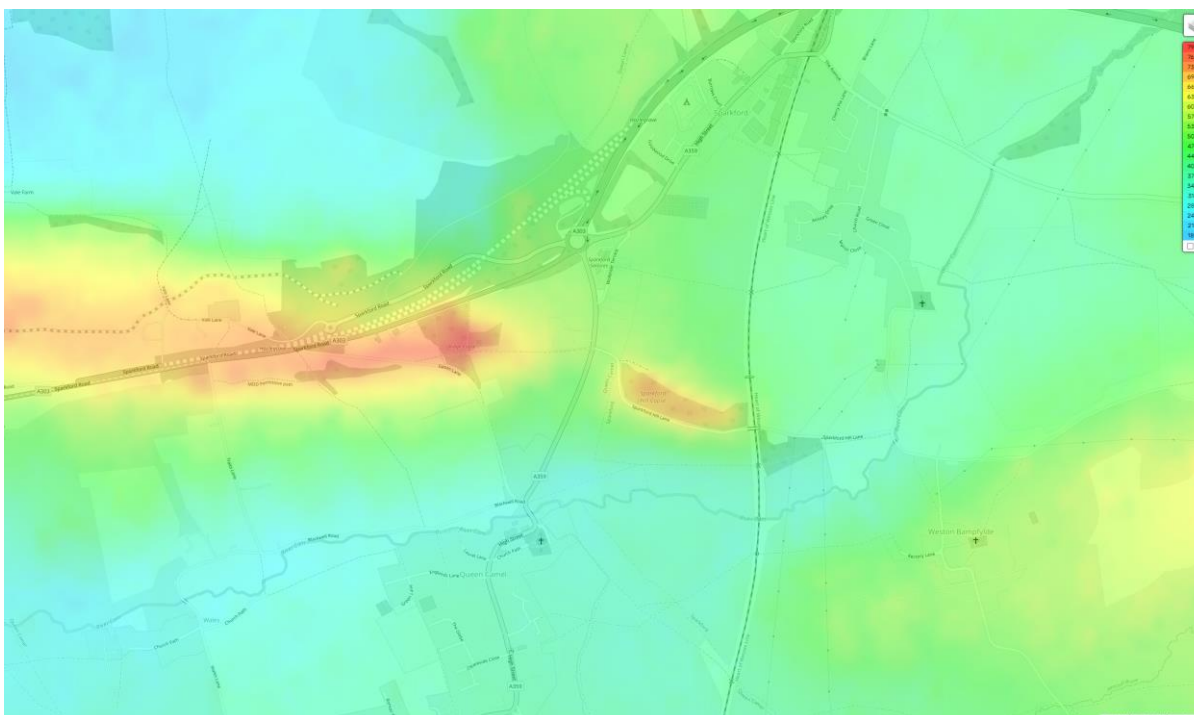


Figure 7 Topographic Map of Queen Camel, Sparkford, Weston Bampfylde (Topographic-Map.com)

Average elevation: 36 m
 Minimum elevation: 15 m
 Maximum elevation: 79 m

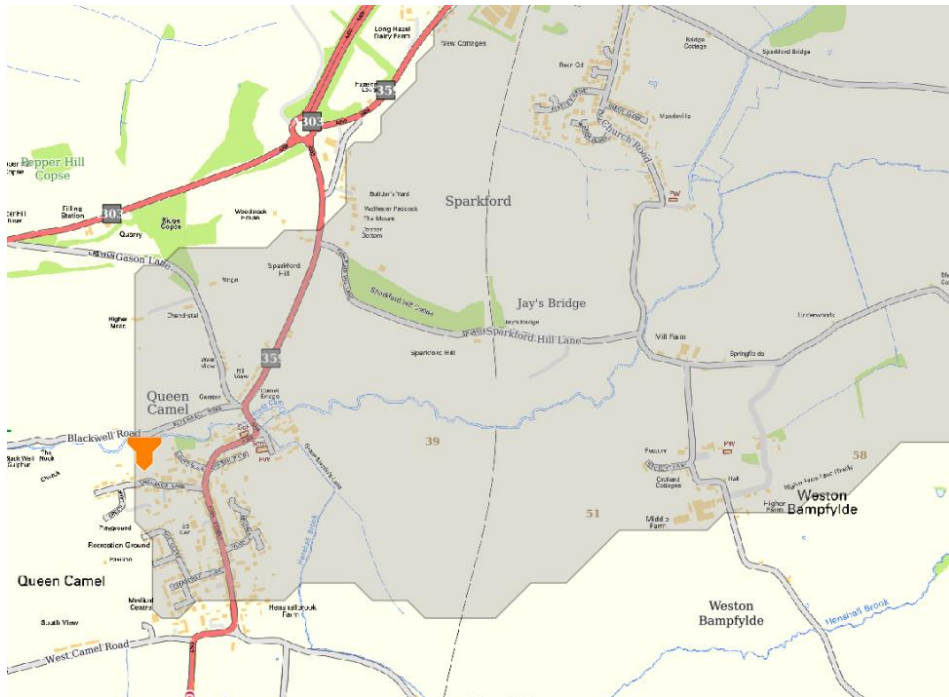


Figure 8 Flood Estimating Handbook: catchment boundary for Queen Camel

According to the flood Estimating Handbook, the catchment drainage area for site is 36.38 km², based on National Grid Reference ST 59400 24900. (Derived using an Integrated Hydrology Digital Terrain Model (GDTM) developed at UKCEH Wallingford).

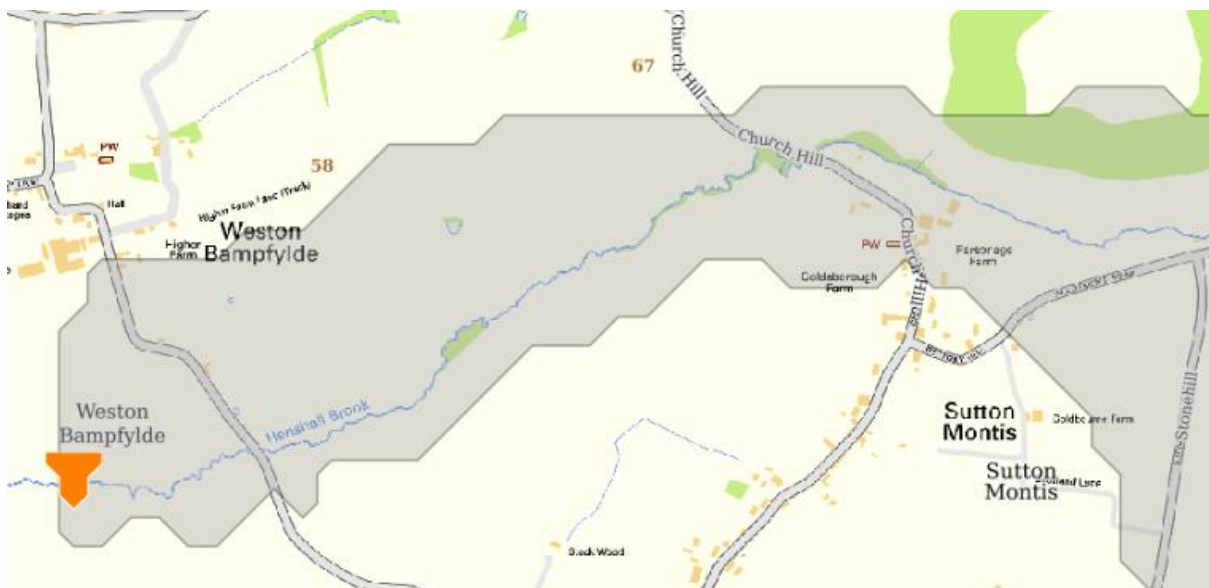


Figure 9 Flood Estimating Handbook: catchment boundary for Weston Bampfylde

According to the flood Estimating Handbook, the catchment drainage area for site is 3.18 km², based on National Grid Reference ST 61000 24350. (Derived using an

Integrated Hydrology Digital Terrain Model (GDTM) developed at UKCEH Wallingford).

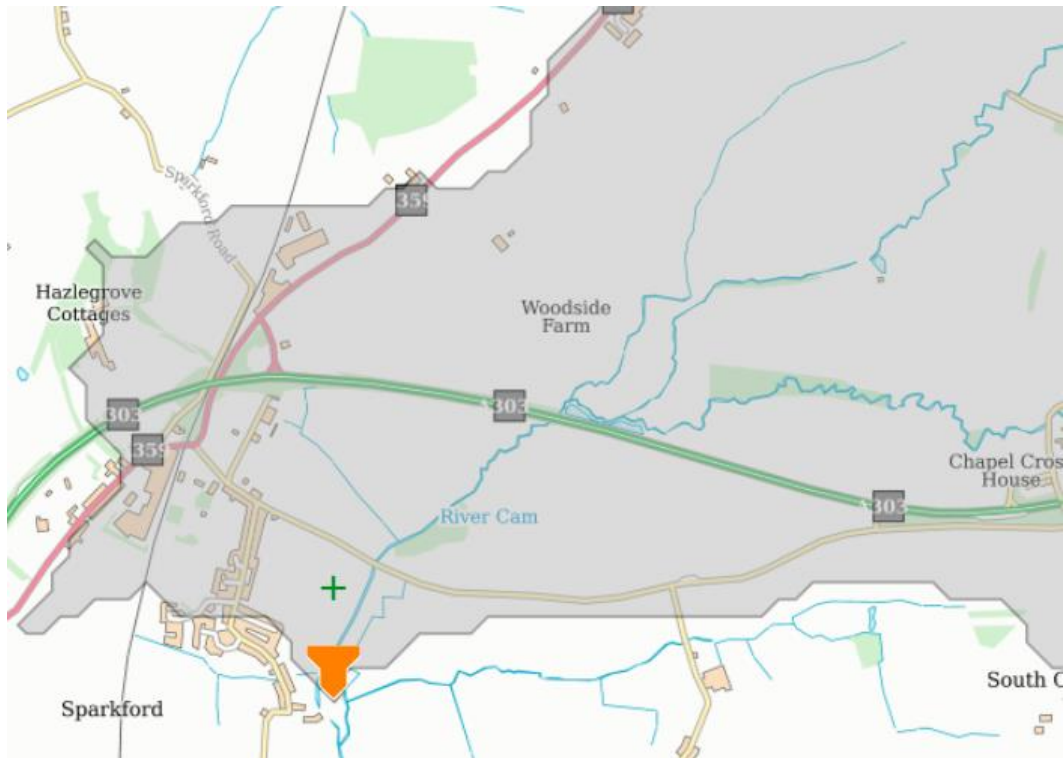


Figure 10 Flood Estimating Handbook: catchment boundary for Sparkford

According to the flood Estimating Handbook, the catchment drainage area for site is 32.47 km², based on National Grid Reference ST 61000 25700. (Derived using an Integrated Hydrology Digital Terrain Model (GDTM) developed at UKCEH Wallingford).

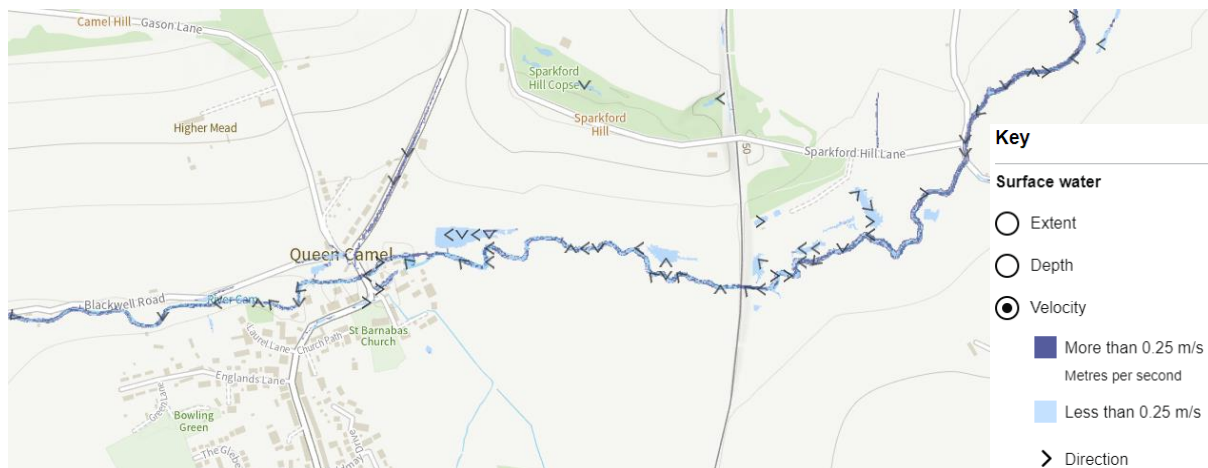


Figure 11 Surface water velocity for Queen Camel & Weston Bampfylde (Check-long-term-flood-risk.gov.uk)

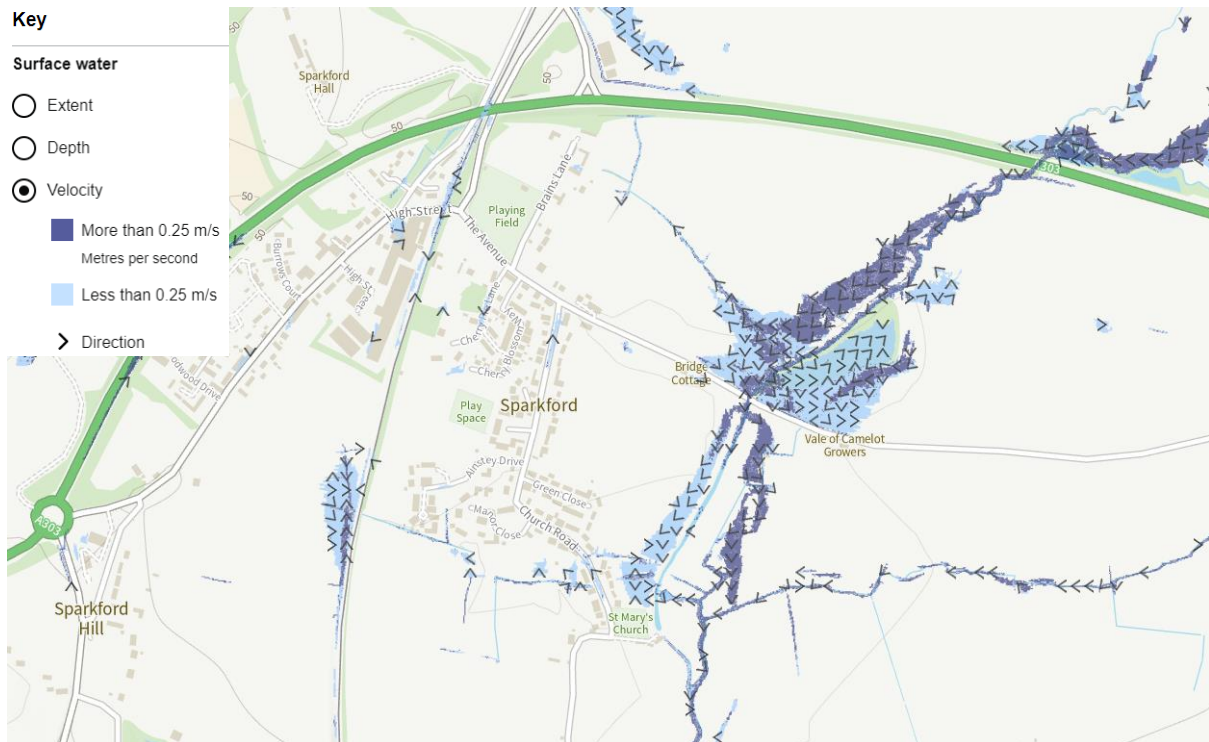


Figure 12 Surface water velocity for Sparkford (Check-long-term-flood-risk.gov.uk)

Drainage Features

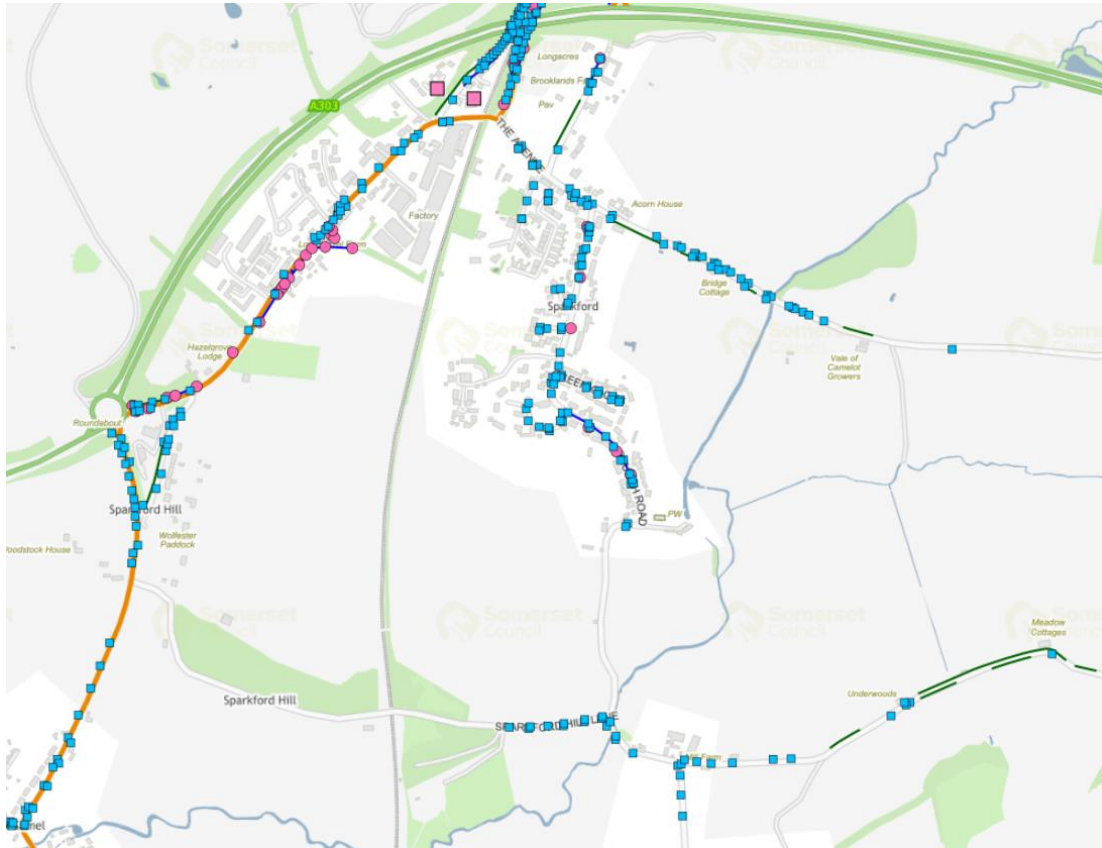


Figure 13 Map showing drainage features within Sparkford (iShare)

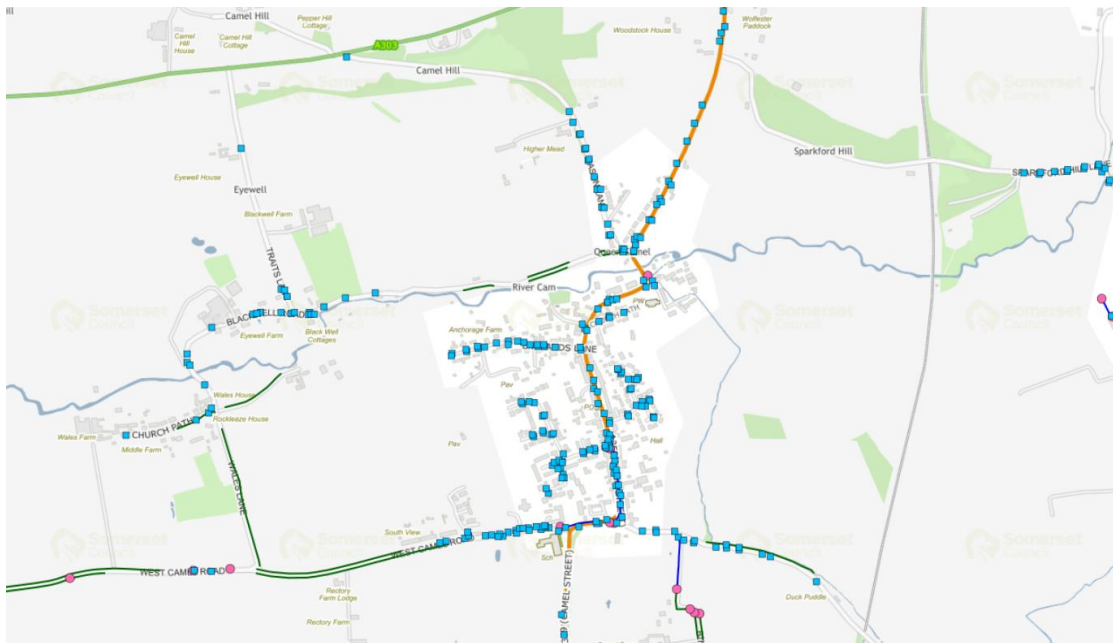


Figure 14 Map showing drainage features within Queen Camel & Wales (iShare)

Flood Risk

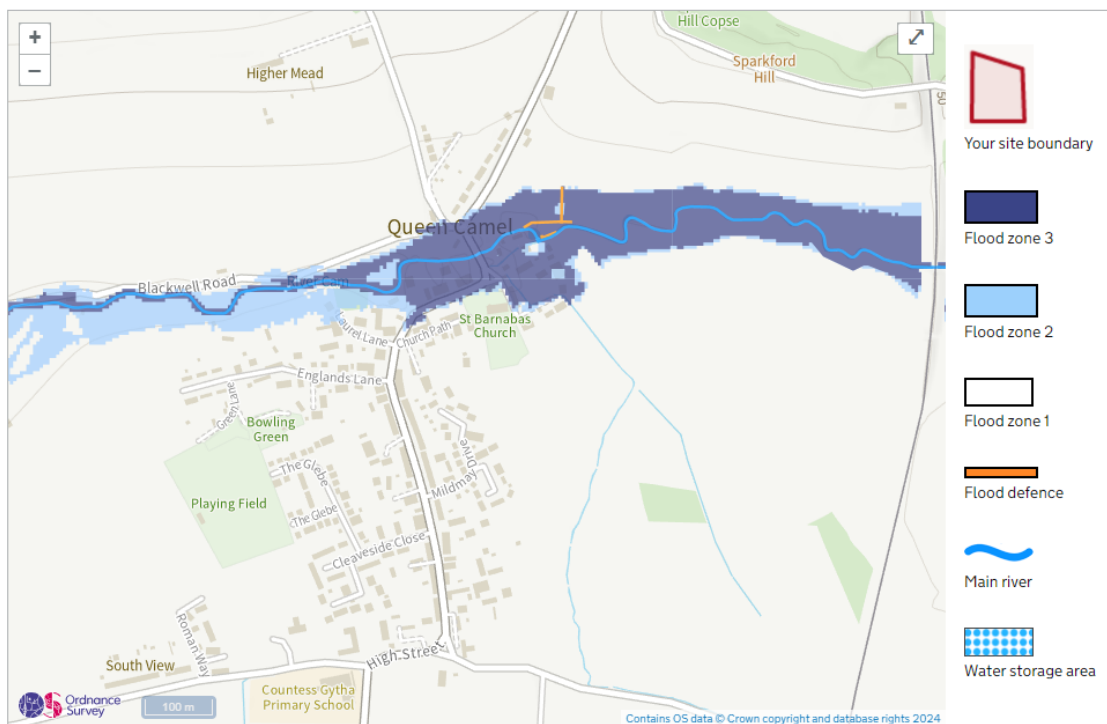


Figure 15 Map showing flood risk to Queen Camel and surrounding area. Flood map for planning – gov.uk – OS data Crown Copyright and database rights 2024



Figure 16 Map showing flood risk to Sparkford and surrounding area. Flood map for planning – gov.uk – OS data Crown Copyright and database rights 2024

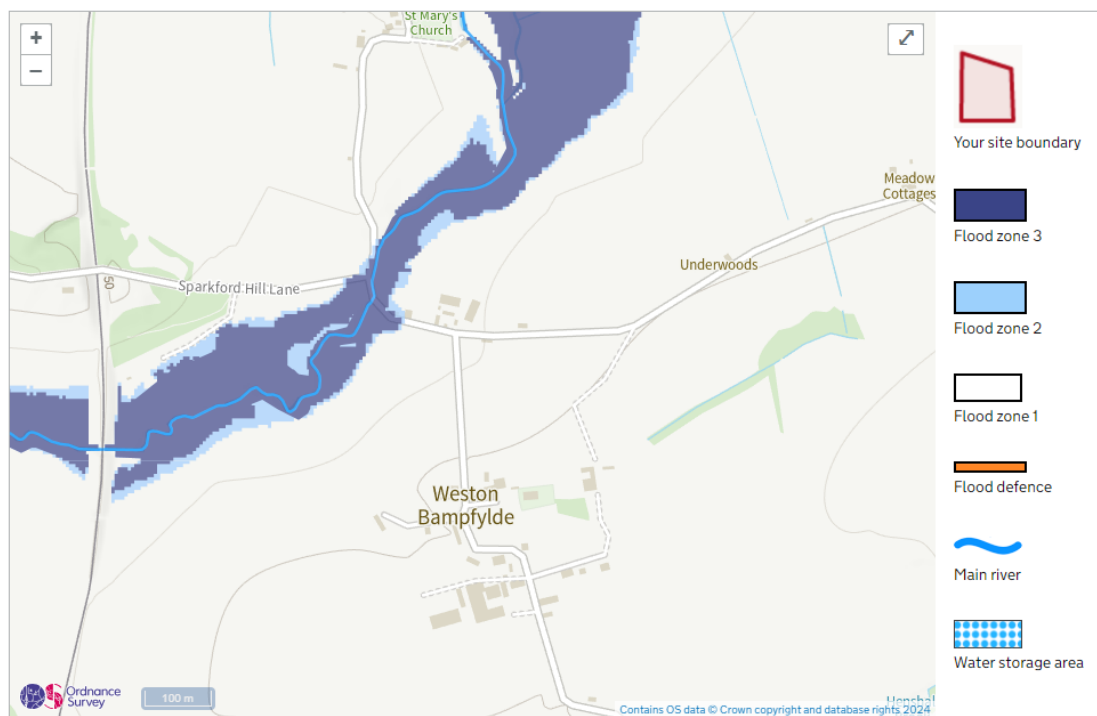


Figure 17 Map showing flood risk to Weston Bampfylde and surrounding area. Flood map for planning – gov.uk – OS data Crown Copyright and database rights 2024



Figure 18 Defra OGC map of Sparkford & Weston Bampfylde - Risk of Flooding from Surface Water Depth: 0.1% annual chance



Figure 19 Defra OGC map of Queen Camel - Risk of Flooding from Surface Water Depth: 0.1% annual chance

Incident summary

Sparkford

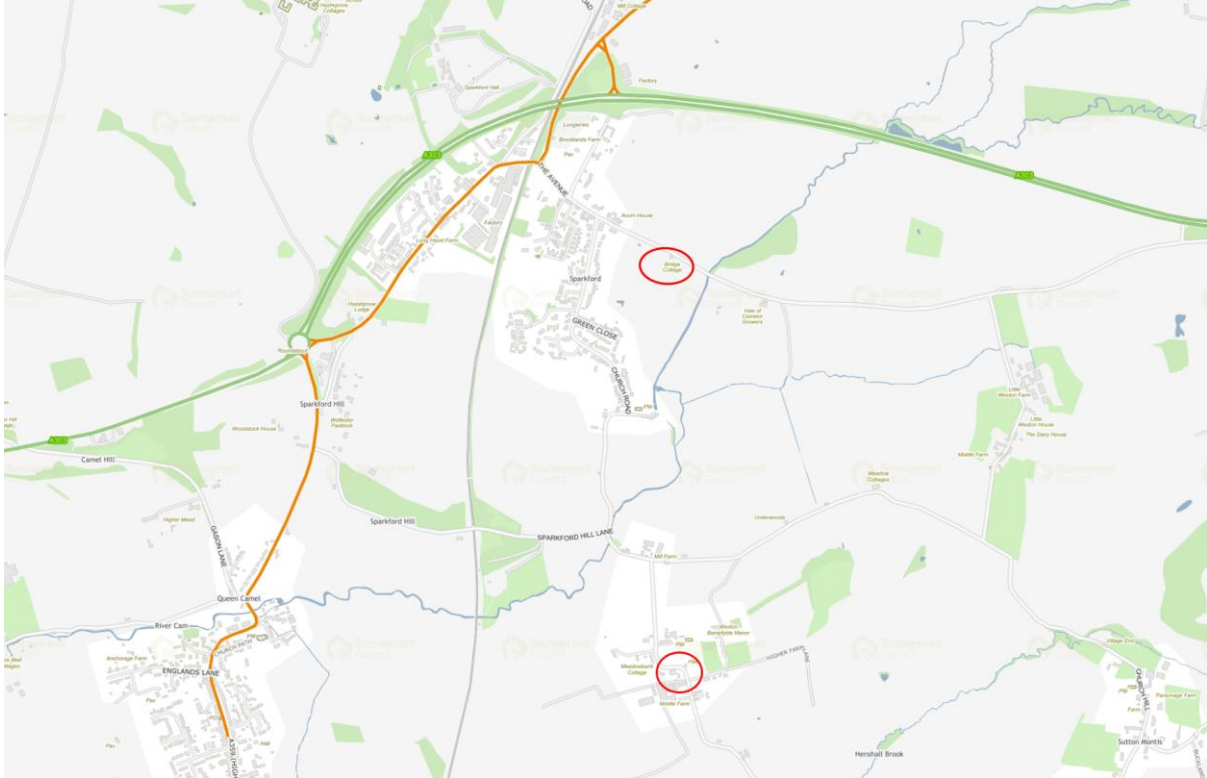


Figure 20 Map showing impacted areas of Sparkford and Weston Bamfylde during flooding on 9th May 2023

Summary

Runoff from heavy rainfall caused the river to overtop its banks, leading to water spilling onto the road, blocking access. The water flowed to the west towards Sparkford and to the east, affecting the nursery. A meter level at Weston Bamfylde briefly reached 3.2 meters, although the water subsided rapidly. Concerns have been raised by residents about the river's depth due to a lack of dredging; maintaining that the river is now shallower than in the past. The flooding resulted in the loss of approximately 30 sheep in the affected area.

Queen Camel

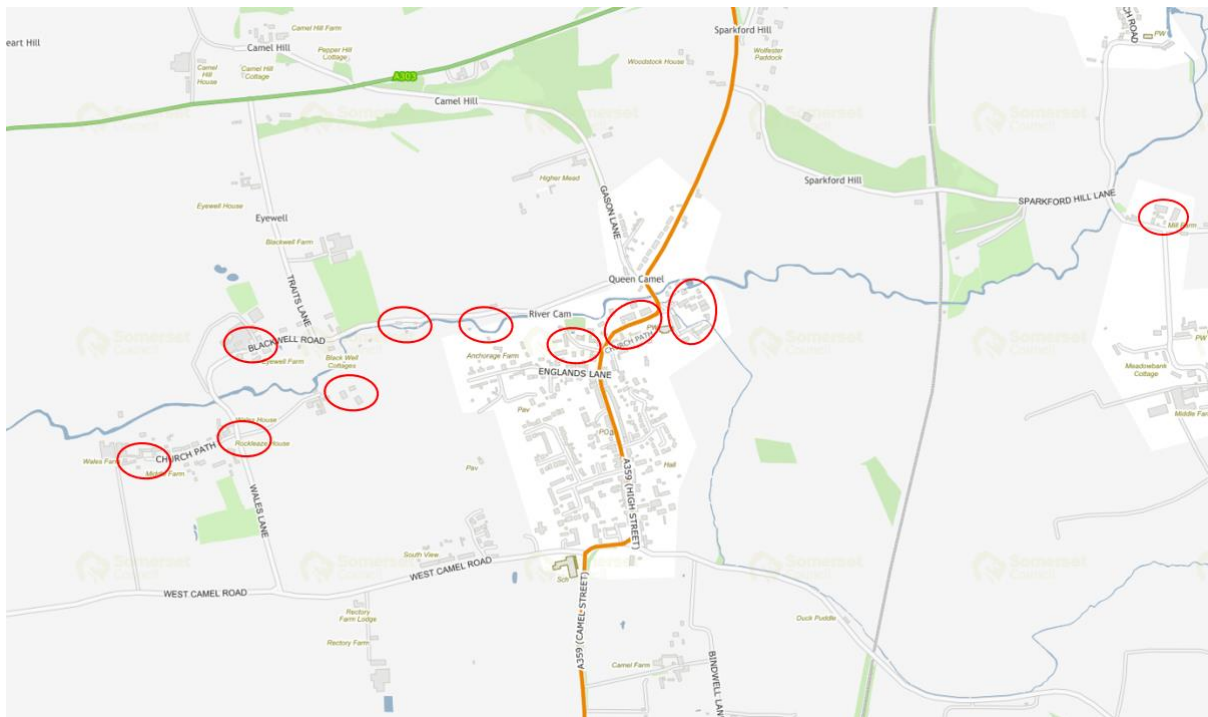


Figure 21 Map showing impacted areas during flooding on 9th May 2023

Summary

The flooding was possibly exacerbated by blockage of a culvert under the main road. Residents raised concerns about the impact of the A303 drainage on flooding in the area. Residents noted the suddenness of the water flow, raising questions around what was happening upstream.

Impact

Water flowed into residential properties, reaching depths of 2 to 4 feet. The water was black, raising concerns about contamination. Reports from residents highlight the extent of contamination: roses in one garden died due to water contamination, and another garden spade rusted where the water had reached. Some affected homes were left without power or hot water.

The local café was unable to operate and suffered a financial loss in the weeks following the event. The force of the floodwaters knocked over furniture and pulled up laminate flooring in one property. One account described how “The floods came into the building in such a wave it knocked over a chest freezer and 173cm high freezer full of frozen meat.”

Despite some residents utilising flood barriers and text alerts being received, the warning time was insufficient, and the water's power and volume overwhelmed these defences. 22 cars were written off, as many villagers attending an art class were caught off guard by the heavy rainfall impact.



Figure 22 Image showing property in Queen Camel following flooding on 9th May 2023

History

Most properties in the area had no history of flooding prior to this event. The village has recorded flooding in 1979, 1988, and 2008, though none reached the height, speed or impact of May 2023. 1988 was a “once in 100 years flood”, 2008 was “once every 30 years”. Many properties were affected this time which don't usually flood.

Residents reported that flooding usually comes from the brook, whereas this time water mostly came from the main river (north-south).

Catchment

Communities along the Cam Valley reported a “tidal wave” of water that swept across each location throughout the 9th of May. Along the River Cam. Yarlinton, followed by North Cadbury, South Cadbury, Blackford, Sparkford, Queen Camel, West Camel, Bridgehampton and finally Podimore all recorded a noticeable “gush” of water passing down the river catchment throughout the day. Higher in the catchment, residents in

Shepton Montague recorded a "tsunami" of water on Cattle Hill. This report did not gather sufficient evidence to conclude on the cause of the sudden rush of water, or whether this was related to the wave experienced by communities further down the catchment. More thorough investigation would be needed to understand the broader scope of the impact of surface water flooding in this area, and how fluvial flooding impacted on each of these communities in turn. It is important to note that upstream events have a significant impact downstream, and holistic approach much be taken into account with Natural Flood Management solutions.

Risk Management Authorities

The Environment Agency sent text alerts, although the community report that the flooding happened so quickly that defences were not up in time.

The fire service was in attendance immediately on route to Yarlington (boat), but unable to reach Yarlington, stopped in Queen Camel and assisted elderly residents who were otherwise trapped in their homes.

The electricity company sent an engineer to assess a compromised substation in Queen Camel. Since May 2023, the wall around the central bridge has been rebuilt to retain additional water in future events.

Residents reported how the police response was slow, with cars still attempting to cross the main bridge despite flood signs in place.

Due to the widespread impact of this rainfall event throughout Somerset, Risk Management Authorities were spread thinly throughout the County. Major incidents in some areas of the Cam Valley were raised early in the day, resulting in resource being initially prioritised toward some areas.

In addition, this flood event occurred shortly after the unification of Somerset's District and County Councils, just over a month after the vesting of the new authority. This resulted in suboptimal emergency procedures for the new authority that at this point were undefined. Local Community Networks were not yet established, resulting in disjointed communication between the new authority and communities. During the 'Lessons Learned' exercise following this response, steps were taken to ensure improvements could be made, many of which continue to be developed upon and implemented.

There are several lessons learned from the Emergency Planning, Response & Recovery (EPRR) Team in Somerset Council. There is a need for clearer avenues for information collection in communities. Intelligence Gathering during the May flooding

event was ad-hoc and undefined. It was found that public awareness of the need to report flooding to the Council was lacking, which meant it took many days for a full sense of the incident scope to be fully self-reported. In addition, some residents were not at home when Council officers attempted to visit, for which EPRR has developed a contact card to be put through letterboxes in future events.

Wales

Residents noted how there was much river clearance from the EA following the 1988 floods, which helped reduce the impacts of major rainfall events.

Recommended Actions

These recommendations stand alone and are subject to each action holder's ability to resource them

Action by	Recommended Action Detail
All locations	
LLFA, SRA, FWAG, EA, Parish and Town Councils	Investigate and implement Natural Flood Management solutions, using natural processes to reduce the risk of flooding.
SRA, LLFA, riparian owners	Educate communities, landowners and property owners on the responsibilities and rules to follow for watercourses on or near their property
LLFA, EA	Enforce cases of dereliction in riparian responsibilities which increase flood risk
FWAG, Parish and Town Councils, Landowners and Farmers	Work with the Farming & Wildlife Advisory Group (FWAG) to understand the impact of agricultural methods on flood risk
Highways	Investigate the drainage network to assess the asset condition status, to ensure that drains meet current standards regarding clearing and maintenance
EA	<p>Look into main river maintenance, much responsibility for which lies with riparian owners</p> <p>EA to investigate channel capacity and possibility of sedimentation and assess whether silt removal would help</p>
Parish and Town Councils, SRA, Householders	Property owners need to consider their own preparedness for flooding events and potential mitigations through Property-level Flood Resilience (PFR). Parish Councils can help raise awareness of PFR and riparian responsibilities to ensure that the systems are as fit as they can be for any future flood events.

Communities, Residents, Parish and Town Councils	<p>Communities must be prepared for the inevitable increase in frequency and severity of flooding events due to climate change and increasing exposure. Residents can prepare for and adapt to future flooding to prevent them from becoming disasters, like the flooding experienced in 2023.</p> <p>Parish and Town Councils can create a Climate Adaptation Plan with resources available through organisations like the Somerset Wildlife Trust, Somerset Prepared. These plans must remain fresh and understood by residents.</p> <p>Communities can form Flood Warden groups to prepare for future events and reduce the risk of flooding through adopt-a-drain schemes.</p>
EA, SRA, Parish and Town Councils	<p>Following the installation by the EA of several additional River Level Gauges and Rainfall Gauges in 2024, the SRA and EA are working towards improving community alerts and access to them</p> <p>This will also address the issue of data limitation faced by this report</p>
Planning authority, LLFA	Investigate whether any Sustainable Drainage Systems (SUDs) are effective and whether retrofitting across the community is appropriate
Sparkford	
LLFA	Consider flooding in development south of Bridge Cottage
LLFA	Further investigation is required into the effectiveness of attenuation systems associated with the A303
Queen Camel	
Highways	Drainage network, with particular reference to culvert under main road

Conclusion

On 9th May 2023, Sparkford and Queen Camel were impacted by extreme flooding as a result of runoff from heavy rainfall, causing the river to overtop its banks, affecting access and spilling water onto roads and into properties.

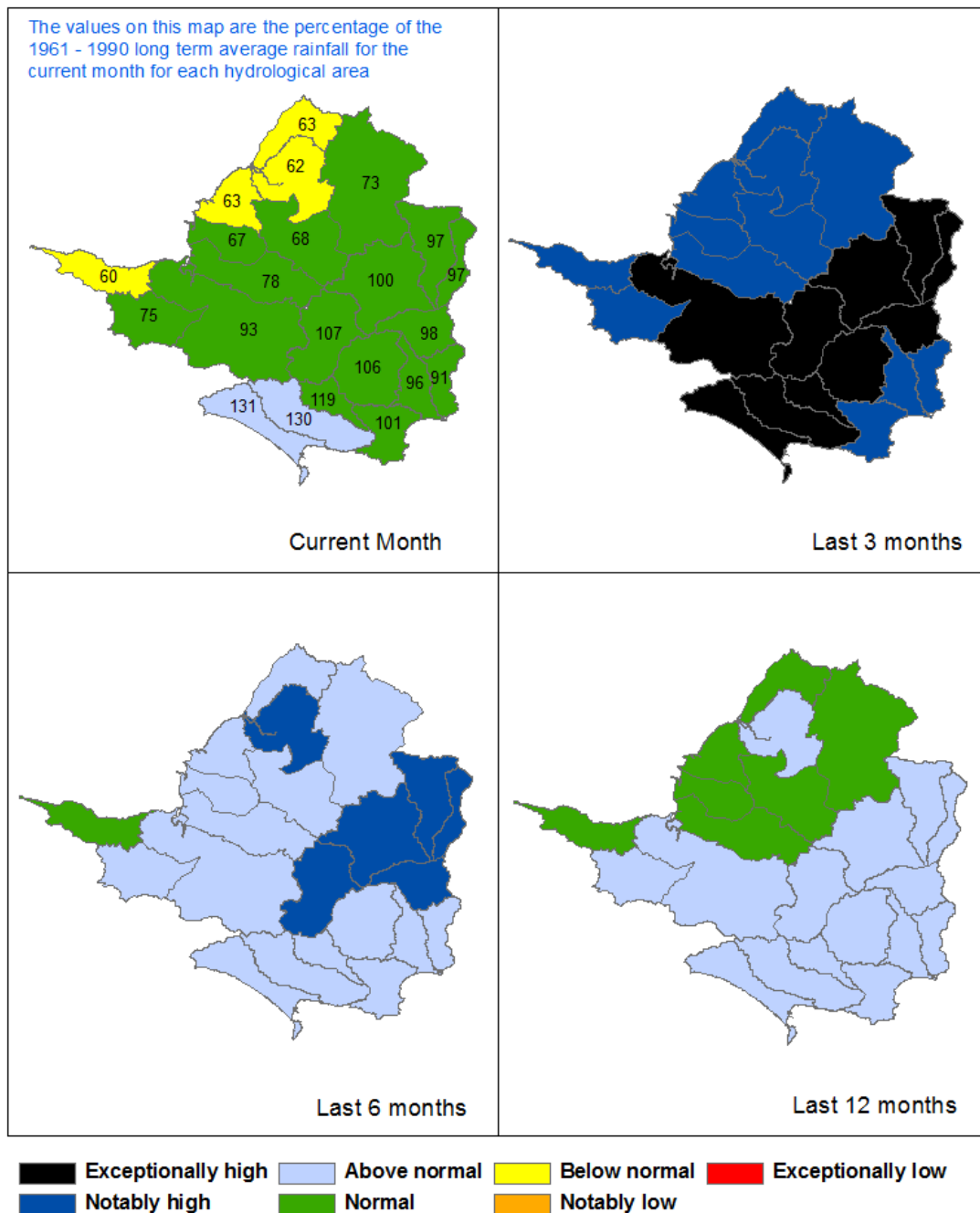
Water reached depths of 2 to 3.5 feet in residential properties, with contamination concerns. Local businesses, like the café, suffered financial losses due to flood impact. Despite flood barriers and alerts, the suddenness of the event overwhelmed defences, resulting in property damage. Emergency responses faced challenges, but fire service was able to assist elderly residents who were trapped in their homes.

Most properties had no prior history of flooding, making this event exceptional. Though there is history of flooding, no area has recorded the level of internally property flooding experienced on May 2023. The unusually severe nature of this flooding serves as a reminder of the importance of proactive flood risk management to protect communities from future extreme weather events.

This report recommends that across all areas, Natural Flood Management are required reduce flood risk, communities, landowners, and property owners must be educated about watercourse responsibilities. Riparian responsibilities must be enforced, and communities should collaborate with the Farming & Wildlife Advisory Group (FWAG) to understand agricultural impact on flood risk. In addition, Highways should assess drainage networks for compliance with maintenance standards.

Appendices

Appendix 1: Total rainfall (Wessex) for hydrological areas for the current month (up to 31 May 2023), the last 3 months, the last 6 months, and the last 12 months, classed relative to an analysis of respective historic totals (Environment Agency)



Appendix 2: EA comments

NB – 24 properties reported flooded throughout the 4 communities, with 21 in Queen Camel alone.

Page 32 - Recommended actions:

The following actions include the EA (EA comments in red):

- EA and LLFA to enforce cases of dereliction in riparian responsibilities which increase flood risk. **Enforcement of riparian responsibilities will be challenging with only one, very stretched, EA enforcement officer for the whole of Wessex.**
- EA to look into main river maintenance, much responsibility for which lies with riparian owners. **This is challenging due to significant maintenance budget constraints. Riparian issues - as above comment.**
- EA to investigate channel capacity and possibility of sedimentation and assess whether silt removal would help. **As above, this is likely challenging due to maintenance budget constraints? Environmental risks? Are channel capacity options included in the current Atkins assessment for Queen Camel? We should mention EA is undertaking high level refresh of a previous appraisal, specifically for Queen Camel and West Camel only.**
- Following the installation by the EA of several additional River Level Gauges and Rainfall Gauges in 2024, the SRA and EA are working towards improving community alerts and access to them. This will also address the issue of data limitation faced by this report. Action to include parish and town councils. **NB these new community gauges were funded by SRA on their capital programme, and the project was overseen and supported by Somerset Council's Emergency Planning, Response and Recovery team, along with community flood reps and SRA engagement officers. The EA were able to contribute H&T staff time and expertise (chiefly Gareth Varney) for the installation and operational training, but it was not an EA project, and the EA will not be managing the gauges once operational.**
- There is one action, which doesn't include EA, but perhaps should: Investigate and implement Natural Flood Management solutions, using natural processes to reduce the risk of flooding.

Appendix 3: Community feedback on final draft

These investigations were created with community input from FORT reports, emailed testimonies, images, and consultation events. Final drafts were sent to key community contacts (e.g., flood wardens, parish councils) for final comments, though Communities were informed that significant amendments were not possible and additional information and comments would be included in the appendices. They were also asked to correct any inconsistencies and to provide correct data such as internally flooded property numbers (addresses excluded) or details of Risk Management Authority responses. Some of these amendments have been corrected in the report.

Other amendments have been kept as an appendix due to necessity to the report, time limitations, or lack of technical support to substantiate their addition.

The following comments were received from the community, as wrote (the author of this report includes these for completeness, but does not necessarily endorse the accuracy of their assessments and recommendations):

Appendix 3A:

COMMENTS ON FIRST DRAFT – QUEEN CAMEL PARISH COUNCIL

Page 24 Fig 15 – The flood defences shown in Fig 15 are incorrect. There is no “north/south” drainage.

Action 5/13 – Queen Camel has pressed for the last six years to ensure the culvert be cleared – Highways/EA have yet to action.

Looking to the future there are a number of actions Somerset could take now to mitigate the effects of flooding and put in place preventative measures. These should be included in the report:

The single lane bridge in Queen Camel could be controlled by Highways installing traffic lights to better regulate the traffic flow⁵ and in times of flood place both sets of lights on red to stop traffic.

In addition, NFM focused on the A303 and additional attenuation ponds along the River Cam.

FWAG encourages farmers to adopt alternative ploughing plans, planting and appropriate crop selection to reduce water run off to rivers.

Highways to ensure drain, gully clearance on a regular basis. ⁶

⁵ During the construction work on the new A303 project between Sparkford to Podimore there were a number of occasions when all traffic was diverted through the village. Temporary traffic lights controlled this flow over the bridge so much better than reliance on drivers following the “priority signage”.

⁶ At this time of the year the situation is exacerbated by leaf fall!

Appendix 3B:

The reports that I have seen for the Cam fail to take into account the 5-foot-high wave that is recorded at the western Bamfield gauge. The damage to all the buttresses on the road bridges crossing the Cam or the road surfaces that were ripped up due to the force of the water. Local farmers are of the belief that between 130-170mm of rain fell

in 5 hours. The river of rain that washed away [name removed] in higher Hadspen. [They were] rescued by the Quarry owner. I enclose the pictures off the damage.











Appendix 3C: Queen Camel Reply to Section 19 Report

The flood in May was a result of water entering the River Cam upstream and then for a reason, not yet fully explained or investigated, causing a “tidal wave” of water coming downstream which left little or no time to take flood precaution measures such as flood barriers etc. Residents clearly recall seeing this “wave” of water hitting the area.

It is suggested that the Central Cam Valley Report should not stand in isolation and must be linked to the other River Cam reports in order to provide a complete picture of the issues faced – upstream events have a significant impact downstream.

Noting that this report focuses on the Central Cam Valley, the S19 reports covering other parts of the River Cam cannot be considered in isolation as they are inexorably linked. Events upstream of Queen Camel in for example Blackford, Yarlinton or Sutton Montis will influence the River Cam in Queen Camel – there should therefore be an “Executive Summary” that covers all the River Cam S19 Reports, commenting on the relationship between the various geographical areas and what the holistic approach should be to matter like Natural Flood Management. This will prevent unintended consequences of projects upstream on downstream plans and in a time of financial pressures a priority afforded to the correct projects.

References

[Adopted Local Plans \(somerset.gov.uk\)](https://www.somerset.gov.uk)

[Data - AQUARIUS WebPortal \(aquaticinformatics.net\)](https://www.aquaticinformatics.net)

[Flood map for planning - GOV.UK \(flood-map-for-planning.service.gov.uk\)](https://www.flood-map-for-planning.service.gov.uk)

[Flood risk information for this location - Flood map for planning - GOV.UK \(flood-map-for-planning.service.gov.uk\)](https://www.flood-map-for-planning.service.gov.uk)

[Hydrology Data Explorer](#)

[Local Weather Forecast, News and Conditions | Weather Underground \(wunderground.com\)](https://www.wunderground.com)

[Map - FEH Web Service \(ceh.ac.uk\)](https://www.ceh.ac.uk)

[Natural Flood Management Advice | FWAG SW](#)

[Natural flood management programme - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

[PWSWeather - Bring Your Weather to Life](#)

[Risk of Flooding from Surface Water Depth: 0.1 percent annual chance \(data.gov.uk\)](https://data.gov.uk)

[See flood risk on a map - Check your long term flood risk - GOV.UK \(check-long-term-flood-risk.service.gov.uk\)](https://www.flood-map-for-planning.service.gov.uk)

[Topographic maps, elevation, terrain \(topographic-map.com\)](https://www.topographic-map.com)

[Water situation: area monthly reports for England 2024 - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

Responsible	Flood Impact Reporting Officer
Accountable	Service Manager Flood & Water Management
Consulted	Parish & Town Councils, Flood Wardens & Flood Groups, Environment Agency, Wessex Water, Somerset Flood & Water Management Team (LLFA), Somerset Rivers Authority, Somerset Highways
Informed	Climate & Place Scrutiny

Version History

Revision Date	Author	Version	Description of Revision
02/10/24	Anna Meares	1	Internal consultation
24/10/2024	Anna Meares	2	External consultation
17/01/2025	Anna Meares	3	Final version