

Joint Strategic Needs Assessment (JSNA)

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<p>Summary:</p>	<p>The climate emergency is humanity's greatest long-term challenge. Unsurprisingly, it will have impacts on health.</p> <p>The direct effects on health in Somerset are less significant than in poorer and less temperate parts of the world. In some cases they may even be beneficial.</p> <p>The mitigation of climate change locally has great potential to improve overall population health as a 'co-benefit'.</p>
<p>Recommendations:</p>	<p>That the Somerset Health and Wellbeing Board</p> <ul style="list-style-type: none"> • Endorse the report • Use the evidence to respond to climate change in Somerset • Use the evidence to promote the complementary benefits of carbon reduction and public health. • Incorporate appropriate performance indicators from the Somerset Climate Strategy into the monitoring of 'Improving Lives', notably in: <ul style="list-style-type: none"> Active travel Housing and planning Access to the natural environment Food and farming Flood risk
<p>Reasons for recommendations:</p>	<p>Somerset has declared a 'climate emergency', and is adopting a Climate Strategy: this report shows how the response to the emergency can also yield significant health benefits. The recent experience of Covid-19 has led to major social disruption, and the response and recovery from that can similarly enhance health and 'build back better'.</p>
<p>Links to The Improving Lives</p>	<p>Please tick the Improving Lives priorities influenced by the delivery of this work</p>

Strategy	<p>A County infrastructure that drives productivity, supports economic prosperity and sustainable public services YES</p> <p>Safe, vibrant and well-balanced communities able to enjoy and benefit from the natural environment YES</p> <p>Fairer life chances and opportunity for all YES</p> <p>Improved health and wellbeing and more people living healthy and independent lives for longer YES</p> <ul style="list-style-type: none"> • The JSNA considers how environmental sustainability can be maintained without having adverse impacts on health. • It is argued here that vibrant communities are both a contributor to and a 'co-beneficiary' of the response to the climate emergency. • This report identifies areas of Somerset and population groups most at risk from the climate emergency. • In particular, the report considers how environmental sustainability and healthier lives can be addressed together.
Financial, Legal, HR, Social value and partnership Implications:	<p>There are no direct implications in this report. However, the wider implications need to be considered as part of the climate strategy.</p>
Equalities Implications:	<p>This report identifies areas of Somerset and population groups most at risk from the climate emergency.</p>
Risk Assessment:	<p>Any failure by commissioners to fully take into account the results of JSNAs and related data when taking commissioning decisions across agencies is very likely to have detrimental impacts on service improvement and delivery and the reduction of inequalities.</p>

1. Background

1.1. The breakdown of climate as a result of the human release of greenhouse gases such as carbon di-oxide into the atmosphere has the potential to transform the global environment. Impacts will vary considerably from place to place, but the scale and rate of change means that natural and human populations may be unable to adapt and suffer harmful consequences. This report considers what effects the changes likely to occur can have on human

health and wellbeing in Somerset.

1.2. Somerset public bodies have declared a 'climate emergency', with a commitment to become carbon neutral by 2040, as a local contribution to the change needed. This, too, will have a transformative effect on life in the county. Indeed, this mitigation is likely to have far greater impacts on public health than the environmental change itself. As a silver lining, the mitigation of climate change has in itself a positive impact on health and wellbeing, and this can be a powerful spur for the transformation required to achieve carbon neutrality.

1.3. Impact of changing weather

The underlying element of climate change is a likely increase in global average temperatures of 2°C by about 2070. This is also the likely change for Somerset. The temperate climate of the county means that most of this variation will be within the range of 4°-27°C where direct health impact is negligible.

This does, though, reduce the length and frequency of time below 4°C, with a positive impact on health, and increase the length and frequency of time above 27°C, with a negative impact. At present, cold weather has more impact than hot, so in overall terms the health outcomes should be improved in future on this basis, certainly as measured (rather crudely) by numbers of deaths.

The extreme summer high temperatures are likely to increase, by approximately 2°C. These are occasional and whilst there is, at these temperatures, a linear relationship between temperature and health harm, it does not represent a qualitatively different threat.

The response to such extreme weather is already set out in the heatwave plan. The expected changes to the weather are within the range of preparations that it includes. The cold weather plan may need less frequent implementation, but the expected future climate will still include periods of cold weather; the frequency of snow is also likely to reduce, but the threat remains.

1.4. Flooding

The combination of wetter winters and rising sea levels is likely to increase the frequency of flooding. Somerset includes the low-lying Levels and Moors, where some flooding occurs every winter. In 2013, an area of 65km² was flooded for over two months, with 280 homes inundated. The long-lasting health impact, especially in anxiety and depression for the residents affected, is well known. The blocking of road and rail links also hindered the provision of services.

A range of physical responses, such as dredging, bank building, road raising and the installation of pumps, has been put in place. This may reduce the number of dwellings affected, and the impact on settlements such as Muchelney, which was cut off.

Flash flooding – caused by sudden, intense rainfall, in summer thunderstorms as well as winter low pressure systems – is also likely to be more of a problem. This is far more unpredictable than winter flooding. The most valuable preparation is the development of strong, cohesive communities able to provide support to each other at very short notice – often before the emergency services can arrive.

1.5. Mitigation of Climate Change

Reducing carbon emissions requires considerable behaviour change, a large proportion of which also has positive benefits for health. Making such change requires determination and leadership, and the health impacts may help 'sell' the transformation required. Examples include:

Housing

Fuel poverty is a concern for about 10% of Somerset households. Better insulation, so that less carbon-emitting energy is needed to heat them can keep housing warmer more efficiently. Housing improvements for many will also need to include better ventilation and shading to reduce excessive summer heat.

Active travel

Walking and cycling provide exercise, sometimes described as a 'miracle cure' for ill health. Reducing vehicular traffic strengthens communities, supports local shops, and improves air quality. Improving the infrastructure for active travel, such as traffic calming and cycle storage, can have positive feedback effects as the public feels safer walking and cycling. Replacing internal combustion engines with vehicles using electricity from renewable sources improves some aspects of air quality, but does not have the other co-benefits.

Food

The majority of the Somerset population would benefit from a diet with a higher proportion of vegetables, especially fresh vegetables. A food system based on local production, with a limited intake of meat (no more than 70g/day according to NICE guidance) could have health benefits as well as reducing the production of the most potent greenhouse gases such as methane from livestock. This, though, sits in a highly complex network of relationships between land use, diet and farming practices, and cannot be reduced to a simple recommendation.

These three themes have their own workstreams within the climate strategy.

2. Improving Lives Priorities and Outcomes

2.1. The JSNA considers how economic prosperity and environmental sustainability

can be maintained without having adverse impacts on health.
 It is argued here that vibrant communities are both a contributor to and a 'co-beneficiary' of the response to the climate emergency.
 This report identifies areas of Somerset and population groups most at risk from the climate emergency.
 In particular, the report considers how environmental sustainability and healthier lives can be addressed together.

3. Consultations undertaken

3.1. This report is part of the wider Somerset Climate Strategy, and as such involves a very wide range of contributors. Further specific engagement is planned but still to be confirmed.

4. Request of the Board and Board members

4.1. The Board is asked to consider the contents of the draft report, and to discuss any further aspects of the climate emergency that need to be covered. We would also welcome the Board's views on how the findings should be communicated, and how they should be incorporated within the programme of work.

5. Background papers

5.1. *Previous JSNA reports are published at:*
<http://www.somersetintelligence.org.uk/jsna/>.

6. Report Sign-Off

6.1

	Seen by:	Name	Date
Report Sign off	Relevant Senior Manager / Lead Officer (Director Level)	Trudi Grant	19/03/20
	Cabinet Member / Portfolio Holder (if applicable)	Clare Paul	16/10/20
	Monitoring Officer (Somerset County Council)	Scott Wooldridge	15/10/20