

West Somerset Catchment Flood Management Plan

Summary Report June 2012



managing
flood risk

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June 2012

Introduction



I am pleased to introduce our summary of the West Somerset Catchment Flood Management Plan (CFMP). This CFMP gives an overview of the flood risk in the West Somerset catchment and sets out our preferred plan for sustainable flood risk management over the next 50 to 100 years.

The West Somerset CFMP is one of 77 CFMPs for England and Wales. Through the CFMPs, we have assessed inland flood risk across all of England and Wales for the first time. The CFMP considers all types of inland flooding, from rivers, ground water, surface water and tidal flooding, but not flooding directly from the sea (coastal flooding), which is covered by Shoreline Management Plans (SMPs). Our coverage of surface and ground water is however limited due to a lack of available information.

The role of CFMPs is to establish flood risk management policies which will deliver sustainable flood risk management for the long term. This is essential if we are to make the right investment decisions for the future and to help prepare ourselves effectively for the impact of climate change. We will use CFMPs to help us target our limited resources where the risks are greatest.

This CFMP identifies flood risk management policies to assist all key decision makers in the catchment. It was produced through a wide consultation and appraisal process, however it is only the first step towards an integrated approach to Flood Risk Management. As we all work together to achieve our objectives, we must monitor and listen to each others progress, discuss what has been achieved and consider where we may need to review parts of the CFMP.

The West Somerset catchment has a history of flood risk. Over the last 50 years engineering schemes have been implemented to reduce flood risk in the catchment. At present 1,600 properties are at risk in the catchment in a 1% event (taking into account flood defences). This will increase to over 2,040 properties in the future.

We cannot reduce flood risk on our own, we will therefore work closely with all our partners to improve the co-ordination of flood risk activities and agree the most effective way to manage flood risk in the future. We have worked with others including: Somerset County Council, Natural England, Wessex Water and the National Farmers Union to develop this plan.

This is a summary of the main CFMP document, if you need to see the full document an electronic version can be obtained by emailing enquiries@environment-agency.gov.uk or alternatively paper copies can be viewed at any of our offices in South West Region.

A handwritten signature in black ink that reads "R. Cresswell". The signature is fluid and cursive.

Richard Cresswell
South West Regional Director

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The purpose of a CFMP in managing flood risk

CFMPs help us to understand the scale and extent of flooding now and in the future, and set policies for managing flood risk within the catchment. CFMPs should be used to inform planning and decision making by key stakeholders such as:

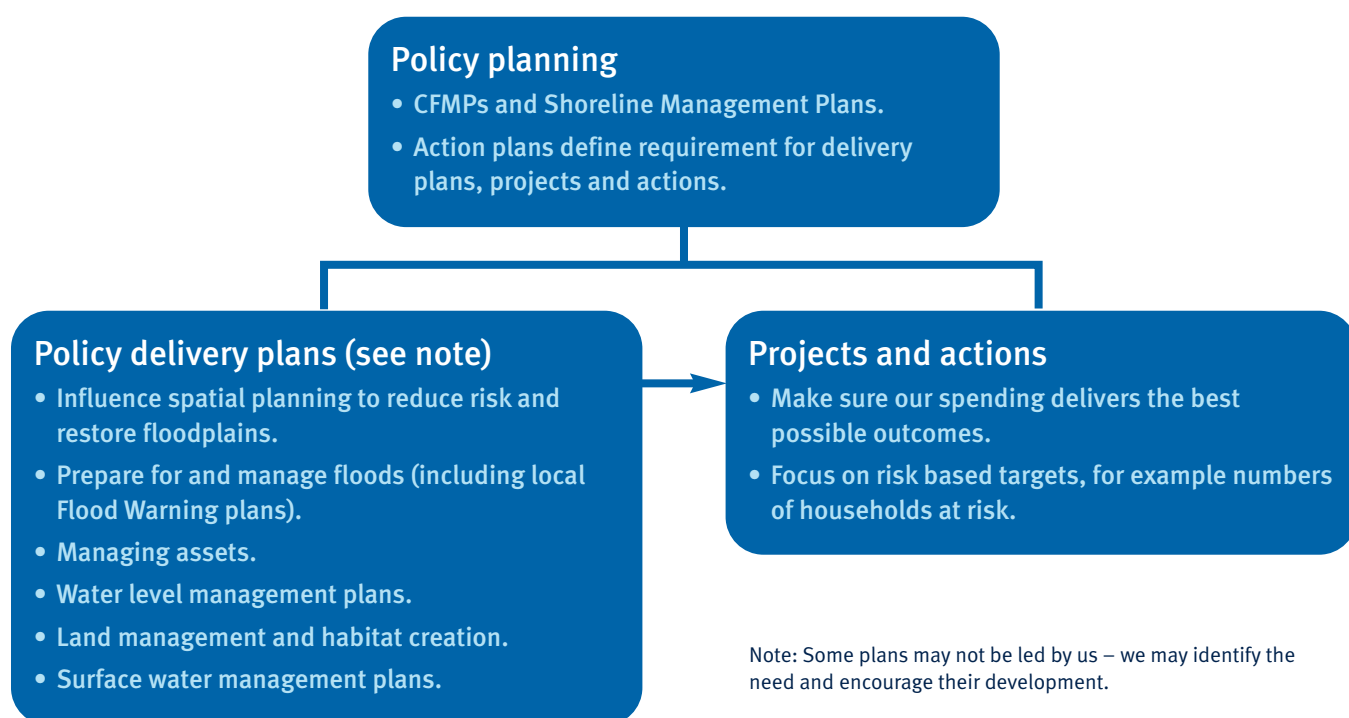
- the Environment Agency, who will use the plan to guide decisions on investment in further plans, projects or actions;
- Regional Assemblies and local authorities who can use the plan to inform spatial planning activities and emergency planning;

- Internal Drainage Boards (IDB), water companies and other utilities to help plan their activities in the wider context of the catchment;
- transportation planners;
- land owners, farmers and land managers that manage and operate land for agriculture, conservation and amenity purposes;
- the public and businesses to enhance their understanding of flood risk and how it will be managed.

CFMPs aim to promote more sustainable approaches to managing flood risk. The policies identified in the CFMP will be delivered through a combination of different approaches. Together with our partners, we will implement these approaches through a range of delivery plans, projects and actions.

The relationship between the CFMP, delivery plans, strategies, projects and actions is shown in Figure 1.

Figure 1. The relationship between CFMPs, delivery plans, projects and actions



Catchment overview

The catchment of the rivers in the West Somerset CFMP are located in the south west of England.

The rivers drain from Exmoor and the Quantocks, flowing north to the Bristol Channel. Map 1 shows the location and extent of the West Somerset CFMP area. It includes the River Avill, Pill River, Washford River, Monksilver Stream, Doniford Stream, Hawkcombe Stream, Horner Water and River Aller. The downstream limits of the CFMP area meets with the upstream boundary of the North Devon and Somerset Shoreline Management Plan (SMP) boundary at the Bristol Channel coast.

The North Devon and Somerset, and Severn Estuary Shoreline Management Plans deal with coastal flood management, while the CFMP considers the risk from tidal flooding.

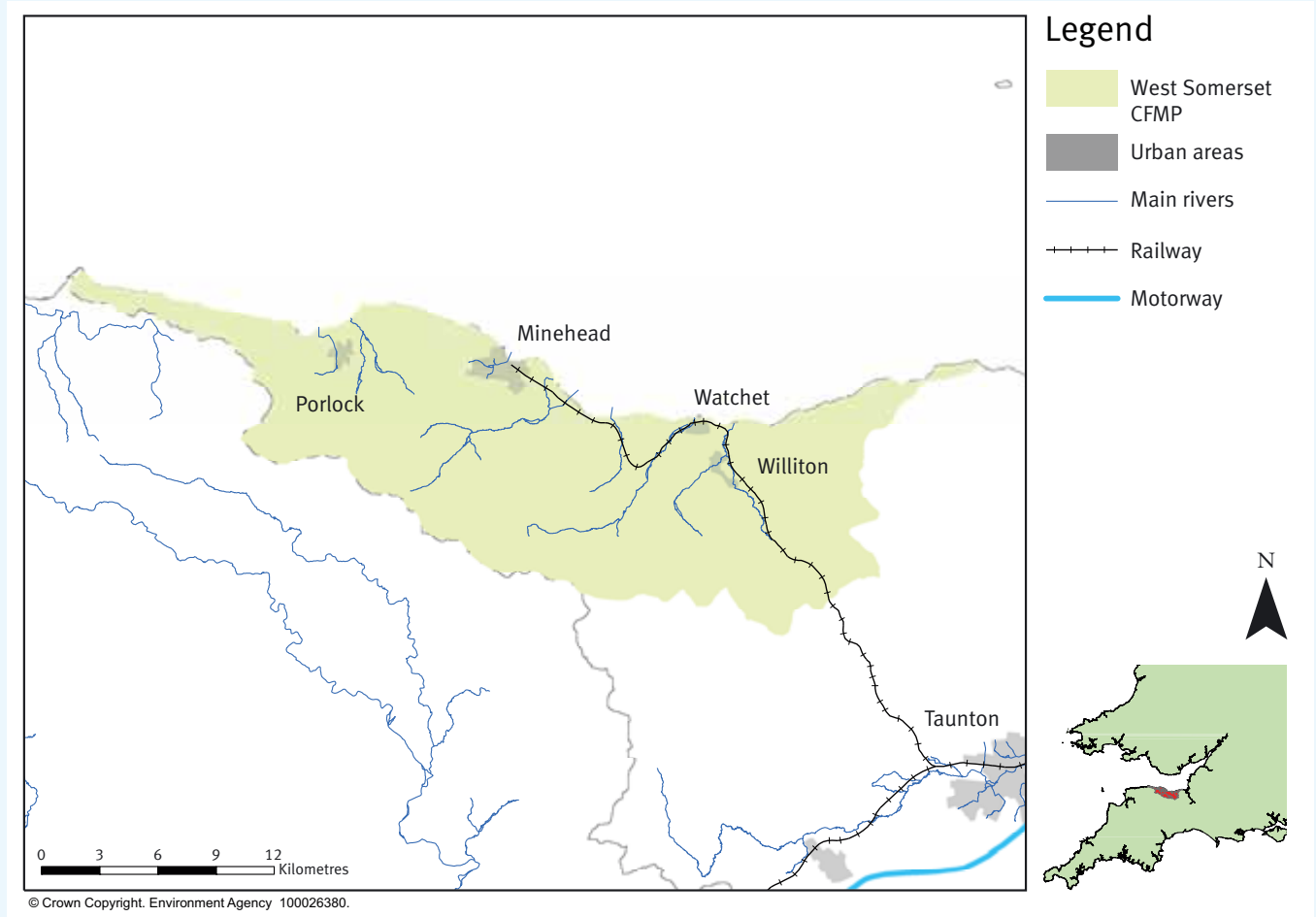
The overall catchment area is about 320 square kilometres and has a population of around 31,000. It's a rural catchment, with urban areas making up only four per cent of the total. Its main urban areas, generally located on the coastal plain, include Minehead, Watchet and Williton.

The rivers and streams flow from their sources on Exmoor and the Quantock Hills, in the south and east of the catchment respectively. They are steep in nature and flow towards the Bristol Channel in the north.

Geology has a significant influence on the response to rainfall. The geology of West Somerset has low permeability, this contributes to the high level of overland flow and the rapid response of the rivers to rainfall.

The catchment contains a number of designated sites of national and international importance. These include Exmoor National Park, which is also an Environmentally Sensitive Area and a Special Area of Conservation (SAC); the Quantocks which is an Area of Outstanding Natural Beauty that includes the Quantocks Oakwood's SAC; Horner Wood National Nature Reserve, 12 Sites of Special Scientific Interest (SSSI); nine National Nature Reserves and 135 Scheduled Monuments.

Map 1. Location and extent of the West Somerset CFMP area



↑ Flooding from the River Avill at Dunster in November 1963

Current and future flood risk

Overview of the current flood risk

Flood risk has two components: the chance (probability) of a particular flood and the impact (or consequence) that the flood would have if it happened. The probability of a flood relates to the likelihood of a flood of that size occurring within a one year period. It is expressed as a percentage. For example, a 1% flood has a 1% chance or 0.01 probability of occurring in any one year, and a 0.5% flood has a 0.5% chance or 0.005 probability of occurring in any one year. The flood risks quoted in this report are those that take account of flood defences already in place.

This catchment has a long history of flooding. The most significant event in recent years occurred in Williton in December 2000 when 50 properties were affected by surface water and river flooding after periods of heavy rainfall.

Currently the main sources of flood risk for people, property, infrastructure and the land are:

- river flooding from the River Aller in Allerford and Bossington, Washford River in Washford, Monksilver Stream in Williton and Doniford Stream in Doniford;
- tidal flooding in Minehead, Porlock and Blue Anchor;
- surface water drainage flooding, which has occurred in Minehead, Williton and Washford. Other towns have the potential to be at risk from surface water flooding.

What is at risk?

At present there are around 2,700 people and 1,600 commercial and residential properties at risk in the whole catchment from a 1% annual probability river flood taking into account current flood defences.

This means that 8.5% of the total population living in the catchment are currently at risk from flooding.

It is difficult to assess the current impact of flooding to environmental features. Many designated sites at risk would not actually be damaged by the inundation.

Four Scheduled Monuments are at risk of flooding, but again, the actual risk of damage from flooding is limited.



↑ Flooding from the Washford River at Roadwater in December 1965

Map 2. Flood risk to property in a 1% annual probability river flood, taking into account current flood defences

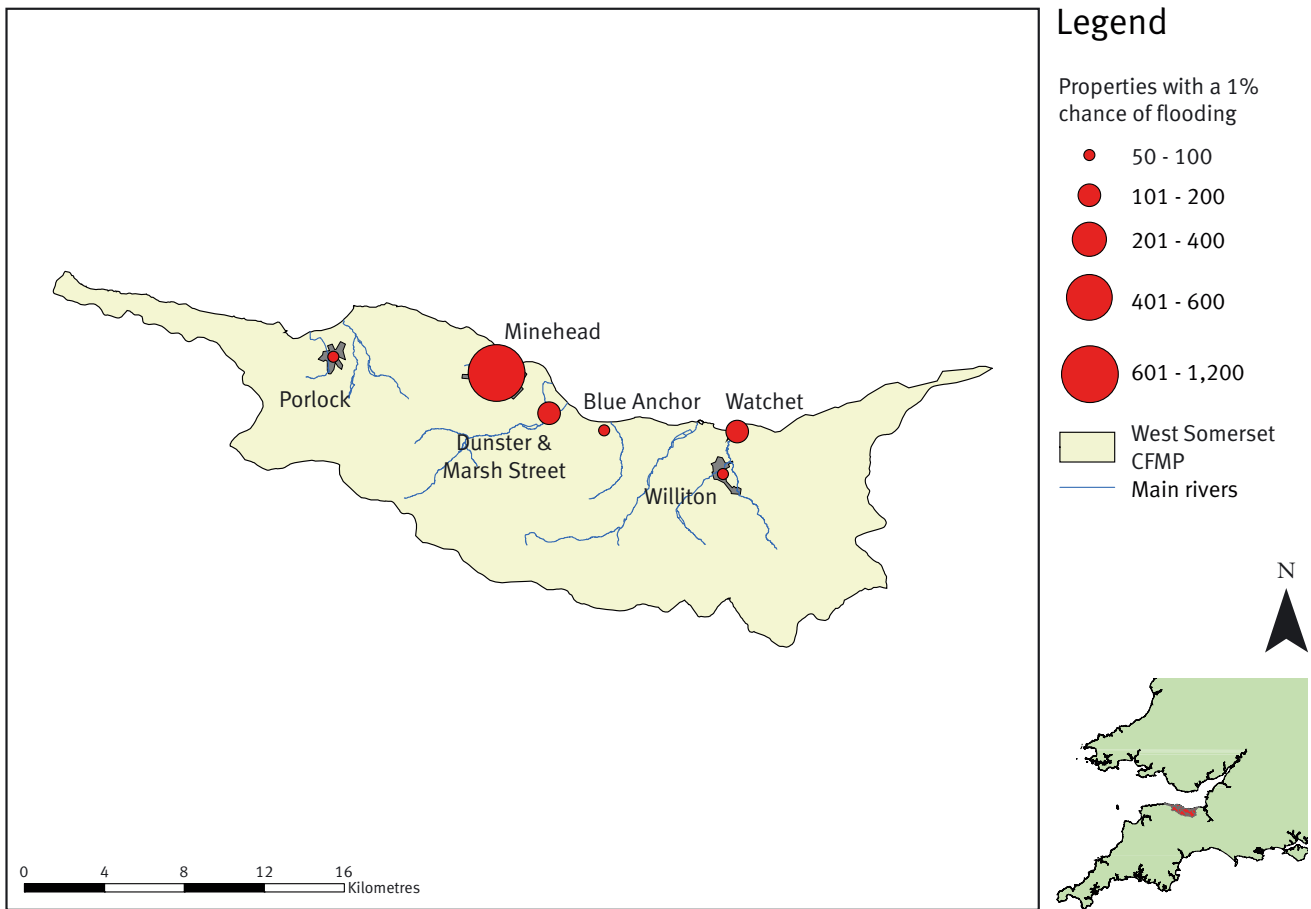


Table 1. Locations of towns and villages with 25 or more properties at risk in a 1% annual probability river flood

Number of properties at risk	Locations
>1,000	Minehead
500 to 1,000	None
100 to 500	Watchet
50 to 100	Porlock, Williton, Blue Anchor, Dunster, Marsh Street
25 to 50	Allerford & Bossington

Table 2. Critical infrastructure at risk:

3 electricity substations, 1 water treatment works, 1 care home, 2.4 km of main roads, and 3 schools

Where is the risk?

More than two thirds of the people and properties that are at risk within the catchment from a 1% annual probability river flood are located in Minehead. A further 8% are located in Watchet.

The distribution of properties at risk from a 1% annual probability river flood is illustrated in Map 2. Table 1 summarises where there is flood risk to more than 25 properties. We recognise that there is also a potential risk from surface water and groundwater flooding.

However, further studies following on from the CFMP are needed by us and our partners to quantify this potential risk.

How we currently manage the risk

The catchment has a history of flood risk, generally due to the high rainfall that can lead to extensive flooding of the river valleys. Over the last 50 years, engineering schemes have been implemented to reduce flood risk in the catchment, including:

- building a flood relief channel on the River Avill at Dunster;
- widening and straightening of channels including the Washford River at Roadford, Hungerford and Watchet.

These measures have all reduced flood risk.

In addition to these engineering schemes, other flood risk management activities are carried out in the catchment. These include activities which help to reduce the probability of flooding and those that address the consequences of flooding.

Activities that reduce the probability of flooding include:

- maintaining and improving existing flood defences and structures, including a new culvert and screen at Pill River outfall;
- maintaining river channels, especially debris clearance to reduce risk of blockage;

- maintenance of road drainage and sewers.

Activities that reduce the consequences of flooding include:

- understanding where flooding is likely by using flood risk mapping;
- providing flood forecasting and warning services;
- promoting awareness of flooding so that organisations, communities and individuals are aware of the risk and are prepared in case they need to take action in time of flood;
- promoting resilience and resistance measures for those properties already in the floodplain.
- working with local authorities to influence the location, layout and design of new and redeveloped property and ensuring that only appropriate development is allowed on the floodplain through the application of Planning Policy Statement 25 (PPS25).

The impact of climate change and future flood risk

In the future, flooding will be influenced by climate change, changes in land use (for example urban development) and rural land management. In the West Somerset catchment, climate change will have the greatest impact on flood risk. The following future scenario for climate change was used in the CFMP:

- 20% increase in peak flow in all watercourses. This will increase the probability of large-scale flood events;
- a total sea level rise of 500 mm by the year 2100. This will increase the risk of flooding at Minehead, Porlock and Watchet.

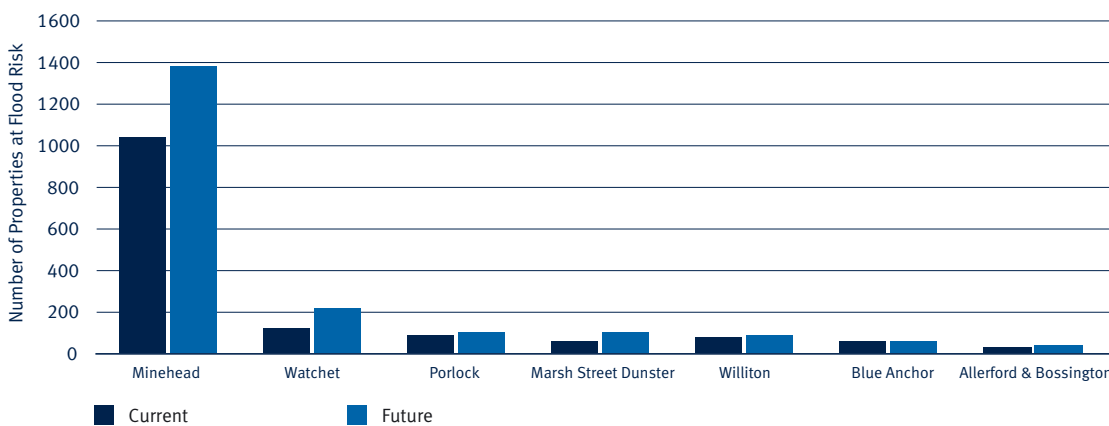
Using river models we estimate that by 2100, around 3,500 people and 2,040 properties across the catchment may be at risk from a 1% annual probability flood. Flood risk from rivers increases mainly in Minehead, Watchet and Dunster.

The sensitivity testing undertaken showed that river flooding in the catchment is not sensitive to changes to the predicted urban development, but is very sensitive to climate change, as flood depths and extents increased, land use changes was also found to have a widespread affect on the CFMP area.

Figure 2 shows the difference between current and future flood risks from a 1% annual probability river flood at key locations in the catchment. Following on from the CFMP, organisations need to work together to investigate flood risk from other sources (e.g. surface water and ground water flooding) in more detail.

In general, it is unlikely that the impact of flooding on environmental sites will change significantly in the future.

Figure 2. Current and future (2100) flood risk to property from a 1% annual probability river flood, taking into account current flood defences



Future direction for flood risk management

Approaches in each sub-area

We have divided the West Somerset catchment into eight distinct sub-areas which have similar physical characteristics, sources of flooding and level of risk. We have identified the most appropriate approach to managing flood risk for each of the sub-areas and allocated one of six generic flood risk management policies, shown in Table 3.

To select the most appropriate policy, the plan has considered how social, economic and environmental objectives are affected by flood risk management activities under each policy option.



↑ A shingle trap on the Hawkcombe Stream at Hawkcombe

Map 3. West Somerset sub-areas

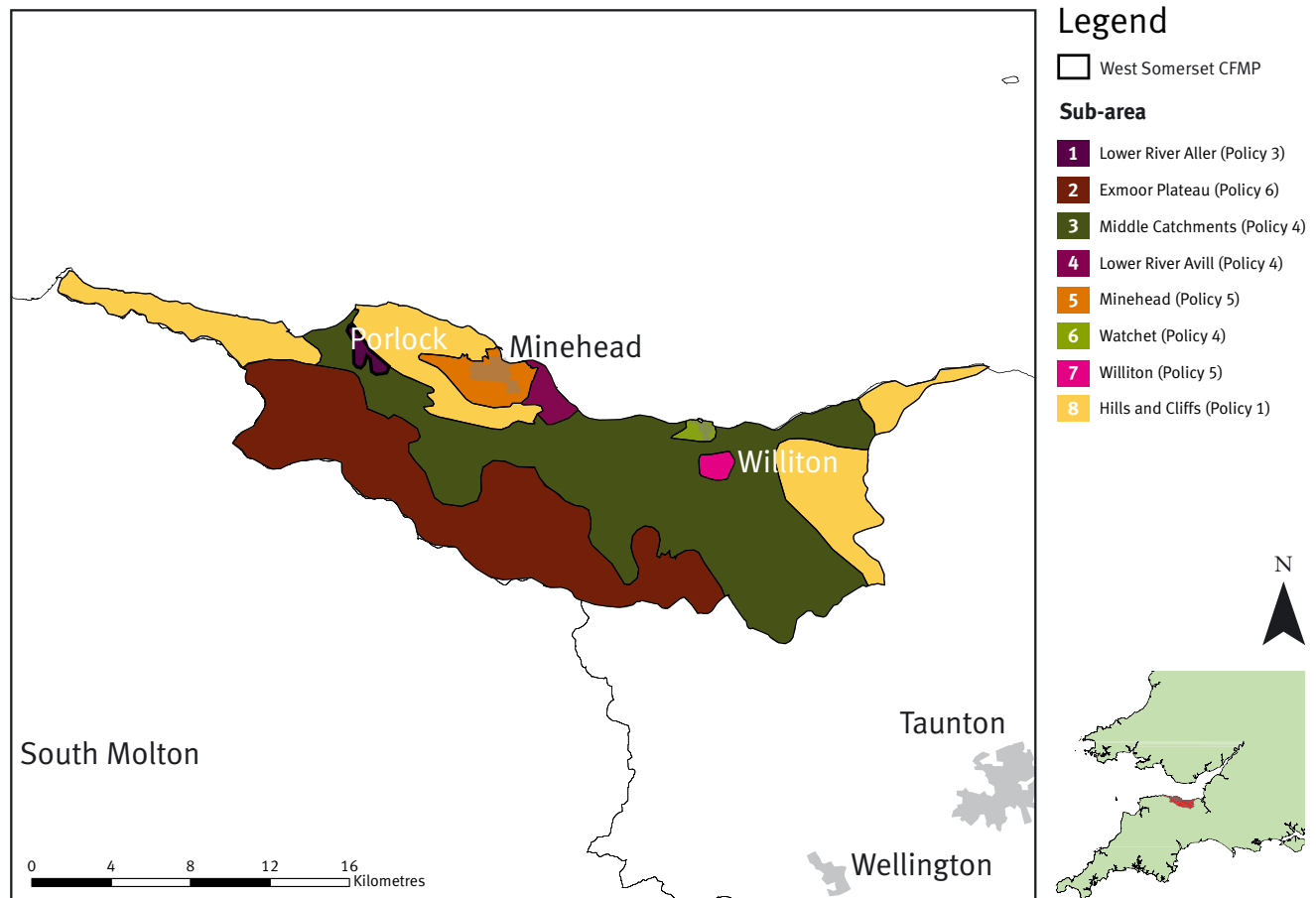


Table 3. Policy options

Policy 1

Areas of little or no flood risk where we will continue to monitor and advise

This policy will tend to be applied in those areas where there are very few properties at risk of flooding. It reflects a commitment to work with the natural flood processes as far as possible.

Policy 2

Areas of low to moderate flood risk where we can generally reduce existing flood risk management actions

This policy will tend to be applied where the overall level of risk to people and property is low to moderate. It may no longer be value for money to focus on continuing current levels of maintenance of existing defences if we can use resources to reduce risk where there are more people at higher risk. We would therefore review the flood risk management actions being taken so that they are proportionate to the level of risk.

Policy 3

Areas of low to moderate flood risk where we are generally managing existing flood risk effectively

This policy will tend to be applied where the risks are currently appropriately managed and where the risk of flooding is not expected to increase significantly in the future. However, we keep our approach under review, looking for improvements and responding to new challenges or information as they emerge. We may review our approach to managing flood defences and other flood risk management actions, to ensure that we are managing efficiently and taking the best approach to managing flood risk in the longer term.

Policy 4

Areas of low, moderate or high flood risk where we are already managing the flood risk effectively but where we may need to take further actions to keep pace with climate change

This policy will tend to be applied where the risks are currently deemed to be appropriately-managed, but where the risk of flooding is expected to significantly rise in the future. In this case we would need to do more in the future to contain what would otherwise be increasing risk. Taking further action to reduce risk will require further appraisal to assess whether there are socially and environmentally sustainable, technically viable and economically justified options.

Policy 5

Areas of moderate to high flood risk where we can generally take further action to reduce flood risk

This policy will tend to be applied to those areas where the case for further action to reduce flood risk is most compelling, for example where there are many people at high risk, or where changes in the environment have already increased risk. Taking further action to reduce risk will require additional appraisal to assess whether there are socially and environmentally sustainable, technically viable and economically justified options.

Policy 6

Areas of low to moderate flood risk where we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits

This policy will tend to be applied where there may be opportunities in some locations to reduce flood risk locally or more widely in a catchment by storing water or managing run-off. The policy has been applied to an area (where the potential to apply the policy exists), but would only be implemented in specific locations within the area, after more detailed appraisal and consultation.

Lower River Aller

Our key partners are:

West Somerset District Council

Somerset County Council

Natural England

National Farmers Union

Farming Wildlife Advisory Group

Country Land and Business Association

Land managers

Currently 32 properties are in the 1% annual probability flood extent and the number is expected to increase to 43 in the future 1% annual probability flood extent.

The A39 road at Allerford is susceptible to flooding during the 1% annual probability river flood.

The vision and preferred policy

Policy Option 3 - we are generally managing existing flood risk effectively.

This policy would prevent a significant increase in the number of people susceptible to flooding along with preventing a significant increase in the number of infrastructure and key services adversely affected by the 1% annual probability river flood.

Proposed actions to implement the preferred policy

Carry out contingency planning for emergency response, improve flood warning lead times by telemetry improvement and improve response to warnings through raising awareness in Allerford and Bossington.

Continue to work with landowners and representative organisations to promote uptake of sustainable land management techniques that will reduce surface water run-off.

Whilst the contingency plans are being prepared, continue with existing flood risk management activities in the Lower River Aller. This includes:

- siren based automatic alarm system; and,
- maintenance of watercourses, removal of vegetation, shingle and debris, and erosion control.

The issues in this sub-area

This sub-area covers the lower, more urbanised reaches of the River Aller and Horner Water. The sub-area includes Allerford, Bossington, Lynch, Brandish Street and Holnicote.

Flooding in this sub-area has historically been associated with out of channel flow. Due to the relatively impermeable geology and the very steep gradient of the upstream catchment, watercourses respond quickly to rainfall on Exmoor. This makes the nature of flooding in this sub-area very hazardous. Flooding is also caused by under capacity or blocked structures. Many of these structures are bridges that are designated as Scheduled Monuments (SMs), which often have limited conveyance capacity.

Exmoor Plateau

Our key partners are:

Exmoor National Park

Natural England

South West Water

Wessex Water

National Farmers Union

Farming Wildlife Advisory Group

Country Land and Business
Association

Land managers

The issues in this sub-area

This sub-area covers the steep upland area of Exmoor National Park. It includes the headwaters of the principal watercourses of the Hawkcombe Stream, Horner water and River Aller.

This sub-area has historically experienced little flood risk. Flooding occurs on roads and to isolated properties as the result of river overtopping but also surface water flooding in the form of overland flow, from the water

rapidly draining off the steep hills of Exmoor. The future would see a negligible increase to the number of properties affected. The extent of the river floodplain is very narrow due to the topography and geology, therefore sheet run-off processes and surface water flooding are relatively more important.

This sub-area is very environmentally rich, with several designated areas and historic sites.

The vision and preferred policy

Policy Option 6 - we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits.

This chosen policy would reduce the number of people and properties affected by surface water flooding by improving flow attenuation. Increased attenuation will reduce flood risk downstream in the Middle Catchment and the Lower River Aller sub-areas.

This policy will also help to sustain and enhance habitats on the Exmoor plateau.

Proposed actions to implement the preferred policy

Continue to work with land owners and representative organisations to promote the uptake of sustainable land management techniques that will reduce surface water run-off.

Identify potential areas for restoration projects on the headwaters of rivers and streams in Exmoor to attenuate flood water and contribute to the healthy condition of habitats. Measure the cost effectiveness of such projects and make recommendations towards implementing necessary changes.

Middle Catchments

Our key partners are:

West Somerset District Council

Somerset County Council

Natural England

National Farmers Union

Farming Wildlife Advisory Group

Country Land and Business Association

Land managers

The issues in this sub-area

This sub-area covers most of the mid, upland and lowland reaches of the principal watercourses of the CFMP area. This sub-area extends from the Hawcombe Stream catchment, including the majority of the mid and lowland reaches of the watercourse catchment to the east, to the Holford Stream catchment in the west.

Flooding in this sub-area has historically been associated with a variety of source. This includes out of channel flow, tidally influenced river flooding, and surface water flooding, as well as fluvial flooding which is exacerbated by under capacity or blocked structures.

There are currently around 250 properties in the 1% annual probability flood extent and the number is expected to increase to

around 270 in the future 1% annual probability flood extent.

All principal watercourses in the sub-area have experienced river flooding. River flooding has been reported at confluences such as that at Monksilver, and other locations in the immediate floodplain of the watercourse. The Hawkcombe Stream and especially the Horner Water and River Aller system are susceptible to flash flooding as their geology and topography lend them to respond rapidly to rainfall. River flooding linked to tide locking situations is also an issue.

For many areas on the steeper catchments, surface water flooding is highly problematic. Several locations have suffered surface water flooding due to run-off from the steep hills of Exmoor and the Quantocks. Other locations, such as at Carhampton, have also experienced surface water flooding specifically as the result of run-off from agricultural land.

The watercourses transport a significant amount of shingle. The deposition of shingle upstream of culverts can reduce the capacity and increase the likelihood of flooding. Shingle traps are currently emptied on a regular basis. There are also many bridges which are designated for their historical importance, which exacerbate flooding in some locations. Flooding due to blocked structures can be very hazardous.

The vision and preferred policy

Policy Option 4 - we are already managing the flood risk effectively but we may need to take further actions to keep pace with climate change.

This policy sustains the number of people affected by flooding at the current level, prevents an increase in the length of A road affected by flooding and prevents an increase in the amount of infrastructure affected by flooding, and prevents an increase in damages. Flood risk from tidally influenced fluvial flood events will be further investigated under this approach and based on this work, actions will be taken to ensure the risk does not increase in the future.

Proposed actions to implement the preferred policy

Continue work with land owners and representative organisations to promote the uptake of sustainable land management techniques that will reduce surface water run-off.

Use awareness campaigns to ensure people are aware of their own flood risk responsibilities and to increase uptake of the flood warning service in Doniford, Porlock, Washford and Roadwater.

Carry out more detailed investigation of future flood risks and identify changes in sources, pathways and receptors in Porlock, Doniford and Washford, including tidelocking and tidal risks.

Until detailed investigation of future risks is completed, continue with existing flood risk management in the Middle Catchments sub-areas, including:

- general channel maintenance being undertaken on the Hawkcombe Stream at Porlock, the Washford River at Roadwater and Washford, the Monksilver Stream at Williton, the Doniford Stream at Doniford and the Pill River at Blue Anchor.
- a flood warning service being provided on the Hawkcombe Stream, Washford River, Monksilver and Doniford Streams.
- defences being maintained on the Washford River, Timberscombe Stream, Wootton Courtenay Stream and at Porlock.
- shingle traps and erosion control measures remaining in place on the Hawkcombe Stream, Timberscombe and Wootton Courtenay Streams.

Encourage re-siting of critical amenities and caravan parks away from flood risk locations.



↑ Roadwater flooded by the Washford River in December 1965

Lower River Avill

Our key partners are:

West Somerset District Council

The issues in this sub-area

The sub-area covers the lower reaches of the River Avill. It includes part of the Dunster and Marsh Street.

Currently around 60 properties are in the 1% annual probability flood extent and the number is expected to increase to around 100 properties in the future 1% annual probability flood extent.

Flooding in this sub-area has been historically associated with out of channel flow. A flood relief channel was constructed following the severe 1960s floods to alleviate some of the risk to this sub-area and to locations in the upstream Middle Catchments sub-area. This scheme significantly reduced flood risk and no river flooding has been reported since its completion.

Surface water flooding from overland flow down fields and roads is problematic in this sub-area.

The River Avill at Dunster in spate in November 1963, before the flood relief channel was built →

The vision and preferred policy

Policy Option 4 - we are already managing the flood risk effectively but we may need to take further actions to keep pace with climate change.

By continuing with maintenance of the flood relief channel and making improvements as required to ensure it is able to withstand increases in flood risk as a result of climate change, this policy sustains the number of people affected by flooding at the current level, prevents an increase in the length of A road affected by flooding, prevents an increase in damages, and sustains the water environments on which the Special Area of Conservation and Dunster Marsh County Wildlife Site rely. In addition, the introduction of a flood warning system under this approach would further reduce the risk to people.

Proposed actions to implement the preferred policy

Review the current and future standard of protection offered by the River Avill flood relief channel and improve as required.

Until detailed review of current and future standard of protection is completed, continue with existing flood risk management in the Lower River Avill, including:

- general channel maintenance being undertaken on the River Avill at Dunster.
- maintenance of the flood relief channel

Investigate the feasibility of a flood warning service by considering possible telemetry and other data requirements.



Minehead

Our key partners are:

West Somerset District Council

Somerset County Council Highways Division

Wessex Water

The issues in this sub-area

This sub-area covers the urban area of Minehead.

Minehead is situated within the floodplain of the Bratton Stream and its tributaries. Minehead is a dense urban area and as such the watercourses have been culverted, modified and largely encroached upon by development. Currently 1,000 properties are in the 1% annual probability event flood outline.

The number is expected to increase to around 1,400 properties in the future 1% annual probability event flood outline.

Flooding has historically been associated with out of channel flow as a result of under capacity or blocked structures. The Bratton Stream discharges into the Bristol Channel via a flapped outfall. During times of very high tides, this outfall can become tide locked and exacerbate river flooding.

Given the impermeable, hard standing nature of this sub-area, surface water run-off is also problematic.

The vision and preferred policy

Policy Option 5 - we can generally take further action to reduce flood risk.

Minehead is the CFMP's primary urban centre and as such contains a significant amount of key services, commercial properties and infrastructure. Minehead is also an important employment centre and tourist destination. Flooding in this sub-area would significantly impact the local economy and even the economy of the County. A large number of people with high social vulnerability are exposed to flooding. Flood risk in Butlins Holiday World needs to be addressed through a flood warning service, based on telemetry installed in the headwaters.

Proposed actions to implement the preferred policy

Implement the recommendations of the Minehead pre-feasibility study. This recommends maintaining the streams and culverts in order to maximise their hydraulic capacities and to reduce the likelihood of blockages, review the maintenance programme periodically to ensure that the correct activities are being undertaken at the right time intervals, and monitor the costs of these maintenance activities.

Provide development control advice and promote Sustainable Drainage Systems to ensure that there is no increase in surface water run-off from new developments in Minehead. Monitor the implementation of advice/planning conditions.

Promote the provision of a Surface Water Management Plan

Investigate the feasibility of a flood warning service for Minehead by considering possible telemetry and other data requirements.

Review emergency contingency planning in the light of climate change, especially for Butlins.

Encourage re-siting of critical amenities and caravan parks outside flood risk locations.

Watchet

Our key partners are:

West Somerset District Council

The issues in this sub-area

This sub-area covers the urban area of Watchet and surrounding agricultural land, which is situated on the Washford River.

Flooding in Watchet has historically been associated with out of channel flow and river flooding as a result of under capacity or blocked structures. Watercourses respond quickly due to the relatively impermeable geology and the steep gradient of the upstream catchment. Watchet is an urban area and as such the watercourses have been modified, culverted and in places encroached upon by development. Currently around 180 properties are at risk during the 1% annual probability river flood. This is expected to increase to 220 in the future.

The Washford River discharges into the Bristol Channel via an unflapped outfall. During times of very high tides, this outfall can become tide locked and hence exacerbate river flooding.

The vision and preferred policy

Policy Option 4 - we are already managing the flood risk effectively but we may need to take further actions to keep pace with climate change.

Watchet is considered an important urban centre and as such contains a significant amount of key services, commercial properties and infrastructure. In addition to this, a number of people of high social vulnerability are exposed to flooding. Increased flooding would significantly impact the local economy.

Flood risk is currently managed to an acceptable level. Continuing with this in the future, and enhancing certain elements to sustain the current level of risk through increased checking of structures for blockages, increasing embankment heights and improving the flood warning service. The chosen policy would prevent a significant increase in the number of people affected and the cost of flood damage to properties and agricultural land.

Proposed actions to implement the preferred policy

Improve flood warning lead times by telemetry improvement and improve response to warnings through raising awareness in Watchet.

Progress the recommendation for improved defences which arose from the Washford River and Watchet pre feasibility study.

Williton

Our key partners are:

West Somerset District Council

Somerset County Council

Wessex Water

Local land managers

The issues in this sub-area

This sub-area covers the urban area of Williton.

Flooding in Williton has historically been associated with out of channel flow and under capacity or blocked structures. River flooding is also exacerbated by the confluence of the Monksilver Stream with the Doniford Stream immediately downstream of Williton. When water levels in the Doniford Stream are high, the flow in the Monksilver Stream cannot discharge easily and therefore backs up, creating higher water levels upstream. Williton is a dense urban area and as such the watercourses in the sub-area have been constricted, modified and largely encroached upon by development.

Currently around 80 properties are at risk during the 1% annual probability river flood. This figure is expected to remain the same in the future.

Given the impermeable, hard standing nature of this sub-area, surface water flooding from overland flow down fields, roads and railway line is also problematic.

The vision and preferred policy

Policy Option 5 - we can generally take further action to reduce flood risk.

Williton is an important urban centre and as such contains a significant amount of key services, commercial properties and infrastructure. Williton is also an important employment centre. Flooding would significantly impact the local economy and even the economy of the County. In addition to this, a large number of people with a high social vulnerability are exposed to flooding. Selecting this policy would significantly reduce the number of people affected by frequent flooding.

Proposed actions to implement the preferred policy

- Review emergency contingency planning for Williton
- Promote the provision of a Surface Water Management Plan
- Improve flood warning lead times by telemetry improvement and improve response to warnings through raising awareness
- Investigate flood defence schemes for Williton.

Hills and Cliffs

Our key partners are:

West Somerset District Council

The issues in this sub-area

This sub-area includes the areas of West of Porlock Bay, the Area behind Minehead, the Quantock Hills and Kilve and Hinkley.

Due to the steep topography, this sub-group responds very quickly to rainfall. These sub-areas have historically experienced little fluvial flooding. Instead, flood risk is significantly from surface water processes, such as sheet run-off.

Currently two properties are at risk during the 1% annual probability flood event. This figure is not expected to change in the future.

At risk from surface water flooding are agricultural land, recreational accesses and nationally and internationally designated sites. Local roads may be also affected. Flood risk from surface water flooding is likely to increase in the future as a result of climate change.

The vision and preferred policy

Policy Option 1 - we will continue to monitor and advise.

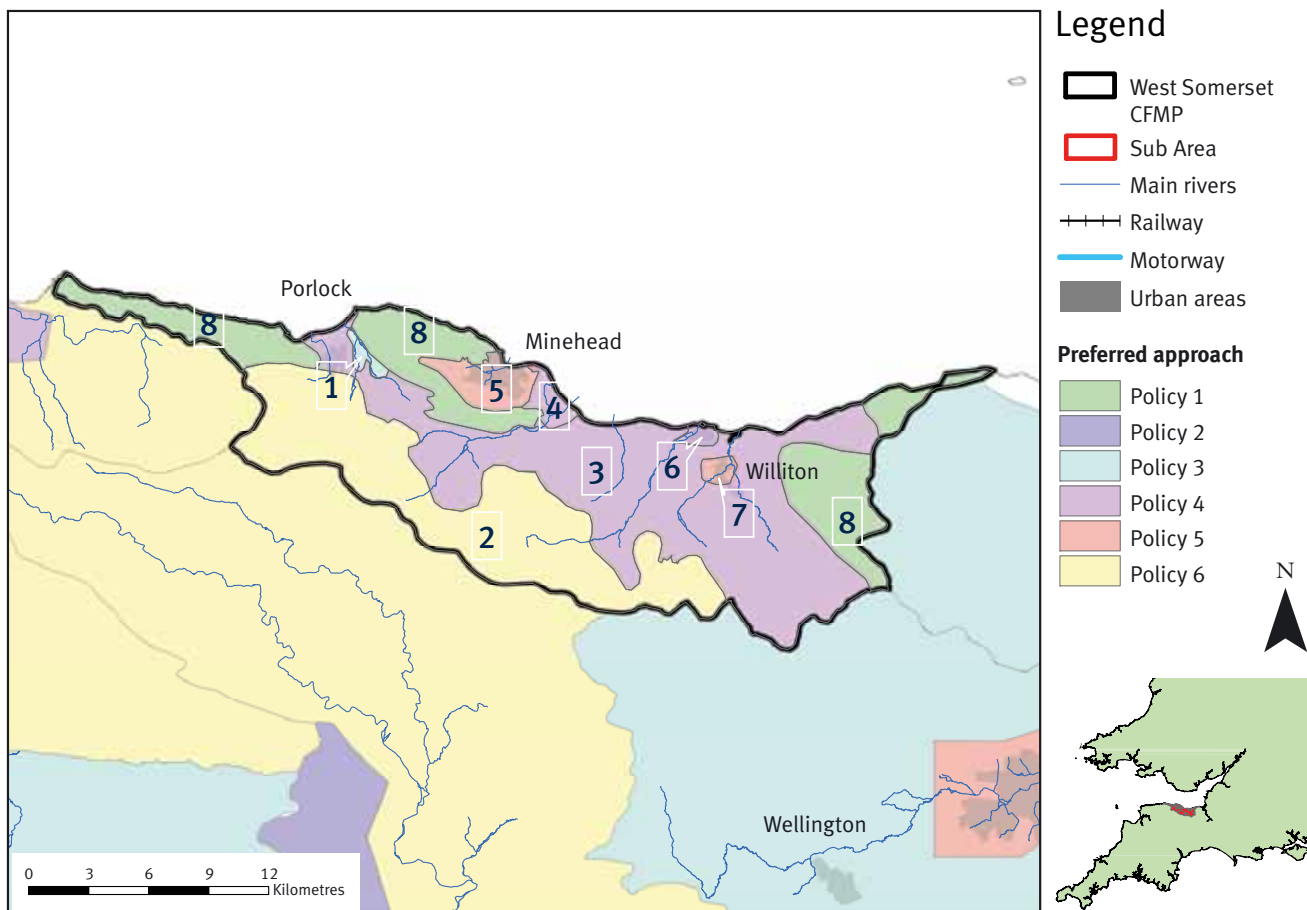
This policy has been selected because opportunities to manage surface water flooding, or reduce it, are limited due to the steep topography of these sub-areas, the steepness of the watercourses and the rapid responses to rainfall. No flood management is undertaken in these sub-areas currently, and the number of people affected by surface water flooding is low and does not increase significantly in the future.

Proposed actions to implement the preferred policy

No specific actions have been identified for this sub-area. Continue to monitor and advise.

Map of CFMP policies

Map of the policies in the West Somerset catchment



The sub-areas

- 1 Lower River Aller
- 2 Exmoor Plateau
- 3 Middle Catchments
- 4 Lower River Avill
- 5 Minehead
- 6 Watchet
- 7 Williton
- 8 Hills and Cliffs

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