



DRAFT

Climate Change Adaptation and Mitigation

Supplementary Planning Document (SPD)

Consultation Draft

February 2024

Supporting Documents

- Sustainability Appraisal (SA)
- This SPD forms part of the Halton Local Development Framework. It has not been necessary to prepare a SA as there is no requirement to do so under current Regulations the SPD does not introduce any additional requirements beyond those set out in the LDF and therefore will not cause any significant environmental effects arising from its implementation.
- Strategic Environmental Assessment (SEA) Screening Report
- A SEA and HRA Screening has been undertaken in accordance with the regulations, the SEA Screening Report will be consulted upon alongside this Draft SPD.

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1. Background and Context

On 16th October 2019 Halton Borough Council declared a climate emergency. We believe that climate change poses a severe risk to the future of our planet and global warming has serious consequences, affecting our economic, social, and environmental well-being, both here in Halton and across the world. Halton Borough Council is committed to tackling climate change. and take local action to contribute to national carbon neutral targets.

The Council’s Climate Change Action Plan¹ sets out its intention to reduce its own emissions to net zero by 2040, and to use its influence and community leadership to reduce emissions in the wider borough.

The Climate Change Committee’s Sixth Carbon Budget² was introduced into law in 2021 and this sets a target to reduce UK greenhouse gas emissions by 78% by 2035 (compared with 1990 levels). Alongside the Sixth Carbon Budget, the Climate Change Committee has published a report for local authorities detailing their commitments to net zero and how to achieve them.

The State of Nature 2019³ reported that climate change is one of the most significant threats to global biodiversity. Conserving and restoring nature-rich areas of the UK will contribute to mitigating climate change and benefit species, while strategies to counter the negative effects of climate change will help species to adapt to its increasing influence in future. In 2023 The State of Nature⁴ report included the following headline data:

19%	16%	151
Across the UK species studied have declined on average by 19% since 1970	Nearly one in six species are threatened with extinction from Great Britain	of 10,008 species assessed have already become extinct since 1500

‘The UK, like most other countries worldwide, has seen significant loss of its plants, animals and fungi. The data from State of Nature cover, at most, 50 years but this follows on from centuries of habitat loss, development, and persecution. As a result, the UK is now one of the most nature-depleted countries on Earth. But the reasons for the decline are clear and we know conservation actions deliver results for nature.’

¹ [strategy.pdf \(halton.gov.uk\)](https://www.halton.gov.uk/strategy.pdf)

² [Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://www.theccc.org.uk/sixth-carbon-budget/)

³ [State of Nature 2019 Reports - National Biodiversity Network \(nbn.org.uk\)](https://www.nbn.org.uk/state-of-nature-2019-reports/)

⁴ [State of Nature 2023 - report on the UK’s current biodiversity](https://www.nbn.org.uk/state-of-nature-2023-report-on-the-uk-current-biodiversity/)

2. Purpose and Scope of this Document.

The built environment is responsible for a considerable proportion of emissions for example, around one third relates to domestic electricity, gas, and other fuels, most of which are used for heating, lighting, and other regulated uses. A further third of emissions relate to transport, which is heavily influenced by the design of the built environment. The final third relates to industrial and commercial uses, a significant amount of which will also be associated with the heating, lighting, and cooling of buildings.

The Council's most direct sphere of influence over wider borough emissions relates, through planning policy, to those associated with new residential and commercial development. It therefore seeks to use the planning system to support the delivery of zero carbon new development as quickly as practicable.

Other areas of influence relate to the promotion of sustainable transport – active travel, public transport, and the transition of vehicular trips to electric mobility; and to delivering a greener borough which is more resilient to climate change.

(2.1) Purpose

This document sets out guidance on how existing policies in the development plan should be implemented to deliver on the climate emergency and support the journey to net zero; it does not contain any new policies, or original research or recommendations. Its intention is to support building owners and developers as they seek to address matters of climate change, be that through the design of new building schemes or through improvements to existing properties. It seeks to achieve this by:

1. Setting out practical guidance for a clear design and construction process for any new development, with the aim that, by 2040, all new buildings can operate at net zero carbon; and placing this guidance within the context of the wider sustainable design journey which developers need to follow if they are to deliver sustainable buildings and places.
2. Clarifying existing local and regional policy requirements relating to both large and small development projects.
3. Providing a basis for clear and dependable decision-making for planning applications.

(2.2) Scope & Content.

This document provides guidance for developers and designers proposing new housing or commercial schemes, or significant redevelopments/ refurbishments. It addresses both how developments should reduce emissions to combat climate change (mitigation), and how they should adapt to the impacts of climate change, such as overheating. While it focuses specifically on building fabric and services, it also sets out how these fit into the wider sustainable design process which also includes site layout and form, green and blue infrastructure, and public realm.

The guidance brings together and expands on relevant policies set out in the Halton Delivery and Allocations Plan (DALP)⁵ Adopted 02/03/2022. Where relevant, it also references other sources of information from studies and professional publications. Wherever possible, this SPD refers to existing documents where they adequately cover relevant issues and will only include new guidance where this is needed.

When defining the scope and content of this SPD it is important to note that the Development Management system is plan-led. There is a wide spectrum of views on how the challenge of climate change should be approached, but decisions on planning applications must be determined in accordance with the Development Plan unless material considerations indicate otherwise.

When considering the planning balance, the Council will give significant positive weight to proposals that exceed existing policy requirements and targets. The Halton Climate Change Action Plan (2022 -2027)⁶ commits the Council to ensure carbon reduction and alignment with the Council's climate change declaration as existing policies are reviewed or new ones developed.

While certain types of application, such as Prior Approvals or variations to extant permissions cannot be required to meet these current targets, officers will use pre-application and application discussions with developers as part of the planning process to encourage compliance. For example, by pointing out the benefits that it could be cheaper, and less disruptive to comply now with expected future requirements (such as tighter minimum energy efficiency standards for rental properties which may be introduced in the future).

It should be noted that this document is based on information, policies, and regulations at the time of preparation (2023-24). The Council has not been responsible for the publication of this material, aside from its own policy documents. The weight afforded to the content of each source will vary. While the Council will endeavour to update this document over time, it is acknowledged that the source material may be superseded as and when new research is undertaken. You are advised to contact the Local Planning Authority for further information.

3 Halton Borough Context

Halton is in the Northwest of England, with green belt covering approximately one third of the land area. The following characteristics and designations highlight some of the opportunities and challenges that the Borough faces in its challenge of tackling the impacts of climate change.

FIGURE 1: CHALLENGES

One of the defining characteristics of the Borough of Halton is the Mersey Estuary. Designated as a Special Protection Area (SPA), an internationally important	Potential -Flood Risk
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⁵ [DALP Adopted.pdf \(halton.gov.uk\)](#)

⁶ [Climate Change Action Plan Strategy Template - Layout JT 28.2.22.pdf \(halton.gov.uk\)](#)

wetland (Ramsar) site and a Site of Special Scientific Interest (SSSI),	
Excellent transport links	Potential -increased car journeys
Legacy of obsolete and poor-quality land, housing, commercial buildings, physical infrastructure and contaminated land	The impact of Halton's legacy on climate change

FIGURE 2: OPPORTUNITIES

One of the defining characteristics of the Borough of Halton is the Mersey Estuary. Designated as a Special Protection Area (SPA), an internationally important wetland (Ramsar) site and a Site of Special Scientific Interest (SSSI),	The areas provide opportunities for species and nature enhancement which is beneficial in combatting the negative impacts of climate change
The Borough has a variety of green infrastructure that includes: One Ramsar Site, one Special Protection Area (SPA), three Sites of Special Scientific Interest (SSSI), ten Local Nature Reserves (LNRs), 47 Local Wildlife Sites and 2 Open Spaces of Green Flag award standard	Green infrastructure supports a wide network of biodiversity. Benefits include: <ul style="list-style-type: none"> • Improved air quality • Enhanced biodiversity • Reduced urban heat island effect
Excellent public transport links including: <ul style="list-style-type: none"> • West Coast Main line • Local and Trans-Pennine services • Halton curve Rail 	The benefits of travelling by public transport in combatting the negative impacts of climate change are: <ul style="list-style-type: none"> • Decrease in emissions when compared to travelling by car due to fewer independent journeys. • Opportunities for cleaner fuel

During 2023 several projects were completed or started in Halton that will help combat the impacts of climate change. Details of each project can be viewed at Appendix 1 of this document.

4 Legislation

4.1 National and International Legislation

The guidance contained within this document draws on national and international legislation which is interpreted for development within the Borough. National and International legislation and policies will, where relevant and appropriate, be considered when assessing planning applications.

4.2 The Environment Act (2021)⁷

The Environment Act (2021) contains legislation aimed to improve air and water quality, tackle waste, increase recycling, halt the decline of species, and improve our natural environment.

4.3 Further Information

This link provides key guidance and information relevant to local government on topics related to climate change, net zero and the environment. [Local government, climate change and the environment - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/local-government-climate-change-and-the-environment)

4.2 Building Regulations

The Government introduced major Building Regulations changes in June 2022, with new homes in England now needing to produce around 30% less carbon emissions from the energy uses that are covered by Building Regulations (known as regulated energy use, e.g., heating, lighting, and hot water). The Future Homes and Buildings Standard is a set of rules that will come into effect from 2025 to ensure new buildings produce less carbon emissions.⁸

4.3 National Planning Policy Framework (NPPF)

Revised in December 2023, the NPPF⁹ sets out the Government's planning policies for England and how these are expected to be applied. The NPPF is a material consideration in plan making and supporting development management decisions. The NPPF recognises the role of the planning system in supporting the transition to a low carbon future by helping to shape places that contribute to reductions in greenhouse gas emissions, minimise vulnerability, improve resilience and support the delivery of renewable and low carbon energy and associated infrastructure.

Paragraph 157 of the NPPF makes it clear that climate change is a core planning principle:

⁷ [Environment Act 2021 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2021/12/section/1)

⁸ Government has published a consultation on its plans to achieve the Future Homes Standard and Future Building Standard. It sets out technical proposals for changes to the Building Regulations, the associated Approved Document guidance and calculation methods. Energy efficiency requirements for new homes and non-domestic buildings are set by Part L (Conservation of Fuel and Power) and Part 6 of the Building Regulations 2010 ("the Building Regulations"). Much of the consultation relates to new homes and non-domestic buildings although a small number of sections are also relevant to existing buildings. The Department for Energy Security and Net Zero has also published a series of documents related to this consultation, as well as their own consultations as set out below:

- Home Energy Model consultation
- Home Energy Model: Future Homes Standard assessment consultation

The consultations will close on 6 March 2024.

⁹ [National Planning Policy Framework - Guidance - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/national-planning-policy-framework-guidance)

‘The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help lower emissions, minimise vulnerability, and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings and support renewable and low carbon energy and associated infrastructure’.

Furthermore, it is stated in Paragraph 162 (a and b), that *‘local planning authorities should expect new development to:*

- *Comply with any development plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant having regard to the type of development involved and its design that this is not feasible or viable, and*
- *take account of landform, layout, building orientation, massing, and landscaping to minimize energy consumption’.*

4.4 Planning Practice Guidance (PPG)

Revised in March 2019, the Climate Change PPG¹⁰ advises how to identify suitable mitigation and adaptation measures in the planning process to address the impacts of climate change. Revised in August 2023, the Renewable and Low Carbon Energy PPG¹¹ provides further guidance on policies for renewable and low carbon energy.

4.5 Halton Delivery and Allocations Local Plan (DALP)

The Delivery and Allocations Local Plan (Adopted March 2022) sets out the long-term spatial vision, strategic priorities, and policies for future development in the Borough to 2037, including the quantity and location of new homes, employment provision, shops, facilities and other services, transport and other infrastructure provision, climate change mitigation and adaptation and the conservation and enhancement of the natural and historic environment.

4.6 Emerging Guidance

Historic England Draft Advice Note

On 13 November 2023, Historic England published a draft Advice Note that aims to provide clear and consistent advice on balancing climate action with building adaptation. Whilst the Advice Note will largely be for a specialist audience, it will also be useful to building owners/occupiers once the final version is published. It provides advice on:

- the need for planning permissions or other consents for some of the common changes required to decarbonise and improve the energy efficiency of historic buildings.
- how to consider planning proposals relating to decarbonisation and improved energy efficiency of historic buildings to enable positive climate action, including some examples of typical building adaptations; and

¹⁰ [Climate change - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/climate-change-planning-practice-guidance)

¹¹ [Renewable and low carbon energy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/renewable-and-low-carbon-energy-planning-practice-guidance)

- how local plans and other planning mechanisms can deliver a positive strategy for historic buildings that proactively supports climate action.

The Draft Advice Note also signposts to other relevant information, advice, and guidance. [Historic England Consults on New Advice on Climate Change and Historic Building Adaptation | Historic England](#)

5 How to use this Supplementary Planning Document (SPD)

This document provides guidance on implementing the Delivery and Allocations Local Plan (DALP) policies that are relevant to Strategic Objective 9. It provides important advice on how to meet various criteria set out in the relevant DALP policies as identified the following table.

Strategic Objective SO9 of the DALP seeks to ‘Minimise Halton’s contribution to climate change through reducing carbon emissions and ensure the Borough is resilient to the adverse effects of climate change.

FIGURE 3: RELEVANT DELIVERY AND ALLOCATIONS LOCAL PLAN (DALP) POLICIES

Policy	Description	Relevant to Strategic Objective SO9 of the DALP	Page No
CS(R)15	Sustainable Transport	Provision of sustainable transport system and modes, reducing carbon emissions and growth of green corridors for adaptation purposes.	71
CS(R)19	Sustainable Development and Climate Change	New development should be sustainable and be designed to have regard to the predicted effects of climate change including reducing carbon dioxide (CO ₂)	77
CR(R)20	Natural and Historic Environment	To conserve and where possible enhance the natural and future natural and historic environment for current and future generations	80
CS(R)21	Green Infrastructure	Creation of green spaces and green infrastructure for adaptation purposes and enhancing biodiversity. Managing risks such as flooding, high temperatures and urban heat island effect.	84
CS(R)23	Managing Pollution and Risk	To control of development which may give rise to pollution and to prevent and minimise the risk from potential accidents at hazardous installations and facilities.	90
C1	Transport Network and Accessibility	Provision of sustainable transport system and modes, reducing carbon emissions and provision of EV charging infrastructure.	129
HE3	Waterways and Waterfronts	To protect and enhance the natural habitat and setting of the waterways and associated banks.	177

HE4	Green Infrastructure and Greenspace	Creation of green spaces and green infrastructure for adaptation purposes and enhancing biodiversity. Managing risks such as flooding, high temperatures and urban heat island effect.	181
HE5	Trees and landscaping	Street trees and other landscape features in streetscapes provide habitat, shading, cooling, air quality improvements and carbon sequestration Provision of green infrastructure for adaptation purposes as well as enhancing biodiversity.	185
HE6	Outdoor and Indoor Sports Provision	Provision of green spaces and green infrastructure for adaptation purposes and enhancing biodiversity. Managing risks such as flooding, high temperatures and urban heat island effect.	188
HE9	Water Management and Flood Risk	Incorporation of sustainable urban drainage systems – range of benefits including flood risk management, carbon storage and sequestration. As well as enhancing biodiversity.	196
GR1	Design of Development	Measures to minimise energy consumption, conserve water resources, use of sustainable construction and provides renewable energy	207
GR5	Renewable and Low Carbon Energy	Generation of energy from renewables and low carbon sources	214

The Council will use this SPD to help reach decisions on whether to approve or refuse planning applications. Where applicants and developers ensure that planning applications comply with Halton’s DALP policies and guidance it will be easier for the Council to grant planning permission.

6 Climate Change Mitigation and Adaptation

Climate Change Mitigation

Action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

Climate Change Adaptation

Adjustments made to natural or human systems in response to the actual or anticipated impacts of climate change, to mitigate harm or exploit beneficial opportunities.

Land Use Planning Can Contribute to the Transition to a Low-Carbon Future Centred on the Following 6 Principles.

6.1 Principle 1: Improving Energy

The Energy Hierarchy

The Energy Hierarchy demonstrated below (Figure 4) is a classification of energy options, prioritised to assist progress towards a more sustainable energy system. It is a similar approach to the waste hierarchy for minimising resource depletion and adopts a parallel sequence.

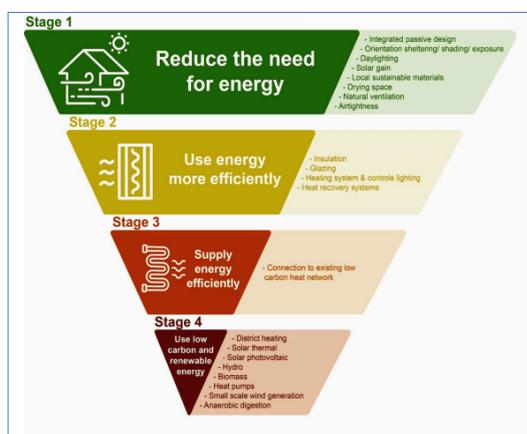
The highest priorities cover the prevention of unnecessary energy usage both through eliminating waste and improving energy efficiency. The sustainable production of energy resources is the next priority. Depletive and waste-producing energy generation options are the lowest priority.

For an energy system to be sustainable: the resources applied to producing the energy must be capable of lasting indefinitely; energy conversion should produce no harmful by-products, including net emissions, nor wastes which cannot be fully recycled; and it must be capable of meeting reasonable energy demands.

If more sustainable buildings are to be built, it is important that energy conservation is considered using the energy hierarchy at the beginning of and throughout the design process.

To achieve low carbon development, the energy hierarchy provides the most practical and cost-effective methodology. Developments should consider how energy use can be minimised and the order in which this energy saving, and ‘green’ energy measures should be prioritised. [The National Design Guide \(Jan 2021\)](#)¹² identifies the need for new developments to follow the energy hierarchy in order to conserve natural resources.

FIGURE 4: THE ENERGY HIERARCHY



¹²[National design guide.pdf \(publishing.service.gov.uk\)](#)

DALP Policy GR5: Renewable and Low Carbon Energy seeks to support renewable and low carbon development whilst ensuring that adverse impacts are addressed satisfactorily. Examples of renewable and low carbon energy development considered under this policy include wind turbines, solar installations and energy systems associated with other development such as combined heat and power and district heating.

Until recently housing stock in Halton was built without consideration of climate change and consequently needs to be adapted to enhance its long-term sustainability. Retrofitting, that is the fitting of climate adaptation measures to existing premises, may be a cost-effective means of adapting existing stock to ensure it is upgraded to cope with the current climate and future climatic changes. For example, the use of solar technology can minimise the energy demand of buildings by reducing space heating demands contributing to daylight inside and outside of the building. This form of renewable energy can contribute by supplying solar heated hot water and the generation of electricity with PV panels.

Solar Technologies

Solar Technologies such as photovoltaic (PV) panels and solar thermal units can be easily installed on new and existing buildings. For listed and more traditional in character buildings there are solutions such as solar roof tiles, which work as PV panels however they completely neutralise the potential visual impact. PV panels produce electricity from sunlight and can either be mounted or integrated on roofs or façades of buildings or used freestanding on the ground (e.g., PV farms). Solar thermal units heat water which is integrated to a building's hot water system using a heat exchanger or collocation.¹³ To extract the most energy from the sunlight, solar panels should ideally be located anywhere between southeast and southwest to ensure that a direct sunlight reaches the panel.

At planning application stage developers will be expected to provide evidence to support their proposals for renewable energy including landscape, visual and ecological assessments (including where required an Environmental Impact Assessment (EIA) and Habitats Regulation Assessment (HRA) and to demonstrate that any impacts can be satisfactorily mitigated where negative impacts cannot be solely removed through site selection. The Council offers a chargeable pre-application advice service and strongly advises anybody wishing to apply for planning permission to use the Councils' pre application advice service¹⁴.

Prior to commencing any development, you should also contact Building Control to understand whether your proposal requires building regulations.¹⁵

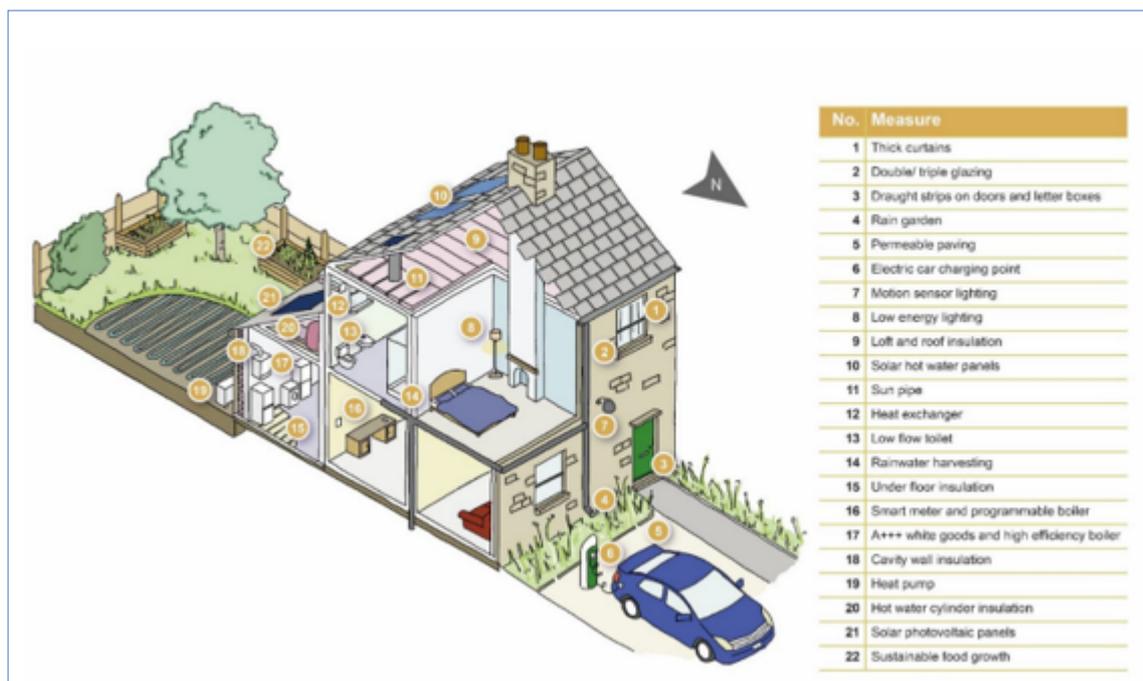
Figure 5 demonstrates examples of measures that can be taken to improve energy efficiency in homes.

FIGURE 5: EXAMPLES OF MEASURES TO IMPROVE ENERGY EFFICIENCY

¹³ 6 Co-location combines a battery storage with another form of intermittent generation

¹⁴ [What you can expect from your pre-application advice \(halton.gov.uk\)](https://www.halton.gov.uk/what-you-can-expect-from-your-pre-application-advice)

¹⁵ [Building Regulations: Your Complete Building Regs Guide \(halton.gov.uk\)](https://www.halton.gov.uk/building-regulations-your-complete-building-regs-guide)



6.2 Principle 2: Sustainable Design

All major development proposals¹⁶ involving the construction of new buildings must demonstrate how sustainable design and construction methods will be incorporated to achieve resource efficiency and resilience to climate change in accordance with **DALP Policy CS(R)19 ‘Sustainable Development and Climate Change’** considering the site-specific viability of the development, where appropriate.

Good integrated design will avoid summertime overheating of residential development and provide future adaptation for a rise in temperature. This is recognised in the introduction of Part O to building regulations¹⁷, specifically addressing the overheating of buildings.

DALP Policy CS(R)19 encourages the Building Research Establishment Environmental Assessment Method (BREEAM)¹⁸ ‘Very Good’ standard as a minimum standard for new non-residential development, and while there are no nationally described standards for residential development, the Council will be supportive of schemes that seek to use standards such as the BRE’s Home Quality Mark.¹⁹ The development of bespoke standards for new housing and non-residential development would also be supported.

¹⁶ For housing, development where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more. For non-residential development it means additional floorspace of 1,000m² or more, or a site of 1 hectare or more, or as otherwise provided in the [Town and Country Planning \(Development Management Procedure\) \(England\) Order 2015](#).

¹⁷ Overheating: Approved Document O: Department for Levelling Up, Housing and Communities 2022

¹⁸ [BREEAM - BRE Group](#)

¹⁹ [Home Quality Mark - BRE Group](#)

BREEAM is one of the most popular sustainability certification systems for the development industry. It is used all around the world and has made a substantial contribution to the creation of more energy-efficient, environmentally friendly, and socially responsible buildings.

“Very Good” is the third highest BREEAM certification level. To achieve it, your development project must at least have a score of 55% and not more than 69% (while achieving a higher score would of course be more beneficial). It is defined as “advanced good practice” and therefore means that sustainability has been considered a priority for the project, but not all the expected methods or concepts have been applied.

BRE Home Quality Mark: Achieving HQM certification is a process that involves several key steps. From initial assessment to final certification, each stage is designed to ensure that your property meets the highest standards of sustainability and quality. and be designed to have regard to the predicted effects of climate change including reducing carbon dioxide (CO2) emissions and adapting to climatic conditions. The Council will be supportive of developments that utilise the standards set out in Figure 6.

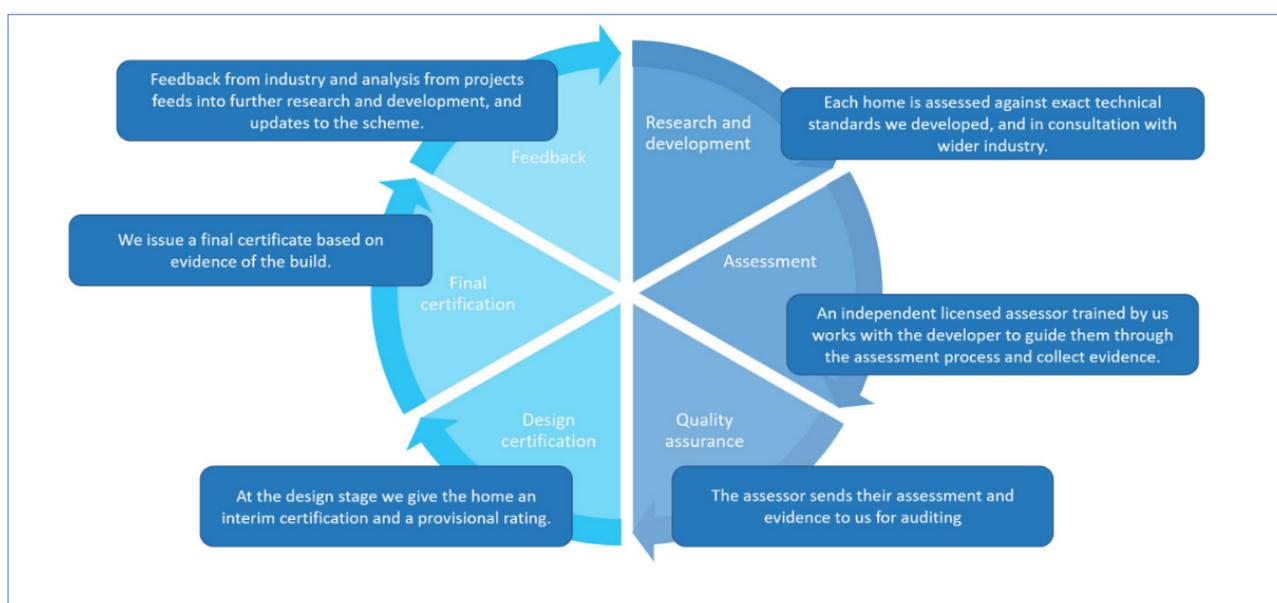
FIGURE 6: BRE HOME QUALITY MARK STANDARDS



Source: [Home Quality Mark - BRE Group](#)

HQM assesses the quality and sustainability of the home itself, its surroundings and the construction or renovation. The basics of the assessment process are set out in Figure 7.

FIGURE 7: HQM ASSESSMENT DIAGRAM



Source: [Home Quality Mark - BRE Group](#)

6.3 Principle 3: Sustainable Transport

Increasing Accessibility

A key decarbonisation pathway in transportation is increasing the modal share of public transport and active travel use. Reducing the reliance on private vehicles will result in reduced greenhouse gas emissions through zero emission travel options (walking and cycling) or low emission travel through public transport use. In turn, this will also result in lower private vehicle mileage and help reduce congestion. Transitioning the private car market to EV is a key part of the overall picture of modal shift and behaviour change, with alternative fuels where required. The following policies, strategies and guidance provide measures and advice for achieving these goals and targets.

DALP Policy CS(R)15: 'Sustainable Transport' seeks to ensure that new development is accessible by public transport methods, such as walking, cycling and public transport.

DALP Policy C1 'Transport Network and Accessibility' seeks the provision of sustainable transport systems and modes, reducing carbon emissions and the provision of EV charging infrastructure.

The Halton Transport Plan and Transport Plan for Growth (2011 - 2026)²⁰ sets out the strategies and priorities for the Borough.

As one of the six authorities forming the Liverpool City Region Area²¹, Halton is a key player in the production of Local Transport Plan 4 (LTP4) which is now being developed for the period to 2040 and beyond. The LTP4 Vision and Goals document

²⁰ [Layout 1 \(halton.gov.uk\)](#)

²¹ [Home | Liverpool City Region Combined Authority \(liverpoolcityregion-ca.gov.uk\)](#)

was consulted upon in Autumn 2022. Work is now underway on the LTP4 Preferred Strategy with the aim to consult upon in Summer 2024 before finalising and adopting the new Local Transport Plan 4 for Liverpool City Region by end of 2024.²²

In March 2022 the Government published the UK Electric Infrastructure Vehicle Strategy²³, which sets out:

The Government vision and action plan for the rollout of electric vehicle charging infrastructure in the UK, ahead of the phase out dates, which intends to:

- to end the sale of new petrol and diesel petrol and diesel vehicles by 2030 and.
- for all new cars and vans to be fully zero emission at the tailpipe by 2035

Part S of the Building Regulations aims to futureproof homes and buildings via the installation of charging points for electric vehicles. The Government has produced responses to frequently asked questions on this matter.²⁴

It is anticipated that the Council will publish an Electrical Vehicle Charging Point report in 2024. This report will outline a strategy for implementing Electric Vehicle Charging Infrastructure (EVCI) which supports the Council in its efforts to reach net zero and meet the future needs of Electric Vehicle (EV) demand across the local authority area. Once complete the report will be made available on the Councils website.

6.4. Principle 4: Mitigating Flood Risk

A 2023 article published by the Environment Agency²⁵ cited 'Around 1 in 6 people are at risk of flooding in England. Our changing climate means that more homes will be at risk in the future. We have traditionally focussed our approach to flooding in England on the construction of barriers, walls and flood reservoirs. Protection of this kind will remain hugely important. But we cannot eliminate all risk. We all have a role to play in making ourselves and our homes and businesses more resilient to the current and growing threat from flooding.'

Property flood resilience is one way we can do that. These are measures that reduce the risk of damage to individual properties, speed up recovery, and help people move back into their properties more quickly after flooding. They include resistance measures that help to keep as much water out of the property as possible, using products like flood doors and barriers and self-closing air bricks. And they can also include measures like tiled floors and raised electrics so if water does enter the property, it causes as little damage as possible'.

²² [Transport | Liverpool City Region Combined Authority \(liverpoolcityregion-ca.gov.uk\)](https://liverpoolcityregion-ca.gov.uk/transport)

²³ [UK electric vehicle infrastructure strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/uk-electric-vehicle-infrastructure-strategy)

²⁴ [Approved Document S: Infrastructure for charging electric vehicles, frequently asked questions - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/infrastructure-for-charging-electric-vehicles-frequently-asked-questions)

²⁵ [Building back better and mainstreaming property flood resilience - Creating a better place \(blog.gov.uk\)](https://www.blog.gov.uk/2023/07/building-back-better-and-mainstreaming-property-flood-resilience-creating-a-better-place)

A range of flood risk management plans (FRMPs)²⁶ for the period 2021 -2027 have been produced by the Environment Agency. The plans set out how organisations, stakeholders and communities will work together to manage flood risk in England. flood risk management plans for England to cover the period from 2021 - 2027.

- These strategic plans explain the objectives and the measures (actions) needed to manage flood risk at a national and local level.
- National measures that apply to all river basin districts are described in the national overview (part a).
- Measures that apply to specific river basin districts and their flood risk areas are described in the 10 local flood risk management plans (part b).

Locally the Council has a number of policy and strategies covering flood risk management, which can be viewed at: [Background Documents \(halton.gov.uk\)](https://www.halton.gov.uk/background-documents)

DALP Policy CS23: ‘Managing Pollution and Risk’ contains the following measures aimed at managing flood risk: Development should not exacerbate existing levels of flood risk nor place residents or property at risk from inundation from flood waters. This will be achieved by:

- Directing development to areas where the use is compatible with the predicted level of flood risk, both at present and taking into consideration the effects of climate change.
- Using Halton’s Strategic Flood Risk Assessment (SFRA)²⁷ to inform the application of the sequential approach/test and exception test in accordance with national planning policy.
- Requiring site-specific Flood Risk Assessments for proposals in areas at risk from flooding as identified in the Halton SFRA.
- Supporting proposals for sustainable flood risk management (e.g., defence / alleviation work) so long as they do not have a detrimental impact on the landscape of the Borough.

Individual new developments need to ensure flood risk is a key consideration as part of local climate adaptation, accounting for projected future climate change in the design of any flood resilience measures. Designs also need to consider the flood risk implications of impermeable materials associated with urban environments. There are opportunities presented through the planning of new development to make communities more resilient to climate change. (SuDs)²⁸

SuDS is a technique that manages surface water and groundwater sustainably. The primary purpose of SuDS is to mimic the natural drainage of land prior to development. This is achieved by capturing rainfall, allowing as much as possible to evaporate or soak into the ground close to where it fell, then conveying the rest to the nearest

²⁶ [Flood risk management plans 2021 to 2027 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/collections/flood-risk-management-plans-2021-to-2027)

²⁷

²⁸ The SuDs Manual CIRIA (2015)

watercourse to be released at the same rate and volumes as prior to development. The key objectives are to manage the volume and rate of flow of surface runoff to reduce the risk of flooding and water pollution. SuDS can also reduce pressure on the sewerage network and can improve biodiversity and local amenity.

It should be noted that initial assessments of the geology and soil types across Halton Borough have indicated a generally 'LOW' suitability for the use of infiltration SuDS. Further information is available for Developers in Halton's Local Flood Risk Management Strategy (FRMS), strategic Flood risk Assessment Level 2 (SFRA2) and the Mid-Mersey Water Cycle Study (MMWS). However, the SuDS approach is not dependent on infiltration but also includes attenuation techniques such as ponds, wetlands, green roofs, and water recycling schemes which hold back runoff volumes and rates and allow water reuse. If proposed SuDS are compliant in terms of design and construction, and following discussions with Halton's Open Spaces Division, they may be accepted as part of Public Open Space, together with agreement on the payment of commuted sums for their future maintenance. Alternatively, developers will be encouraged to transfer future responsibility to a Management Company set up for the purpose of maintenance and repair of features on their development.

Non-residential development can demonstrate exemplary performance related to climate change adaptation through BREEAM²⁹ by targeting flood and surface water management credits to minimise the risks of increased flood risk and surface water run-off affecting the site of other receptors in the catchment. In accordance with policies CS23 and HE9 this entails

- Flood resilience: A site specific Flood Risk Assessment confirms that the development either remains within a location of low flood risk, even after considering future sources of flooding with climate change or demonstrates that measures to increase the resilience to future flooding is incorporated into the final design of the building.
- Surface water run off: Sustainable design of surface water management measures where all calculations must include an allowance for climate change, made in accordance with current Planning Practice guidance (PPG)³⁰. Ease of maintenance must be integrated into SuDs design.

6.5. Principle 5: Mitigating Biodiversity

The importance of mitigating biodiversity loss and enhancement is recognised in **DALP Policies; CS (R) 20: Natural and Historic Environment, CS(R)21: Green Infrastructure and HE1: Natural Environment and Nature Conservation and HE5: Trees and Landscaping**

As required by the Climate Change Act 2008³¹, in 2022 the UK government has undertaken the third five-year assessment of the risks of climate change on the UK. This is based on the Independent Assessment of UK Climate Risk, the statutory advice

²⁹ Pol 03 - Flood and surface water management - BREEAM Knowledge Base available at <https://kb.breeam.com/wp-content/plugins/breeamkb-pdf/pdf/?c=1002> accessed 7-12-23.

³⁰ Flood Risk and Coastal change: Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (March 2014 Last updated 25 August 2022)

³¹ [Climate Change Act 2008 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2008/27)

provided by the Climate Change Committee (CCC), commissioned by the UK government and devolved administrations.

The risk assessment considers sixty-one UK-wide climate risks and opportunities cutting across multiple sectors of the economy and prioritises the following eight risk areas for action in the next two years:

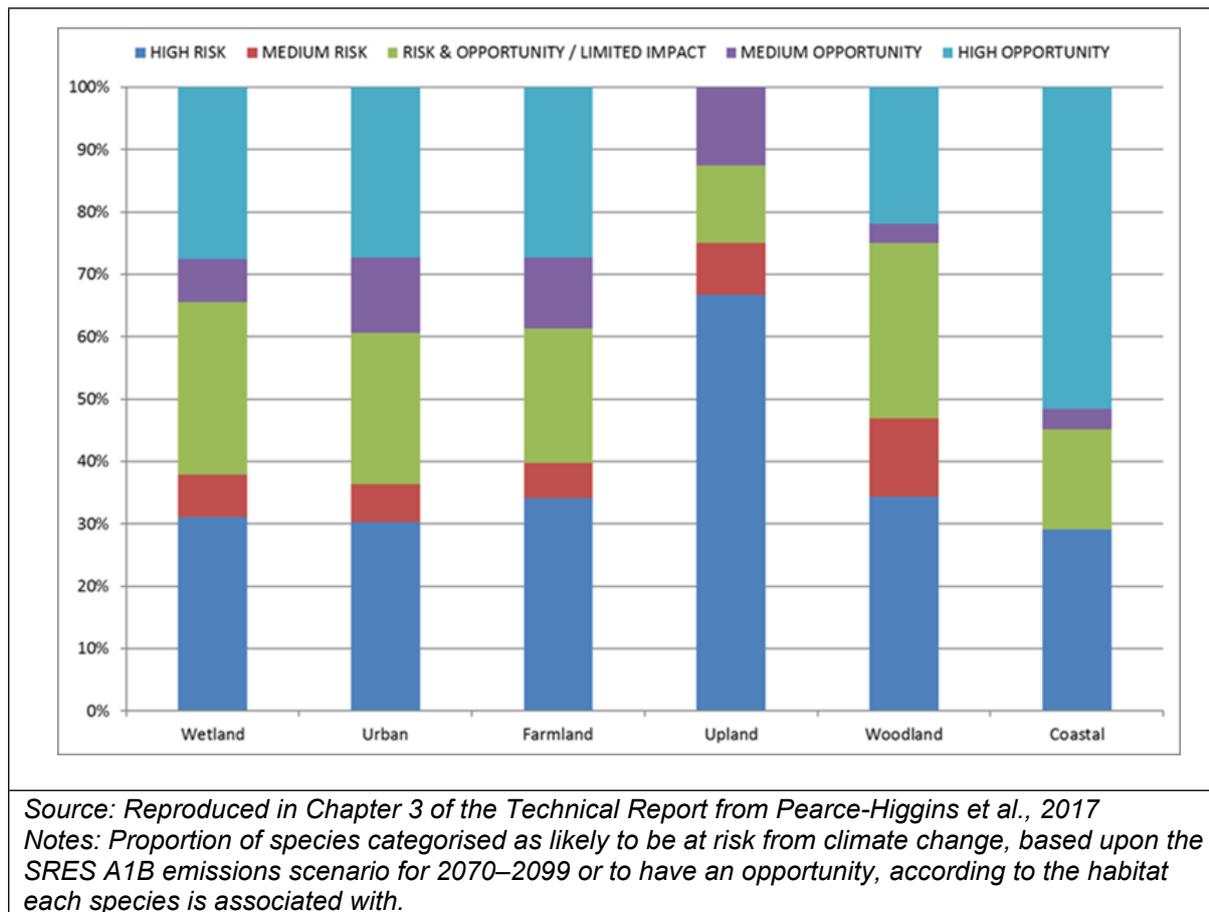
- risks to the viability and diversity of terrestrial and freshwater habitats and species from multiple hazards
- risks to soil health from increased flooding and drought
- risks to natural carbon stores and sequestration from multiple hazards
- risks to crops, livestock and commercial trees from multiple climate hazards.
- risks to supply of food, goods, and vital services due to climate-related collapse of supply chains and distribution networks.
- risks to people and the economy from climate-related failure of the power system
- risks to human health, wellbeing, and productivity from increased exposure to heat in homes and other buildings
- multiple risks to the UK from climate change impacts overseas

The results of the 2022 Risk Assessment are explained in the Advice Report for CCRA3³² which provides compelling evidence of the benefits to society of the natural environment. It explains the threat climate change poses to UK biodiversity, at a time when it is already degrading rapidly the abundance and distribution of UK terrestrial and freshwater species has declined by 13% since 1970. Increased temperatures and extreme events such as drought and wildfire pose the biggest threats while upland areas face particularly acute risks (75% of present-day upland species face a potential decline in climate suitability by 2100 under a medium level of warming).

The Advice Report recommends reducing pollution and creating suitable conditions for existing species. Active management of habitats can also improve their resilience. Figure 8 demonstrates the proportion of species estimated to be at risk from climate change because of medium emissions between 2070 and 2099.

³² UK Climate Change Risk Assessment HM Gov 2022

FIGURE 8: SPECIES AT RISK FROM CLIMATE CHANGE



From January 2024 the Environment Act³³ requires mandatory biodiversity net gain (BNG) of 10% on development sites (with a few exceptions) for which planning permission is granted. The Council does not have a planning policy which requires 10% BNG gain on site. However, it is important to note that the **DALP Policies CS(R)20, CS (R)21 and HE1 highlight the need for biodiversity enhancement** resulting from development which will need to be applied when determining planning applications.

DALP Policy HE1 requires all development affecting sites of ecological importance to undertake an Ecological Appraisal including an ecological constraints and opportunities plan showing details of avoidance mitigation and compensation. This should include as a minimum the requirements of British Standard BS42020³⁴. This standard describes in detail the hierarchy of avoidance, mitigation, compensation, and enhancement articulated in the National Planning Policy Framework.

Further guidance for preliminary ecological appraisals can be found in guidance produced by CIEEM available at: [Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf \(cieem.net\)](https://www.cieem.net/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf)

³³ [Environment Act 2021 \(legislation.gov.uk\)](https://www.legislation.gov.uk/uk/2021/1/1/1)

³⁴ BS 42020 – a code of practice for biodiversity in planning and development BSI

DALP Policy HE5: Trees and Landscaping requires Tree Survey information to be submitted with all planning applications where trees are present on site and in some cases where trees are present on adjacent sites. In terms of landscaping schemes will be required to support biodiversity and where appropriate, provide suitable and appropriate mitigation for the restoration of damaged landscape areas. Further advice with regards to the submission of planning applications affecting trees and woodland can be found in guidance produced by Gov.uk at: [Planning applications affecting trees and woodland - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/planning-applications-affecting-trees-and-woodland)

6.6 Principle 6: Green and Blue Infrastructure

The importance of green infrastructure, nature conservation, outdoor sports fields, and water ways in Halton are recognised through **DALP Policies CS(R)20 Nature Conservation, CS(R)21: Green Infrastructure, HE1 Natural Environment and nature conservation, HE3 Waterways and waterfronts, HE4 Greenspace and Green Infrastructure, HE5 Trees and Woodlands, HE6 Outdoor Sports Provision and HE9 Water Management and Flood Risk.**

Green and Blue Infrastructure is a network of nature-based features based on vegetation (green) and water (blue), or both. These features are integrated throughout the Borough. Examples of these features in Halton are parks and gardens, green corridors, natural and semi natural greenspace, playing fields, allotments, golf courses, woodland, individual trees, cemeteries, the river Mersey, our canals, ponds, sustainable drainage systems (Suds), and soils amongst others. These features are important as a climate change mitigation and adaptation measure.

DALP Policy CS(R)21: Green Infrastructure identifies the following categories as green infrastructure: Parks and Gardens – including parks and regional parks • Amenity Green Space – including informal recreation spaces, greenspaces in and around housing • Outdoor Sports Facilities – including formal playing fields, golf courses and other outdoor sports areas • Natural and Semi-Natural Greenspaces – including woodlands, scrub, grassland, heath or moor, wetlands, open and running water and bare rock habitats • Green Corridors – including rivers and canal banks, road and rail corridors, cycling routes, pedestrian paths, and rights of way • Other – including agricultural land, allotments, community gardens, cemeteries and churchyards.

Policy CS(R)21 seeks the protection, enhancement, and expansion of green infrastructure (where appropriate). Outcomes will include: The creation of linkages and connections between natural habitats and other landscape features which contribute towards a network of greenspaces and corridors of value for biodiversity.

Where appropriate developer contributions will be sought to facilitate improvements to the quality, connectivity, and multi-functionality of the Borough's green infrastructure network. The Council works alongside other partners and agencies responsible for the delivery and maintenance of green infrastructure.

Green Corridors

Green networks, corridors and linkages are widely seen as a key mechanism for reversing the effects of fragmentation on biodiversity. They also deliver a range of other social and environmental benefits, including enhancement of local landscape character, and greater opportunities for public access and recreational use.³⁵

Natural and Semi-Natural Green Space

Natural and semi-natural green spaces have been defined as “land, water and geological features which have been naturally colonised by plants and animals. and which are accessible on foot to large numbers of residents³⁶

DALP Policy HE3: ‘Waterways and Waterfronts’ Seeks to protect and enhance the natural habitat and setting of the waterways and associated banks. Development will be expected to take into consideration the objectives of the Waterways Framework Directive³⁷ and relevant River Basic Management Plan³⁸.

Rivers

The pressures on our natural river systems are immense. Pollution from agricultural and road run-off bring sediment and harmful chemicals to push water quality down. Over abstraction can cause increased toxicity levels and lack of water for aquatic life. Reduction of tree cover leads to higher water temperatures and consequently low oxygen levels harmful to fish.

River conservation means taking a catchment approach, working with others and creating a broad range of projects and activities to create a river recovery network³⁹.

Canals

Canals play a crucial role in providing much-needed habitat for threatened wildlife at a time when biodiversity in the UK is in crisis. They need constant care to keep them flowing, full of water, clean and wild.⁴⁰

Ponds

Ponds are important hotspots for biodiversity. Collectively, they support more species, and more scarce species, than any other freshwater habitat. Ponds are essential habitats for wetland wildlife. Healthy networks of ponds, at different stages of their ‘lives’, help wetland species to move around the countryside, supporting ‘nature corridors’. As habitat fragmentation continues to increase, they are more important than ever. Without them, many native species would struggle to survive.⁴¹

³⁵ [Urban green networks, corridors and linkages - Forest Research](#)

³⁶ Harrison, C, Burgess, J, Millward, A, and Dawe, G (1995) Accessible Natural Greenspace in Towns and Cities English Nature Research Report 153, English Nature

³⁷ [The Water Framework Directive \(Standards and Classification\) Directions \(England and Wales\) 2015 \(legislation.gov.uk\)](#)

³⁸ <https://www.gov.uk/guidance/river-basin-management-plans-updated-2022>

³⁹ [Rivers | The Wildlife Trusts](#)

⁴⁰ [Helping nature thrive | Canal & River Trust \(canalrivertrust.org.uk\)](#)

⁴¹ [Ponds | WWT](#)

The Government's Forestry and Woodlands Policy Statement 2013⁴² states that *'the protection of the UK's trees, woods and forests, especially ancient woodland is a top priority' and 'new and better managed woodland also has a role in making our rural and urban landscapes more resilient to the effects of climate change'*.

DALP Policy HE5: Trees and Landscaping requires the following information to be submitted with relevant planning applications:

- Tree Survey information must be submitted with all planning applications where trees are present on site and in some cases where trees are present on adjacent sites.
- Where development is likely to result in the unavoidable loss of, or threat to, the continued health and life expectancy of, woodlands, trees or hedgerows the Council will require the impacts to be satisfactorily addressed through appropriate mitigation, or where this can be demonstrated to be not feasible, compensation or offsetting in accordance with **DALP Policy HE1**.

Woodlands

The world of carbon markets is complex and needs careful navigation to deliver woodland creation projects that make a reliable and credible contribution to climate change targets. In the last two years there have been a large rise in the number of registered projects under the UK Woodland Carbon Code (WCC). The WCC is the quality assurance standard for woodland creation projects in the UK, and generates high integrity, independently verified carbon units. Backed by the Government, the forest industry and carbon market experts, the Code provides woodland carbon units right here in the UK. The Woodland Carbon Code is internationally recognised for ambitious standards of sustainable forest management and carbon management and is endorsed by ICROA⁴³, the global umbrella body for carbon reduction and offset providers in the voluntary market. Woodland Carbon Code projects provide social and environmental benefits for many communities across the UK. These include biodiversity and habitat creation, improvements in health and wellbeing, benefits for farming, local employment, and educational opportunities.

Woodland Trees and Hedgerows

The Council will operate a presumption in favour of retaining and enhancing all existing tree, woodlands and hedgerow cover. Where there is an unavoidable loss of trees, woodlands and/or hedgerows, the Council will encourage a replacement, ideally to be located on site or in the vicinity of the site or local area. Woodlands, Trees and Hedgerows are an important visual and ecological asset; they provide a significant contribution to areas distinctiveness as well as playing an important role in mitigating and addressing climate change.

Trees

⁴² [Government forestry policy statement - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/policies/forestry-policy)

⁴³ [ICROA | Accrediting Best Practice in Carbon Offsetting](https://www.icroa.org/)

“Decreasing green cover by 10% increases maximum surface temperature across all areas, but the increase is particularly significant in urban areas. In contrast increasing cover by 10% keeps temperatures close to the current levels.”⁴⁴

DALP Policy HE1: Natural Environment and Nature Conservation sets out expectations of High-Quality Agricultural Land in the Borough: *‘the irreversible significant development of open agricultural will not be permitted where it would result in the loss of the best and most versatile agricultural land, except where absolutely necessary to deliver development allocated within the Local Plan, strategic infrastructure or development associated with the agricultural use of land. Where it can be demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality’.*

Figure 9 demonstrates some of the benefits of green infrastructure in helping to combat the impacts of climate change.

FIGURE 9: BENEFITS OF GREEN INFRASTRUCTURE



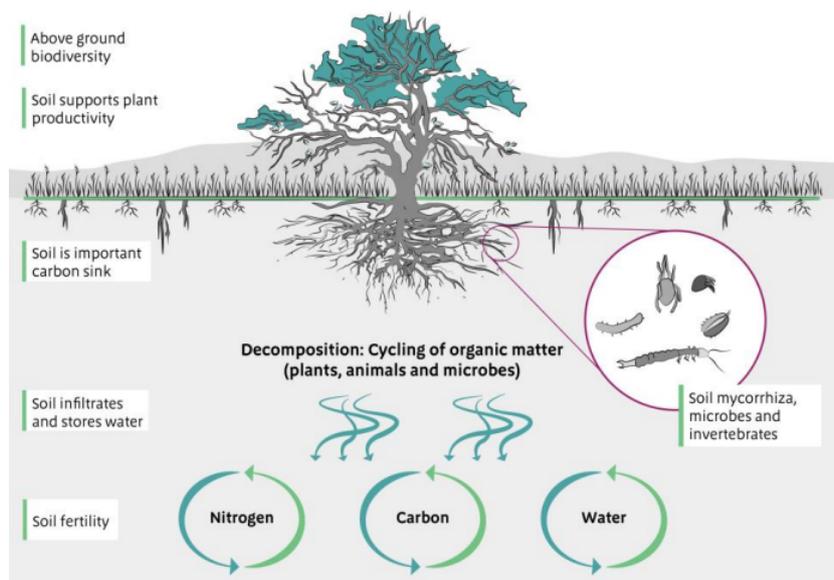
Soils

Soils store 10 billion tonnes of the UK's terrestrial carbon and play an important role in modulating the greenhouse gas cycles which control our climate⁴⁵ The importance of soils is often underestimated and poorly understood. Soil is a key component of green infrastructure they are intimately connected with aquatic environments and atmosphere. Soils store and filter water and store carbon. Soil microbes remove pollutants and are responsible for the cycling of nutrients.

⁴⁴ LCR and Warrington Green Infrastructure Framework, Mersey Forest (2014)

⁴⁵ UK Centre for Ecology & Hydrology (UKCEH) available at: [UK Centre for Ecology & Hydrology \(ukceh.ac.uk\)](http://ukceh.ac.uk)

FIGURE 10: FUNCTIONING SOILS



Source: UICN: *Conserving health soils*

7 Conclusions

Guidance provided in this Climate Change SPD should be considered in conjunction with the Haton DALP Policies, the NPPF, NPPG and any other relevant guidance sign posted within this document or other guidance as it becomes available.

It is intended that this SPD and other local policy and guidance will be reviewed and updated as necessary. It should however be noted that this SPD provides up to date guidance at the time of publication. It will be for the applicant to comply with the latest guidance when submitting a planning application and any supporting reports and documentation.

- seek pre-application planning advise.
- and Building Control advise from the Council prior to submitting an application.
- complete and submit the Climate Change Checklist with your planning application. (See Appendix 3)

Appendix 1: Key Projects Completed or Started in Halton in 2023 that will Help Combat the Impacts of Climate Change.

Buildings

- Feasibility studies have been completed to assess the decarbonisation options across the Council's building portfolio. Bids have been submitted to the Public Sector Decarbonisation Scheme in respect of 5 sites in two separate bids. One covering St Lukes & St Patrick's care homes, the other covering Runcorn Town Hall, Picow Farm Depot and Kingsway Learning Centre.
- An initial desk top study has been completed to assess 24 sites for the suitability of Solar PV. The initial study shows estimate that some 2,259kWp of solar PV could be installed on the roofs subject to roof studies and grid connections. The total cost of the programme would be circa £2.27m excludes any supervision and clerk of works activity that the Council may undertake at each site. Based upon the assumptions made in terms of the use of energy on site and exports sales, inflation and debt repayments the programme would have a 14.3% IRR and an NPV of £3.33M after all costs. The study will be developing in the coming year into a rolling four-year programme of solar PV investment.
- The Council has approved plans to extend the existing Solar Farm at the former St Michael's Golf Course, connecting it to the new Leisure Centre in Moor Lane, Lower House Lane and Municipal Building. The project is also looking to provide EV charging infrastructure at the Depot and will allow Air Source Heat pumps to be installed at the Leisure Centre, which will significantly reduce the carbon footprint of the building. The Council has approved funding and consultants have been appointed to support the development of a planning application for the extension and to undertake design work to enable bids to be invited.
- The existing 1MW solar farm and roof top solar schemes at the DCBL Stadium, Brookvale and Rutland House continue to operate within expectations and generate ongoing income streams. Some of the income from the schemes will be reinvested in the Building Decarbonisation Schemes highlighted in Section 5.1
- The Key Design features for new Leisure Centre were agreed and include no gas supply to building, with all plant powered via electricity with some coming from the Solar Farm when the work is completed.
- Feasibility work is ongoing in respect of various options for rationalising our main office accommodation. A report will be presented to Council in 2024 with recommendations.

Transport

- Four upgraded replacement EV charging points for both Lowerhouse Lans & Picow Farm depots are ordered and will be installed in early 2024. The extension of the Solar Farm will provide for the installation of EV charging infrastructure at Lowerhouse Lane and enable the Council to further consider the electrification of its vehicle fleet. A Feasibility Study to assess the

introduction of low carbon emission vehicles at all Council sites that operate fleet vehicles / plant & machinery will be undertaken in 2024.

Open Spaces

- The Big Halton Forest Project was launched during 2022. Addressing carbon sequestration is a long-term process, so it was agreed to initiate a step increase in tree planting as early as possible in the Action Plan. The result was the concept of The Big Halton Forest.
- Up to 2030, the aim is to plant an additional 130,000 new trees across Halton above the regular annual planting of circa 1,500 trees. This will include Council owned land and other partners, including eventually the wider community.
- The first planting season will be the Autumn/Winter 2022/2023. The assembly of the funding and management of the project is underway, with the first year's proposals expected to be met. To date the Council has secured around £300k towards the projects from the following sources:
 - LCR Community Environment Fund - awarded circa £30k for planting of 2,000 trees and 3,000 bushes at Factory Lane, Widnes.
 - INEOS Environment Fund - secured £120k to be spent over 5 years as general support for the project.
 - DEFRA Woodland Creation Accelerator Fund (WCAF). The fund is to enable more trees to be planted, particularly in winter seasons 2023/24 and 2024/25. Awarded £150k to be spent across those 2 years to meet staffing costs for 2 Officers to support the project.

Appendix 2: Glossary

Term Meaning	Definition
Air Quality Management Areas	Areas designated by local authorities because they are not likely to achieve national air quality objectives by the relevant deadlines.
Ancient Woodland	An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites.
Biodiversity Net Gain	An approach used to improve a sites biodiversity value. Sites completed to a 'net gain' standard will have a positive ecological impact and deliver improvements through habitat creation and enhancements.
Carbon Footprint	The total amount of carbon dioxide released into the atmosphere as the direct result of activities of an organisation, individual, or community.
Carbon-neutral	Resulting in no net release of carbon dioxide into the atmosphere, particularly as a result of carbon offsetting
Conservation	Conservation The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.
Flood Plain	An area of land adjacent to a river that experiences flooding during periods of high discharge.
Greenbelt	A belt of parks, farmlands and green spaces that encircles a community and is designated as such.
Greenhouse Gas	A gas that absorbs and emits radiant energy within the thermal infrared range, which causes the heating of the atmosphere, otherwise known as the greenhouse effect.
Green and Blue Infrastructure	A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities, and prosperity.
Green Corridors	Land that provides sufficient habitat to support wildlife and the movement of wildlife between two or more habitats.
Passivhaus	A leading international design standard for energy usage within buildings.

Photovoltaic	Able to produce electricity from light, or relating to the process of doing this
Surface Water Runoff	The flow of water occurring on the ground surface when excess rainwater, stormwater, meltwater, or other sources can no longer infiltrate into the ground.
Sustainable Drainage Systems (SuDS)	Systems and infrastructure that is designed to efficiently manage the drainage of surface water in the urban environment.
Wildlife Corridors	Areas of habitat connecting wildlife populations, including green infrastructure

Appendix 3: Climate Change Checklist

Relevant Local Plan Policy	Topic	Measures	Has this been considered in the planning application submission? Yes/No/not Applicable. If No or Not Applicable, please state reasons for this	If yes, please signpost to relevant information within planning application submission
Transport				
CS(R)15	Sustainable Transport	Demonstrate how the development promotes modes of sustainable transport (walking, cycling, public transport)		
C1	Transport Network and Accessibility	As CS(R)15 plus: <ul style="list-style-type: none"> demonstrate how the development promotes the use of Ultra Low Emission Vehicles inclusion of a Green Travel Plan (where appropriate) 		
Sustainable Development and Design				
CS(R)19	Sustainable Development and Climate Change	Demonstrate how the development is sustainably designed, including reducing carbon dioxide emissions, and adapting to climate conditions		
GR1	Design of Development	Demonstrate how the development minimises energy consumption, conserves water resources, uses sustainable construction methods, and provides renewable energy.		

		(This criterion applies to major development) ⁴⁶		
Natural and Historic Environment				
CS(R)20	Natural and Historic Environment	Demonstrate how the development conserves and where possible enhances the natural environment for current and future generations		
Green Infrastructure				
CS(R)21	Green Infrastructure	Demonstrate how the development delivers and maintains green infrastructure		
HE4	Green Infrastructure and Greenspace	Where appropriate demonstrate how the development incorporates high quality green infrastructure		
HE5	Trees and landscaping	Submit a tree survey with the planning application, that includes information in relation to protection, mitigation and management measures.		
HE6	Outdoor and Indoor Sports Provision	Demonstrate how the development delivers and maintains green infrastructure (CS(R)21		
Pollution and Risk				
CS(R)23	Managing Pollution and Risk	Where applicable demonstrate how the development has given		

⁴⁶ For housing, development where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more. For non-residential development it means additional floorspace of 1,000m² or more, or a site of 1 hectare or more, or as otherwise provided in the Town and Country Planning (Development Management Procedure) (England) Order 2015.

		<p>regard to identified Air quality Management Areas (AQMAs)</p> <p>Where applicable demonstrate how the development will prevent and minimise risk from potential accidents at hazardous installations and facilities.</p>		
Blue Infrastructure				
HE3	Waterways and Waterfronts	Where appropriate demonstrate how the development protects and enhances the natural habitat and setting of the waterways and associated banks.		
HE9	Water Management and Flood Risk	<p>Where appropriate demonstrate:</p> <ul style="list-style-type: none"> • how the development Incorporates sustainable urban drainage systems (SuDS) • that relevant Surface Water Management Plans, related Flood Defence Plans and strategies including the Local Flood Risk Management Strategy, the Strategic Flood Risk Assessment (SFRA) and the Halton Sustainable Urban Drainage Guidance have been applied. 		

Renewable and Low Carbon Energy				
GR5	Renewable and Low Carbon Energy	<p>Demonstrate how proposals for renewable energy development has considered and where appropriate minimised the potential environmental effects of the development (see criteria 1 (a to i))</p> <p>Applications for major renewable and low carbon energy proposals must be accompanied by an Energy Statement</p>		