

Preliminary Report: Section 19 Investigations 2023



Executive Summary

Following a number of major flooding events in Somerset throughout 2023 and early 2024, the Council has a statutory duty to undertake investigations (under Section 19 of the 2010 Flood and Water Management Act). The reports provide an evaluation of the possible causes, emergency response and consequences of flooding events.

There is currently a backlog of investigations under way for each of these events, although Somerset Council now has officer resource available to undertake these reports. This preliminary report discusses the flooding that occurred in May and September 2023, outlines Somerset Council's path forward for reporting on each event and defines a policy for investigating future flooding events.

Background

During May, September, December 2023, and January 2024, multiple communities throughout Somerset experienced major flooding events. The affected areas were spread widely across the region, with differing causes and circumstances in each instance. For all events, the flooding was widespread enough that individual flood investigations (Section 19 reports) will need to be written for each locality (or loosely grouped localities) affected. This will result in six investigations for the May event, three for September, one for December and one for January.

To date, there has been a backlog of Section 19 Reports for historical flooding events, with investigations typically being published around 12-18 months after the event. With a dedicated resource now committed to investigating flooding events, this process will become more timely. This preliminary report outlines for process for how the 2023 Section 19 reports will be written, as well as detailing a method for how investigations will be undertaken moving forward.

Legislation

2010 Flood and Water Management Act

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.

Rainfall Events & Intensities

It is impossible to prevent absolutely all flooding in all circumstances. Rainfall events vary widely in intensity, and whatever drainage systems or flood mitigation schemes are put in place, there is always the possibility, however remote, that an extreme rainfall event will overwhelm them. We can, however, plan for the vast majority of rainfall events, and in the course of doing so, attempt to make extreme events less impactful.

The usual way to describe the severity of rainfall events is to talk in terms of a percentage chance of an event occurring. If we take the example of a 1% chance event, this is an event of a size that will be equalled or exceeded on average once every 100 years. This means that over a period of 1,000 years you would expect the one in 100-year event would be equalled or exceeded ten times. But the distribution of events is not even over the 100 years - several of those ten times might happen within a few years of each other, and then none for a long time afterwards.

Somerset Council Flood Investigation Policy

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.

There no prescribed time frame within legislation in which a Section 19 report must be published following a major flood event. However, this report details the intended timeframe for Somerset Council to produce any future investigations. Accounting for the backlog of reports due to be written for the 2023 period, this preliminary report outlines the intended practice for the outstanding reports, and the anticipated timeframe for future events. More detail can be found in the later section, 'Process for Existing Reports'.



Internal flooding

A Section 19 investigation will be triggered when at least ten properties (including residential or business) are internally flooded as a result of the severe weather event. This may include:

- flood water entering the habitable areas of the residence; or
- flood water did not enter into habitable areas, but the local authority regards that the residence was otherwise considered unliveable for a period of time

It is important to note that there are frequent instances of flooding in Somerset where the threshold of ten properties is not reached, although some residents may still experience internal property or equally disruptive flooding. In these cases, while a Section 19 investigation may not take place, the Flooding and Coastal Team and Civil Contingencies Unit will nevertheless be working with residents and agencies to improve resilience and make recommendations to avoid repeat events.

Recent flood events

This section broadly describes three major flood events that occurred in 2023 and one in early 2024, requiring multiple Section 19 investigations. Due to resource constraints in 2023, there has been a delay in commencement of this work.

May 2023

On 9th & 10th May 2023, multiple communities in Somerset were affected by flooding following intense localised thunder and hailstorms. Much of the flooding was caused by surface water runoff from fields and roads, with smaller watercourses in the affected area reacting rapidly. The heaviest rain fell in the catchment of the River Cam, and consequently some of the biggest impacts were seen in this area. In addition, there was also an acute flood event in Milverton (West Somerset) which shall be investigated under its own Section 19 process.

Analysis of the rainfall that occurred that afternoon suggested that as much as 130mm of rain fell in one and a half hours over the area around North Cadbury, Galhampton, Yarlington and Woolston. The following image demonstrates the amount of rainfall experienced by the South Somerset region during this event, utilising point data provided by the MET Office.



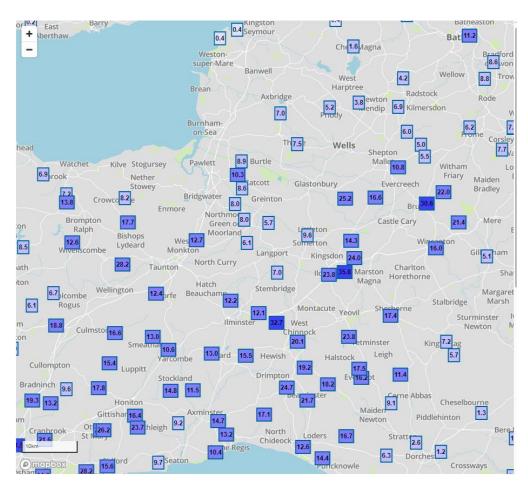


Figure 1: Daily Rainfall Totals in millimetres from 00:00 to 23:59 for 9 May 2023

Overall, 177 properties were subjected to internal flooding as a result of this event. Section 19 investigations will be undertaken for six locations on this date. The affected communities are listed in the location breakdown below.

9-10 th May 2023 – internal flooding breakdown			
Section 19 grouping	Communities affected	Internally flooded properties	
Milverton	Milverton	33	
East Cam Valley	Galhampton, North Cadbury, South Cadbury and Yarlington	34	
West Camel & Urgashay	Podimore, Yeovilton	57	
Central Cam Valley	Queen Camel, Sparkford, Weston Bampfylde	24	
West Cam Valley	Urgashay, West Camel	29	
Pitt Valley	Shepton Montague, Hadspen & Pitcombe	16	

On 17th September 2023 a significant storm front moved through the Southwest of England, impacting upon Somerset. In particular, surface water pooling and run off caused property and public infrastructure damage in the communities of Minehead, Carhampton and Withycombe, and Wellington. In particular, acute rainfall in the catchment south of Withycombe caused unprecedented scouring and flooding, rendering significant section of the highway unusable.

Council

It was reported that due to the significant amount of rainfall, water came from the Blackdown Hills into the rivers & Ordinary Watercourses, causing many to breach their banks. Communities impacted included residential properties owned by the Local Authority with vulnerable inhabitants. The following image demonstrates the amount of rainfall experienced by the region during this event.

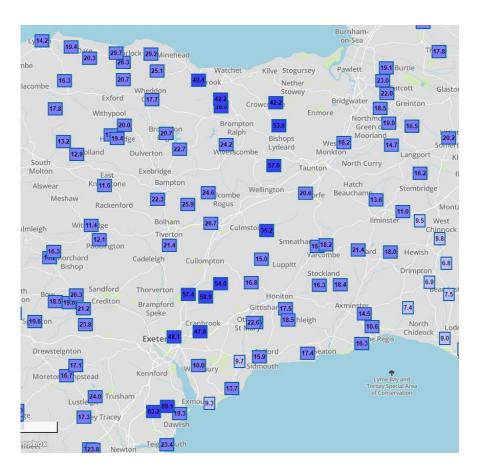


Figure 2 Daily Rainfall Totals in millimetres from 00:00 to 23:59 for 17 September 2023

Overall, 67 properties were subjected to internal flooding, as well as a number of businesses in Minehead. Section 19 investigations will be undertaken for three locations on this date. The affected communities are listed in the location breakdown below.

17 th September 2023 – internal flooding breakdown		
Section 19 location / affected community	Internally flooded properties	
Wellington	34	
Minehead	22	
Carhampton & Withycombe	14	



December 2023

On 4th December 2023, significant flooding impacted Martock. There was significant surface water runoff resulted in reports of approximately 14 properties internally flooded in Martock. At the time of writing, the data set is not complete, but it is likely that a Section 19 investigation will be undertaken.

January 2024

On 4th January 2024, storm Henk affected multiple regions across the UK, bringing high levels of rainfall to areas in Somerset. There were significant surface water and river flooding impacts due to heavy localised rainfall on already saturated catchments. The flooding also included surface water and agricultural run-off. Current data suggests at least 50 properties were internally flooded throughout Croscombe, Shepton Mallet, Knole, Nunney and Bruton.

The Flooding and Coastal team are still receiving data, and final figures for internally flooded properties are still pending for the December and January events. It can be expected that any Section 19 report due to be written will also likely be subjected to a delay due to the existing backlog of investigations.



Identified Stakeholders

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 the extreme rainfall events of 2023 and early 2024, with varying levels of recovery. At the time of writing, some households will still not have returned to their homes due to the destruction caused by the flooding.

The communities 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 collection for the Section 19 Reports.

Parish councils

Parish Councils play an important role in managing flood risk at the community level, through the preparation of community flood plans and Flood Warden schemes. Many Parish Councils have been invaluable in gathering information on the flooding and reporting flood incidents in their area.

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 Civil Contingencies Unit (CCU) is responsible for providing 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 in order to support residents and communities.

Environment Agency

The Environment Agency are responsible for managing the flood risk from main rivers, the sea and reservoirs including coastal erosion risk management, permissive powers to maintain main rivers, strategic overview over all forms of flooding and development of a national Flood Risk Strategy.

Wessex Water

Wessex Water are the local Water Authority, providing 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 managed by Wessex Water.



Internal drainage boards

Each internal drainage board (IDB) is a public body that manages water levels in an area, known as an internal drainage district, where there is a special need for drainage. IDBs undertake works to reduce flood risk to people and property and manage water levels for agricultural and environmental needs within their district. IDB are an enforcing and consenting authority with permissive powers to carry out maintenance.

Emergency response

During major flooding events with risk to life, the police may coordinate the emergency services and help with evacuation of people from their homes where necessary.

Devon and Somerset Fire and Rescue are primarily responsible for saving life, though may also pump out floodwater from properties.

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, weirds 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



Data collection

Though much information has already been received from residents and stakeholders, giving a rough picture of the events that occurred and some indication as to potential causes, this data must be scrutinised, filtered and analysed in order to support conclusions in each report.

In addition, there will also be a further data collection process for each report, such as MET Office rainfall data, Mapping

- 1. Existing data e.g. emails from residents shortly after the flooding event (data trawling)
- 2. Data to be gathered from organisations (MET office, EA)
- 3. Hydraulic & Topographical Analysis of catchments and desktop studies of surface water sensitivities
- 4. Filling any

Community Engagement Officers

The LLFA employs Community Engagement Officers, whose main responsibilities include managing correspondence with communities following a flooding event and providing knowledge and expertise to improve communities' resilience to flooding. This includes attending community drop-in events following a flooding event to obtain information about affected individuals and provide advice on immediate recovery activity. The community Engagement Officers also maintain correspondence with the community through the Flooding inbox (flooding@somerset.gov.uk).

Flooding inbox

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.

Civil Contingencies Unit Reports

The Civil Contingencies Unit (CCU) is responsible for providing 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. CCU reports after a flooding event will feed into a Section 19 investigation to help agencies learn how to better respond to future events.

Met Office reports

The Met Office can provide rainfall data, imagery, and an analysis of the meteorological insight into the event.

Environment Agency

The Environment Agency can provide topographical data and river catchments, information about local flood zones and a detailed river network for each area.

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

Provides a geographical overview 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.

Missing data

Due to the time delay between the flooding events and writing these reports, there is a risk that some data could be missing in the final Section 19 investigations. This is due to a number of factors, including the development of systems team 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 necessary 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.



Process for existing reports

Although there is no prescribed timeframe within which a Section 19 report must be published following a flooding event, the following proposed timeline details how the six reports for May and three reports for September will be written.

Date	Activity	Detail
November 2023	Section 19 Officer in place	Begin project planning for backlog reports, preliminary report and 2023 reports
Dec 2023 - Jan 2024	Preliminary report written	Outline approach for investigating backlog and future flooding events
Jan 2024	Additional data collection	Met Office, Environment Agency, etc.
Jan 2024	Review of existing backlog Section 19 reports	Final edits ready for publishing
Mar 2024	Scrutiny Committee for 2020- 2022 backlog reports and 2023 preliminary report	Backlog reports and pre-report should be published on Somerset Council website shortly thereafter
May 2023 Sec	ction 19s	
May 2023	May Flooding event occurs	Main involvement from RMAs, Fire & Rescue, Emergency Response
May 2023 onwards	Collation of data from residents	Images, personal reports of flooding to properties, FORT reports
June 2023	Community drop-ins (May flooding)	Community Engagement Officers gather information from residents about what happened, what the response was, extent of damage
Nov 2023 – Mar 2024	Preliminary report written	Outline methodology
April 2024	Analysis of existing data for May events written into report	Initial analysis of all relevant collated data
June 2024	Engineering analysis	Internal workshop to review maps, assess assets, analyse the issues
July 2024	Internal review	Draft S19s internally reviewed by Flooding and Coastal team members
Aug 2024	Consultation on May reports	Draft sent to parishes and community groups for comment, which form an appendix to the report. Not for public view at this stage.
Oct 2024	Draft report finalised	Edited, proof-reading, final formatting
Nov / Dec	Final report presented to	Opportunity for members to have sight of the
2024	Community Scrutiny Committee	report
Dec 2024	Final Report published	Published on Somerset Council website
	September 20.	24 Section 19s
Sep 2023	September flooding event occurs	Main involvement from RMAs, Fire & Rescue, Emergency Response



Sep 2023	Collation of data from residents	Images, personal reports of flooding to
onwards		properties, FORT reports
Oct 2023	Community drop-ins (Sept	Community Engagement Officers gather
	flooding)	information from residents about what
		happened, what the response was, extent of
		damage
May 2024	Analysis of existing data for Sep	Initial analysis of all relevant collated data
	events written into report	
Aug 2024	Engineering analysis	Internal workshop to review maps, assess assets, analyse the issues
Sep 2024	Internal review	Draft S19s internally reviewed by Flooding and Coastal team members
Sep 2024	Consultation on Sep reports	Draft sent to parishes and community groups
оср 202 .	consultation on sep reports	for comment, which form an appendix to the
		report. Not for public view at this stage.
Oct 2024	Draft report finalised	Edited, proof-reading, final formatting
Nov / Dec	Final report presented to	Opportunity for members to have sight of the
2024	Community Scrutiny Committee	report
Dec 2024	Final Report published	Published on Somerset Council website
December 2023 & January 2024 Section 19s		
Dec 2023	December flooding event occurs	Main involvement from RMAs, Fire & Rescue,
		Emergency Response
Jan 2024	January flooding event occurs	Main involvement from RMAs, Fire & Rescue,
		Emergency Response
Feb 2024	Community drop-in	Community Engagement Officers gather
		information from residents about what
		happened, what the response was, extent of
		damage
Jan 2024 –	Collation of data from residents	Images, personal reports of flooding to
Jan 2025		properties. FORT reports.
Jan 2025	Collation of data from	Rainfall data, topography, GIS mapping
	organisations	
Feb 2025	Data is written into report,	Analysis of all relevant collated data
N4== 2025	conclusions made	Internal conductors to the second
Mar 2025	Engineering analysis	Internal workshop to review maps, assess
N40 x 2025	Internal review	assets, analyse the issues
Mar 2025	Internal review	Draft S19s internally reviewed by Flooding and
A = = 2025	Dueft was and a suitable in	Coastal team members
Apr 2025	Draft report consultation	Draft sent to parishes and community groups
		for comment, which form an appendix to the
		report. Not for public view at this stage. Cannot
May 2025	Draft report finalised	pre-empt the conclusion of the report.
May 2025 June 2025	Draft report finalised Final report presented to	Edited, proof-reading, final formatting Opportunity for members to have sight of the
Julie 2025	Community Scrutiny Committee	
June 2025	Final Report published	report Published on Somerset Council website
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General	
May 2023 Section 19s	
September 2023 Section 19s	
December 2023 & January 2024 Section 19s	

Policy for future events

This is a timeline for Section 19 investigations based upon an assumption of committed resourcing

Timeline	Activity	Detail
Day 0	Flooding event occurs	Main involvement from RMAs, Fire & Rescue,
		Emergency Response. S19 officer may be
		included in online tactical meetings to record
		emergency response
4-8	Community drop-in	Community Engagement Officers gather
weeks		information from residents about what
		happened, what the response was, extent of
		damage
1-8	Collation of data from residents	Images, personal reports of flooding to
weeks		properties. FORT reports.
1-4	Collation of data from	Rainfall data, topography, GIS mapping
weeks	organisations	
8-12	Data is written into report,	Analysis of all relevant collated data
weeks	conclusions made	
10-14	Engineering analysis	Internal workshop to review maps, assess assets,
weeks		analyse the issues
10-14	Internal review	Draft S19s internally reviewed by Flooding and
2weeks		Coastal team members
14-16	Draft report consultation	Draft sent to parishes and community groups for
weeks		comment, which form an appendix to the report.
		Not for public view at this stage. Cannot pre-
		empt the conclusion of the report.
16-18	Draft report finalised	Edited, proof-reading, final formatting
weeks		
18-24	Final report presented to	Opportunity for members to have sight of the
weeks	Community Scrutiny Committee	report
24-26	Final Report published	Published on Somerset Council website
weeks		



References and resources

https://www.gov.uk/help-during-flood

Flood recovery framework: guidance for local authorities in England - GOV.UK (www.gov.uk)

https://www.somerset.gov.uk/roads-travel-and-parking/flooding/

https://www.somerset.gov.uk/council-and-democracy/somerset-local-authority-civil-contingencies-partnership/

https://www.local.gov.uk/topics/severe-weather/flooding/emergency-planning/responses

https://www.local.gov.uk/topics/severe-weather/flooding/local-flood-risk-management/managing-flood-risk-roles-and

https://nationalfloodforum.org.uk/

https://www.wessexwater.co.uk/your-wastewater/flooding

<u>Evidence review of factors cotnributing to surface water flooding final report.pdf</u> (publishing.service.gov.uk)