



**Somerset**  
Council

# **Flood Investigation Report**

*Section 19 Flood and Water  
Management Act 2010*

## **Chard & Tatworth**

**21-22<sup>nd</sup> October 2021**

<b>Organisation</b>	Somerset Council
<b>Title</b>	Chard & Tatworth Section 19 Report
<b>Owner</b>	Somerset Council LLFA
<b>Primary Legislation</b>	Flood & Water Management Act 2010

<b>Date of Incident</b>	21 <sup>st</sup> & 22 <sup>nd</sup> October 2021	<b>Date of Report</b> <b>Version – 15<sup>th</sup> Feb 2024</b> <b>Status: <i>Final</i></b>
<b>Site / Catchment Location:</b>	Chard, Tatworth	

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## Introduction

The function of a Section 19 report is to gather information on the happenings during a particular flood event. They are known as a Section 19 report because they are required under Section 19 of the Flood and Water Management Act 2010. The legislation says:

### **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. 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 investigations to be undertaken.

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 investigations to be done.

It is not the function of a Section 19 to provide concrete solutions for flooding. This requires far more detailed technical work, liaison with landowners, and decision making about schemes in concert with the public and other stakeholders, although the Section 19 report can help in demonstrating the need for this work and securing future funding. Also, 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, make extreme events less impactful. Even a small difference in the final height or path of flood water can be the difference for some between their homes flooding and not, so even small schemes can have value in an extreme rainfall event.

The usual way to describe the severity of rainfall events is to describe in terms of ‘1 in X years’. If we take the example of a 1 in 100 year 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. This report deals with a rainfall event of 1 in 38 year intensity, so the flooding in terms of extent and depth was not as

extensive as that resulting from a 1 in 100 year event, which is shown on Environment Agency flood maps.

Appendix 1 includes selected photographs sent in by residents showing flooding in progress, and maps showing more detail of the area. We are grateful to residents for the information they have provided which has enabled the compilation of this report.

## Area Information

Chard is a town of approximately 13,000 people in south Somerset. It sits on the eastern edge of the Blackdown Hills, and as such has steep slopes to the west and northwest. It sits on a watershed - a ridge of land which separates water flowing to different rivers - with most the drainage in the town heading towards the River Isle, though some drains connect to the River Axe.

There are a number of surrounding villages, many sitting along the route of the River Isle and nearby watercourses. The village of Tatworth was also badly affected by this weather event

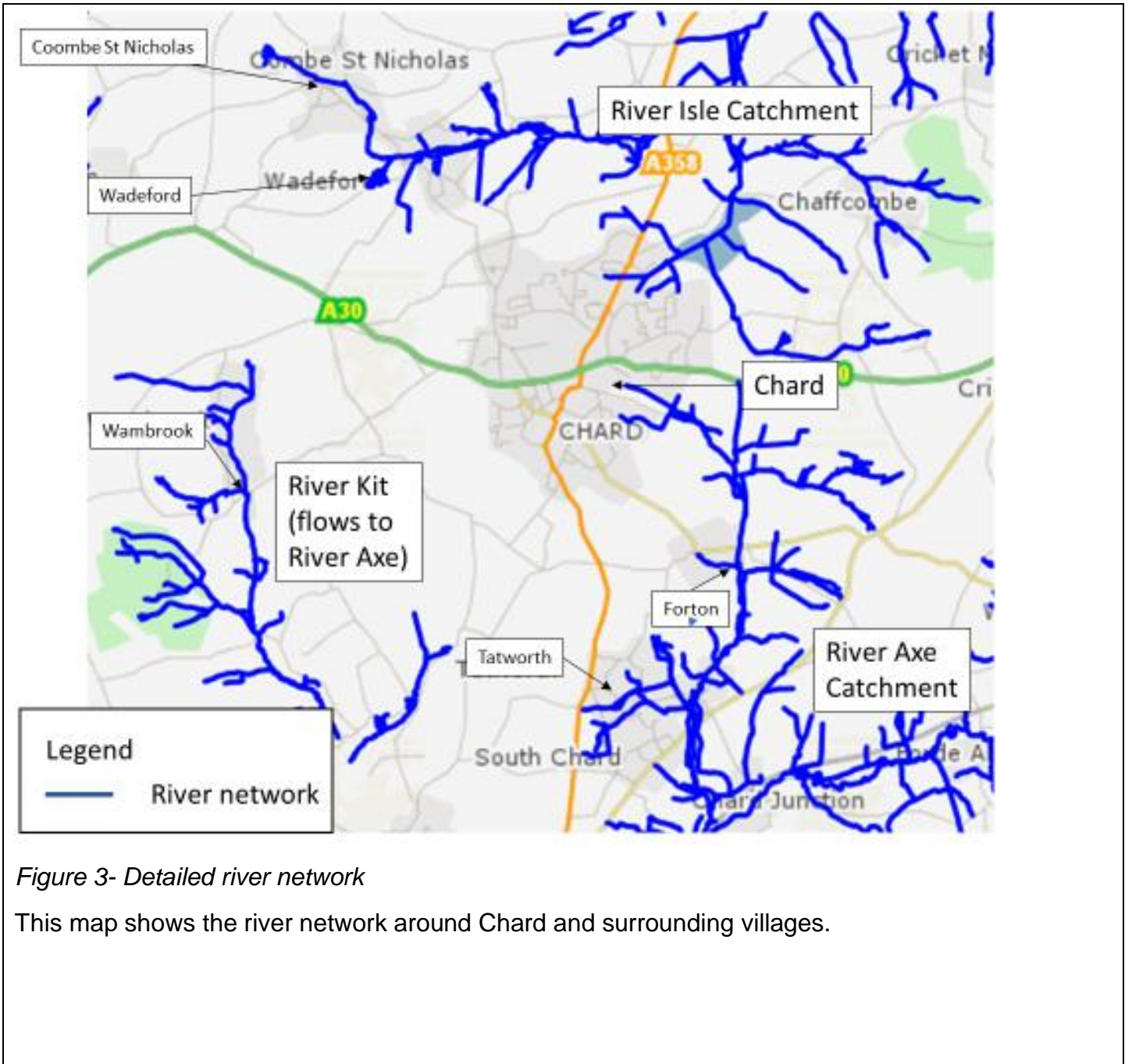
This report covers the heavy rainfall incident on 21<sup>st</sup> and 22<sup>nd</sup> October 2021, and the subsequent flooding in Chard and Tatworth.

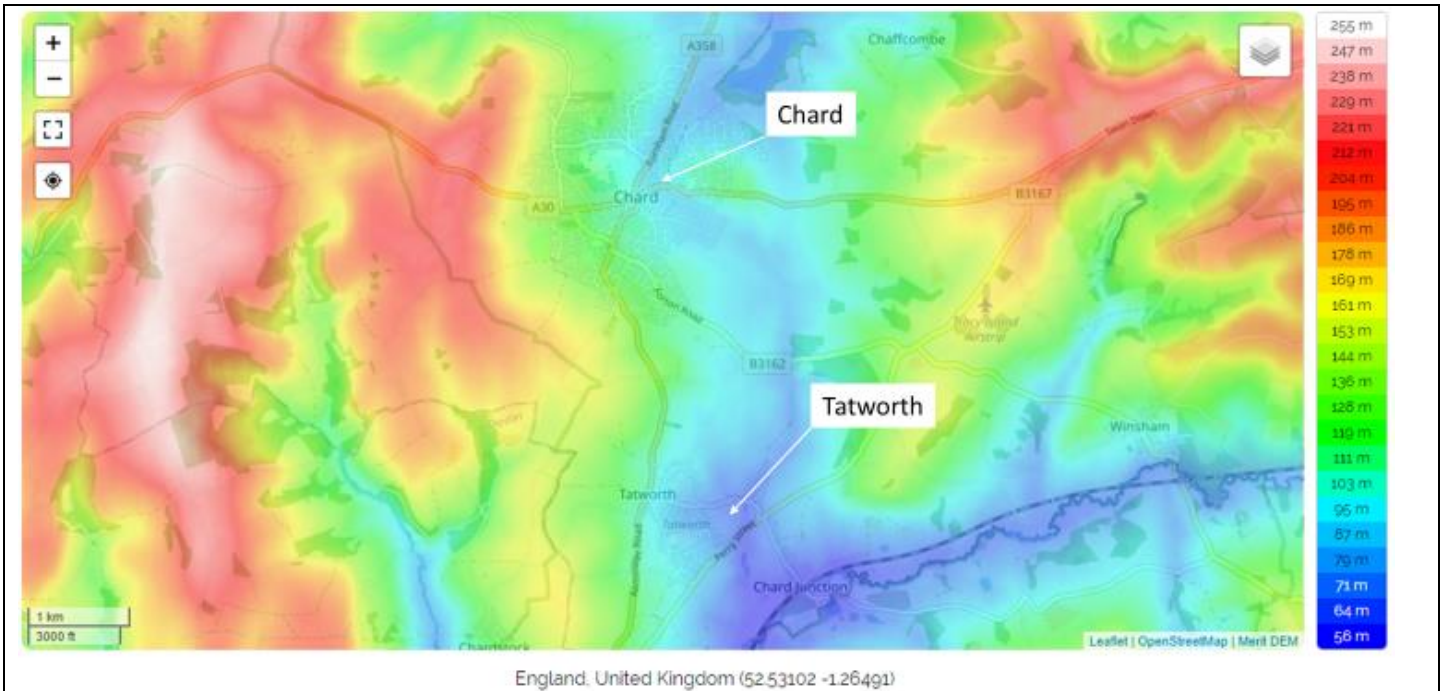


Figure 1 - Site Plan of Chard Town showing neighbourhoods.



Figure 2- Plan of Tatworth



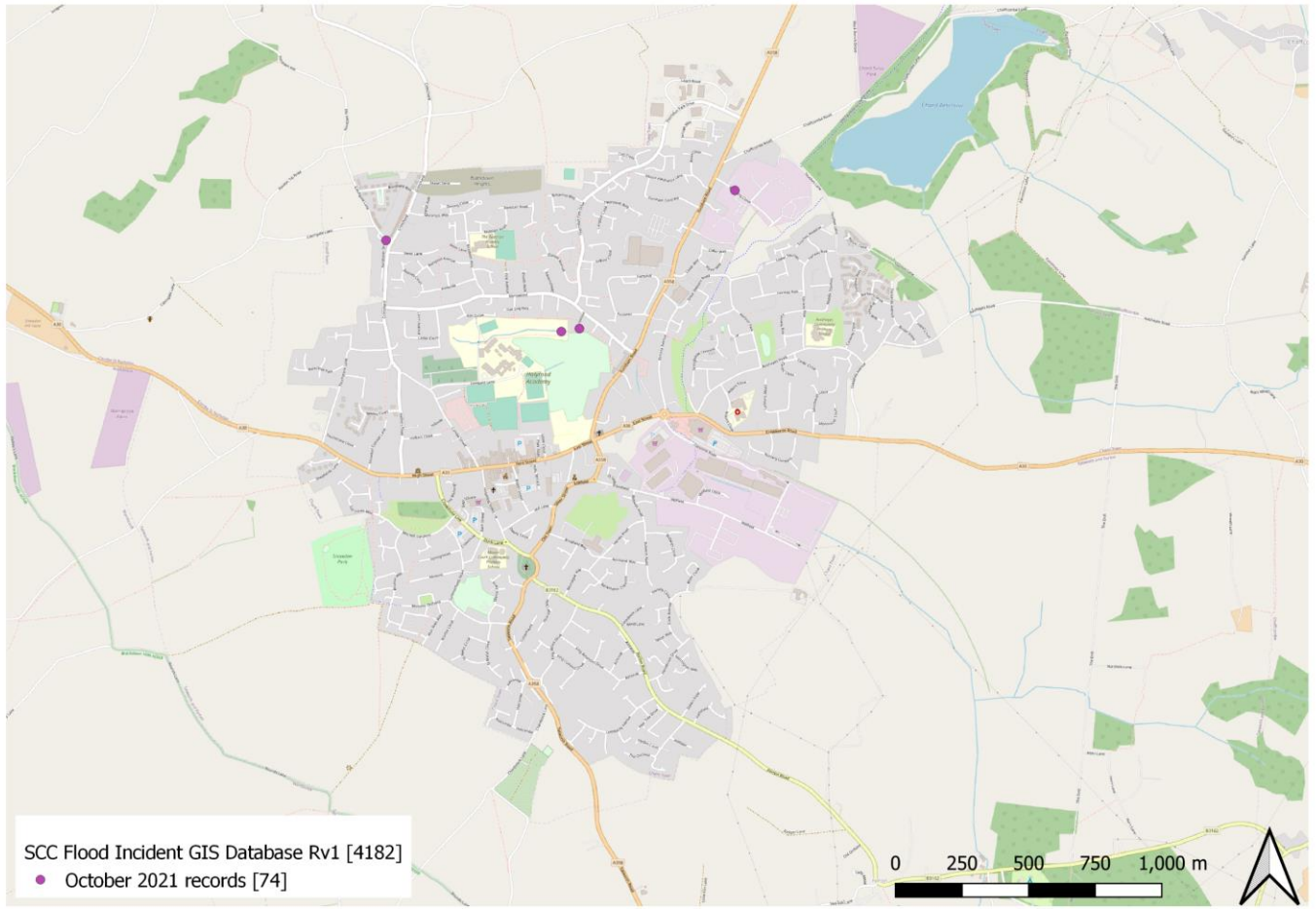


*Figure 4- Topography.*

This shows the form and, most importantly, height of the land surrounding Chard. Pink and red land is the highest, with blue at the lowest points. From this we can see that there are substantial hills to the west and east of Chard (the Blackdown Hills), and very steep slopes down into the low points around Chard reservoir and Tatworth.<sup>1</sup>

<sup>1</sup> [Chard topographic map, elevation, relief \(topographic-map.com\)](https://www.topographic-map.com/)





*Figure 5- Areas of Chard affected by flooding in October 2021*



Impact and Extent of Flooding - Summary	Flooding in Chard took place around Catchgate Lane in the northwest, in Beeching Close in the northeast, and around Glynswood. Flooding in Tatworth took place around Fore Street, Station Road, Factory Lane and Lower Coombses. There was flooding around Forton, but no reports of flooded properties have been forthcoming. This has been assumed to be outbuilding or road flooding.
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<p>Events of the Night and Risk Management Authority Activities</p>	<p>A variety of agencies were present on the night of the event, fulfilling their statutory duties. Their actions must be understood against the backdrop of widespread flooding across the southwest, and a life-threatening incident affecting at least ten households in Ilminster. The Fire Brigade were not able to attend to issues in and around Chard, as they were attending life-threatening emergencies elsewhere, and were at operational capacity in doing so. South Somerset District Council (SSDC) and The Civil Contingencies Unit deployed duty officers who opened a flood relief centre and organised the distribution of sandbags. Members of Town and Parish councils were present helping residents to protect their homes and relocate to safety. Highways held no statutory duties on the night, but teams were ready to close roads if requested. It eventuated that these services were not called upon. Road repairs following the event were minimal and promptly delivered, where required.</p> <p>During the day of 20<sup>th</sup> October the MET Office released weather warnings for rain, and some residents had made attempts to get hold of sandbags ahead of time. A significant number of residents were fearful after the previous flooding in June, but the event in October was much less extensive. There were several properties and businesses that were quite badly flooded, but the water cleared without significant impact.</p> <p>The Duty Civil Contingencies Officer received a phone call at 22:00hrs concerning flooding in Chard and Ilminster. Reports of Chard flooding said that properties were already being flooded, and that water was up to two feet (600mm) deep. It was quickly confirmed that the Guildhall was open as a Place of Safety and that sandbags were distributed from there. Fire and Rescue also confirmed that they were taking numerous calls and were prioritising those where life was at risk.</p> <p>There was concern among residents regarding the volume of rain forecast, and there were reports of residents attempting to unblock drains. Residents attempted to secure sandbags. There seemed to be problems with supplying additional help and support for the public, beyond what the Civil Contingencies Officer and Counsellors could offer; one officer reported that it was very hard to get through to anyone on the 24-hour helpline, and when they did the operator said that they would speak to someone, but no assistance or call back was forthcoming. They then managed to reach the on-call director via a personal contact, but the county officer who called back said that the team on the ground seemed to have everything in hand, and there wasn't anything extra they could do. The officer did say that good support was available after the event, with a drop-in surgery at the Guildhall and SSDC officers going door to door with leaflets designed to help those who had been flooded.</p>
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In a later post-event meeting, some of those who could have offered additional capacity reported that, as they were untrained, they had been told not to attend unless emergency services specifically asked them to. Fire & Rescue (F&R) supported to some extent– they reported that they “*need the people on the ground to know what they are doing*”. However, F&R also reported that this policy of council officers not joining rescue efforts unless called upon by F&R needs review. They have a large geographic area of responsibility, and when floods occur in one place floods are also occurring throughout the region, and they become stretched in their ability to respond to arising incidents.

On the night, it was found that information did not flow freely, due to Chain of Duty officer protocols not functioning as intended.

There is a gap in the system in that, with river flooding there is the EA and their incident response system available. During surface water flooding, SCC is responsible, and they do not have a formal emergency response role, or as sophisticated an out of hours/incident service.

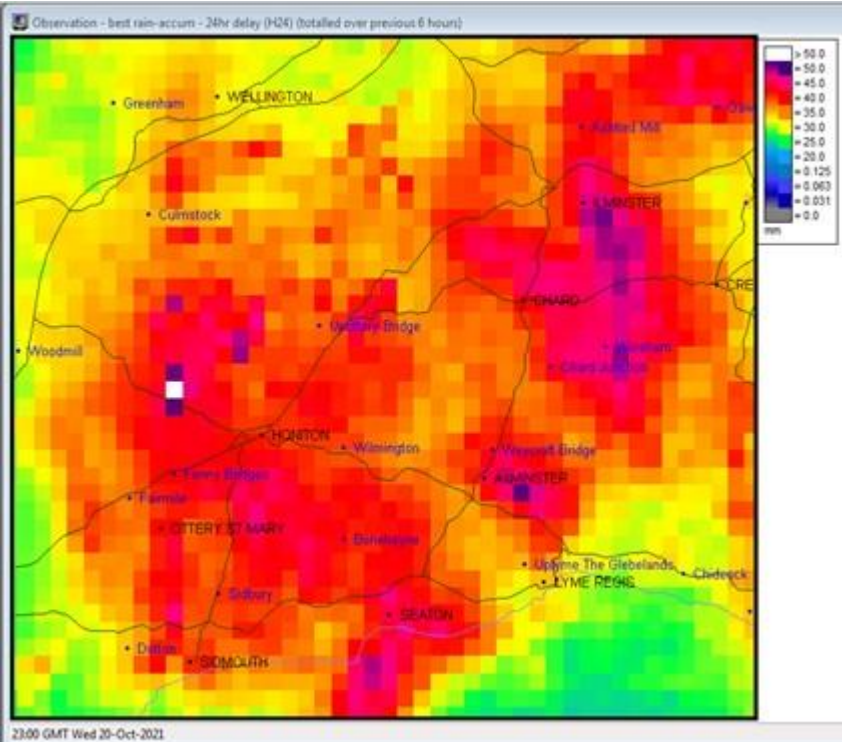
Fire & Rescue were not significantly present in Chard on the night of 21<sup>st</sup> October due to other incidents occurring in the region with greater danger to life, and they were over-capacity dealing with those.

Highways were ready to close roads on the night but in the event, were not called upon. In Chard, Highways were aware of the significant rainfall and its significant impact in in Glynswood, and of surface water, flowing through Catch Gate Lane, overwhelming the flood prevention silt trap Highways had installed there. Again, there was flooding in Furnham Road Industrial Estate. Road damage was less than in June, with only a small patching response required in Northey. Catch Gate Lane in Glynswood seemed to be a crucial pinch point and Thorndon Park. There is pictorial evidence of the evening with brown surface water coming onto Thorndon Park and back onto Glynswood. Highways have since performed jetting and camera surveys of specific problem areas.

There was significant pressure on Forton and Lower Coombses. Flooding in Waterlake Road and the end of Lower Coombses was reported by Highways as being equivalent to that during the June incident. This would seem logical with Waterlake Road as a low point, and so allowing for surface water to pool first during any significant flood. However, no reports of flooded properties have been forthcoming, so for the present this has been assumed to be road and outbuilding flooding.

The primary cause of flooding was determined to be a high volume of rain, and the resultant overland flow of rainwater.

<p><b>Impact and Extent of Flooding</b></p>	<p>Four properties were reported as being internally flooded in Chard. These were dispersed throughout the town – two on the north side in differing locations, and two in Glynswood. Part of the flooding in Glynswood was due to the stream, which runs across the open ground behind the secondary school, backing up again. It is not known in what part this was due to the debris grid to the culvert becoming blocked, and how much was down to a lack of capacity in the culvert.</p> <p>In Tatworth there were reports of flooding in eight locations. Four properties were flooded from surface water running downhill across a field. Three locations may have been road flooding only – property flooding has not been confirmed. However, from the locations these also appear to be surface water running to a low point. One flooding location was at a factory adjacent to a watercourse. Debris around the watercourse indicated that the water here had been high and fast flowing. It is possible – but has not been confirmed- that the factory was flooded from the watercourse.</p> <p>There were reports of flooding in Foreton, however there have been no reports from residents of flooded properties. It is assumed that this flooding was to roads and possibly out buildings.</p>
<p><b>Catchment Area</b></p>	<p>Chard sits at the edge of the Blackdown Hills. The natural path of surface water is down from the hills to the west of Chard, into central Chard, and then down to the low point at Chard Reservoir via Furnham Road and Beeching Close. The reservoir overflows into the River Isle to the east of the town. Surface water from the areas of Coombe St Nicholas, Wadeford and Nimmer run down into the River Isle. Southeast Chard, Wambrook, Higher Wambrook, and Coombses/Tatworth/south Chard areas sit in a different catchment – that of the River Axe – and surface water from there will run into the brooks and away to the Axe.</p> <p>The only ‘main’ river is a stretch of the Isle, down through Knowle St Giles into Chard Reservoir. A main river is classed as a river which the Environment Agency maintains in terms of flood risk. A flood warning was issued for this stretch, but it has not been implicated in any property flooding. The rest of the waterbodies in this report will be ordinary watercourses. These are under the responsibility of riparian owners (those who own the land through which the river flows) unless there is a legal agreement stating otherwise.</p> <p>The area is not covered by an Internal Drainage Board (IDB). An 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.</p>

<p><b>Historical Information</b></p>	<p>District Council records are time-limited. Historic flooding episodes are listed in appendix 2. Wadeford and Coombe St Nicholas in particular have a history of flooding.</p> <p>See Appendix 2: <a href="#">Historical flooding</a></p>
<p><b>Drainage Assets</b></p>	<p>The drainage assets of concern are gulleys in the road and their connecting drainage pipes, plus any culverts and connections to the sewerage system or surface water bodies. The local authority keeps records of drainage under their care, mostly belonging to the Highways Department. Private drainage is not generally recorded. The drainage network around the affected areas is extensive, as figures 15, 16 and 17 show (Appendix 1)</p> <p>Blocked drainage assets have been highlighted as an issue in previous flood incidents, however they were not mentioned on this occasion. It is therefore assumed that on this occasion the system worked as it should.</p>
<p><b>Rainfall Information</b></p>	<p>On the night of the 20th to 21<sup>st</sup> October there was considerable rain that fell in the 24-hour period. Upwards of 70% of the monthly average fell in this 24-hour period. In the seven-hour period up to the point of flooding, the area experienced 60% of the monthly average, allowing for consideration as a significant rainfall event.</p>  <p>Observation - best rain-accum - 24hr delay (H2K) (totalled over previous 6 hours)</p> <p>23:00 GMT Wed 20-Oct-2021</p> <p>Precipitation (mm), higher events</p> <ul style="list-style-type: none"> <li>0.0</li> <li>1.0</li> <li>5.0</li> <li>10.0</li> <li>20.0</li> <li>40.0</li> <li>60.0</li> <li>80.0</li> <li>100.0</li> <li>&gt;100.0</li> </ul>

	<p><i>Figure 7- The extent of rainfall over Somerset at 11pm, 20 October 2021.</i></p> <p>Below is an excerpt from EA Monthly water situation report for Wessex:</p> <p>“October was a wet month for Wessex, with ‘above normal’ rainfall at 187% of the LTA (149 mm). There was light rain at times throughout the month but the main rainfall events occurred on 1 – 4, 19 – 20 and 28 – 31 October which combined produced around 90% of the month’s total rain... The highest accumulation was on 19 and 20 October when 33% of the month’s rain fell, distributed across most of Wessex.”</p>
<b>Surface Water</b>	<p>Most of the flooding seen around Chard and surrounding villages during the event was due to heavy rainfall gathering and moving across the land – this is usually referred to a pluvial or surface water flooding.</p> <p>The mechanism appeared to be the movement of overland flow downhill, with water entering houses at points where bottlenecks in flow are presented by the topography of arrangement of streets and houses.</p> <p><a href="#">Link: EA Surface water flood risk mapping.</a></p> <p>The EA surface water flood risk map shows the predicted flooding for a 1 in 100 year rainfall event. The flooding on this occasion was much less extensive than that shown on the EA map, being a 1 in 38 year event.</p>
<b>Fluvial</b>	<p>The study area has a network of smaller streams and drainage ditches, as opposed to main rivers. Many of these watercourses are under riparian ownership. So far, one watercourse may have been implicated in the flooding which took place on this date. Anecdotal evidence suggests that many riparian owners are unaware of their rights and obligations with regards to their watercourses.</p>
<b>Coastal</b>	<p>There is no risk of coastal flooding in this area.</p>
<b>Groundwater</b>	<p>Most of Chard is on bedrock of sandstone (the Upper Greensand Formation), apart from Furnham Road and the associated industrial estates, which are on mudstone. Borehole logs indicate a layer of clay beneath the greensand. There are also shallow deposits of mixed clay, sand, and gravel. Upper Greensand is porous and will absorb water, however mudstone will not. The shallow sands and gravels will variably absorb water depending on the percentage of clay it contains.</p> <p>A significant contribution in previous events was the springs in the hills surrounding Chard. Groundwater had been raised by previous high rainfall events in June and July, which had caused intermittent springs in the hills to start to</p>



	<p>discharge water. This added to the overland flow from the rainfall to increase the severity of flooding. However, on this occasion springs were not implicated, probably as less rain had fallen in the run-up to the flooding event.</p>
<b>Soil Moisture Deficit</b>	<p>Soil moisture deficit is the difference between the amount of water actually held in the soil, and how much water the soil can hold. A low soil moisture deficit means that the ground is almost saturated and cannot readily absorb more water. For the Chard catchment at the end of September the SMD was 70mm, but had dropped to 12mm after the rainfall event of 20<sup>th</sup> October. This supports the conjecture that rainfall had soaked into the ground and springs had not been activated.</p>
<b>Risk Management Authority Responsibilities</b>	<p>The Flood and Water Management Act places a duty on all flood risk management authorities to co-operate with each other, to ensure flood management activities are well co-ordinated, and work in partnership to reduce the severity and impact of flooding.</p> <p><a href="#">See appendix 3</a></p>
<b>Risk Management Authority Actions During And Immediately After The Event</b>	<p><a href="#">Somerset County Council</a> (in their roles as <a href="#">Lead Local Flood Authority</a> and <a href="#">Highways Authority</a>)</p> <p><b>Lead Local Flood Authority (LLFA):</b> Commissioned section 19 and began to gather information from residents and other RMAs about their activities, and when, where and how flooding occurred.</p> <p><b>Highways Authority:</b></p> <p>Had no direct responsibilities on the night. They exercised their statutory duty by having teams ready to close roads if requested. Ultimately they were not called upon. There were minimal road repairs required afterwards, which were quickly followed up.</p>
	<p><a href="#">Environment Agency</a></p> <p>Fulfilled their statutory duty by issuing flood warnings for main rivers. However, this was not relevant to Chard.</p>
	<p><a href="#">Wessex Water</a></p> <p>Had teams out on site looking at sewer flooding and surface water entering the sewer system. They also responded to calls from the public who were concerned about the sluice in the Glynswood area.</p>
<b>Risk Management</b>	

<b>Authority Actions During And Immediately After The Event</b>	There were reports of residents lifting sewer manhole covers to get surface water away which caused sewer surcharging elsewhere.
	<b>Somerset Rivers Authority (SRA)</b> Community engagement officers do not have statutory duties, but they assisted partners by supporting the LLFA in managing public correspondence and providing information and support to parishes around property resilience.
	<b>Devon and Somerset Fire and Rescue Service</b> Fulfilled their statutory duty by taking charge of the emergency and responding to calls for help from the public. They were largely engaged with life threatening emergencies away from Chard.
	<b>Civil Contingencies Unit:</b> (Partnership between SSDC and SCC) Officers fulfilled their statutory duty by assisting partners and the public during the incident.
	<b>South Somerset District Council (SSDC):</b> Opened the Guildhall as a place of respite for affected residents, and as a general co-ordination and recovery centre. Sandbags were distributed from here. Officers fulfilled their statutory duty by assisting partners and the public during the incident.
	<b>Avon and Somerset Police</b> Officers fulfilled their statutory duty by assisting partners and the public during the incident. Again, they were engaged with life threatening emergencies away from Chard.
	<b>Tatworth and Forton Parish Council</b> Information about their activities on the night were requested but not received.
<b>Risk Management Authority Actions During And Immediately After The Event</b>	<b>South West Water</b> Information about their activities on the night were requested but not received.

## Flooding Mechanism

Examination of flow paths of rainwater and information from residents has established several probable causes for flooding, acting together in different parts of the area.

Chard sits in a bowl in the hills (see [topographic map](#)), and rainfall runs off the surrounding farmland and into the streets of Chard. Surface water runs across the town, picking up speed, more water, and debris as it goes.

To the north of Chard, the topography acts to funnel runoff water down Furnham Road. This can also spill over into roads such as Beeching Close, where one property was flooded.

In Glynswood surface water runs down into a brook which flows through the open space near Holyrood Academy. This brook enters a culvert to run under properties at the eastern end of Glynswood and enter the drainage system. This culvert is a potential bottleneck for flows, especially if blinded.

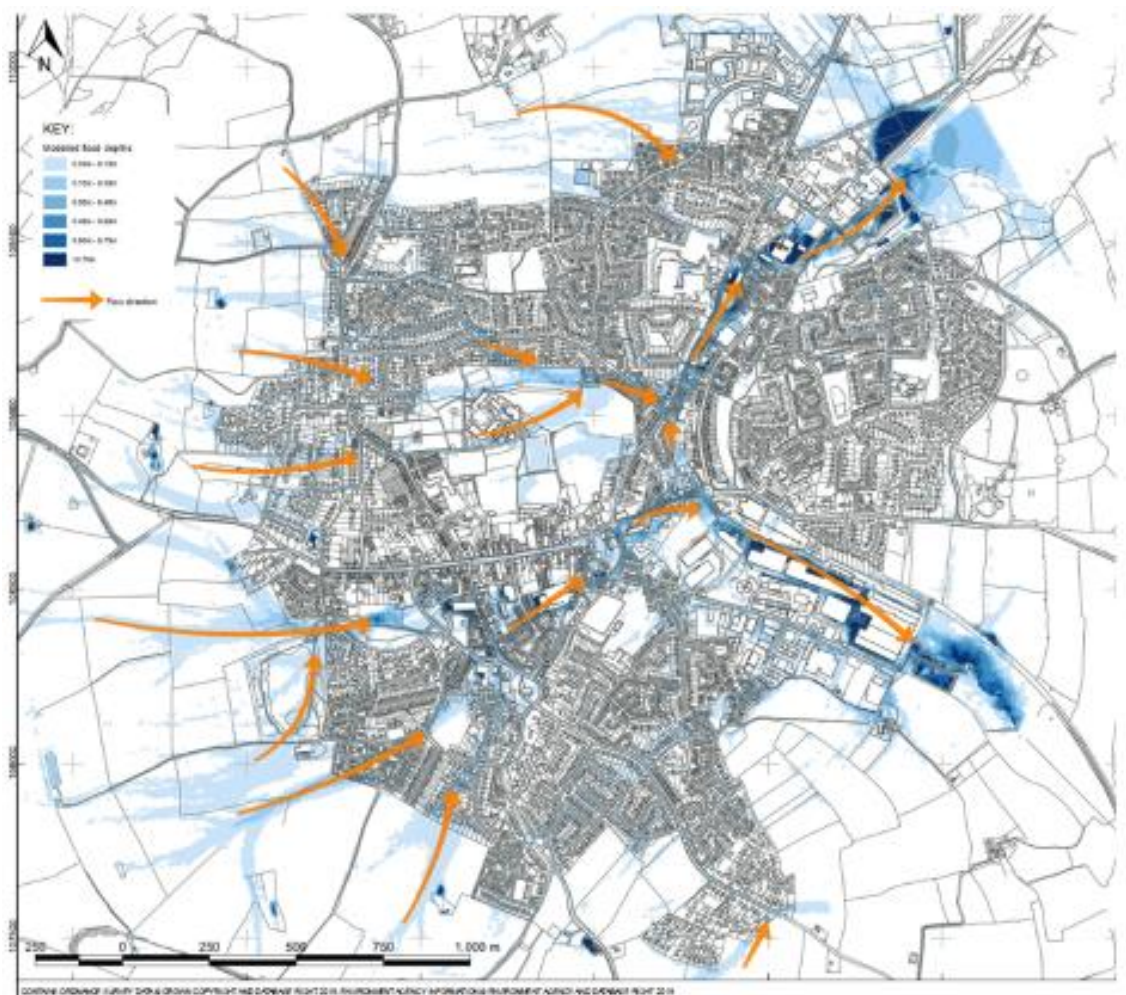


Figure 8- Model mapping of 1 in 375 year rainfall event.

	<p>This is more extensive than the 1 in 38 year event which took place, but shows the primary paths of water cross the town.</p>
<p><b>Recommendations</b></p>	<p>What this incident has demonstrated, however, is the poorly defined incident response activities of some responsible authorities, especially when organisations such as Fire and Rescue are busy elsewhere. There needs to be an in-depth review of the Somerset Council emergency flooding response system, with proper definitions of roles and plans for when multiple events are ongoing. The Environment Agency are expert at this, so their advice should be sought.</p>
<p><b>Planned Developments</b></p>	<p>The planned development at Blackdown heights has naturally raised concerns about the destination of surface water from this development. The full plan is available via South Somerset District Council's Planning Portal. The natural flow path of water from this site is towards the east.</p> <p>Full planning permission has been granted and development has begun. The full details are available under planning permission number 19/00074/FUL, but moving from outline to full planning permission being granted was conditional on a number of factors, including:</p> <p>Surface water shall not discharge onto the highway.</p> <p>Surface water details to serve the development shall be submitted and approved by the Local Planning Authority.</p> <p>The developers have proposed to meet these conditions by installing a surface water attenuation area (sustainable urban drainage basin) and ecological habitat enhancement at the east end of the site.</p> <p>According to the developers: "The Flood Risk Assessment and Drainage Strategy confirm that the site is not within an identified floodplain or an area at risk of flooding. Surface water will be controlled and [discharged to] existing local watercourses and existing drains to the east and west. A sustainable urban drainage basin proposed at the east end of the site will accommodate runoff arising from the development during periods of extreme rainfall.</p> <p>The Environment Agency (and previously the LLFA) have reviewed the Flood Risk Assessment (FRA) and are satisfied that surface water can be satisfactorily controlled to ensure that the risk of flooding downstream of the site is not increased. Whilst the evidence received from residents clearly shows that the local area has and continues to suffer from flooding, the FRA has demonstrated, with the agreement of the Environment Agency, that this development can be</p>

	<p>adequately mitigated to ensure that there is no increase in terms of flood risk to adjacent and other sites.”</p> <p>There is a further development awaiting a decision known as Land East Of Mount Hindrance Farm, near Crimchard and Cuttifords Door. This proposes the building of for 295 dwellings. Again, in order to have full planning permission granted, the developer will need to submit and receive approval for a drainage strategy for the site, which will not worsen flooding in the area.</p> <p>The Holbear development on the south extent of Chard is also causing concern amongst local residents. Modelling has shown that the surface water draining from this development will flow into the watercourse that heads towards Foreton. The following condition has been imposed on the planning permission:</p> <p>‘No development shall be commenced until details of the surface water drainage scheme, based on sustainable drainage principles, ... have been submitted to and approved in writing by the Local Planning Authority. ... The drainage scheme shall ensure that surface water runoff post development is attenuated on site and discharged at a rate and volume no greater than greenfield runoff rates and volumes.’ So far, the developers have not proposed a suitable scheme to meet this condition.</p> <p>Dialogue is ongoing between the Local Authority, Lead Local Flood Authority, the developers, and other stakeholders to ensure that the developers proposals will meet this criteria.</p> <p>In both cases, proper implementation of the planning conditions should ensure that, at the very least, the developments will not worsen existing flooding.</p>
<p><b>Ongoing Works</b></p>	<p>Flood mitigation measures are currently being developed for Chard. This includes a pilot project in partnership with Wessex Water in late 2023, which involves the distribution water butts to affected areas in Chard.</p> <p>Following this, a modelling and mitigation study on Chard will be expanded to other settlements in the area.</p>
<p><b>Planning Policy and Future Development</b></p>	<p>The pillar of planning policy on surface water is that developments must not increase flood risk elsewhere or cause risk to people and properties. As referred to in the Planned Development section above, incoming planning applications have conditions applied to them which ensure runoff from the development is attenuated on site. No more surface runoff water should leave the site than did while it was an undeveloped, grassed field (the ‘greenfield rate’). This should ensure that no development makes flooding in the area around it worse. This is in accordance with ‘The National Planning Policy Framework Section 14; Meeting the challenge of climate change, flooding and coastal change’, and also the Government standards for Sustainable Drainage Systems. It is required that</p>

	<p>runoff must not increase due to the development, and all overflow should be first restricted to the greenfield 1 in 1-year runoff rate during all events up to and including the 1 in 100-year rainfall event, with 40% added for climate change on top of previous rainfall figures. If this cannot be met from infiltration and site design, long-term storage of surface water needs to be added to allow water to be released gradually from the site. There should also be a full maintenance and operational management schedule for the development confirming the body who will maintain the system for the lifetime of the development. We would expect to see a full operational and maintenance schedule, confirmation and adoption arrangements before planning permission is fully granted.</p> <p>For the Local Authority to require any stricter standards to be applied (such as accounting for events at greater than 1 in 100 years return period, or requiring runoff at less than greenfield rates), this needs to be stated in local planning policy.</p> <p>It is recommended that further work be undertaken with a view to requiring stricter standards to be applied to surface water management by developers in affected areas in and around Chard.</p>
<p><b>Appendix 1: Photos</b></p>	<p><i>Photos from Chard:</i></p>



*Figure 9- Flooding on Glynswood*



*Figure 10- Flooding in an unknown location in Chard.*





*Figure 11- Flooding in an unknown location in Chard.*

Note the colour of the flood water, indicating that it is carrying silt and debris.



*Figure 12- Flooding in an unknown location in Chard.*

<b>Appendix 2: Historical information.</b>	Date	Location	Receptor
	July 1968	Wadeford	2 houses
	October 1994	Nimmer	2 houses
	January 1995	Wadeford	Road
		Knowle St Giles	Road
		Thorndon Park Drive, Chard	2 houses
	May 2011	Whatley	Road
	October 2011	Furnham Road, Chard	Road
	November 2011	Coombe St Nicholas	Road
	May 2012	Winsham	Road
	August 2012	Winsham	Road
	September 2012	Knowle St Giles	Road
	November 2012	Crimchard Road	Road
		Chard Junction	2 houses
	October 2013	Coombe St Nicholas	Road
		Wadeford	Road
	December 2013	Bath Street, Chard	1 commercial property
	January 2014	Crewkerne Road, Chard	Road in two places
		Denning Close, Chard	Road
		Combe Street, Chard	1 house
<b>Appendix 3: Drainage pipes in Chard</b>			

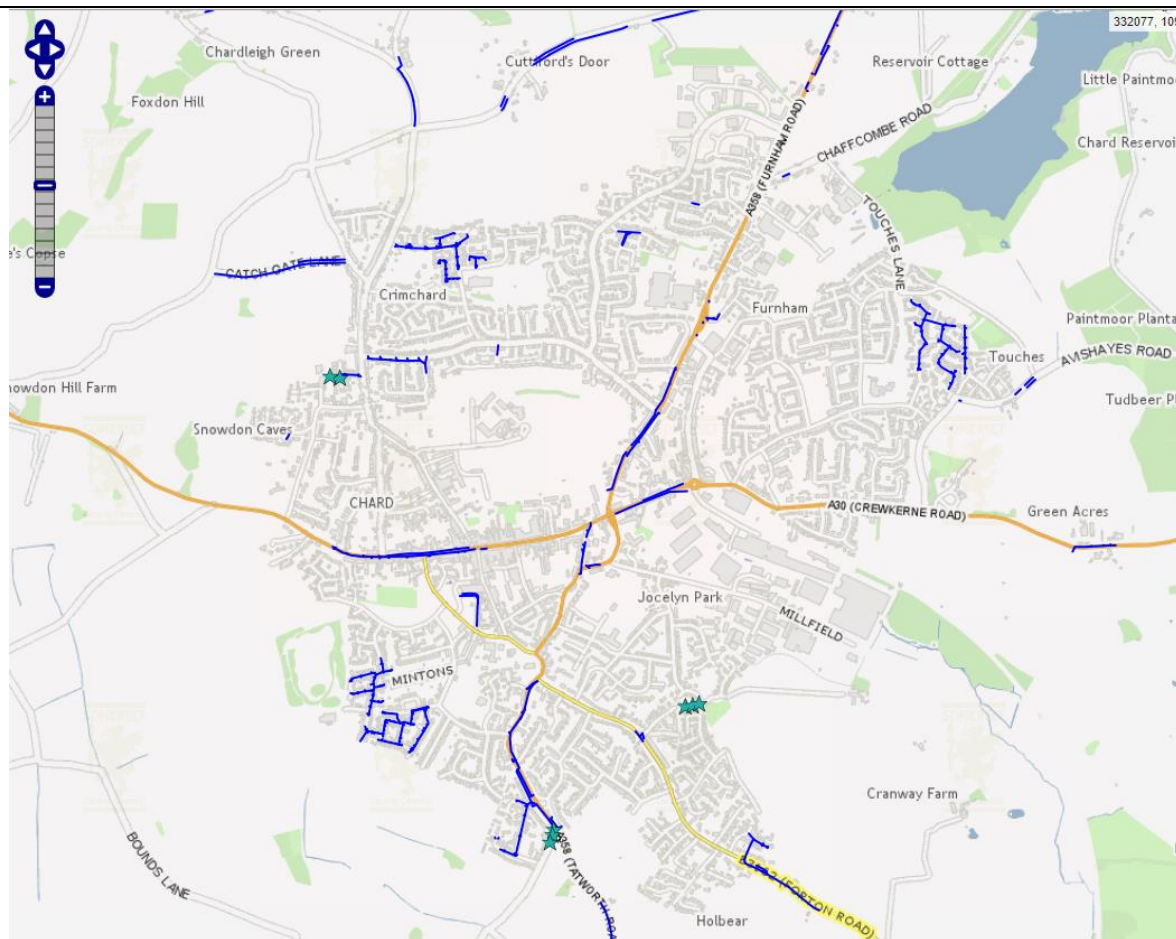


Figure 13- Surface water drainage pipes in Chard.

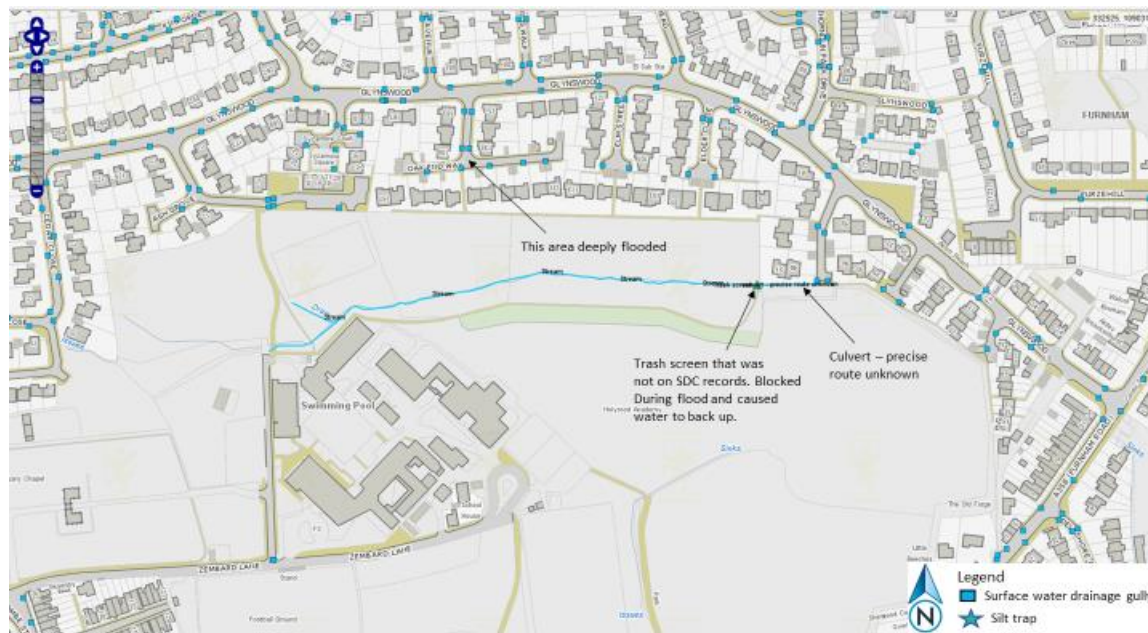


Figure 14- Gullies in Chard



Figure 15- Surface water drains in Glynswood.

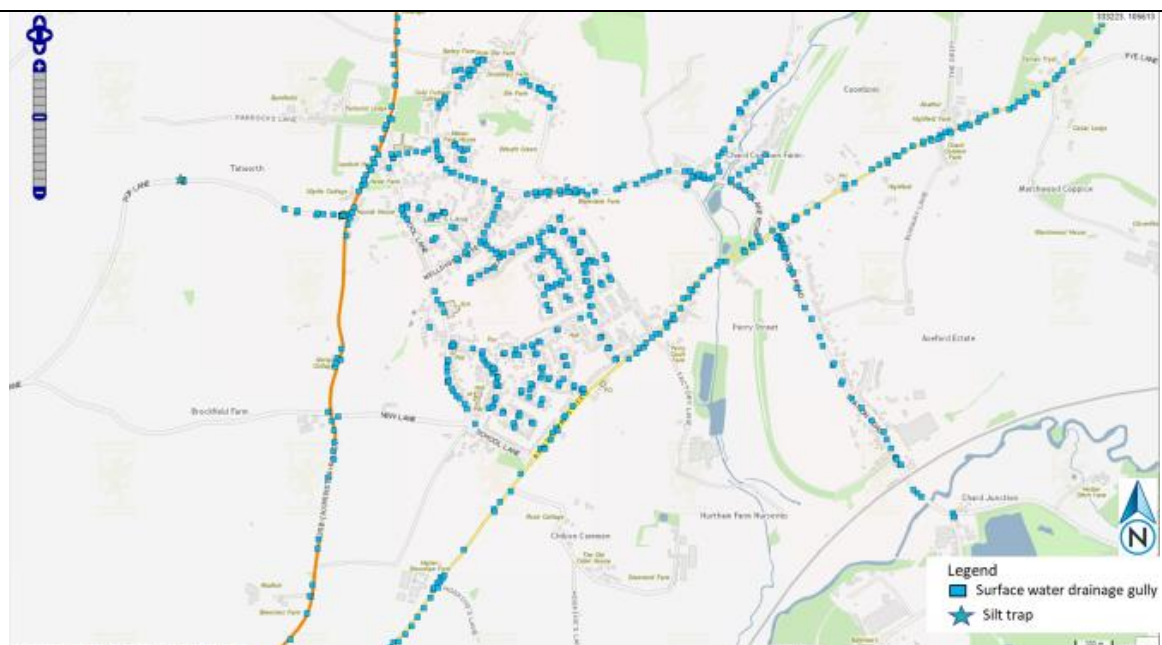


Figure 16- Surface water drainage in Coombses and Tatworth.

#### Appendix 4: Risk Management Authority Responsibilities

<p><b>Risk Management Authority Responsibilities</b></p>	<p>Somerset County Council (in their roles as LLFA and Highways Authority)</p>	<p>As the LLFA they are required to develop a strategy to tackle local flood risks, involving flooding from surface water, 'ordinary watercourses', for example ditches, dykes, and streams, groundwater, canals, lakes and small reservoirs.</p> <p>Along with all LLFAs, they are required to:</p> <ul style="list-style-type: none"> <li>investigate all significant flooding incidents;</li> <li>maintain a register of flood defence assets;</li> <li>act as a statutory consultee in the planning process on surface water for major developments; and</li> <li>build partnerships and ensure effective working between authorities that have control over flood risk.</li> </ul> <p>They also have to undertake specific tasks associated with the Flood Risk Regulations, and this includes completing a Preliminary Flood Risk Assessment and identifying flood risk areas.</p> <p>As the highways authority they have the lead responsibility for providing and managing highway drainage and roadside ditches under the Highways Act 1980. The owners of land adjoining a</p>
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		highway also have a common-law duty to maintain ditches to prevent them causing a nuisance to road users.
	Environment Agency	<p>The Environment Agency has a strategic overview of all sources of flooding and coastal erosion (as defined in the Flood and Water Management Act 2010). It is also responsible for flood and coastal erosion risk management activities on main rivers and the coast, regulating reservoir safety, and working in partnership with the Met Office to provide flood forecasts and warnings.</p> <p>The study area runs across one of their internal borders. Chard, Coombe St Nicholas, Wadeford, Nimmer, and points north of the southern edge of Chard are handled by the Wessex office. South of this, including Tatworth and Forton, are handled by the Devon office.</p>
	Wessex Water	<p>They manage the risk of flooding to water supply and sewerage facilities and flood risks from the failure of their infrastructure.</p> <p>Their southernmost border is tight around the south side of Chard, so they are responsible for water and sewerage in Chard itself, and the northern settlements such as Wadeford, Coombe St Nicholas, and Nimmer.</p>
	Somerset Rivers Authority (SRA)	<p>Somerset Rivers Authority's main aim is to give Somerset greater flood protection and resilience.</p> <p>Somerset Rivers Authority focuses heavily on providing additional maintenance and improvements to rivers and their catchments, roads prone to flooding, and structures such as culverts and drains.</p>
	Devon and Somerset Fire and Rescue Service	<p>The Fire Brigade is typically the lead responder for a flooding incident. The Fire Brigade role includes saving life and carrying out rescue of casualties or persons stranded by flooding, including by boat. They may pump out floodwater.</p>
	Avon and Somerset Police	<p>The police co-ordinate the emergency services during a major flood and help with evacuation of people from their homes where necessary. They also close roads and take other actions to ensure public safety.</p>

	South Somerset District Council	They are key partners in planning local flood risk management. They can carry out flood risk management works on minor watercourses (outside of IDB areas).
	South West Water	They manage the risk of flooding to water supply and sewerage facilities and flood risks from the failure of their infrastructure. Their northernmost border is tight to the south side of Chard, so they are responsible for water and sewage in Tatworth and Forton.
All bodies are required to work in partnership to support the local flood risk strategy, to ensure flood management activities are well co-ordinated, and work in partnership to reduce the severity and impact of flooding.		