

# Climate Change Adaptation Report

New Forest District Council

May 2025

## Executive Summary

In response to the Council's declaration of a Climate Change and Nature Emergency, this report provides background and context to the importance of climate change adaptation in New Forest District – providing data and narrative relating to both climate change and the demographic make-up of the area. Taking the necessary action to protect our people and places from the impacts of extreme weather and climate change is vital to ensuring the area's long-term prosperity.

Within this century we are likely to see;

- a 2°C to 4°C rise in average temperatures,
- up to 25% more rainfall in winter,
- sea levels rising up to 90cm,
- and more extreme summer temperatures of around 35°C.

The report details how the climate in the district is likely to change and the impact that it is likely to have on residents. The report also looks specifically at key areas of physical risks and how these may impact the District and the Council. Also on the webpage, you will find summaries and action guides to help understand how we can all make a difference. There are targeted guides for residents, officers, and councillors to highlight the roles and impacts we all have across the district.

The purpose of this report is to highlight why Climate Change Adaptation is important to us in the New Forest District. Everyone in the district should be aware and be preparing for Climate Change, not only for their own benefit but for their family, friends, neighbours, and communities.

New Forest District Council's [Corporate Plan](#) sets out to '*secure a better future for the district by supporting opportunities for the people and communities we serve, protecting our unique and special place, and securing a vibrant and prosperous New Forest*'. Under the theme '*Place*', emerging priorities include '*protecting our climate, coast and natural world*' and '*shaping our place now and for future generations*'. Climate adaptation is essential to achieving these priorities as we start to implement measures to best prepare the district for the impact that climate change will bring.

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## How to Use this Document

1. This document is set out to be accessible to a wide range of audiences, who need and want different levels of information.
2. The first part of this document provides specific detail for those keen to learn more about climate change, and its likely impact on the district. This sets out some background to both climate change and the district – including projected seasonal changes and insights into the socio-economic factors that affect the vulnerability of residents to climate change impacts. Within this section, there is also some exploration of hazards likely to occur in the New Forest.
3. For those who may wish to engage in the topic in a more straightforward way, summaries and action guides are provided on the webpage. These guides offer insights into what information is most important to be aware of relating to climate change and what actions can be taken to start to adapt and mitigate the effects. These guides are split into residents, officers, and councillors.

## Climate Change Adaptation

What is climate change in the context of New Forest District?

4. Climate Change refers to changes in the average weather conditions of a place over a long period of time, for example the temperature and amount of rainfall. We are interested in how the average conditions of the New Forest District may change under different Global Warming Level scenarios, and what this means for the people living and working in the area, the natural environment, our built assets and how we deliver council services.
5. No one knows for certain the exact nature and extent of future climate change, so organisations develop approaches and actions based on a range of possible scenarios.
6. In 2021 New Forest District Council (NFDC) declared a Climate Change and Nature Emergency and subsequently supported the development and delivery of a Climate Change and Nature Emergency (CC&NE) Action Plan.

Through this action plan, the council is working internally and with partners to deliver four priority programmes of climate action: Carbon Reduction, Climate Adaptation, Nature Recovery and Programme Management (including communications, data analysis and reporting). The creation of this report addresses many of the priority actions committed to by NFDC in the CC&NE Action Plan, particularly focusing on the Climate Adaptation priority programme.

What does Climate Adaptation mean?

7. Climate change adaptation refers to the measures that are needed to best prepare for the impacts that climate change will bring. Adapting to climate change means making changes and adjustments to processes, systems, practices, and structures to protect and safeguard future generations of people and the environment they live in.

Why is Climate Adaptation important?

8. The effects of further warming are unavoidable, so it is essential to prioritise adaptation to prepare for, and deal with, the effects of climate change. Climate change adaptation can also be about learning how to benefit from the potential opportunities that climate change may bring. Adaptation will support the district in becoming more resilient.

## Working with the New Forest National Park

Why are we working with the National Park?

9. Working with the National Park Authority on the issue of climate change is important to ensure that both organisations have the same understanding of the topic of climate change across the New Forest area, of which we share approximately 70% of the same geography. Working collaboratively will be beneficial to both the residents and the environment of the district as we work towards collective goals.
10. The New Forest National Park Authority are also producing a Climate Change Risk and Adaptation Opportunities Assessment, covering the area within the boundaries of the New Forest National Park. We have worked

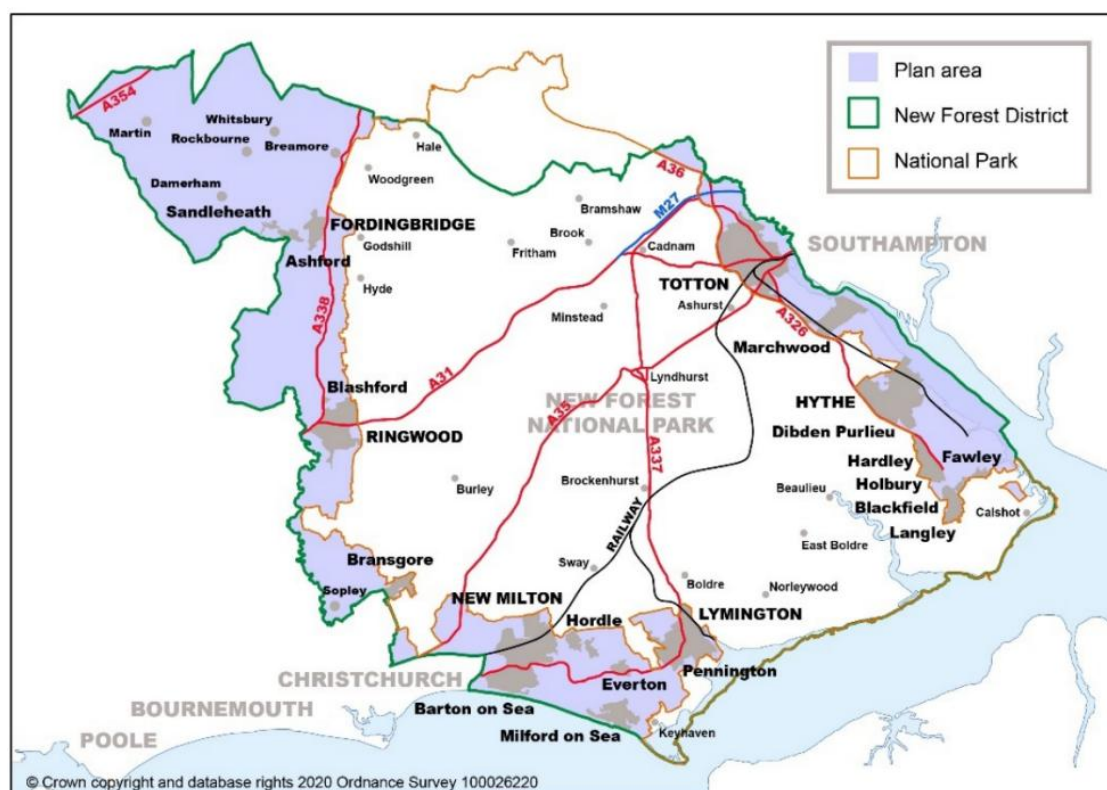
together throughout the creation of these reports to ensure that a comprehensive view of the New Forest is developed.

How will the reports differ?

11. This report covers an overview of the projected seasonal changes, the demographic make-up of the district, and how the changes are likely to impact residents and both the built and natural environments.
12. The New Forest National Park's report will be looking at climate change projections across the National Park, with a specific focus on its [purposes as a National Park](#) and adaptation measures that can be taken to ensure the special qualities of the New Forest can be resilient, secure and enjoyed by future generations.
13. The New Forest National Park is providing more detailed evidence on the climate change projections for their geography, due to specific expertise in this area. The projections for the National Park will be largely reflective for the whole district, and to avoid duplication of work, we will share this knowledge. This will also ensure that both NFDC and NFNPA have the same understanding of what the New Forest might look like under different climate projections, allowing us to prepare and support the district to best adapt.

What are the boundaries of the New Forest National Park?

14. 32% of the New Forest District sits outside the New Forest National Park and is the home of 81% of the district population. This area consists of three separate sub-areas as shown in the map, with a significant part of the area situated on the coast or the Waterside.
15. The area of the New Forest District which is outside the National Park is referred to as the NFDC 'Plan area'. The map below shows a breakdown of the district.



**Map showing the boundaries of New Forest District and the New Forest National Park**

## Projected Seasonal Changes

What climate changes can we expect to see in the New Forest?

16. In general, it can be expected that the district will see warmer, wetter winters and hotter, drier summers. It is also likely that the intensity and frequency of storms and extreme weather events will increase.
17. The independent guidance, adopted by the UK government, states that we should be preparing for a 2°C rise in the temperature across the globe whilst assessing the risk for a 4°C rise. These changes are relative to the pre-industrial baseline (1850-1900), and across the globe we have already seen a 1.2°C rise from this baseline.
18. The timings of when these levels will be reached differ depending on future emissions and how the climate system responds. It is likely that the 2°C level will be reached in the 2050s, but it could be reached as early as 2030. There is currently a low likelihood that the 4°C global warming levels will be reached by the end of the century. However, the current

emission reductions that nations across the world have pledged to, are likely to cause temperature to rise above the 2°C target.

19. [The Climate Report for New Forest](#), produced through the Local Authority Climate Service tool, provides a summary of climate change projections specific to the New Forest. Residents can see what climate change might look like in their local area through this [Climate Change resource](#)
20. The New Forest National Park Authority have produced a comprehensive report looking at the past, present and future climate of the New Forest National Park, which is largely reflective of the climate across the district. This report (which will be linked when made publicly available), is a useful resource for those interested in the technical data on climate change across the New Forest.

What will the situation be under a 2°C Global Warming Level scenario?

21. Under the projections of a 2°C rise in temperatures globally, the New Forest is likely to experience an annual average temperature that is 1.6°C warmer than current levels and a 3.7°C increase in the maximum summer temperature. It is expected that there will be a 12% reduction in precipitation rate during summer and a 9% increase during winter.
22. Some indicators of climate change that residents of the New Forest are likely to experience under this scenario include:
  - More days where the maximum temperature is higher than 25°C,
  - More days where the maximum temperature is higher than 30°C,
  - Fewer days where the daily minimum temperature is lower than 0°C,
  - More days where the average temperature is more than 5.5°C – this is when there is energy available for plant growth,
  - Fewer days where the average temperature is less than 15.5°C – this is an indicator of the energy demanded for heating,
  - More days where the average temperature is more than 22°C – this is an indicator of the energy demanded for cooling.

What will the situation be under a 4°C Global Warming Level scenario?

23. Under the projections of a 4°C rise in temperatures globally, the New Forest is likely to experience an annual average temperature that is 3.4°C warmer than current levels and a 7.3°C increase in the maximum summer



temperature. It is expected that there will be a 36% reduction in precipitation rate during summer and a 25% increase during winter.

24. Alongside the indicators experienced under a 2°C scenario, residents can also expect to experience:

- More extreme summer days where the daily maximum temperature exceeds 35°C,
- More tropical nights where the daily minimum temperature is greater than 20°C.

What will happen to the sea level in the New Forest?

25. The likely scenario is that sea level rise in the New Forest will be 18cm by 2030, 29cm by 2050 and 47cm by 2080. However, the amount of sea level rise depends on emissions, and it is possible that by 2080 the sea level in the New Forest could have risen by up to 91cm.

26. [The Climate Report for New Forest](#) provides more information and demonstrates the projections for 2030, 2050 and 2080 under two different futures.

What will be the impact on day-to-day life in the New Forest?

27. These changes to the climate will impact the residents of the New Forest in a range of ways including:

- Transport disruption,
- Increased risk to health,
- Risk to water supplies,
- Increased energy demand during summer for cooling,
- Higher risks of flooding,
- Drainage disruption,
- Impact to wellbeing and mental health,
- Flooding of both coastal services and infrastructure,
- Flooding of coastal communities and buildings,
- Intrusion of saltwater impacting agricultural land.

## Demographics of New Forest District

What are demographics?

28. Demographics are the structure of populations and the range of different groups that exist within these populations. Demographics reveal the characteristics of areas and groups which can be helpful for gaining an understanding of an area and opening the opportunities for analysis.

Why are demographics important to consider alongside climate change?

29. Demographics are particularly important as those living in certain areas or with certain conditions could be more vulnerable to the effects of climate change and/or more likely to struggle to adapt.

30. Climate change tends to have a greater effect on those who:

- Are aged 65+ and may require extra support when climate events occur and/or may be less comfortable with technology and making changes,
- Are under 5 who can't regulate their own temperature,
- Have health conditions, both physical and mental,
- Are on low incomes and have less disposable income to adapt and prepare for the effects of climate change,
- Are renting in private or social housing and may be unable to make adaptations to their home,
- Are living in social isolation and therefore have a lack of support network when climate emergencies occur,
- Have low personal mobility and may be unable to react to climate events,
- Live in close proximity to hazard sources, for example near the coast or flood zones.

31. Some residents may fall into multiple of these categories, causing compounding factors of risks and vulnerabilities. These compounding factors may cause residents to experience an increased effect from climate change.

32. Within the New Forest, the impact and experiences caused by climate change are likely to be slightly different across the rural and urban areas of the district, and therefore a varied response will be necessary.

What does the district look like now?

33. The areas of the district outside the National Park tend to be more densely populated than the areas within the National Park, particularly around the urban areas of Totton, Hythe, Lymington, New Milton, and Ringwood, as shown on the map below. Some of the most deprived areas of the district also fall in this area outside the National Park. 2.4% of residents in the district live in the 20% most deprived areas in England, according to the Indices of Multiple Deprivation ([JSNA 2019](#)).



**Population Density Map – [JSNA 2021](#)**

34. There is an ageing population across the New Forest District, with 30.3% of the total population aged 65+ and 5.5% aged 85+. These figures are higher than across Hampshire and are expected to increase significantly between now and 2030. The ageing population is particularly prevalent on the coastline, with 60.7% of the coastal population aged 65+. ([JSNA 2021](#))

What could the district look like in the future?

35. When considering the effects of Climate Change and the actions that need to be taken to adapt to these changes, it is important to consider what the district could look like in the future.

36. Projections for the changes to the population in the New Forest by 2030 include ([JSNA 2021](#)):

- 3.8% **decrease** in those aged 0-17 years
- 0.4% **decrease** in those aged 18 to 64 years
- 10.4% **increase** in those aged 65+
- 16.1% **increase** in those aged 85+

37. This demonstrates significant growth of the ageing population in the New Forest, particularly amongst those aged 85+. Therefore, when making plans on how to adapt and prepare as a district, it is going to be important to centre the plans around this growing population who will be especially vulnerable to the effects of climate change.

How Does Climate Change Affect Personal and Social Vulnerabilities in the New Forest?

38. The table below summarises the different groups who are vulnerable to the effects of climate change, the impact that climate change is likely to have on them and the relevance to the New Forest District.

Vulnerability	Impact	Relevance to New Forest ( <a href="#">JSNA Data</a> )
<b>Older People</b> Those aged 65+, particularly those aged 75+.	<ul style="list-style-type: none"><li>• More physically sensitive to impacts of climate – e.g. they find it harder to regulate temperatures during extreme heat</li><li>• They may have poor health or low mobility – making it harder to respond and adapt to</li></ul>	<ul style="list-style-type: none"><li>• 30.3% of the population are 65+, expected to increase by 10.4% by 2030</li><li>• 5.5% are 85+, expected to increase by 16.1% by 2030</li><li>• Significant proportion of the population are ageing, and this is only predicted to grow.</li></ul>

	<p>changing climate or weather event</p> <ul style="list-style-type: none"> <li>• Likely to have compounding vulnerabilities – e.g. social isolation and living in certain types of housing</li> </ul>	<p>Meaning there is going to be more of the population that are vulnerable.</p> <ul style="list-style-type: none"> <li>• Mostly living within the National Park, compounding factors of rurality – making it difficult for them to get out or to access services, which may be enhanced by climate change</li> </ul>
<b>Under 5s</b>	<ul style="list-style-type: none"> <li>• Less able to regulate own temperature in high heats</li> <li>• Reliant on care givers to support them to adapt to changes or hazards</li> <li>• More susceptible to mental health issues caused by trauma of extreme events</li> </ul>	<ul style="list-style-type: none"> <li>• 4.1% of population are aged 0 – 4</li> <li>• Small proportion within the district, number of young people are shrinking – less of a priority area than ageing</li> </ul>
<b>People with Health Conditions</b>	<ul style="list-style-type: none"> <li>• Those living in poor health, with existing physical and/or mental illness</li> <li>• Impact and harm may vary depending on the conditions</li> <li>• Examples <ul style="list-style-type: none"> <li>- Physical limitations/limited mobility impact on</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• 18.5% of population are disabled under Equality Act</li> <li>• 9.6% of population providing unpaid care</li> <li>• Need to also be considering how individuals with health conditions receive care – climate change may</li> </ul>

	<p>people's ability to adapt, prepare or respond to changing climates or events</p> <ul style="list-style-type: none"> <li>- Mental health conditions may affect people's ability to adapt or cope</li> <li>- Medications may reduce ability to adapt or cope</li> <li>- Reliant on carers to adapt, respond and recover</li> <li>- Extreme events may limit ability to access healthcare, carers or medication</li> <li>- Compounding vulnerabilities</li> </ul>	<p>affect the ability of carers to provide care</p>
<b>People on Low Incomes</b>	<ul style="list-style-type: none"> <li>• Less financial means by which to prepare/respond/recover from changing climate and extreme weather events</li> <li>• Poverty linked to other vulnerabilities e.g. ill-health or having a disability</li> <li>• More likely to be renting property so can't make change or adaptations to home</li> </ul>	<ul style="list-style-type: none"> <li>• 48.6% of population deprived in at least one dimension</li> <li>• 12.4% of children living in low income households</li> <li>• 2.2% on Universal Credit</li> <li>• Areas of deprivation mostly in areas outside of National Park</li> <li>• Rural deprivation, including lack of access to services –</li> </ul>

	<ul style="list-style-type: none"> <li>• Properties less resilient and more exposed</li> <li>• Reliant on public transport which may get disrupted</li> <li>• Less likely to seek help</li> </ul>	<p>this will particularly impact in a climate event like flooding</p>
<b>Tenants in Private or Social Housing</b>	<ul style="list-style-type: none"> <li>• More likely to be on low income – compounded vulnerability</li> <li>• Reliant on landlord</li> <li>• Associated with shorter residency in area, less local knowledge to understand risk</li> <li>• Purpose-built flats which can be vulnerable to heat</li> <li>• Live in overcrowded homes – impact ventilation and internal temperatures</li> </ul>	<ul style="list-style-type: none"> <li>• 10.8% of NFDC population in social rented</li> <li>• 14.4% in private rented</li> <li>• NFDC own and manage over 5000 properties – so have a level of responsibility over those living there</li> <li>• Responsibility to build homes that can withstand heat and be warm in winter</li> </ul>
<b>People Who Are Socially Isolated</b>	<ul style="list-style-type: none"> <li>• Examples – single pensioner households, people with pre-school age children, transient populations</li> <li>• Lack of support networks to alert/support</li> <li>• Unknown to community and local services making it harder to identify and help</li> </ul>	<ul style="list-style-type: none"> <li>• Population density varies from 16.3 to 6056.6</li> <li>• Classified as Urban with Significant Rural (2011)</li> <li>• Those living in rural areas may be more likely to be socially isolated.</li> </ul>

	<ul style="list-style-type: none"> <li>• Less likely to access community support</li> <li>• Rural/coastal isolation</li> </ul>	
<b>People with Low Personal Mobility</b>	<ul style="list-style-type: none"> <li>• May not be able to respond quickly during an extreme weather event</li> <li>• Reliant on caregivers or support network</li> <li>• Services, support or equipment may be affected</li> <li>• Associated vulnerabilities</li> <li>• Rural and coastal areas lack access to services</li> </ul>	<ul style="list-style-type: none"> <li>• 0.6% Learning Disability Prevalence</li> <li>• Highest in Hampshire for: <ul style="list-style-type: none"> <li>- Moderate or severe frailty (12.2%)</li> <li>- Reduced mobility (19.7%)</li> <li>- Moderate or severe sight loss (9%)</li> <li>- Experiencing falls (27.4%)</li> <li>- Dementia (7.9%)</li> </ul> </li> <li>• 17.4% of population with 2 or more health conditions</li> </ul>



## Hazards Specific to the New Forest

39. This section looks at 4 key hazards likely to affect the New Forest: flooding, coastal erosion, heatwaves, and air quality.
40. These hazards are relevant to the New Forest due to the nature of the district. We are already witnessing the effect of these hazards in many areas of our district and the risk they pose is increasing as a consequence of the changing climate.
41. This section looks at what the risks are and how climate change affects them, where in the district faces particular risks from these hazards, where in the district are already experiencing problems caused by these hazards, what has been implemented to prepare for these hazards, and finally the specific impact of the hazard on different areas of residents' lives and council operations.

### Flooding

What is Flooding and how does Climate Change cause it?

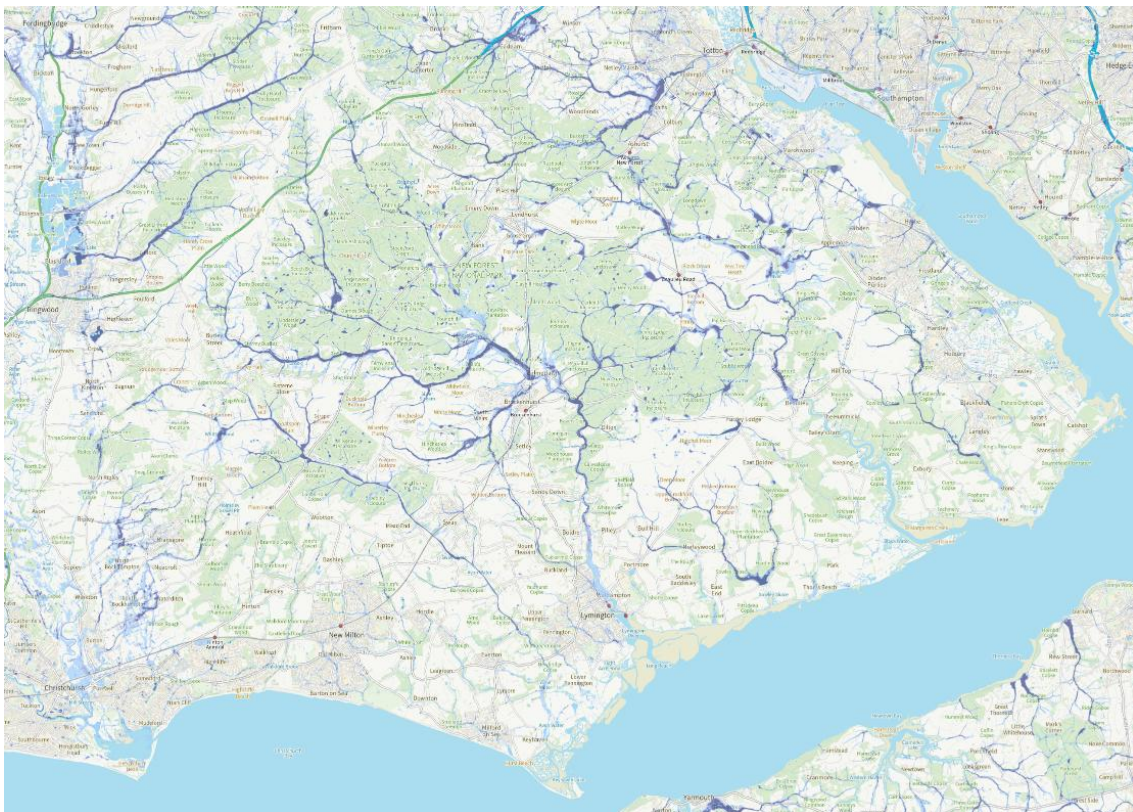
42. Flooding is when there is an overflow of water that submerges land which is usually dry. There are many types of flooding including coastal, river, groundwater, and flash floods. Flooding is a particular risk in low-lying coastal areas and areas where flood plains have been built on.
43. There are rising temperatures across the district, which causes more moisture to be held in the atmosphere, which is what causes increased intensity, frequency, and duration of precipitation. When these levels of precipitation are seen, the risk of flooding increases. There is also a trend of more extreme weather events that is associated with climate change, which will also increase the risk of flooding.

Where in the district is Flooding a particular risk?

44. The map below highlights which areas have the greatest numbers of residential properties at risk of flooding.



***Residential Properties at risk of Flooding – [JSNA 2023](#)***



***Extent of Surface Water Flooding - [Check My Flood Risk](#)***

45. The map above highlights the extent of flooding in the district caused by surface water. The darker blue areas highlight where there is a higher



chance of flooding occurring each year. Similarly, the map below shows the extent of flooding from rivers and sea.



***Extent of Flooding from Rivers and Sea – [Check My Flood Risk](#)***

Where in the district are we already seeing the effects of Flooding?

- 46. The effects of flooding are felt across the district, particularly in the aftermath of storms. The effect is most felt in coastal towns such as Hythe, Lymington, Calshot and Hurst.
- 47. The cost of flooding to the district is significant in both the damage it causes to infrastructure and building but also the cost to residents physical and mental health.

What has been implemented to prepare for Flooding?

- 48. There is significant emergency planning work that has been completed with agencies and partners across the district and county that set out what procedures and arrangements are in place should flooding occur. An example of this is the Hampshire and Isle of Wight Local Resilience Forum who are pivotal to providing resources and guidance in preparing for emergencies like flooding.

49. [The Christchurch Bay and Harbour FCERM Strategy 2021-2024](#) and [The Hurst Spit to Lynton Strategy](#) also cover the impact of flooding on coastal areas and are important tools in the district's preparedness for flooding.

What is the impact of Flooding to the district?

<b>Residents</b>	<b>Business</b>	<b>Environment</b>
Damage to houses Costly and harder to get insurance for those living in flood areas Lack of water to houses Inability to leave house for work or social impact – may cause a loss of income May impact children getting to school Damage to those more socially vulnerable Potential loss of power Mental health impacts Physical health impacts	Staff cannot work Cannot open business – loss of trade Impact to the agricultural industry and production Damage to infrastructure Impact on the tourism industry	Costly to the district to prepare for floods Failures to the defences which then needs them to be replaced and repaired Impact on wildlife and biodiversity Impact on emergency services

What is the impact of Flooding to NFDC?

<b>Buildings</b>	<b>Assets</b>	<b>Staff</b>
Need to protect property from risks of flooding	Damage to council owned housing Damage to council owned property Car park management, have to deal with flooding	Staff physical health may affect ability to work Staff may not be able to get to work due to flooding

## Coastal Erosion

What is Coastal Erosion and how does Climate Change cause it?

50. Coastal Erosion is the loss or displacement of land along the Coastline.

Changes to coastline boundaries are caused by waves and tides, sediment supply, precipitation levels and the effect of groundwater. Coastal Erosion is a process that occurs naturally; however, the effects of climate change are accelerating the rate of the erosion. Due to rising sea levels, more land is being worn away by the sea.

Where in the district is Coastal Erosion a particular risk?

51. Coastal Erosion is an issue across the Coastline in the New Forest, with over 1,200 properties set to be at risk from coastal erosion by 2124 if no measures are implemented.

52. Much of the area of the New Forest which sits outside the National Park, is on the Waterside or on the coastline and are therefore likely to be impacted by coastal erosion. Hurst and Calshot Castles have been highlighted as particularly vulnerable to the effects of Coastal Erosion.

Where in the district are we already seeing the effects of Coastal Erosion?

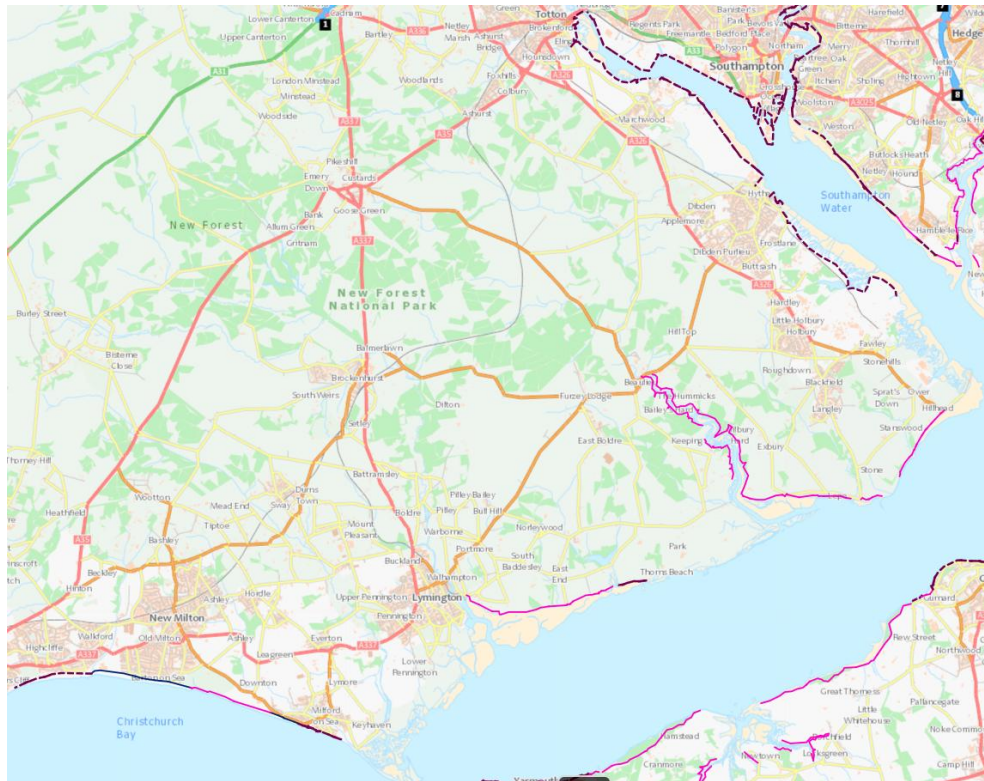
53. Milford on Sea is already witnessing the effects of Coastal Erosion, especially after the effects of the extreme weather events that have occurred in recent years. At Hordle Cliff, many beach huts have had to be removed due to their increased vulnerability to erosion and ground movement following a number of storms.

What has been implemented to prepare for Coastal Erosion?

54. There are two strategies being developed to manage the risk of Coastal Erosion along the New Forest Coastline. These are [the Christchurch Bay and Harbour FCERM Strategy 2021-2024](#) and [the Hurst Spit to Lymington Strategy](#). These two strategies are in different stages of development, but both set out to create a sustainable future in relation to flooding and coastal erosion. These strategies will identify where, when and what type of works are needed to manage risks and the costs, as well

as addressing the effects of predicted climate change on coastal communities.

55.The map below shows the management policies for a range of the stretches of coast in the New Forest. There is a range of different policies in place across the coastline.



**Map of Management Policies for Coastal Erosion - [National Coastal Erosion Risk Mapping](#)**

56.The following key can be used to determine which policies correlate to certain areas of the district.

**Short-term Shoreline Management Plan Policy**

- · — Hold the line
- No active intervention
- Managed realignment
- Advance the line

**Key for Shoreline Management - [National Coastal Erosion Risk Mapping](#)**

57.The different approaches that are planned for New Forest are as follows:

- No active intervention – no investment is planned to defend against any flooding or erosion, even if artificial defence has existed previously.

- Hold the (existing defence) line – there is an ambition to build or maintain any artificial defences to maintain the position of the shoreline. Sometimes, the type or method of defence may change to achieve this result.
- Managed realignment – allowing the shoreline to move naturally, whilst managing the process to direct it in certain areas.

What is the impact of Coastal Erosion to the district?

<b>Residents</b>	<b>Business</b>	<b>Environment</b>
Loss of homes Loss of access to beach huts and other assets Potential need to relocate, and the costs associated with this Potential risk of injury and other health hazards Insecurity and the unknown of when events may occur Cost to residents of protecting from the risks of erosion Ageing population who are likely to be most effected	Negative impact on tourism if visitors can't access beaches without risk Fishing industry Loss of land that businesses operate from Damage to infrastructure	Geographically isolated coastal towns become more isolated Impact on habitats and biodiversity Damage to natural defences Cost of putting in additional defences Residents may start moving away from coast which will put pressure on housing in the rest of the district

What is the impact of Coastal Erosion to NFDC?

<b>Buildings</b>	<b>Assets</b>	<b>Staff</b>
Beach huts Council owned property on the coast	Loss and damage to beach huts Damage to property	Staff that may live on the coast and may be vulnerable to Coastal Erosion



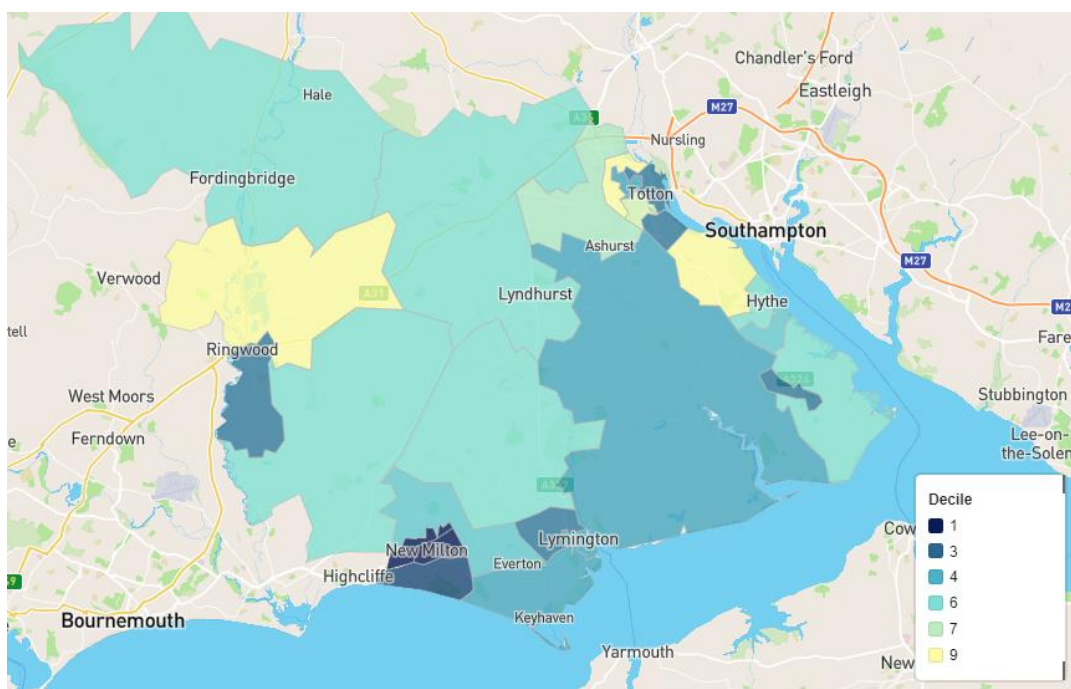
## Heatwaves

What are Heatwaves and how does Climate Change cause it?

58. Heatwaves are periods where there is unusually hot weather, typically lasting for more than two days. Heatwaves are an extreme weather event, which are occurring more frequently due to the effects of climate change. It is likely we will start to see heatwaves occurring every other year.

Where in the district are Heatwaves a particular risk?

59. Heatwaves are of a particular risk to those who are more vulnerable due to old age and long-term health conditions. The map below shows the areas in the district that are more vulnerable to heat and therefore are at more of a risk of poor outcomes caused by heatwaves. The heat vulnerability index looks at indicators relating to age, health, mobility, physical environment, income, tenure, social networks, and access to services.



**Heat Vulnerability Index Map – [JSNA 2018](#)**

Where in the district are we already seeing the effects of Heatwaves?

60. Heatwaves impact the health and wellbeing of residents, there is an increased risk of heat exhaustion and heat stroke as well as impact on



respiratory and cardiovascular diseases. When the temperature is above 28°C, a public health alert is triggered.

61.While much of the New Forest District is rural, there are some areas which are more built-up with a higher density of residents – particularly within the area of the New Forest outside the National Park. These areas are likely to experience the Urban Heat Island Effect, where the built-up areas are hotter than the surrounding countryside. The differences in temperature may be more noticeable at night.

62.The map below shows the number of wildfires and fires in the open across the district from 2018 to 2023. The likelihood of fires and wildfires increase during a heatwave.



**Wildfires Map – [JSNA 2023](#)**

What is the impact of Heatwaves to the district?

Residents	Business	Environment
Impact on physical health Increased risk of heat related death	May be good for tourism as will encourage more 'staycations'	Urban heat islands, the more densely populated parts of the district are

Particular impact on more vulnerable population Increased cooling cost due to need to use aircon	Shortage of food due to growing conditions Impact on agricultural industry	likely to be impacted more Melting roads and buckling rails – impact to transport Impact on wildlife May benefit certain species of animals Risk of wildfire
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What is the impact of Heatwaves to NFDC?

<b>Buildings</b>	<b>Assets</b>	<b>Staff</b>
More air con required, higher cooling cost Need to think about green spaces in new development to keep areas cool and help with urban heat islands	Fires in properties Fleet/vehicles overheating	Staff physical health Especially staff working outside

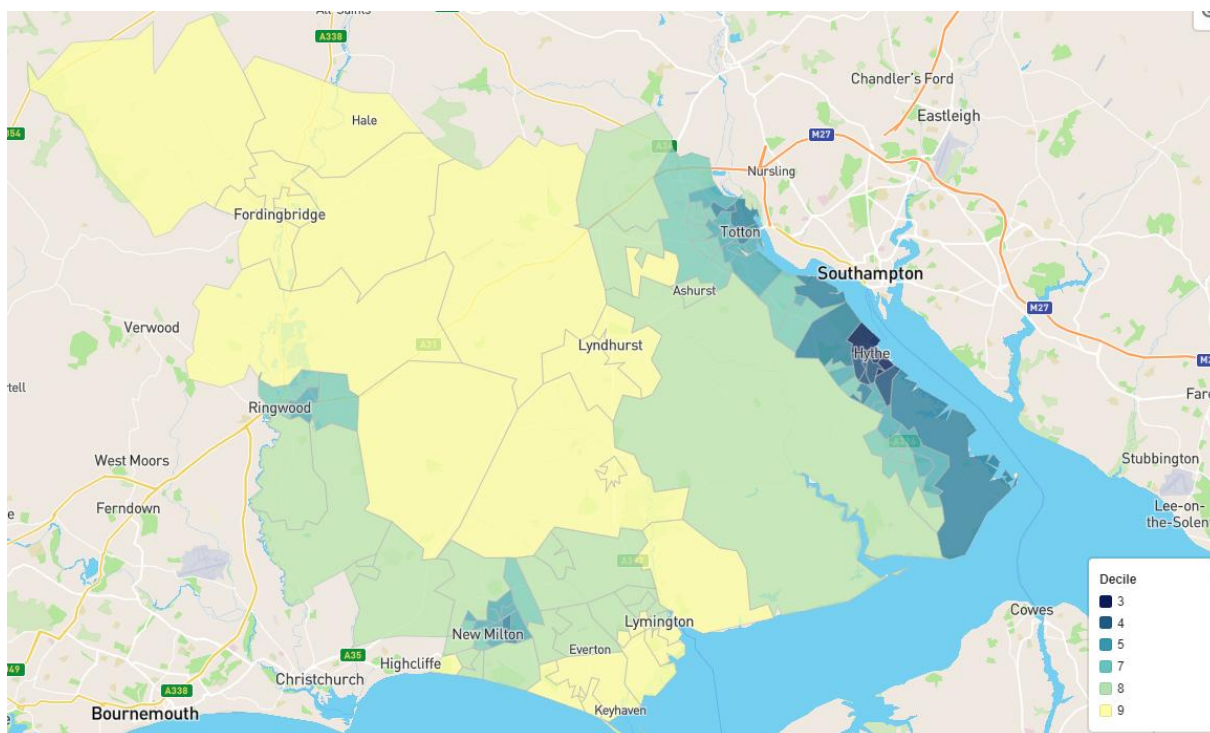
## Air Quality

What is Air Quality and how does Climate Change cause it?

63. Air Quality refers to the condition of the air within our surroundings and is a measure of how clean or polluted the air is. Air pollution causes the climate to change, and climate change also causes air pollution to change, creating a cyclical effect. The warmer temperatures we are set to see are forecasted to have a damaging effect on surface air quality.

Where in the district is Air Quality a particular risk?

64. The map below highlights how air quality varies across the district. In general air quality in the New Forest is good, but there are some pockets where it is poorer. Majority of these locations fall on the Waterside.



### ***Air Quality in the District – [JSNA 2019](#)***

Where in the district are we already seeing the effects of Air Quality?

65.The New Forest welcomes many tourists throughout the year, with a significant majority of these using cars or coaches as their methods of transport. This is likely to be having an impact on the air quality within the district.

What has been implemented to prepare for Air Quality?

66.New Forest District Council have a responsibility to review and assess the air quality in the New Forest. There are 2 active local authority funded air quality monitoring sites within the district, located in Fawley and Totton. NFDC also produce an annual local air quality report to record the air quality in the district and highlight local actions taking place. An Air Quality Assessment in New Developments has also been introduced.

67.There is a Local Cycling and Walking Infrastructure Plan which supports the district move towards more active travel, in turn reducing emissions. There are also pushes towards moving towards cleaner energy which will also impact emissions in the district. Reducing emissions will help prevent a worsening of air quality.

What is the impact of Air Quality to the district?

<b>Residents</b>	<b>Business</b>	<b>Environment</b>
Those most vulnerable effected the most Cardiovascular and respiratory conditions may increase Shortens lives and damages quality of life Mental health impacts	Productivity and health of workers	Wildlife may suffer

What is the impact of Air Quality to NFDC?

<b>Buildings</b>	<b>Assets</b>	<b>Staff</b>
Need to be aware of the emissions produced from buildings	Need to be aware of emissions produced by assets	Illness of staff, particularly with respiratory and cardiovascular conditions

## Action in the District

Who is responsible for what in the district?

68.Improving resilience to climate change is the responsibility of everyone.

The table below demonstrates different stakeholders and their responsibility over climate adaptation within the district.

	<b>Responsibility</b>
Residents	<ul style="list-style-type: none"> <li>Protecting their own home from climate related emergencies</li> <li>Making adaptations to their homes to best prepare for a warming climate</li> </ul>
Landlords	<ul style="list-style-type: none"> <li>Protecting their tenants</li> </ul>

	<ul style="list-style-type: none"> <li>• Making adaptations to their properties to protect and prepare them</li> </ul>
Businesses	<ul style="list-style-type: none"> <li>• Protecting their staff</li> <li>• Protecting their business operations and assets</li> <li>• Preparing their assets to be best equipped for climate change</li> </ul>
Council	<ul style="list-style-type: none"> <li>• Delivering services</li> <li>• Educating their residents and officers on climate change</li> <li>• Encouraging residents and businesses to make adaptations</li> <li>• Leading by example and being an advocate</li> </ul>
Formal Agencies	<ul style="list-style-type: none"> <li>• Varies depending on the organisation, but includes: <ul style="list-style-type: none"> <li>- Assessing the risk of emergencies</li> <li>- Creating emergency plans</li> <li>- Creating business continuity arrangements</li> </ul> </li> </ul>
Community Groups	<ul style="list-style-type: none"> <li>• Encouraging and promoting action within the community</li> <li>• Educating the community</li> <li>• Being aware of those in the community who are vulnerable</li> </ul>
Landowners	<ul style="list-style-type: none"> <li>• Understanding the risks to their land from climate change</li> <li>• Engaging in opportunities to support community and infrastructure resilience</li> <li>• Sustainable land management</li> </ul>
Town and Parish Council	<ul style="list-style-type: none"> <li>• Encouraging residents in their communities to make adaptations</li> <li>• Awareness of who and where the most vulnerable are in the community</li> </ul>

	<ul style="list-style-type: none"> <li>Consider climate change when making local decisions</li> </ul>
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## Formal Agencies

69. Across the district there are a range of agencies and organisations that have different roles and responsibilities relating to contingency planning for emergencies. These responsibilities include assessing the risk of emergencies occurring, creating emergency plans and business continuity arrangements. They are also responsible for sharing information with other responders and residents.

70. At a strategic level, the Hampshire and Isle of Wight Local Resilience Forum (LRF) brings together key actors that have a collective responsibility to plan, prepare, deliver and communicate multi-agency responses to a range of emergency situations – partners include emergency services, local authorities, government agencies, utility companies and healthcare providers. The work of the LRF and its partners includes assessing the risk of emergencies occurring, creating/testing emergency plans and developing business continuity arrangements.

71. These relationships and roles have not been explored in detail throughout this report. However, the existence of these formal partnerships and processes ensures that there is comprehensive management of emergency situations.

## What are community groups doing to tackle climate change?

72. Across the New Forest there are a range of Community Groups taking part in work to actively tackle climate change. These groups are active across the district from Sway to Brockenhurst and across to the Waterside. Some groups are set up independently and some are set up as local hubs of bigger Climate Action groups – including the Greening Campaign, New Forest Transition Hub and the Heat Project.

73. Many of these groups are brought together in a wider 'Green Group' which is coordinated by the New Forest National Park Authority and encourages discussion across community groups on a range of topics.

74. Most of the work of these Community Groups is focused on encouraging local action, educating the community and being a mechanism for change within the community.