

Sustainability and Climate Crisis Strategy and Action Plan Update Technical Report

St Albans City and District Council

December 2023

Delivering a better world

Quality Information

Prepared by BL Industrial Placement Consultant		hecked by	Verified by		Approved by AC Regional Director	
		F rincipal Sustainability onsultant	IY Associate Dire	ector		
HN Graduate Sustainability Consultant						
SY Sustainability Consultant						
Revision His	story					
Revision	Revision dat	e Details	Authorized	Name	Position	
Distribution	List					
# Hard Copies	PDF Require	ed Association /	Company Name			

Issued: 14 December 2023

Prepared for:

St Albans City and District Council

Prepared by:

AECOM Limited Aldgate Tower 2 Leman Street London E1 8FA United Kingdom aecom.com

© 2023 AECOM Limited.

AECOM Limited ("AECOM") has prepared this report for the sole use of St Albans City and District Council ("Client") in accordance with the agreed terms and conditions of appointment ("the Appointment").

AECOM shall have no duty, responsibility and/or liability to any party in connection with this report howsoever arising other than that arising to the Client under the Appointment. Save as provided in the Appointment, no warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by AECOM.

This report should not be reproduced in whole or in part or disclosed to any third parties for any use whatsoever without the express written authority of AECOM. To the extent this report is reproduced in whole or in part or disclosed to any third parties (whether by AECOM or another party) for any use whatsoever, and whether such disclosure occurs with or without the express written authority of AECOM, AECOM does not accept that the third party is entitled to rely upon this report and does not accept any responsibility or liability to the third party. To the extent any liability does arise to a third party, such liability shall be subject to any limitations included within the Appointment, a copy of which is available on request to AECOM.

Where any conclusions and recommendations contained in report are based upon information provided by the Client and/or third parties, it has been assumed that all relevant information has been provided by the Client and/or third parties and that such information is accurate. Any such information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in this report. AECOM accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to AECOM from the Client and/or third parties.

Table of Contents

1. Introduction	1
2. Methodology	2
3. Policy and Context	3
3.1 National Policy and Strategy	3
3.2 Local Policy and Strategy	3
3.2.1 New Local Plan – 2041 Regulation 18 Consultation	3
3.2.2 Council Declarations	4
3.2.3 Sustainability and Climate Crisis Strategy and Action Plan (2020-23)	4
4. Baseline	6
4.1 Corporate Emissions	6
4.1.1 Greenhouse Gas Reporting and Coverage	6
4.1.2 2022/23 Baseline	7
4.2 Community Emissions	10
4.3 Climate Risks	11
5. Stakeholder Engagement	13
5.1 Council Engagement	13
5.1.1 Officer Engagement	13
5.1.2 Climate Advisory Group (CAG) Member Engagement	16
5.2 External Engagement	16
5.2.1 Hertfordshire County Council (HCC)	16
5.2.2 Sustainable St Albans (SSA)	17
5.2.3 Community Consultation	17
6. Outputs	20
6.1 Updated Sustainability and Climate Crisis Strategy (2024-27)	20
6.2 Updated Sustainability and Climate Crisis Action Plan (2024-27)	20
6.3 Action recommendations that require HCC's lead	22
7. Next steps	23
Appendix A Glossary of Terms	24
Appendix B Climate Change Risk Assessment	23

Figures

Tables

Table 1: Included and excluded emissions in the greenhouse gas reporting	6
Table 2: Stakeholder Engagement Summary	. 13
Table 3: Officer Strategy and Action Plan (2020-23) Feedback Poll Results	. 13
Table 4: Officer Feedback Summary	. 15
Table 5: Summary of feedback on the draft Sustainability and Climate Crisis Strategy and Action Plan update	. 17

1. Introduction

AECOM was commissioned by St Albans City and District Council (SACDC) to update the pre-existing Sustainability and Climate Crisis Strategy (2020-23) and Action Plan. This update is intended to refresh the Council's priorities in responding to the climate emergency over the next three years, 2024 to 2027.

In July 2019 the Council formally declared a climate emergency and began working on a comprehensive plan of action to drastically reduce corporate greenhouse gas emissions across Council buildings, services and operations, as well as emissions across the District. SACDC's aim is to do all that it can to reduce emissions across the District to net zero by 2030.

In addition to supporting the Council's operational net zero pledge, the Strategy and Action Plan updates align with key policies and strategies at a national and local level. Notably, they align to the UK Government's net zero target for 2050 and the Council's emerging Regulation 18 Local Plan.

The updates also underscore the importance of collaborating with businesses, the public and other key stakeholder groups. Some of this value has already been captured in the early stakeholder engagement undertaken in developing the new Sustainability and Climate Crisis Strategy (2024-27) and Action Plan, ensuring the next steps are relevant, achievable, and holistic. Emphasis has also been repeatedly embedded in working with Hertfordshire County Council (HCC) to improve environmental sustainability and reduce the majority of emissions. This will be essential to success.

This technical report summarises the methodology undertaken by AECOM to update the Sustainability and Climate Crisis Strategy and Action Plan and highlights the key evidence informing the recommendations. We have also included a baseline carbon emissions summary.

For a full description of the actions, some of which are referred to within this Technical report, please see the Action Plan.

A glossary of terms is included as Appendix A.

2. Methodology

AECOM reviewed the existing Sustainability and Climate Crisis Strategy and Action Plan, undertook baseline modelling, engaged with stakeholders and used this input to refine and devise actions. We restructured the Action Plan and determined the format of the Strategy update. A draft Sustainability and Climate Crisis Strategy and Action Plan were submitted to SACDC for two rounds of review, consultation and comment, prior to issue of the final versions of these two documents (issued in December 2023).

The evidence and analysis that informed the revised direction and priorities of the 2024-27 Strategy and Action Plan are listed below.

- All Council documents received as part of the initial request for information (RFI) including trackers, risk registers, reports, audits, etc.
- The previous Sustainability and Climate Crisis Strategy (2020-23) and Action Plan.
- A literature review of national and local policy and strategy (see Section 3).
- Calculation of the corporate (Council) 2022/23 baseline greenhouse gas emissions reported by SACDC (see Section 4).
- Analysis of the community (District) 2020/21 baseline greenhouse gas emissions reported by DESNZ (see Section 4).
- Completion of a St Albans Climate Change Risk Assessment (see Appendix B).
- Internal and external stakeholder engagement including Council officers and Climate Advisory Committee (CAG) members, Hertfordshire County Council (HCC), Sustainable St Albans (SSA) and the community (see Section 5).
- AECOM's wider experience of local authority plans.

The Sustainability and Climate Crisis Strategy (2020-23) remains a publicly available document outlining the Council's initial steps for reducing emissions and targeting net zero. This Phase 1 Strategy provided a valuable springboard for the now updated Strategy and Action Plan (Phase 2) that outlines the Council's ambitions going forward to at least 2027 and the continued pursuit of net zero by 2030.

3. Policy and Context

3.1 National Policy and Strategy

SACDC's Sustainability and Climate Crisis Strategy and Action Plan updates have been developed in accordance with the following national legislation, policy, and drivers.

Climate Change Act 2008

- The UK Government is legally committed to a 100% reduction in greenhouse gas (GHG) emissions by the year 2050, compared with a 1990 baseline. In December 2020, the Government announced that they would increase their 2030 GHG emissions reduction target, from achieving a 57% reduction relative to the 1990 baseline, to a 68% reduction.
- Subsequently, the **Climate Change Committee (CCC)**, an independent statutory body responsible for providing climate adaptation planning advice to the UK Government published the third UK Climate Change Risk Assessment (CCRA) Technical Report in June 2021. The report identifies the priority climate change risks to the UK and some potential opportunity areas which could be unlocked through changing conditions.
- 25 Year Environment Plan (25YEP) 2018
- This plan sets out goals for improving the environment within a generation and leaving it in a better state than we found it. The Environmental Improvement Plan (EIP) 2023 is the first revision of the 25YEP and aims to restore nature, reduce environmental pollution, and increase the prosperity of our country.
- Net Zero Strategy 2021
- This strategy sets out the plan to achieve the net zero target. Specifically for new buildings, the strategy discusses the introduction of regulations from 2025 through the Future Homes Standard to ensure all new homes in England are ready for net zero by having a high standard of energy efficiency and low carbon heating installed as standard.
- UK Environment Act 2021
- The targets of the Act aim to improve the health of rivers, improve air quality, and halt the decline of UK wildlife populations through a legally binding target for species abundance by 2030. The Act also makes 10% biodiversity net gain (BNG) mandatory for most major developments from January 2024 (new applications only) and for small sites from April 2024.
- Heat and Buildings Strategy 2021
- One of the aims of this strategy is to phase out the installation of natural gas boilers beyond 2035. This means that any gas boilers installed in new buildings now would need to be replaced by low-carbon heating systems at the end of their life. The aim for new buildings is to ensure they are ready for net zero from 2025.

3.2 Local Policy and Strategy

3.2.1 New Local Plan – 2041 Regulation 18 Consultation

The Council is developing a new Local Plan that will provide a blueprint for future net zero carbon development and help tackle climate change and improve biodiversity. The Plan aims to address some of the objectives of the updated Sustainability and Climate Crisis Strategy (2024-27) and Action Plan by providing an effective delivery mechanism for the Council's pursuit of carbon neutrality by 2030.

The recent Regulation 18 Consultation¹ Draft of the emerging Local Plan sets out the following proposed policies linked to sustainability and climate change:

- Policy SP2 Responding to the Climate Emergency
- Policy CE1 Promoting Sustainable Design, Construction and Building Efficiency
- Policy CE2 Renewable and Low Carbon Energy

- Policy CE3 Carbon Offsetting
- Policy SP3 Land and the Green Belt
- Policy LG5 to LG9 Green Belt
- Policy SP8 Transport Strategy
- Policy TRA4 Parking
- Policy SP10 Natural Environment and Biodiversity
- Policy NEB1 Woodlands, Trees, and Landscape Features
- Policy NEB2/3/4/11 Green Spaces
- Policy NEB6 Biodiversity and Biodiversity Net Gain
- Policy NEB8 Managing Flood Risk
- Policy NEB10 Landscape and Design

It should also be noted that the impact and influence of the Local Plan will be limited to the powers associated with planning policy and therefore it cannot be relied on as the sole delivery driver for sustainability and climate mitigation. For example, the scale, type, location of development, and building standards of new projects can be enforced by the Local Plan and will ensure reduced additional emissions. However, interventions which would reduce energy use and deliver decarbonisation for existing inefficient assets and infrastructure fall outside the Local Plan's control.

3.2.2 Council Declarations

Climate Emergency – July 2019

SACDC formally declared a Climate Emergency in July 2019 and pledged to reduce corporate emissions to net zero by 2030. This was set out in the Sustainability and Climate Crisis Strategy (2020-23)². In conjunction, SACDC also committed to *'continue to support and encourage local residents, schools, businesses, and the non-profit sector'* to reduce District-wide emissions to net zero by 2030.

Sustainability and Biodiversity Emergency – October 2023

In October 2023, SACDC also declared a Sustainability and Biodiversity Emergency, strengthening its stance against climate change and the need for restoration efforts towards health and biodiversity moving forward.

3.2.3 Sustainability and Climate Crisis Strategy and Action Plan (2020-23)

The Sustainability and Climate Crisis Strategy presents the Council's phase 1 ambitions and commitments for tackling climate change, pursuing net zero by 2030 and promoting sustainability across all Council and District functions. Supported by the Action Plan and greenhouse gas emission data, the strategy sets out the Council's emission reduction goals and the actions that will be taken at the corporate (Council) and community (District) levels.

The Strategy and Action Plan structured the Council's approach to begin reducing greenhouse gas emissions throughout 2020-23 under the following six core themes:

- 1. Governance and Leadership
- 2. Energy Use
- 3. Transport and Air Quality
- 4. Waste
- 5. Nature and Food
- 6. Water and Climate Change Adaptation

² FINAL SADC Sustainability and Climate Crisis Strategy.pdf (stalbans.gov.uk)

Priority areas over phase 1 included:

- Ensure Council projects, purchases, contracts and policies are scrutinised for carbon impact before actions are taken.
- Reduce energy consumption from our buildings and generate clean energy.
- Reduce energy consumption from new and existing buildings and increase renewable energy generation.
- Raise community awareness and encourage action to emissions.
- Improve facilities and infrastructure for low carbon travel in order to initiate a step-change in travel behavior.
- Reduce the impacts of Council travel.

4. Baseline

4.1 Corporate Emissions

4.1.1 Greenhouse Gas Reporting and Coverage

SACDC publish an annual corporate Greenhouse Gas Emissions Report on the Council website with the latest Council-based emissions performance. Table 1 below sets out what has been included and excluded in the emissions calculations. This approach to monitoring and reporting allows for up-to-date baseline emissions to be calculated and progress towards climate mitigation goals to be tracked.

	Table 1: Included	and excluded	emissions in the	greenhouse	gas reporting
--	-------------------	--------------	------------------	------------	---------------

	Scope 1 (Direct)	Scope 2 (Indirect)	Scope 3 (Other indirect)
Included	 Gas used in Council-owned and operated buildings Fuel used in the Council owned fleet (vehicles) 	 Electricity used in Council- owned and operated buildings / equipment 	 Energy used by homeworking Council staff Business travel in private vehicles and on public transport Energy use of the Council's largest contractors Business travel of the largest contractors Transmission and distribution of electricity
Excluded	 Fugitive emissions from refrigerants in air conditioning Process emissions 	None	 Water use Waste production Staff commuting Purchased materials and supply chains Well-to-tank fuels

The emissions reporting is in line with Government guidance³ and addresses the six greenhouse gases covered by the Kyoto Protocol:

- 1. Carbon dioxide (CO₂)
- 2. Methane (CH₄)
- 3. Hydrofluorocarbons (HFCs)
- 4. Nitrous oxide (N₂O)
- 5. Perfluorocarbons (PFCs)
- 6. Sulphur hexafluoride (SF₆)

The calculations aggregate these greenhouse gas emissions in tonnes of carbon dioxide equivalent (tCO_2e), standardising all the gases against the equivalent warming potential of CO_2 . A single figure in tCO_2e can then be reported, by activity and by year.

It is highlighted in the updated Action Plan that there is a need to explore the ability to quantify the greenhouse gas emissions that are currently excluded from the baseline reporting, as indicated in Table 1 above. This is necessary to ascertain the Council's true emissions picture and the gap to net zero, particularly regarding Scope 3 emissions.

Despite the exclusions not being quantified and trackable at this juncture, the updated Strategy and Action Plan embeds solutions to begin minimising these emissions, particularly within the themes of Governance & Leadership (GL), Circular Economy, Waste & Food (CEWF) and Water Resources & Flooding (WF).

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/850130/Env-reporting-guidance_inc_SECR_31March.pdf

4.1.2 2022/23 Baseline

The St Albans District Council Corporate Emissions Summary has been used to inform priority areas and actions for the updated Sustainability and Climate Crisis Strategy (2024-27) and Action Plan.



Figure 1 below shows a breakdown of the greenhouse gas emissions by Council and Contractor since 2008/09 and highlights the improvement to date.

Figure 1: Corporate historic greenhouse gas emissions contributed by the Council and its contractors

The corporate GHG emissions figure in 2008/09 was over 7000 tCO2e and it is now just under $3500 \text{ tCO}_2\text{e}$ per annum. This is a significant improvement whilst also incorporating an increase in the scope of emissions being monitored and included. This reduction is driven by the ongoing decarbonisation of the national grid providing electricity, as well as by steps taken by the Council to improve the energy efficiency of buildings, switch to a renewable energy provider, directly generate renewable energy and improve the performance of the property portfolio. It should be noted however, that the Council is subsequently returning to a non-renewable energy provider due to cost. The emissions figures presented throughout this section are gross emissions and do not account for grid-supplied electricity from a renewable energy source.

It is notable that there is a significant reduction of emissions in 2020/21 followed by a bounce back in 2021/22; this reflects the widespread impacts of the Covid-19 pandemic, which reduced local and national activity levels and resulting emissions, particularly during lockdown periods in the year 2020. This has had some longer-term influences on changes in working practices, such as a move to more remote working and reduced business travel, which have also contributed to reductions in transport emissions.

Figure 2 and Figure 3 below provide more granularity of the 2022/23 baseline emissions results.



Figure 2: Breakdown of greenhouse gas emissions contributions (Council and contractors) in 2022/23,

Notes: Electricity T & D is electricity transmission and distribution (Scope 3 emissions)



Figure 3 Greenhouse gas contributions and percentages (Council and contractors) 2022/23, in tCO2e

A review of the breakdown of the sources of corporate carbon emissions has informed the activities which have been included in the updated Action Plan (2024-2027). This is a separate document which has been prepared for SACDC by AECOM.

The Council contracts out a number of key services, including the operation of the leisure centres, waste and recycling services and grounds maintenance. As such, despite contractor emissions reducing by 39% since 2008/09, their operations still represent 70% of gross annual corporate emissions; the contractor percentage contribution has become larger over time as the Council has acted faster to reduce emissions.

Contractor energy emissions predominantly originate from the running of the Council's leisure centres where engagement to decarbonise operations should continue to be pushed for. The Council can take greater responsibility for driving improved day-to-day operations and behaviours from their contractors. To facilitate this, AECOM has included actions GL-3.2 and GL-3.3 aimed at bringing Council officers and contractors together to support mutual delivery of the updated Sustainability and Climate Crisis Strategy (2024-27) and setting of feasible contractor emission reduction targets and actions.

The Council's transport emissions, make a small contribution to the total, accounting for just 1% of the 2022/23 emissions. The next steps to get closer to near zero emissions are outlined in the Transport and Air Quality (TAQ) theme of the updated Strategy and Action Plan. The theme includes actions such as decarbonising the Council's fleet (TAQ-1.1), providing the necessary infrastructure for this transition (TAQ-1.2) and facilitating behavioural change via a Workplace Travel Plan (TAQ-2.2).

The largest Council emissions are associated with its energy usage, amounting to 993 tCO₂e in 2022/23. The Council's Emissions Summary reports that two-thirds of the Council's gas use is for its housing stock. This emphasises the need to decarbonise heating and replace gas boilers. Activities to decarbonise Council-operated assets are captured within the overarching action 'EB-1: Decarbonise all Council-operated assets' of the updated Action Plan.

Furthermore, overarching actions EB-1 and EB-2 aim to increase the renewable energy mix of electricity and thus reduce the 449 tCO₂e emissions from electricity use (including T&D) across the Council's operations. This will benefit both new heating systems to be installed in new developments and the electric heating upgrades that are recommended for existing assets.

Significant and rapid reductions in greenhouse gas emissions are needed to reach net zero by 2030. Figure 4 shows the historical annual emissions in green and the projected required reductions in emissions to reach net zero by 2030. Annual emissions reductions of around 433 tCO₂e are now required, which is greater than the annual requirement for 348 tCO₂e reported in the 2020-23 Strategy. The challenge ahead involves making faster reductions whilst addressing the more complex issues that could not yet be addressed during the 2020-23 period; many 'quick-win' actions have already been progressed.





4.2 Community Emissions

SACDC do not report community (District) emissions themselves but use the data provided by the Department for Energy Security and Net Zero (DESNZ). This data originates from the Office for National Statistics (ONS) and provides estimated CO₂ emissions for Local Authority areas on a bi-yearly basis.



Figure 5: St Albans Community greenhouse gas emissions by sector – estimate using DESNZ figures⁴

Using the DESNZ emissions values, transport emissions account for over half of the District's CO₂e emissions (54%) and the domestic sector over a quarter at 27% of total CO₂e emissions. The remaining 5 sector classifications account for only 3%-6% of total CO₂e emissions each, however, this is a combined 19%. This highlights transport and the domestic sector as two key areas to focus District emission reduction efforts to pursue net zero by 2030 at a District level, as pledged by SACDC in its Climate Emergency declaration. District emissions total 903 ktCO_{2e}, excluding land use, land use change and forestry (LULUCF) contributions, which are -6 ktCO_{2e}. Annual emissions reductions of around 112 ktCO₂e are now required, which is greater than the annual

⁴ The sub-set of data used in Figure 5 is the 2021 'UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2021' available at https://www.gov.uk/government/statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics-2005-to-2021

requirement for 47 ktCO₂e reported in the 2020-23 Strategy; these figures reflect the challenge and opportunity of targeting and delivering district scale emissions reductions.

The updated Action Plan acknowledges the higher emissions contribution of the transport sector and prescribes actions targeting improved community transport infrastructure and behaviour change via TAQ-3 and TAQ-4, promoting sustainable and active travel schemes. Additionally, the Action Plan emphasizes the need to increase collaboration with businesses and Hertfordshire County Council (HCC), TAQ-4 and TAQ-5 aim to support transformative District-wide low-carbon transport initiatives.

To address the large greenhouse gas impact of the domestic sector key actions are recommended in the updated Action Plan. The installation of low-carbon heating and dissemination of information on how to use and optimise this technology (EB-4.1 and EB-4.3) is stated, as well as the development of large-scale renewable energy generation (EB-5).

4.3 Climate Risks

A Climate Risk Assessment has been completed for St Albans and is available in Appendix B. From this, the key climate risks expected for St Albans are as follows:

1. Flood Risk

• The UK will experience wetter winters and drier summers, with greater potential for extreme rainfall events and flooding. Flooding poses significant risks to infrastructure services, potentially causing damage, transportation disruption and power cuts. The risk of flooding from rivers in the St Albans District is limited to London Colney and Colney Heath, but the risk of flash surface flooding from heavier downpours is likely to grow and can affect properties all over the District.

2. Air Quality

• Changes in temperature and weather patterns can negatively impact air quality, which can be detrimental to our health. However, in the St Albans District, road transport is the main source of air pollution.

3. Winds and Storms

• Extreme weather and storms are expected as a result of higher temperatures, which can lead to property damage, and prevent people from leaving their homes.

4. Infrastructure

• High and low temperatures, high winds and lightning can damage infrastructure and transportation systems, which may consequently cause widespread disruption.

5. Drought

Longer and more intense heatwaves can worsen droughts by drying out soils. Also, hotter summers and less
predictable rainfall may lead to water shortages in the UK. This is a particular risk for the St Albans District as
the Southeast of England is classified as water-stressed, due to a high population density using higher-thanaverage amounts of water. Periods of drought may cause river levels to drop dangerously low, which may
restrict households' water use. Droughts not only affect humans but also have severe impacts on nature,
both in terrestrial and freshwater environments; increased droughts can exacerbate pressures on
populations of local species, dramatically change riverine environments and hasten species declines or
contribute to extinctions.

6. High Temperatures

• The frequency and severity of heatwaves will increase which poses a high risk of overheating, both for internal and external environments. Overheating will increase the UKs mortality rate, as well as having detrimental impacts on mental and physical health. Similar to droughts, overheating can also severely affect nature, and the frequency and severity of events will ultimately determine the species that that can survive in the local area, which may in future no longer include some current local species.

A more detailed Climate Change Risk Register should be carried out to fully assess the impact of climate change on the City and District, and SACDC services, as captured by Action Plan action GL-1.3. This can be used to produce a Climate Resilience Strategy both for the Council and the wider District. The results of the assessment and strategy can be used to help develop Council policy, support future funding applications, as well as guide the Council's Emergency Planning function. This will help to ensure that the Council and District are prepared for future climate change and risks.

5. Stakeholder Engagement

As outlined in the methodology, stakeholder engagement has formed a key part of the data gathering exercise and update process. Engagement was conducted directly, in workshops and CAG committee meetings. Opportunities were also available to provide written feedback on the draft versions of the Strategy and Action Plan update by Council officers and members, Sustainable St Albans, and the community. A summary of engaged parties is listed in Table 2 below.

Table 2: Stakeholder Engagement Summary

Internal stakeholders		External stakeholders		
•	Council Officers	Hertfordshire County Council		
•	Council Members	Climate Advisory Group external members including Sustainable St Albans		
		The St Albans public		

5.1 Council Engagement

5.1.1 Officer Engagement

Over the course of the Strategy and Action Plan update three officer workshops were organised. Two workshops were held at the beginning of the research and development process to accommodate all the interest and participation from a range of teams and directorates. The workshops were designed to be interactive and encourage idea and experience sharing. Three poll questions were completed at the start of these sessions by officers who attended, and the results are summarised below in Table 3. A third workshop was run after the completion of the initial drafts to discuss key changes and gather feedback on the developing approach.

Table 3: Officer Strategy and Action Plan (2020-23) Feedback Poll Results



Sustainability and Climate Crisis Strategy and Action Plan Technical Report



To enhance the cohesion of the updated Strategy and Action Plan within the Council and officers' day-to-day activities, the Governance and Leadership (GL) theme has been bolstered with several actions that integrate consideration of the sustainability and climate crisis agenda within already existing processes. Examples include:

- GL-1.1 looks to draw on the Strategy and Action Plan when developing all other emerging and refreshed Council strategies.
- GL-2.3 empowers individuals to champion the Strategy and Action Plan via performance and objective goal setting.
- GL-2.5 embeds the review and identification of opportunities by all Council areas to improve efficiency and reduce emissions.
- GL-2.6 suggests allocating time within staff briefings to discuss the Strategy and Action Plan and ensure it is recognised as a corporate objective.

To improve the clarity and direction of actions going forward, within the Action Plan, action involvement has been further defined and a new implementation advice section has been added with optional suggestions for officers on some of the actions.

A collaborative Microsoft Teams SWOT sticky note whiteboard was also used during the workshop allowing attendees to write in their own ideas during the live discussion. The main officer responses are captured below in Table 4.

Table 4: Officer Feedback Summary

Subject	Comments	Responsive actions
	 Sustainability training is not compulsory for teams. In the instances where team leaders encouraged the training to be completed, there was positive reception - effective top-down influence. The existing strategy has identified areas that need more focus and/or resources 	 GL-2.1 GL-2.2 TAQ-1.2
	 e.g., EV charging/transport. 	• TAQ-3
What has gone	 Environmental initiatives are often open to the public and have been well engaged with - e.g. Wilder St Albans 	 TAQ-4 NEB-3.1
well?	 Energy audits are being undertaken and actions resulting from this review are being implemented 	• GL-4.5
	St Albans Greener Together.	• EB-1.2 • EB-1.3
	 'Horizon scanning' for funding opportunities allowing business cases to be prepared and a better success rate. 	
	The Social Housing Decarbonisation Programme.	
	• The 1hr e-learning module is difficult to engage with.	• GL-2.3
	There aren't many external channels for the Council to engage with.	• GL-2.4
What hasn't gone	Resources are strained and there is a lack of personnel involved.	• GL-6
so well?	Understanding of how to use new low-carbon equipment. The appeification of approximation bility targets use the brief and potentially approximately	• GL-4.3
	 The specification of energy/sustainability targets was too brief and potentially no challenging enough for new developments. 	t ● EB-4.3
	• The as-built performance is often below the expectations of the design stage.	• EB-3.1 • EB-3.2
	Local supply chains and labour.	• GL-6.6
	• Use of industry frameworks and guidance to reduce carbon, e.g., RIBA 2030.	• CEWF-2.1
	 Appoint a sustainability consultant at the outset of projects to support the delivery of groop design and operaty reduction 	• CEWF-3.1
	Education on how to use new beating or cooling equipment	• EB-1.5
Opportunities	 Fabric first approach for the meantime. Decarbonisation systems to become 	• EB-1
opportunited	more of a focus in 2025/2026 when prices are lower.	 CEWE-2 1
	 Development of a strategic partnership – BRE (BREEAM Communities). 	 CEWF-5
	The carbon impact of rebuild v. refurbishment. Whole Life-cycle Carbon assessments can offer clarity and optioneering.	020
	• Track and compare in-use energy to design stage energy predictions. Review what is causing the difference.	
	 Engagement with the wider community, particularly residents from minority backgrounds. 	EB-6GL-2.6
	 Highlighting to others the scale and pace of change required. 	• GL-2.7
	The Council isn't reaping much of the cost benefits from sustainable intervention	• GL-4.5
Challenana	 External funding opportunities are required to develop the case and further funding is then required to implement the work 	 CEWF-2
Challenges	 Electricity costs are significantly higher than gas costs. 	• CEWF-5
	 Quantifying the carbon impact of redevelopment v. revitalisation. The Alban Arena in particular, is a scheme with strong public opinions. 	EB-1.2EB-1.3
	 There is not a clear redevelopment plan on what to invest in and what to designate for redevelopment. There is therefore uncertainty over Council-owned assets and their future/uses. 	I
	 A cultural change is required. Sustainability remains a nice thing to do, rather than a must. 	• GL-2
	 Sustainability targets - what do staff do with them? It needs to be more than just written down. The Council need to be encouraging people to think about 	• GL-4 • GL-1
	sustainability with every decision.	• EB-4.1
	Health and safety moments could offer a precedent for discussing sustainability and the environment.	TAQ-3.1TAQ-3.2
General	• The Sustainability Impact Assessment (SIA) provides Candice with an effective	• TAQ-3.4
discussion	route into discussions with teams and colleagues on the possibilities to improve	• EB-1
	 a project s sustainable credenilars. The Council are not installing gas into any new builds 	• GL-3
	 There are not many tools available to assist private householders with upgrading 	• NEB-2.3
	 their homes currently. HCC adopted LTP4, a pedestrians-first approach. St Albans need to do more 	 NED-3.2 NEB-1
	 with cycle infrastructure and cycle hubs. There is no cohesive cycle parking strategy nor a community hike scheme 	 NEB-4.10

Subject	Comments		
	 The decarbonisation of operational assets is a key focus for driving progress towards net zero carbon. A funding bid has recently been submitted and the Capital Projects Team are analysing the Council's building stock to ascertain what needs to be done and when. Funding for this work then needs to be acquired. There is no programme of work on existing buildings. 		
	 A key contributor to Council emissions is the leisure centres, however, the Council is limited in their capacity to effect change here. They are the freeholder but not the operator. The Alban Arena is under a new 10-year contract with operators SLM. Responsibilities are still being agreed upon, with plant work sometimes the responsibility of the Council. The LA does not benefit directly from any improvements, however. 		
	• The Council do not have the expertise to calculate embodied carbon emissions. The University of Hertfordshire offered to support with retrofit vs. redevelopment comparisons, however, the level of detail required cannot be provided.		
	There is a lack of specificity within the biodiversity and tree planting strategy.		
	 Biodiversity net gain is becoming statutory. There is an opportunity for landowners to offset their own development emissions or offer credits to others falling short. There is a massive skills gap on this topic. 		

5.1.2 Climate Advisory Group (CAG) Member Engagement

Members of AECOM attended three Climate Advisory Group (CAG) sessions, on 11 June, 2 September and 7 November 2023, to provide updates and discuss the emerging Strategy and Action Plan.

Feedback from the CAG meetings is summarised below:

- Funding and resource challenges, which will impact what the Council are able to achieve.
- Importance of the Public Sector Decarbonisation Scheme to help provide funding to reduce emissions.
- Important to ensure subcontractors are also fully signed up to the Strategy, reducing emissions from
 operations and supply chains.
- The Strategy and Action Plan need to provide clarity for officers and be embedded into the Council's wider work.
- Better measurement of progress towards the Strategy's aims is needed.

5.2 External Engagement

5.2.1 Hertfordshire County Council (HCC)

The Strategy and Action Plan update was discussed with the Head of Sustainability at Hertfordshire County Council. A summary of the main points pertinent to SACDC's Strategy is presented below:

- HCC is considering climate change mitigation and adaptation across the County but need to recognise the public sector level of influence on the County emissions.
- The Hertfordshire Climate Change and Sustainability Partnership (HCCSP) consists of all 10 District and Borough Councils, the County Council and the Local Enterprise Partnership in Hertfordshire. HCCSP is a strategic group which acts as the lead partnership organisation for partners to collaborate and identify joint work programmes on environmental, climate change and wider sustainability issues. St Albans officers participate in this partnership.
- The County Council work in partnership with the University of Hertfordshire to promote climate change mitigation and adaptation across the County.
- Constrained budgets within all Local Authorities could lead to more joint working and more partnership opportunities.
- There are opportunities to jointly promote initiatives and projects across the County with closer engagement between communications teams and to ensure a consistent message to residents.

- Each Local Authority in Hertfordshire has their own commitment and they are at different stages of strategy preparation and delivery, which can make joint working challenging.
- When revising the Action Plan there were a number of potential actions that St Albans Council officers consider the County Council to be best placed to lead on, including producing a climate resilience strategy for St Albans and the rest of the County.

5.2.2 Sustainable St Albans (SSA)

Sustainable St Albans is a *"group of local people making St Albans District a more environmentally sustainable place to live"*⁵. They are an important partner for the Council and contributed to the stakeholder engagement process. Below is a brief summary of their input and influence on the update:

- Pleased to see broad ambitions increasing.
- Reiterated the need to focus on resourcing, fundraising, accurate carbon accounting and meaningful behaviour change.
- Made suggestions to strengthen the detail, accuracy and action of some statements.
- Emphasised the need for SACDC to commit to start measuring and reporting scope 3 emissions.
- Highlighted the need for embodied or whole-life carbon consideration to ensure decisions are not misinformed by operational savings only.
- Pushed for stronger language and greater use of the Council's stance as a community leader to make positive change at a District-scale.
- Requested more consistent use of the Local Plan throughout themes.
- Adding lots of useful new action recommendations, wording adjustments and advice for implementation.

5.2.3 Community Consultation

Table 5 summarises the community responses from the online Sustainability Strategy Feedback Form, organised into the Council's key updated focuses. This feedback was extremely valuable and implemented where practical and appropriate.

Table 5: Summary of feedback on the draft Sustainability and Climate Crisis Strategy and Action Plan update

Theme	Feedback	Repeated comment
	Ensure all departments are aligned in response to the climate emergency.	
	Put the Greenhouse in the town centre to promote sustainability to a wider outreach.	\checkmark
Governance & Leadership	SACDC should lead by example by stating the steps they are taking and encouraging people to follow, through consistent communication with the public.	\checkmark
	More effort needed with regards to public engagement.	√

⁵ https://sustainablestalbans.org/

Theme	Feedback	Repeated comment
	Set standards for all new/existing builds that exceed statutory minimum – such as targeting Passivhaus standards.	
	Implement Solar PV technology (particularly on Council property).	\checkmark
	Public buildings should be required to display energy usage.	\checkmark
Energy & Buildings	Harness geothermal heat for residents – via crowdfunding or Government grants.	
	Consider a space heating target, as EPCs are not the best indicators of a building's performance.	
	Use the London Plan Energy hierarchy and mandate that all major development achieves a minimum on-site regulated CO ₂ reduction of 35%+ and offsets the remainder over 30 years.	
	Planning requirements should aim to achieve maximum on-site renewable generation, solar water heating and rainwater harvesting.	
	Implement a Bike Hire Scheme/Electric Scooter Scheme.	\checkmark
	Locate new builds near services to promote walking (15-minute city scheme).	\checkmark
	Enforce a blanket 20mph zone across city.	\checkmark
	Implement kerbside shading (tree canopy cover) & benches to promote walking/cycling.	
	Provide additional sheltered cycle storage.	\checkmark
Transport & Air Quality	Implement a School Streets Scheme: closing streets to all traffic at certain times, to prevent idling and improve air quality.	
	Pedestrianise the town centre.	
	Make public transport more efficient (more regular shuttle bus between stations and town centre) to reduce the reliance on the private car.	
	Provide more Electric Vehicle (EV) friendly infrastructure – there is a current lack of support/charging infrastructure, such as refusing kerbside charging.	\checkmark
	Reduce plastic consumption – mandate that market stalls put up signs saying 'BYO container'/introduce the idea of mug libraries to local cafes to reduce waste.	\checkmark
Circular Economy, Waste & Food	Prohibit businesses from using polystyrene food containers.	
	Make cultivation licenses more attainable.	
	Promote local food production.	

Theme	Feedback	Repeated comment
	Ensure to retain trees in development proposals.	
	Ban on-street/parks/allotments/Council use of pesticides and herbicides.	\checkmark
Biodiversity	Integrate more nature/biodiversity/sustainability into the current climate goals.	
	Increase wildlife on allotment plots – discussions occurring at the Joint Allotments Meeting (JAM).	
Water Resources & Flooding	Install more water fountains for public use.	

6. Outputs

6.1 Updated Sustainability and Climate Crisis Strategy (2024-27)

The AECOM team has produced a Sustainability and Climate Crisis Strategy Update for 2024-27. This is a succinct public facing document limited to the key elements of information and referencing the existing strategy as a background document. The existing strategy will remain as a background document that is accessible to the public, to show the progress that SACDC have made towards their ambitions and commitments.

A high-level summary of the actions is included in the Strategy update along with ways in which the community can get involved.



The strategy uses wording and terminology from the existing strategy to ensure consistency and provide continuity. It also provides as update to the Council and Community emissions as set out in this report in section 4.

6.2 Updated Sustainability and Climate Crisis Action Plan (2024-27)

The updated Sustainability and Climate Crisis Action Plan (2024-27) provides the Council and its officers with a clear roadmap of next steps to continue delivering the necessary emission reductions to reach operational net zero by 2030. The update has considered the progress delivered over phase 1 and outstanding actions. The latest 2022/23 baseline greenhouse gas emission results, thorough stakeholder engagement and completion of a Climate Change Risk Assessment for the St Albans area have also each informed the updated Action Plan.

In addition to refocusing and strengthening the Council's net zero efforts for the next three years, several structural changes and new characteristics have been made to improve the Action Plan's organisation, usability, provision of key information and implementation. Key updates include:

- Separating themes into different tabs to improve searchability and view.
- Updating action theme headings to better capture opportunities and priorities (this is covered below).
- Inclusion of overarching actions to contextualise 2027 objectives and small wins within the larger net zero by 2030 goal.

- Categorisation of actions and the emissions they will predominantly impact (corporate or community).
- Provision of a SMART targets section.
- Addition of a funding status tracker.
- Increased granularity of involved officers and their responsibilities.
- High-level action CO₂e saving potential rating. The CO₂e grading is proportionate to the scope band the action sits under, Council or District, to support officers when evaluating their corporate emission priorities. It should however be clarified that the District scope actions will deliver more positive widespread change and greenhouse gas reductions.
- High-level action TOTEX cost rating. TOTEX is defined as the total cost of expenditure, combining capital expenditure and operation expenditure i.e. Totex = Capex + Opex. Operational expenditure has been assumed and limited to one year.
- Inclusion of a partnership opportunity section to help record where engagement and collaboration could be sought.
- Inclusion of an implementation advice section to provide suggestions and/or direction on the action.
- Increased space to track progress and refer to previous notes.

The action theme headings and content updates are summarised below.

Governance & Leadership (GL)

Whilst the heading has remained the same, the scope and influence of the theme has been significantly increased.

This theme has been bolstered to champion sustainability and embed it into all decision making, implement the Action Plan more effectively, better communicate and educate on the Sustainability and Climate Crisis Strategy, promote behaviour change and strengthen contractor emissions expectations.

Overarching aspects of the Strategy such as utilisation of the Local Plan and climate resiliency are now covered within this category.

Energy & Buildings (EB) - changed from Energy Use

This theme aims for better coverage of the interrelationship between energy and infrastructure.

The need to decarbonise operational energy as well as consider embodied carbon and sustainable development has been highlighted.

Specific focus has been given towards long-term planning, wider community and private sector support, and large-scale projects.

Transport & Air Quality (TAQ)

Further emphasis has been placed on reducing travel and using active or sustainable travel options more when necessary.

Engagement with HCC and other partners has been targeted to deliver large-scale infrastructure and behavioural change.

Circular Economy, Waste & Food (CEWF) - changed from Waste / Nature & Food

Other integral waste streams have been identified and the scope and impact of this theme has been broadened.

Sustainable food has been considered and local supply prioritised.

This theme encourages consideration and implementation of circular economy and whole life-cycle principles. This seeks to identify and mitigate embodied emission sources that can be significant and weren't previously targeted.

Natural Environment and Biodiversity (NEB) - changed from Nature & Food

The renaming of this theme better reflects the focus of the actions and emphasises the scale of opportunities available.

The majority of this theme is a continuation of the successful actions conducted over 2020/23 in phase 1.

New actions include developing guidance to ensure the Council is increasing biodiversity and ensuring climate resiliency.

There will be a particular focus on ensuring 10% biodiversity net-gain (BNG) is achieved by new developments.

Water Resources & Flooding (WF) - changed from Water & Adaptation

The previous adaptation element of this theme was separated as it may be perceived to be misleading and suggest that climate adaptation only relates to water or flooding.

Climate adaptation and resiliency is now covered within Governance & Leadership (GL) and across all themes where relevant, empowering specific departments to reduce their own risk.

Actions in this theme target water efficiency, consumption reduction and flood/high rainfall resiliency.

A key update includes utilisation of the Local Plan to encourage SuDS in new developments.

6.3 Action recommendations that require HCC's lead

In conjunction with setting out an ambitious phase 2 plan for SACDC officers to deliver until 2027, the objectives of the Strategy need to be achievable, and balanced with the Council's resources and funding. Over the course of updating the Action Plan several key community emission areas have been identified and actions targeting the origin of these emissions are recommended. In several instances these opportunities have not remained in the final version due to the scope and responsibility falling predominantly within HCC's jurisdiction.

These action recommendations, which we believe are pivotal to corporate and community net zero pathways and adaption needs, are therefore recaptured here for further consideration and to highlight opportunities where the Council and District can work together to decrease greenhouse gas emissions.

- 1. Undertake a full Climate Risk and Vulnerability Assessment (CRVA) for the District to identify the key climate change risks and identify potential opportunities for resilience measures.
- 2. Develop a Local Area Energy Plan (LAEP) for St Albans or partner with Hertfordshire County Council to develop a Hertfordshire County Plan.
- 3. Consider developing a Circular Economy Action Plan including targets for landfill, reuse and recycling.
- 4. Work with the Local Nature Partnership, local farm landowners, farmers or farming groups to encourage nature-friendly farming practices and improve biodiversity in and around farmland.
- 5. Proactively engage with water infrastructure providers to ensure water security and improve water efficiency for the District.

7. Next steps

The outputs outlined in Section 6 have been written to meet the brief, context and Council needs at the time of writing in 2023, following the engagement with SACDC and other stakeholders. The Strategy has been written as a public facing reference point, which will remain applicable for 2024-2027 and will not require further update during this period. However, the Action Plan is intended to become a live document that will be updated by Council Officers throughout the course of this period, as actions are progressed. Suggested next steps include:

- Lead Delivery Officers to review actions assigned to them in the Action Plan, discuss these with the assigned Senior Manager, particularly with respect to budget and feasible delivery timescales, and to identify next steps and key deadlines.
- Inclusion of relevant actions within policy reviews or policy documents should be prioritised, such that these can be naturally cascaded through the Council via the policy process.
- Key partnerships should be established or reinforced as a priority, to enable the benefits of collaborative approaches, which may improve outcomes and reduce the burden of delivering actions on SACDC's internal resources.

AECOM are able to provide ongoing support to the Council as part of a new commission.

Appendix A Glossary of Terms

Active travel – modes of transport that involve a level of activity, usually walking and cycling, but also include the use of e-scooters, wheelchairs, mobility scooters and adapted cycles.

Adaptation – the process of adjusting to current or predicted effects of climate change.

Biodiversity - the biological diversity of life on Earth.

Biodiversity Net Gain - Biodiversity net gain (BNG) is an approach to development and/or land management which aims to leave the natural environment in a measurably better state than it was previously.

Carbon Dioxide (CO_2) – carbon dioxide is a compound gas that absorbs and radiates heat when present in the atmosphere. It is one of the Earth's most important greenhouse gases because without it, Earth's natural greenhouse effect would be too weak to keep the average global temperature above freezing.

Carbon sequestration – the process of removing carbon dioxide from the atmosphere and holding in solid or liquid form so that it does not contribute to climate change.

Climate Change – a shift in the average weather conditions or temperature. Commonly, this refers to global warming, which is caused by adding large quantities of CO_2 into the atmosphere, which supercharges the Earth's natural greenhouse effect, causing global temperatures to rise.

Decarbonisation – typically this relates to heat decarbonisation. It involves reducing or eliminating the amount of CO_2 released into the atmosphere as the result of a process, such as burning fossil fuels, by moving to an alternative form of heating that does not rely on fossil fuels.

Governance - the manner of authority and accountability that controls the outcomes and potential benefits from projects.

Greenhouse gas emissions – gases that get trapped in the atmosphere, resulting in increasing average global temperatures. The primary greenhouse gases include carbon dioxide (CO₂), nitrous oxide (NO₂) and methane (CH₄), and they are predominantly emitted via the burning of fossil fuels and from agriculture.

Local Plan – a document that is prepared by a Local Planning Authority (LPA) in consultation with its community, that sets out planning policies and proposals for new development.

Mitigation – the action to limit climate change by preventing or reducing the presence of greenhouse gases in the atmosphere.

Natural capital - elements of the natural environment that provide valuable goods and services to society.

Net zero emissions – achieving a balance between the amount of greenhouse gas emissions produced, and those removed from the atmosphere.

Procurement - the process of obtaining or purchasing goods or services.

Retrofitting - adding or upgrading components of a building to improve its performance.

Water stressed – an area can be considered water stressed when the demand for water is greater than the amount of water available at a certain period of time, and also when use of water is restricted due to poor quality.

Appendix B Climate Change Risk Assessment

This Climate Change Risk Assessment is the basis of the Climate Change Adaptation Study. The risks were selected from the UK Climate Change Risk Assessment, considering the character of St Albans City and District. The relevance of the risk has been evaluated in relation to St Albans and therefore it does not assess risks less relevant to the Climate Strategy, such as the international dimensions.

The economic magnitude of each risk has been assessed for both a 2°C and 4°C warming scenario.

The following are the UK-wide magnitude categories where the cost of damage (economic) or forgone opportunities are represented in ranges to reflect the uncertainty in the evidence base:

- Very High (VH) is over £1 billion per annum.
- High (H) is over £ hundreds of millions per annum.
- Medium (M) is over £ tens of millions per annum.
- Low (L) is less than £ ten million per annum.

Potential costs and damages are denoted with a negative sign e.g. - VH while possible opportunities are denoted with a positive sign e.g., +VH. Where uncertainty exists over the category, the range has been indicated e.g. – L to – VH. For some of the risks and opportunities, there are both potential costs and benefits.

ID	Risk or Opportunity	2050s, 2/4°C	2080s, 2°C	2080s, 4°C	Relevance to St. Albans Climate Strategy
N1	Risks to terrestrial species and habitats from changing climatic conditions and extreme events, including temperature change, water scarcity, wildfire, flooding, wind, and altered hydrology (including water scarcity, flooding and saline intrusion)	Not known	Not known	Not known	High
N2	Risks to terrestrial species and habitats from pests, pathogens and invasive species	Not known	Not known	Not known	High
N4	Risks to soils from changing climatic conditions, including seasonal aridity and wetness.	- H	- H	- H	Moderate

ID	Risk or Opportunity	2050s, 2/4°C		2080s, 2°C	2080s, 4°C	Relevance to St. Albans Climate Strategy
N5	Risks and opportunities for natural carbon stores, carbon sequestration and GHG emissions from changing climatic conditions, including temperature change and water scarcity	- VH		- VH	- VH	Moderate
N6a	Risks and opportunities for forestry productivity from extreme events and changing climatic conditions (including temperature change, water scarcity, wildfire, flooding, coastal erosion, wind and saline intrusion)	- L to - H		- L to - H	- L to - H	Low
N6b	Risks to and opportunities for agricultural productivity from extreme events and changing climatic conditions (including temperature change, water scarcity, wildfire, flooding, coastal erosion, wind and saline intrusion).	- H	+ H	- VH + VH	- VH + VH	Low
N7	Risks to agriculture from pests, pathogens and invasive species	- M		- H	- H	Low
N8	Risks to forestry from pests, pathogens and invasive species	- M		- M	- H	High
N11	Risks to freshwater species and habitats from changing climatic conditions and extreme events, including higher water temperatures, flooding, water scarcity and phenological shifts	- H		- H	- H to - VH	High
N12	Risks to freshwater species and habitats from pests, pathogens and invasive species	- L		- L	- M	High
N14	Risks to marine species, habitats and fisheries from changing climatic conditions, including ocean acidification and higher water temperatures.	- M		- M	- H	Low
N16	Risks to marine species and habitats from pests, pathogens and invasive species.	- M		- M	- M	Low
N17	Risks and opportunities for coastal species and habitats from coastal flooding, erosion and climate factors	-	M	- M	- M	Low
11	Risks to infrastructure networks (water, energy, transport, ICT) from cascading failures	- \	/H	- VH	- VH	High

ID	Risk or Opportunity	2050s, 2/4°C	2080s, 2°C	2080s, 4°C	Relevance to St. Albans Climate Strategy
12	Risks to infrastructure services from river, surface water and groundwater flooding	- H to - VH	- H to - VH	- H to - VH	High
15	Risks to transport networks from slope and embankment failure	- M to - H	- M to - H	- H	Low
18	Risks to public water supplies from reduced water availability	- H	- H	- H	High
112	Risks to transport from high and low temperatures, high winds, lightning	- M to - H	- M to - H	- M to - H	High
H1	Risks to health and wellbeing from high temperatures	- VH	- VH	- VH	High
H3a	Risks to people, communities and buildings from river and surface flooding	- VH	- VH	- VH	High
H3b	Risks to people, communities and buildings from coastal flooding	- H	- H	- H	Low
H4	Risks to people, communities and buildings from sea level rise	- L	- L	- M	Low
H6a	Risks and opportunities from winter household energy demand	+ VH	+ VH	+ VH	High
H6b	Risks and opportunities from summer household energy demand	- H	- VH	- VH	High
H8	Risks to health from vector-borne diseases	- L to – M	- M	- M	Moderate
H11	Risks to cultural heritage	Not known	Not known	Not known	Low
H12	Risks to health and social care delivery	Not known	Not known	Not known	Low
H13	Risks to education and prison services	Not known	Not known	Not known	Low
B1	Risks to business sites from flooding	- VH	- VH	- VH	Moderate
B2	Risks to business locations and infrastructure from coastal change from erosion, flooding, and extreme weather events	- M	- M	- M	Moderate
B6	Risks to business from disruption to supply chains and distribution networks	Not known	Not known	Not known	Low

Source: AECOM. 2023. (Based on the United Kingdom Climate Change Risk Assessment)

ecom.com