

Chelmsford Local Plan

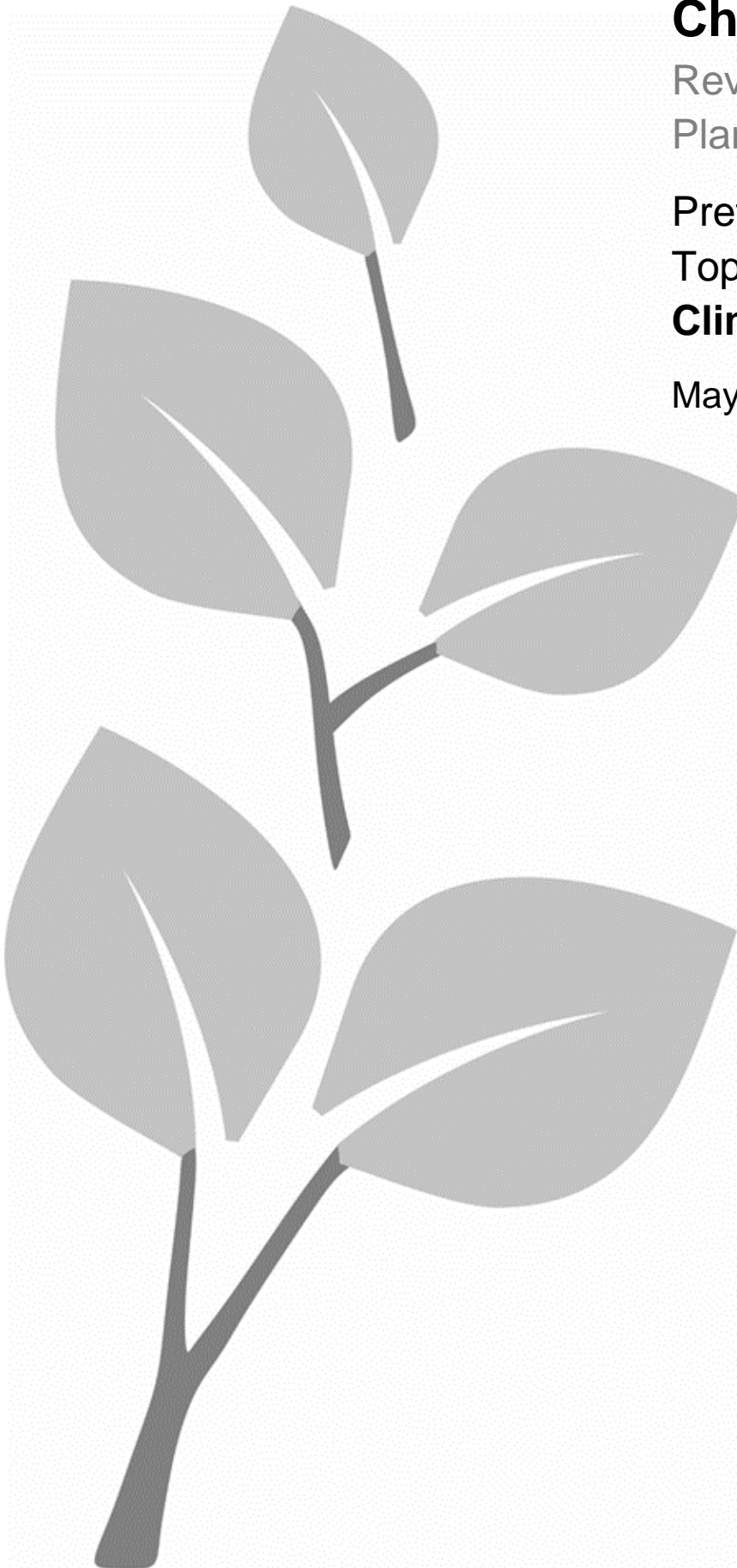
Review of the adopted Local Plan

Preferred Options

Topic Paper:

Climate Change

May 2024



1. Purpose

- 1.1. This Topic Paper is one of a number produced by Chelmsford City Council to set out how the review of the adopted Local Plan has been developed. Topic papers will be refreshed and updated at each stage of the Local Plan Review process to ensure the latest information/position is available. The previous Climate Change Issues and Options Topic Paper is given in Appendix 2. As such, this topic paper supersedes any previous versions.
- 1.2. The intention of the topic papers is to provide background information; they do not contain any policies, proposals or site allocations. Topic papers form part of the Local Plan evidence base which will be submitted alongside the Local Plan for independent examination.
- 1.3. This paper covers how climate change has been considered when preparing the review of the adopted Local Plan and how the Review will seek to provide a development strategy which seeks to support the transition to a low carbon future. It includes implementation of the Climate Change Act and the Council's Climate and Ecological Emergency Action Plan, and policy proposals to assist in combating climate change.
- 1.4. The Topic Paper provides background information and provides context of how the Local Plan has been formulated. This Topic Paper should be read alongside the other Preferred Options Topic Papers produced.
- 1.5. The main issues covered by this Topic Paper include:
 - Strategic Priority 1 – Addressing the Climate and Ecological Emergency
 - Strategic Priority S2 – Addressing Climate Change and Flood Risk
 - Relevant Development Management Policies including DM1 Net Zero Carbon Development (in Operation).

2. Background

The Climate Change Act 2008 (as amended)

- 2.1. The Climate Change Act 2008 (CC Act 2008) sets the UK statutory target for reducing greenhouse gas emissions to at least 100% lower than 1990 levels by 2050. This is known as the 2050 UK Net Zero target.
- 2.2. As part of the duties set out in the CC Act 2008, the Government must set carbon budgets for five year periods taking into account advice from the Climate Change Committee. The latest, Sixth Carbon Budget¹, sets a target of a 78% reduction in emissions by 2035.

¹ Carbon Budget order 2021 - <https://www.gov.uk/guidance/carbon-budgets#setting-of-the-sixth-carbon-budget-2033-2037>

- 2.3. The Government is also required to make annual reports to Parliament on the progress made towards meeting the carbon budgets and 2050 Net Zero target, and it must report on the impact of climate change.
- 2.4. The Climate Change Committee² warns that the UK is currently off target and rapid and deep cuts to emissions must be made in all sectors.
- 2.5. It is therefore imperative that the built environment sector plays its full role in tackling climate change, and the new build sector must not delay action and add to the problem by increasing emissions unnecessarily. Evidence³ prepared for Essex shows that delivering net zero carbon homes and buildings now is technically feasible and financially viable.

The Planning & Compulsory Purchase Act 2004 (as amended)

- 2.6. Section 19 (1A) of the Planning and Compulsory Purchase Act 2004 (P&CP Act 2004) requires that development plan documents must include policies designed to secure that development of land in the local authority's area '*contribute to the mitigation of, and adaptation to, climate change.*'
- 2.7. There is a statutory obligation on Local Plans to therefore contribute to the national climate targets set out in the Carbon Budgets and the 2050 Net Zero target.

Chelmsford City Council's Climate and Ecological Emergency Declaration

- 2.8. The Council declared a Climate and Ecological Emergency on 16 July 2019. Essentially this declaration represents a commitment to take appropriate action to make the Council's activities net-zero carbon by 2030. In January 2020 the Council agreed a Climate and Ecological Emergency Action Plan with an initial focus on fifteen key areas of activity. It is aimed at:
 - reducing carbon emissions
 - lowering energy consumption
 - reducing waste and pollution
 - improving air quality
 - greening Chelmsford
 - increasing biodiversity
 - encouraging more sustainable travel choices.
- 2.9. Progress is being made in Essex and in Chelmsford, from extensive tree planting to improvements to the cycle networks, but we can do so much more and the sooner we do the better to avoid the worst effects. The responsibility doesn't just lie with the national and local government but with parish councils, businesses, voluntary groups as well as individuals.

² <https://www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf>

³ [Essex Net Zero Evidence | Essex Design Guide](#)

3. Preferred Options

Policy Context

National Policy

3.1. All policies in the Local Plan must be positively prepared, justified, effective and consistent with national policy. The National Planning Policy Framework (NPPF) sets out the overarching planning policy framework, supported by the National Planning Practice Guidance (PPG).

3.2. Notwithstanding the provisions set out in the P&CP Act 2004, the NPPF (December 2023) also recognises that the duties under the Climate Change Act 2008 are relevant to the planning system. It states that:

“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 to: shape places in ways that contribute to radical reductions in greenhouse gas 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.” (Para 157, NPPF December 2023)

3.3. And that:

“Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures⁵⁶. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts..” (Para 158 NPPF December 2023)

“Footnote 56: In line with the objectives and provisions of the Climate Change Act 2008.”

3.4. Footnote 56 makes it clear that the proactive approach to mitigating and adapting to climate change must be in line with the objectives and provisions of the Climate Change Act 2008.

3.5. The adopted Local Plan was examined under the 2012 National Planning Policy Framework (NPPF). There have subsequently been updates to the NPPF and the Preferred Options Local Plan has been considered against the requirements of the more recent national planning policy and guidance including the 2023 NPPF. Where possible, changes to the NPPF affecting plan-making have been reflected in the Preferred Options Local Plan.

3.6. Further detail on these key changes for consideration are set out in the table below, included under the section ‘Local Plan Approach’.

National Policy Guidance

- 3.7. Paragraphs 001 Reference ID: 6-001-20140306 to 012 Reference ID: 6-012-20190315 of the PPG set out the relevant climate change evidence base required to support plan making and decision taking in full. The following is a summary of the points for consideration.
- 3.8. Addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-taking. To be found sound, Local Plans will need to reflect this principle and enable the delivery of sustainable development in accordance with the policies in the National Planning Policy Framework. These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008 and co-operate to deliver strategic priorities which include climate change.
- 3.9. In addition to the statutory requirement to take the Framework into account in the preparation of Local Plans, there is a statutory duty on local planning authorities to include policies in their Local Plan designed to tackle climate change and its impacts.
- 3.10. The PPG includes the following as examples of how the challenges of climate change could be addressed through a Local Plan:

Examples of mitigating climate change by reducing emissions:

- Reducing the need to travel and providing for sustainable transport
- Providing opportunities for renewable and low carbon energy technologies
- Providing opportunities for decentralised energy and heating
- Promoting low carbon design approaches to reduce energy consumption in buildings, such as passive solar design.

Examples of adapting to a changing climate:

- Considering future climate risks when allocating development sites to ensure risks are understood over the development's lifetime
 - Considering the impact of and promoting design responses to flood risk and coastal change for the lifetime of the development
 - Considering availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality
 - Promoting adaptation approaches in design policies for developments and the public realm.
- 3.11. When preparing Local Plans local planning authorities should pay particular attention to integrating adaptation and mitigation approaches and looking for 'win-win' solutions that will support sustainable development. The PPG offers examples that could achieve this:
- by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;

- through district heating networks that include tri-generation (combined cooling, heat and power); or
- through the provision of multi-functional green infrastructure, which can reduce urban heat islands, manage flooding and help species adapt to climate change – as well as contributing to a pleasant environment which encourages people to walk and cycle.

3.12. The PPG advises the impact of climate change needs to be taken into account in a realistic way so Local Plans should consider:

- identifying no or low cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity and amenity
- building in flexibility to allow future adaptation if it is needed, such as setting back new development from rivers so that it does not make it harder to improve flood defences in future
- the potential vulnerability of a development to climate change risk over its whole lifetime.

3.13. The Local Plan's evidence base should include information on climate change risks, such as the Strategic Flood Risk Assessment and Water Resource Management Plan and water cycle studies.

3.14. The National Planning Policy Framework expects local planning authorities when setting any local requirement for a building's sustainability to do so in a way consistent with the government's zero carbon buildings policy and adopt nationally described standards. Local requirements should form part of a Local Plan following engagement with appropriate partners, and will need to be based on robust and credible evidence and pay careful attention to viability. In this respect, planning authorities will need to take account of government decisions on the Housing Standards Review when considering a local requirement relating to new homes.

3.15. If considering policies on local requirements for the sustainability of other buildings, local planning authorities will wish to consider if there are nationally described standards and the impact on viability of development. Further guidance can be found under Viability.

3.16. Different rules apply to residential and non-residential premises. In their development plan policies, local planning authorities:

- Can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes
- Are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments.

3.17. It should however be recognised that the bullet points set out above in the PPG are out of date with other legislation. The PPG is yet to be updated to reflect revised Building Regulations 2021 (which have raised the baseline above Code 4), and has not been updated

to reflect the Written Ministerial Statement (WMS) 2015 being superseded by the 2023 WMS. The implications for which are discussed further below.

Other relevant legislation

The Planning and Energy Act 2008

3.18. The Planning and Energy Act 2008 (PEA 2008) gives power to local authorities to set their own energy efficiency standards in their development plan documents. Section 1 of the PEA 2008 provides that:

“(1) A Local planning authority in England may in their development plan documents,, include policies imposing reasonable requirements for –

- (a) A proportion of energy used in development in their area to be energy from renewable sources in the locality of the development;*
- (b) A proportion of energy used in development in their area to be low carbon energy from sources in the locality of the development;*
- (c) Development in their area to comply with energy efficiency standards that exceed the energy requirements of building regulations. [...]*

(4) The power conferred by subsection (1) has effect subject to subsections (5) to (7) and to –

(a) section 19 of the Planning and Compulsory Purchase Act 2005 (c.5), in the case of a local planning authority in England; [...]

(5) Policies included in development plan documents by virtue of subsection (1) must not be inconsistent with relevant national policies in England.”⁴

3.19. The ‘Essex Open Legal Advice – Energy Policy and Building Regulations’⁵ (25th February 2024) confirms that:

“The PEA 2008 therefore establishes that LPAs may set higher standards for energy efficiency in their local plan policies than the baseline required by the Building Regulations provided that such policies are: a) reasonable, b) not inconsistent with national policies; and c) compliant with the usual provisions around plan-making found in Section 19 of the Planning and Compulsory Purchase Act 2004.” (Para 47)

3.20. The Advice goes on to explain that:

“The power in section 1(1) is constrained by the requirement in section 1(5) that policies included in development plans by virtue of section 1(1) “must not be inconsistent with relevant national policies for England”. There is no definition of what the “relevant national policies for England” comprise, although it is notable that the NPPF is the “Government’s planning policies for England” (NPPF paragraph 1). It may be the case that various policies pull in different directions, which would mean that they cannot be applied so as to constrain the power in section 1(1).” (Para 48)

⁴ Planning and Energy Act 2008 [Planning and Energy Act 2008 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/2008/20/section/1)

⁵ Para 47 to 49 [Essex Open Legal Advice – Energy Policy and Building Regulations | Essex Design Guide](#)

“In relation to local energy efficiency policies, the key relevant national policies for England – the NPPF and the PPG – are clear that plans should take a proactive approach to mitigating and adapting to climate change, in line with the objectives and provisions of the CCA 2008. This bolsters, rather than limits, the section 1(1) power, and is in line with the duty in section 19(1A) of the 2004 Act. ...” (Para 49)

Deregulation Act 2015 and Written Ministerial Statements (WMS) 2015 and 2023

- 3.21. The Essex Open Legal Advice⁶ (February 2024) clearly analyses why the Deregulation Act 2015 and the 2015 WMS do not undermine local planning authorities’ powers set out under the PEA 2008. As part of this, the advice highlights that confirmation of local planning authorities’ powers set out under the PEA 2008 has been provided by Ministers and Planning Inspectors on several occasions too.
- 3.22. The Essex Open Legal Advice⁷ goes on to address the 2023 WMS and sets out the legal justification as to why the 2023 WMS does not undermine LPA powers. In addition, the advice identifies significant doubts about the lawfulness of the 2023 WMS and highlights that it is currently under challenge via judicial review.
- 3.23. In paragraphs 81 – 82 the Essex Open Legal Advice concludes that:

“Local authorities have a clear power, in sections 1-5 of the PEA 2008, to adopt planning policies that set higher targets for energy performance standards for development in their area than the national baseline, provided such standards comply with the usual plan-making requirements of section 19 of the Planning and Compulsory Purchase Act 2004 and are reasonable, in that they do not affect the viability of new development to an unreasonable extent.

This position has not been changed by the 2023 WMS. The correct position in law is that LPAs and local plan inspectors have to treat the trenchant language in which the 2023 WMS is written with circumspection. LPAs and planning inspectors cannot lawfully interpret the 2023 WMS in a way that removes or frustrates the effective operation of the power that LPAs still have, via sections 1-5 of the PEA 2008. Nor can it be read to remove or frustrate section 19(1A) of the 2004 Act. This means that the 2023 WMS cannot be interpreted to prevent LPAs from putting forward, and planning inspectors from finding sound, policies which are justified and evidenced and which use metrics other than the TER metric and/or do not require calculation by SAP. Additionally, local decision-makers are also free to rely on local or exceptional circumstances to depart from the 2023 WMS.”

- 3.24. The legal advice is very clear that LPAs have statutory authority to set energy efficiency targets that exceed the baseline in national Building Regulations and there is also no restriction on how the policy is expressed, including the metrics used in a policy and how these are calculated. The key matter is that policies must “*comply with the usual plan-making requirements of Section 19 of the 2004 Act, are justified on the evidence and are*

⁶ Para 50 to 60 [Essex Open Legal Advice – Energy Policy and Building Regulations | Essex Design Guide](#)

⁷ Para 61 to 80 [Essex Open Legal Advice – Energy Policy and Building Regulations | Essex Design Guide](#)

reasonable, in that they do not affect viability of new development to an unreasonable extent” (Para 103, Essex Open Legal Advice).

3.25. Therefore, it is entirely reasonable and legally justified to progress the evidence-led energy metrics policy approach to achieving net zero carbon homes and buildings in Greater Essex, including Chelmsford. This approach also aligns with local and national climate targets and delivers wider benefits to communities.

Local Policy

Current policy

3.26. The adopted Local Plan includes a variety of policies which seek to support the transition to a low carbon future. However, it does not include a specific strategic priority to address this issue and it is not specifically covered within the ‘Vision’. It is, however, a thread which runs through the adopted Plan in the following ways:

- **Strategic Policy S1 (Spatial Principles)** – includes a requirement to locate development to avoid or manage flood risk
- **Strategic Policy S2 (Addressing climate change and flood risk)** - encourages development to provide opportunities for green infrastructure and new habitat creation. Requires all development to have appropriate flood mitigation measures in place
- **Site allocation policies** – where relevant, require developments to provide conserve and enhance nearby designations such as Local Wildlife Sites, create a net gain in biodiversity, habitat mitigation and enhancement/protection, ensure appropriate surface water management and SUDs are provided, improved GI network, including tree planting/protection. enhanced and additional sustainable modes of transport (cycle, pedestrian, public transport, car clubs), all of which contribute to a transition to a low carbon future
- **Development Management Policies** – **DM18** requires all development to be safe from flooding. Major development is required to incorporate appropriate water management measures to reduce surface water run-off and volumes as far as is reasonably practical. **DM19** supports the provision of renewable and low carbon energy development subject to relevant criteria being met. **DM23** seeks to ensure all development is built to a high quality. This includes minimising the use of natural resources. **DM25** sets out the expectation for all new buildings to meet specific sustainability criteria, including water efficiency criteria, EV charging points and build criteria for non-residential buildings. **DM30** deals with contamination and pollution and seeks to ensure developments in or adjacent to an Air Quality Management Area, or where an air quality impact assessment has been provided, that appropriate mitigation is put in place so the development will not have an unacceptable impact on air quality and the health and wellbeing of people.

3.27. In addition to changes in national planning policy and legislation, the review of the adopted Local Plan will consider the achievability and effectiveness of climate change policies in decision making in the adopted Local Plan, corporate plans, policies and priorities of the Council and other relevant plans and guidance.

- 3.28. The adopted [Making Places Supplementary Planning Document](#) (SPD) and its [Self Build and Custom Design Code Template](#) (January 2021) seek to promote and secure high-quality sustainable new development. It is aimed at all forms of development, from large strategic developments, public spaces and places, to small extensions to individual homes. It sets out detailed guidance for the implementation of the policy requirements set out in the adopted Local Plan and provides practical advice to help with schemes from single house extensions to strategic sites and their masterplans. It also provides good practice examples on how development can go beyond planning policy requirements to create the most sustainable and environmentally friendly development possible.
- 3.29. The SPD offers further detailed guidance on principles to consider in respect of sustainable design and construction. It covers ways to reduce water consumption, BREEAM, reducing carbon dioxide and nitrogen emissions, and recycling and waste requirements. Following this guidance will help to secure high quality, well designed sustainable development, future proof new development to allow for fast changing technology and building standards, as well as reduce the use of non-renewable resources and carbon emissions from new buildings. It will also ensure appropriate recycling and waste requirements are provided to all developments.
- 3.30. The [Council's Planning Obligations SPD](#) (January 2021) sets out the Council's approach to seeking planning obligations needed to make sure development is acceptable in planning terms. Of relevance to this topic is the need for possible Section 106 Planning contributions towards flood protection and water management, active and sustainable transport modes, as well as Environmental Mitigation measures, which include tree and new woodland planting to assist in the challenge to tackle climate change. The SPD also seeks to negotiate Section 106 agreements which secure show homes that incorporate optional sustainable design features to showcase the benefits of including such features in a new build and how to move towards a zero-carbon home on developments of over 100 homes.
- 3.31. The Council also has an adopted [Solar Farm Development SPD](#). This SPD gives guidance on how to prepare and submit planning proposals for solar farms, and how we assess them. It considers and applies advice from a number of sources, including the requirements of National Planning Policy and Guidance, local planning policies and other relevant strategies, including the Essex Desing Guide – Solar Farm Guiding Principles.
- 3.32. Collectively these seek to mitigate and adapt development to assist in meeting the climate change challenge. In addition to the Local Plan, there are a number of other local and regional strategies or guidance that inform this topic area.
- 3.33. [Our Chelmsford: Our Plan](#) sets out the Council's priorities which will improve the lives of residents. There are four themes; a fairer and inclusive Chelmsford; a safer and greener place; healthy, active and enjoyable lives and connected Chelmsford. Strategy priorities include to lower energy consumption, carbon and greenhouse gas emissions, and creating a more sustainable approach to growth, development and everyday living.

- 3.34. The City Council [declared a Climate and Ecological Emergency](#) on 16 July 2019. Essentially this Declaration represents a commitment to take appropriate action to make the Council's activities net-zero carbon by 2030.
- 3.35. In January 2020 a [Climate and Ecological Emergency Action Plan](#) with an initial focus on fifteen key areas of activity was agreed by the Council. It is aimed at:
- reducing carbon emissions
 - lowering energy consumption
 - reducing waste and pollution
 - improving air quality
 - greening Chelmsford
 - increasing biodiversity
 - encouraging more sustainable travel choices.
- 3.36. [Net Zero: Making Essex Carbon Neutral \(Essex Climate Action Commission, July 2021\)](#) The Essex Climate Action Commission (ECAC) was formed in 2020. It is an independent, voluntary, cross-party body. The report sets out key steps for how to reach zero carbon by 2050 and recommendations within six core themes; land use and green infrastructure, energy, built environment, transport, waste and community engagement. The ECAC recommendations were endorsed by ECC in November 2021 and form the basis of the [Essex Climate Action Plan \(2021 - 2025\)](#) and inform emerging ECC policies and strategies. Essex County Council has been awarded an A-rating for action on climate change in 2022.
- 3.37. The [South East Inshore Marine Management Plan](#) also forms part of the Statutory Development Plan. It has been adopted since the adoption of the Chelmsford Local Plan. This includes policies to help enhance and protect the marine environment and achieve sustainable economic growth while respecting local communities both within and adjacent to the marine plan area, which includes the coast within Chelmsford's administrative area.
- 3.38. Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy, are a new, strategic approach to identifying cycling and walking improvements required at the local level. Essex County Council has identified 9 strategic corridors within the [Chelmsford LCWIP](#) within the urban area, which is to be updated within the timescales of the plan review. As well as assisting in providing better accessibility these will help to reduce the need for motorised transportation on the roads, helping to reduce emissions. A countywide LCWIP is also being prepared to consider cross boundary corridors and ensure separate related LCWIPs are aligned to ensure improved wider connectivity.
- 3.39. The Essex [Minerals Local Plan](#) and [Waste Local Plan](#) set out further detailed policies and guidance regarding the re-use and recycling of materials on sites. The Minerals Local Plan is undergoing a review to take the plan period to 2040 and was subject to public consultation between February and April 2024. The Regulation 19 consultation is expected to take place late 2024 or early 2025. Proposed Policy S3 - Climate Change requires minerals development (including extensions to existing sites) to incorporate effective measures to minimise greenhouse gas emissions in line with local and national climate targets, and to

ensure effective adaptation and resilience to future climatic changes, for the lifetime of the development (including restoration and aftercare) through the submission of a Climate Change Statement, The Preferred Option plan identifies those site allocations where a mineral resource assessment will be required in order to prevent the sterilisation of mineral resources, and where possible it will be required to use any extracted mineral on site thereby minimising travel movements.

Duty to Co-operate

- 3.40. The Council is committed to co-operating with other bodies on strategic planning matters. The Duty to Co-operate Strategy was reviewed and adopted in January 2022.
- 3.41. The Council will make every effort to seek co-operation on cross-boundary and strategic planning matters in a focused, positive and structured way. We will continue to discuss the review of the adopted Local Plan with neighbouring planning authorities and the prescribed bodies at stages which align with and inform the stages of the review of the adopted Local Plan. These discussions will help to determine the quantum and distribution of Chelmsford's future growth, which will be supported by updated evidence.
- 3.42. At the same time, we continue to work constructively with nearby planning authorities on their own local plan preparation. Early engagement and demonstrating co-operation both with neighbours and the prescribed bodies through Statements of Common Ground are key to meeting the legal duty to co-operate.
- 3.43. In some cases, discussion on strategic matters continue through existing joint working arrangements. We will also arrange further joint Officer and Member meetings, technical stakeholder meetings, focused workshops, and prepare Statements of Common Ground.
- 3.44. The strategic matters for the review of the adopted Local Plan have been identified as follows:
- Delivering homes for all including Gypsy and Traveller accommodation
 - Jobs and economy including green employment and regeneration
 - Retail, leisure, and cultural development
 - Sustainable transport, highways and active travel
 - Climate change action and mitigation including flood risk and zero carbon
 - Natural and historic environment including increased biodiversity and green/blue/wild spaces and connectivity of ecological networks
 - Community infrastructure including education, health and community facilities
 - Utility infrastructure including communications, waste, water and energy
 - London Stansted Airport future airspace redesign.
- 3.45. As part of on-going Duty to Co-operate relevant to this topic, CCC has attended relevant meetings and provides updates on our plan review such as through the Essex Planning Officers Association (EPOA) and the Climate Planning Policy Support Group managed by the ECC Climate and Planning Unit (CaPU). We've approached other LPAs, the Lead Local Flood Authority (LLFA) and the Environment Agency for relevant information to support our

Strategic Flood Risk Assessment (SFRA) update which is in progress. Details of ongoing activity are contained in the Duty to Co-operate Statement, published as an interim report to accompany the Preferred Options consultation (available via www.chelmsford.gov.uk/lp-review).

3.46. As part of the Preferred Options consultation we will be having meetings with neighbouring Local Planning Authorities as well as other relevant Duty to Co-operate bodies. Any strategic cross boundary issues relating to Climate Change raised through these meetings and the consultation will be further considered and any further engagement undertaken if required.

Integrated Impact Assessment

3.47. The Council is carrying out an ongoing Integrated Impact Assessment (IIA) as the review of the adopted Local Plan develops.

3.48. The IIA will assess the following aspects of sustainable development:

- Sustainability Appraisal (SA)
- Strategic Environmental Assessment (SEA)
- Habitats Regulations Assessment (HRA)
- Health Impact Assessment (HIA)
- Equality Impact Assessment (EqIA).

3.49. The SA, SEA and HRA are a requirement of national policy. The HIA and EqIA are voluntary, but the Council believes they will help to provide a complete picture of the sustainability of the review of the adopted Local Plan.

3.50. The IIA identifies the key sustainability issues for the review of the adopted Local Plan, which feed into a framework against which proposals are assessed. It covers the potential environmental, social, economic and health performance of the proposed changes to the adopted Local Plan and any reasonable alternatives. It will be used at each stage of reviewing the Plan, and be subject to separate consultation, as follows:

- Scoping Report
- Issues and Options
- Preferred Options – Current Stage
- Submission
- Adoption.

3.51. The key sustainability issues and Appraisal Framework Objectives relating to this Topic Paper are:

Key sustainability issue	Appraisal Framework Objective
Population and community	4. Sustainable Living and Revitalisation: To promote urban renaissance and support the vitality of rural centres, tackle deprivation and promote sustainable living.
Water	8. Water: To conserve and enhance water quality and resources. 9. Flood Risk: To reduce the risk of flooding to people and property, taking into account the effects of climate change.
Air quality	10. Air: To improve air quality.
Climate change	11. Climate Change: To minimise greenhouse gas emissions and adapt to the effects of climate change.
Material assets	12. Waste and Natural Resources: To promote the waste hierarchy (reduce, reuse, recycle, recover) and ensure the sustainable use of natural resources.

3.52. Overall, the Preferred Options IIA report notes that the Preferred Options Consultation Document has been assessed as having a cumulative significant positive effect on Sustainable Living and Revitalisation (IIA Objective 4).

3.53. In relation to Water (IIA Objective 8) the Plan has been assessed as having a cumulative mixed positive and negative effect. However, it is noted in the Preferred Options IIA that any anticipated potential effects on water from development could be lessened through the application of the proposed Local Plan policies and through mitigation measures agreed at the individual planning application stage.

3.54. In addition, the policies of the Plan promote sustainable design (which is expected to help minimise the consumption of water at new developments), seek to protect existing utilities infrastructure and will help ensure that there is sufficient infrastructure capacity to accommodate growth. Hanningfield Reservoir Treatment Works, a major site containing water treatment facilities, is also designated as a Special Policy Area. Through these provisions, the Preferred Options Consultation Document is expected to help lessen the adverse effects of development on water resources.

3.55. In relation to Flood Risk (IIA Objective 9) the Preferred Options IIA notes that a number of proposed site allocations are located partially within areas of flood risk. However, the policies of the Preferred Options Consultation Document seek to minimise flood risk and ensure that development does not give rise to flood risk elsewhere, in accordance with a sequential, risk-based approach. In particular, Policy S9 (Infrastructure Requirements) stipulates that planning permissions for all types of development will only be granted where it can be

demonstrated that the site is safe from all types of flooding and it does not worsen flood risk elsewhere. In addition, all major development, through Strategic Growth Site and Growth Site Policies, will be required to incorporate water management measures to reduce surface water run-off and ensure that it does not increase flood risk elsewhere. In consequence, it is anticipated that the potential for significant adverse effects on flood risk will be reduced. Through the plan's emphasis on multifunctional green infrastructure provision there may also be opportunities to enhance flood storage and reduce surface water run-off. Overall, the Preferred Options Consultation Document has been assessed as having a cumulative mixed positive and negative effect on IIA Objective 9.

- 3.56. In relation to Air (IIA Objective 10) growth over the plan period will result in increased emissions to air during both the construction of new development and once development is complete. However, the concentration of new residential and employment development in and adjacent to urban areas, the promotion of strategic mixed use sustainable urban extensions that reflect Garden Community principles and the delivery of strategic improvements to the walking/cycling network (including through the Green Wedge) are all likely to reduce the need to travel by car and associated emissions to air. Investment in transportation infrastructure may also help to address air quality issues.
- 3.57. Policy DM30 (Contamination and Pollution) of the Preferred Options Consultation Document stipulates that for developments where an air quality impact assessment has been provided, permission will only be granted where the Council is satisfied that (after selection of appropriate mitigation) the development will not have an unacceptable significant impact on air quality, health and wellbeing. Overall, the Preferred Options Consultation Document has been assessed as having a cumulative mixed positive and negative effect on IIA Objective 10.
- 3.58. In relation to Climate Change (IIA Objective 11) the Preferred Options IIA notes that new development will result in increased energy use and associated greenhouse gas emissions. However, the concentration of new residential and employment development in and adjacent to urban areas, the promotion of strategic mixed use sustainable urban extensions that reflect Garden Community principles and the delivery of strategic improvements to the walking/cycling network (including through the Green Wedge) are all likely to reduce the need to travel by car and associated emissions of greenhouse gases.
- 3.59. The Preferred Options Consultation Document also provides a strong policy framework that seeks to minimise energy use and greenhouse gas emissions and promote climate change adaptation through the siting and design of development. Policy DM31 (Net Zero Carbon Development) sets out standards expected of new development to ensure that wider aspirations for zero carbon targets are met over the longer term. Overall, the Preferred Options Consultation Document has been assessed as having a cumulative mixed positive and negative effect on objective 11.
- 3.60. Regarding Waste and Natural Resources (IIA Objective 12) the Preferred Options IIA notes that the construction of new development will require raw materials (such as aggregates, steel and timber) which may place pressure on local mineral assets. However, the volume of materials required is not expected to be significant (in a regional or national context). Further, it is anticipated that there would be opportunities to utilise recycled and sustainably

sourced construction materials as part of new developments and in this regard, the policies contained in the Preferred Options Consultation Document promote the sustainable use of natural resources. Growth will also generate waste, although it is anticipated that a proportion of arisings would be reused or recycled.

3.61. Several of the proposed site allocations are located within Minerals Safeguarding Areas and in consequence, there is the potential for significant negative effects on this objective due to sterilisation of the mineral resource. However, it is anticipated that the policies of the Preferred Options Consultation Document will help to avoid significant adverse impacts in some cases (through the requirements for Minerals Resource Assessment). On balance, the Preferred Options Consultation Document has been assessed as having a cumulative mixed positive and negative effect on IIA Objective 12, although some uncertainty remains.

3.62. Section 5 of the Preferred Options IIA includes recommendations which will be considered as part of further refinement of the Plan before Submission including those related to climate change policies.

Evidence base

3.63. In accordance with the requirements of the NPPF, policies and their requirements should be based on up-to-date evidence.

3.64. In addition to the IIA, the following documents are of particular relevance to climate change and are supporting the Review of the Adopted Local Plan. Evidence base documents are available via: www.chelmsford.gov.uk/lp-review:

<u>Document</u>	<u>Summary</u>	<u>Status</u>
CC009: Chelmsford Surface Water Management Plan 2014 (EB104)	The study area includes the city of Chelmsford and the surrounding settlements of Boreham, Broomfield, Chignal, Galleywood, Great Baddow, Little Waltham and Springfield. The modelling was updated in 2018 to identify revised Critical Drainage Areas which, along with CDA flood data and areas at risk from flooding from surface water (High, Medium, Low) is set out in the SuDs Design Guide for Essex - Chelmsford SWMP	Published
CC001: Strategic Flood Risk Assessment 2024	Provides a comprehensive evidence base on flood risk, and is used to inform decisions on the location of future development and the preparation of sustainable policies for the long-term management of flood risk.	Published

<u>Document</u>	<u>Summary</u>	<u>Status</u>
CC002: Water Cycle Study, Scoping 2024	This provides a preliminary assessment of the baseline conditions and the three emerging spatial strategies for the plan period up to 2041 and supports CCC in developing the final Preferred Options Spatial Strategy to take forward for the Regulation 18 Preferred Options Consultation.	Published
CC003: Water Cycle Study, Stage 2 Detailed Study 2024	This detailed study provides an in depth assessment of the final spatial strategy for the plan period up to 2041. The study proposes a water efficiency value of 105 or 100 l/h/d for new dwellings alongside a new policy on integrated water management. It also proposes that Policy DM25 – Sustainable Buildings is expanded upon to require non-residential buildings with a floor area over 500m ² to achieve improved water efficiency.	Published
CC004: Essex Open Legal Advice – Energy policy and Building Regulations 2024	Legal advice regarding the ability of local planning authorities to set local plan policies that require development to achieve energy efficiency standards above Building Regulations.	Published
CC005: Report 1: Essex Net Zero Policy – Technical Evidence Base 2023	This report considers the technical and cost implications of delivering net zero buildings and the implications for owners, occupiers, developers and local planning authorities to inform and develop a consistent approach to emerging planning policy across Essex.	Published
CC006: Report 2: Essex Net Zero Policy – Summary of Policy, Evidence and Validation Requirements 2023	This report gives a high-level summary of the proposed Net Zero policy requirements, evidence and validation requirements for different planning applications, monitoring guidance and high-level design guidance for two different domestic typologies.	Published

<u>Document</u>	<u>Summary</u>	<u>Status</u>
CC007a: Net Zero Carbon Viability Study for Essex – Summary report 2022	This report discusses the findings from the research undertaken to meet Essex Climate Action Commission's project objectives. It includes a high-level assessment of the viability of different development types.	Published
CC007b: Net Zero Carbon Viability Study for Essex – Main report 2022	This report discusses the findings from the research undertaken to meet Essex Climate Action Commission's project objectives. It includes a high-level assessment of the viability of different development types.	Published
CC007c: Net Zero Carbon Viability Study for Essex – Technical Appendix 2022	This report discusses the findings from the research undertaken to meet Essex Climate Action Commission's project objectives. It includes a high-level assessment of the viability of different development types.	Published
V001: Chelmsford Local Plan Viability Update 2023	This viability work assesses the cumulative impact of policies on planned development. The assessment models various levels of policy requirements on several different typologies of development.	Published
Air Quality Assessment	This is expected to consider the impact of the proposed development sites on local air quality now and in the future.	To be commissioned

Issues and Options Consultation Feedback

3.65. The Review of the Local Plan Issues and Options document was published for consultation between August and October 2022. A total of 1,178 responses were received from 711 respondents. The 'You Said We Did' (YSWD) Feedback Report, available via [Local Plan Review \(chelmsford.gov.uk\)](https://www.chelmsford.gov.uk/Local-Plan-Review), sets out the main issues raised in the representations received, a summary of how the Preferred Options Local Plan has been informed by the comments and the plan evidence base. Main issues raised in the consultation responses include:

- General support for the Strategic Priorities and Policies to address Climate Change
- Support for the need to reduce water use through policies
- Representations calling for a need to ensure the policy requirements set out (net zero carbon, new tree planting, and greater water efficiency), alongside all other development requirements, are fully evidenced and financially viable.

Local Plan Approach

Strategic policies

- 3.66. The Spatial Principles set out in Strategic Policy S1 guide how the Strategic Priorities and Vision in the Plan will be achieved. They will underpin spatial planning decisions and ensure that the Local Plan focuses growth in the most sustainable locations. The changes proposed to them contribute to delivering the Council's response to the declared climate and ecological emergency by introducing greater emphasis on the natural environment and reducing carbon emissions.
- 3.67. Strategic Policy S2 – Addressing Climate Change and Flood Risk is amended to introduce the move to a 'net zero carbon' future and introduces further enhancements to the Plan regarding addressing Climate Change, including:
- Development that results in net zero carbon emissions and exceeds Building Regulations Parts F and L in accordance with Policy DM31
 - A greater emphasis on providing active transport to support development
 - Introducing the need to minimise over-heating from development
 - Expanding the policy to protect and provide well-connected multifunctional green infrastructure, including new woodland creation and tree planting.

Net zero carbon emissions on all development

- 3.68. Policy DM31 in the Preferred Options Local Plan Consultation Document forms part of the Chelmsford Local Plan's positive and proactive approach towards mitigating and adapting to climate change and addresses the need for increasing renewable energy generation and improving energy efficiency. The policy takes account of all the energy used in a home or building (including both regulated and unregulated energy uses⁸) and the carbon emissions that come from the operational use of a home or building.
- 3.69. The Policy is a key part of Chelmsford Local Plan's proactive approach to mitigating and adapting to climate change, and it also helps ensure communities and infrastructure are more resilient to climate impacts as required by the NPPF.
- 3.70. The policy is necessary to ensure that new homes and buildings in Chelmsford align with local and national climate targets and contribute to wider energy system objectives (such as increased energy security and improved energy efficiency and decarbonisation of the grid). The policy will also deliver significant other benefits, for example:
- By helping to alleviate current and future fuel poverty for residents due to the significantly lower energy needed for space heating than a standard Building Regulations (or proposed Future Homes Standard) home.
 - By delivering homes and buildings that are adapted and more resilient to a changing climate than standard Building Regulations (or proposed Future Homes/Buildings

⁸ Regulated Uses include heating, lighting, hot water & ventilation; Unregulated uses include plug loads such as cooking, appliances, TVs, computers, other electrical equipment. [LETI Climate Emergency Design Guide](#)

Standard) homes or buildings, which benefits the health, comfort and well-being of occupiers.

- By helping to stimulate supply chains and skills development that are necessary to support both new build net zero carbon development and retrofitting existing buildings.

- 3.71. The policy also responds to growing consumer demand⁹ for highly energy efficient, comfortable, climate resilient homes and buildings.
- 3.72. By ensuring new homes and buildings are net zero carbon in operation from the outset and are built to a robust net zero standard accounting for all a buildings energy use (known as regulated and unregulated energy), then the Council will be able to demonstrate, partly through Policy DM31, that it is fulfilling its legal duty and contributing to national climate targets. In addition, the policy also helps contribute to locally set targets which the City Council has committed to through its Climate Emergency declaration and subsequent Action Plan.
- 3.73. Setting the energy efficiency standards included in Policy DM31 is consistent with the duties of the Climate Change Act 2008 and the Planning and Compulsory Purchase Act 2004 and aligns with the NPPF.
- 3.74. Policy DM31 supports the Chelmsford Climate Emergency declaration and target to make the City Council's activities net zero carbon by 2030. It also aligns with the Essex Climate Action Commission¹⁰ recommendations for new build development, including the target for all planning permissions granted for new development to be net zero carbon in operation by 2025.
- 3.75. Policy DM31 is based on a comprehensive evidence base that has been collaboratively established between the Essex Climate Action Commission, Essex County Council and the local planning authorities of Greater Essex. The aim of the evidence base is to provide a clearly defined, consistent planning policy approach to net zero carbon development in Greater Essex providing much needed certainty and clarity to the development industry and other stakeholders.
- 3.76. The planning policy position developed for net zero carbon homes and buildings is published on the Essex Design Guide¹¹ and is based on the 'energy metrics' approach which aligns with best practice advocated by leading industry bodies and experts¹² and the Net Zero Hubs (linked to the Department of Energy Security and Net Zero)¹³ and aligns with the 'net zero' energy metrics policies adopted by other local authorities. The approach also aligns with the advice of the Climate Change Committee¹⁴ who advised in 2019 that:

“new homes should deliver ultra high levels of energy efficiency as soon as possible and by 2025 at the latest, consistent with a space heat demand of 15-20 kWh/m²/yr. Designing in

⁹ Paras 37 – 39 [Essex Open Legal Advice – Energy Policy and Building Regulations | Essex Design Guide](#)

¹⁰ [ECAC Commission Report \(essexclimate.org.uk\)](#)

¹¹ [net-zero-carbon-planning-policy-for-greater-essex-november-2023.pdf \(essexdesignguide.co.uk\)](#)

¹² For example: [LETI](#), [UKGBC](#), [RIBA](#), [UK Net Zero Carbon Building Standard](#), [Good Homes Alliance](#),

¹³ South West Net Zero Hub [West of England Net Zero New Build Policy Evidence - South West Net Zero Hub \(swnetzerohub.org.uk\)](#)

Greater South East Net Zero Hub [HubGuide12-PlanningNetZero-PG0.1-Feb2021.pdf \(gsenetzerohub.org.uk\)](#)

¹⁴ [UK housing: Fit for the future? - Climate Change Committee \(theccc.org.uk\)](#)

these features from the start is around one-fifth of the cost of retrofitting to the same quality and standard.” (Page 14, UK Housing: Fit for the Future Report 2019).

- 3.77. The ‘Net Zero’ evidence base¹⁵ established for Essex includes a Net Zero Carbon Viability Study¹⁶ by Three Dragons consultants which provided a high-level financial viability assessment of building to higher energy efficiency standards (similar to Passivhaus) and incorporating non fossil fuel heating and renewable energy technology. The Study findings indicated that it was viable to build to this standard for most development types assessed in the majority of Essex.
- 3.78. The ‘Net Zero Policy Study for Essex’¹⁷ by Introba, Etude and Currie & Brown progressed the recommendations of the Three Dragons study and explored the technical feasibility of building to a clearly defined net zero carbon in operation standard that aligned with climate targets and addressed both regulated and unregulated energy uses of a building. The Study included detailed costings of the policy approach recommended. These costings have been used in the Chelmsford Local Plan Viability Study¹⁸.
- 3.79. The Essex net zero evidence base, supplemented by the Chelmsford Viability Study, demonstrates that Policy DM31 is technically feasible, financially viable and legally justified. The policy is therefore considered reasonable and justified and accords with the provisions of the PEA 2008.
- 3.80. Policy DM31 will help ensure that new homes and buildings are designed and built so that energy demand is minimised; where energy is needed it is used as efficiently as possible; and opportunities for on-site renewable energy generation are maximised. It uses the best practice, measurable, clearly defined, absolute, energy metrics approach of setting space heating and energy use intensity limits and a target for renewable energy generation on-site (incorporating an energy offsetting mechanism which will deliver off-site renewables in order to provide flexibility for instances where the on-site target is not technically possible).
- 3.81. By achieving these measures, homes and buildings will be more resilient to a changing climate; are highly energy efficient and generate renewable energy to achieve an operational energy balance on site over the course of a year (for both regulated and unregulated energy use); are truly net zero carbon in operation from the outset; and align with local and national climate targets.
- 3.82. The policy is necessary to address the shortcomings within the Building Regulations 2021 and the proposed Future Homes/Buildings Standard 2025. These do not adequately address operational carbon emissions from new development as they only cover a proportion of energy use of a building, namely regulated energy use. In addition, because the compliance models are a relative improvement over a ‘notional’ building then a key element of energy efficient design – the building form – is not rewarded. Performance gap issues and the use of rapidly out of date carbon factors also make it difficult to compare the performance of buildings constructed at different times.

¹⁵ [Essex Net Zero Evidence | Essex Design Guide](#)

¹⁶ Three Dragons (August 2022) [Net Zero Carbon Viability and Toolkit Study | Essex Design Guide](#)

¹⁷ Introba et al (July 2023) [Essex Net Zero Policy Study | Essex Design Guide](#)

¹⁸ [Chelmsford Local Plan Viability Study](#)

- 3.83. Using the energy metrics approach in Policy DM31 addresses these issues and ensures that the policy is ‘future proofed’ by continuing to incentivise and drive forward energy efficiency improvements and renewable energy generation even when the grid is fully decarbonised.
- 3.84. Policy DM31 is based on the ‘Planning Policy Position for Net Zero Carbon Homes and Buildings in Greater Essex’, prepared in collaboration with the Greater Essex local planning authorities based on evidence commissioned by the Essex Climate Action Commission, and led by the Climate and Planning Unit at Essex County Council.
- 3.85. The evidence base to support this approach is set out above. It is open source and is available on the Essex [Net Zero Evidence¹⁹ page](#) of the Essex Design Guide (EDG). It is supplemented by each Essex LPA’s own local plan evidence base, particularly with regard to local plan viability.
- 3.86. To complement this evidence, [practical design advice](#) is provided (and being added to) on the Essex Design Guide focusing on how to design developments (of all scales and types) to meet the net zero carbon and energy standards, mitigate potential overheating risk²⁰ and to address other inter-related sustainability issues. The aim is to ensure new development mitigates, adapts and is resilient to a changing climate.
- 3.87. Evidence commissions are underway led by the Essex Climate and Planning Unit analysing supply chain and skills development factors and identifying potential opportunities for supporting interventions.
- 3.88. Energy performance targets incorporated into planning policy also align with evidence from industry bodies and government agencies including the UK Green Building Council²¹, the Low Energy Transformation Initiative²², the South West Net Zero Hub²³ (together with the Greater South East Net Zero Hub – guidance note²⁴) and the Government Property Agency²⁵ and the Climate Change Committee²⁶.
- 3.89. Report 2²⁷ of the Essex Net Zero Policy Study (July 2023) by Introba (et al) supports LPAs and applicants with the implementation of the recommended policy approach through the development management process by setting out the information that needs to be submitted with planning applications. The report also includes design guidance and evidence checklists.

¹⁹ [Essex Net Zero Evidence | Essex Design Guide](#)

²⁰ [20220474-essex-solar-design-guide-rev-b.pdf \(essexdesignguide.co.uk\)](#)

²¹ Net Zero Carbon Buildings: A Framework Definition, UKGBC, 2019 [Net-Zero-Carbon-Buildings-A-framework-definition.pdf \(ukgbc.org\)](#);

The Commercial New Build Policy Playbook, UKGBC, 2021 [Commercial Playbook | UKGBC](#)

²² LETI Climate Emergency Design Guide, LETI, 2020 [Climate Emergency Design Guide | LETI](#)

²³ Net Zero New Buildings: Evidence and guidance to inform planning policy, South West Energy Hub, 2021 [West of England Net Zero New Build Policy Evidence - South West Net Zero Hub \(swnetzerohub.org.uk\)](#)

²⁴ Greater South East Net Zero Hub – Planning Net Zero Guide 2021 [HubGuide12-PlanningNetZero-PG0.1-Feb2021.pdf \(gsenetzerohub.org.uk\)](#)

²⁵ Sustainability and Net Zero: Design Guide – Sustainability Annex, Government Property Agency, 2022 [Microsoft Word - Sustainability & Net Zero Annex - MArch 2022.docx \(publishing.service.gov.uk\)](#)

²⁶ UK housing: Fit for the future?, Climate Change Committee, 2019 [UK housing: Fit for the future? - Climate Change Committee \(theccc.org.uk\)](#)

²⁷ Introba Report 2 – Summary of Policy, Evidence and Validation Requirements’ - [Essex Net Zero Policy Study | Essex Design Guide](#)

- 3.90. To supplement Report 2 and to provide clarity to local planning authorities and other stakeholders, a detailed Net-Zero Implementation and Monitoring Plan is being developed by the Climate and Planning Unit (CaPU) to sit alongside the 'Planning Policy Position for Net Zero Carbon Homes and Buildings in Greater Essex'²⁸. This will set out supporting documents including detailed validation checklist requirements, simple checklists for planners in assessing energy strategies, planning conditions, s106 clauses, and monitoring templates at various stages of the planning process.
- 3.91. The diagram at Appendix 1 sets out a draft high level implementation process of the net zero policy in terms of approximate planning stages as well as the RIBA Plan of Work stages. This will assist applicants to understand what is expected and when through the planning process for minor and major applications as well as provide clarity to Development Management Officers.
- 3.92. Policies similar to Policy DM31 which set energy efficiency standards beyond Building Regulations are already in place in three local planning authorities (LPAs) or areas in England having been subject to examination, recommended for approval by an Independent Inspector and subsequently adopted in their development plan documents. A similar approach is also being progressed by a number of other LPAs and are at various stages of the Local Plan process.
- 3.93. The only decision that has been an anomaly to the above has been the West Oxfordshire Salt Cross Area Action Plan where the Inspectors' report (1 March 2023) found the net zero policy to be unsound. However, the lawfulness of the Inspector's decision has been successfully challenged in *R (Rights: Community: Action Ltd) v SSLUHC* [2024] EWHC 359 (Admin) and the decision quashed in the judgement handed down on 20 February 2024.

Carbon neutrality of the Local Plan

- 3.94. Suggestions have been made that there should be a whole Plan carbon assessment carried out, the findings of which could be used to help steer the spatial strategy in a way which responds to the stated priorities on climate and ecological emergency and that demonstrate alignment with local and national climate targets.
- 3.95. As part of the preparation of the IIA the consultants have considered how the Local Plan and the IIA in its appraisal of the Local Plan address carbon neutrality.
- 3.96. This is set out in full in section 5 of the Preferred Options IIA ,but essentially the proposed approach towards addressing carbon neutrality is centred on Policy DM31 (Net Zero Carbon Development (in Operation)) which in turn is supported by references throughout the Local Plan Preferred Options, and commitments made in respect of the carbon performance of strategic growth areas, which together present the basis for long-term transition.
- 3.97. The majority of the Strategic Priorities that guide the approach of the Local Plan, are relevant to the potential to meet net zero carbon. The Strategic Priorities set out the detail of how the

²⁸ Planning Policy Position for Net Zero Carbon Homes and Buildings in Greater Essex (November 2023) [Essex Net Zero Policy | Essex Design Guide](#)

Strategic Priorities will be achieved, and a number of these also have the potential to impact the achievement of net zero.

- 3.98. In light of this any further carbon assessment of the Preferred Options Local Plan is not considered necessary.

Water efficiency

- 3.99. Policy DM25 (Sustainable Buildings) continues to require all new dwellings to meet the Building Regulations optional requirement for water efficiency of 110 litres/person/day. It also adds a new policy requirement for new dwellings to provide rainwater harvesting on site. The policy requirements reflect the Water Cycle Study Scoping Report 2024, which recommends rainwater harvesting for water re-use. This policy also reflects Essex and Suffolk Water's latest draft Water Resources Management Plan 2024, the [Essex County Council SuDS Design Guide](#) and Essex County Council's Essex Water Strategy (2024).

- 3.100. Policy requirements have been tested and are supported by the Local Plan Viability Update.

Tree planting

- 3.101. Policy DM17 (Trees, Woodland and landscape features) introduces the policy requirements for three new trees to be planted per net new dwelling for all new housing development. It also requires new strategic scale employment and infrastructure development (defined as development in excess of 1,000 sqm or 0.1 hectares) to plant a significant number of new trees in addition to the normal landscaping requirements. Such planting may include the creation of tree lined streets as set out in the NPPF.

- 3.102. These requirements will assist in tackling the Climate and Ecological Emergency declared by the Council, and its subsequent Action Plan.

Renewable/low carbon energy production

- 3.103. The two new Garden Community site policies (Strategic Growth Sites 6 and 16a) encourage the appropriate development of renewable, low carbon and decentralised energy schemes on site together with mass waste collection systems where appropriate.

- 3.104. The Council has considered the need to allocate specific sites for renewable energy production in the Plan. However, it concluded that this was not necessary as the suite of policies within the Plan allow for such developments to come forward. A number of planning applications for such large-scale development, including a large DCO for 'Longfield Solar Farm' have been approved in the Council's administrative area, demonstrating that the policies are sufficient to allow for such development to come forward and that there is no specific need to allocate sites.

Air Quality

- 3.105. Air Quality Management Areas (AQMAs) are declared by local authorities when air quality objectives are not being achieved in a certain area. Chelmsford City Council has two

declared AQMAs in the adopted Local Plan; one at and around the Army and Navy roundabout in Chelmsford and one at a short stretch at the A414 Maldon Road in Danbury. The Army Navy AQMA was first declared in 2005 (and amended in 2012). The Danbury AQMA was declared in 2018. The pollutants that were being exceeded in both locations was Nitrogen Dioxide (NO₂) measured as an annual mean.

3.106. DEFRA technical guidance TG.22 sets out the process for how local authorities must determine if AQMAs are to be amended or revoked.

3.107. Where there have been no exceedances over the previous 5 years, local authorities must make plans to revoke the AQMA. Revoking an AQMA should also be considered if 3 consecutive years of compliance with levels has been demonstrated (10% below the borderline threshold of the relevant objective).

3.108. Taking this into account, a full report was sent to DEFRA setting out the rationale behind revocation of the two AQMAs, including information on results of air quality monitoring at both the Army and Navy AQMA and the A414 Maldon Road, Danbury AQMA. As a result, the two AQMAs were officially revoked on 14 March 2024 and are therefore not carried forward in the Preferred Options Local Plan.

NPPF 2023 Checklist

3.109. The Council has reviewed the Preferred Options Local Plan against the requirements of the latest 2023 NPPF. The table below shows that the plan meets the majority of requirements in respect to climate change. The full Preferred Options Local Plan Form and Contents Checklist (March 2024) is available at www.chelmsford.gov.uk/lp-review

Commentary key:

Preferred Options Local Plan meets NPPF requirement
Preferred Options Local Plan partially meets NPPF requirement
Preferred Options Local Plan does not meet NPPF requirement

NPPF Requirement	NPPF Paragraph	Approach in the Preferred Options Local Plan
<i>Climate change, flooding and coastal change</i>		
Take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperature.	158	Set out in plan through Strategic Priority 1 and various policies including Strategic Policy S2, DM16, DM18, DM19, DM25 and DM31. Making Places SPD further supports this.
Support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts.	158, 159	Measures to ensure the future resilience of communities and infrastructure to climate change impacts are set out in the plan through Strategic Priority 1 and

NPPF Requirement	NPPF Paragraph	Approach in the Preferred Options Local Plan
<p>Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.</p> <p>(Parliamentary Statement on Planning – Local Energy Efficiency Standards Update on 13 December 2023 states that the Government does not expect plan-makers to set local energy efficiency standards for buildings that go beyond current or planned buildings regulations. Any planning policies that propose to go beyond should ensure that amongst other considerations that development remains viable and that the additional requirement is expressed as a percentage uplift of a dwelling's Target Emissions Rate calculated using a specified version of the Standard Assessment Procedure).</p>		<p>various policies including Strategic Policy S2, DM16, DM18, DM19, DM25, DM31 and site allocation policies including SGS1cc and GS9a. The Making Places SPD further supports this.</p> <p>DM31 sets a local standard for net zero carbon development (in operation) which goes beyond building regulations. The principle for this policy is supported by the plan evidence base including the Local Plan Viability Study and Essex Net Zero Policy – Technical Evidence Base 2023. Further information will also be set out in the Net Zero Carbon Topic Paper. Further work will be undertaken to locally test the requirement to be expressed as a percentage uplift of a dwelling's Target Emissions Rate calculated using a specified version of the Standard Assessment Procedure. The outputs of this work will inform the Pre-Submission Local Plan.</p>
<p>Increase the use and supply of renewable and low carbon energy and heat by providing a positive strategy for energy from these sources, consider identifying suitable areas for renewable and low carbon energy sources, and identifying opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.</p> <p>In determining planning applications, local planning authorities should give significant weight to the need to support energy efficiency and low carbon heating improvements to existing buildings, both domestic and non-domestic.</p>	160, 164	<p>The plan provides a positive strategy for renewable and low carbon energy through various policies including Strategic Policy S2, Policies DM19 and DM31 and site allocation policies including SGS6 and SGS16a. Making Places SPD further supports this. It is not considered necessary to identify specific site allocations for renewable and low carbon energy sources – more details will be set out in the Preferred Options Climate Change Topic Paper.</p> <p>Policy DM31 Part B provides support for the energy efficiency and low carbon heating improvements to existing buildings.</p>

NPPF Requirement	NPPF Paragraph	Approach in the Preferred Options Local Plan
Manage flood risk from all sources and apply a sequential, risk based approach to the location of development.	166, 167	Set out in the plan through various policies including Strategic Policies S1, S2 and S9, Policy DM18 and site allocation policies. The plan is supported by updated evidence base reports including Strategic Flood Risk Assessments Level 1 and 2, Water Cycle Studies and Sequential and Exception Testing.
Steer new development to those areas with the lowest risk of flooding from any source. If this is not possible, the exception test may have to be applied, informed by the potential vulnerability of the site and of the development proposed. Where this is the case, sites needs to demonstrate that the development would provide wider sustainability benefits outweighing the flood risk and that the development would be safe for its lifetime without increasing flood risk elsewhere (and where possible will reduce flood risk overall).	168 - 170	Set out in the plan through various policies including Strategic Policies S1, S2 and S9, Policy DM18 and site allocation policies. The plan is supported by updated evidence base reports including Strategic Flood Risk Assessments Level 1 and 2, Water Cycle Studies and Sequential and Exception Testing.
Avoid inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast.	177	Set out in the plan through various including Strategic Policies S1, S2 and S9, Policy DM18 and site allocation policies. The plan is supported by updated evidence base reports including Strategic Flood Risk Assessments Level 1 and 2, Water Cycle Studies and Sequential and Exception Testing.

Additional alternative approaches considered

3.110. Throughout the Preferred Options Local Plan each policy includes any 'Alternatives considered'. National Planning Practice Guidance (NPPG) makes it clear that a Local Plan reflects sustainability objectives and has considered reasonable alternatives. The alternatives considered have been tested by the Preferred Options Integrated Impact Assessment (IIA), alongside the proposed policies, to help ensure that the Preferred Options plan is justified and is an appropriate strategy, when considered against the alternatives and other available and proportionate evidence. Key alternatives considered in relation to Climate Change include:

- **No policy for net zero carbon emissions and rely on NPPF and Building regulations** - The NPPF sees the transition to a low carbon future climate change as a core planning principle. However, it does not provide detailed guidance on the Council's expectations for new development. It is considered that a policy is required to give clarity to developers and local communities. Building regulations do not yet see new buildings as net zero carbon. The Council's priorities are to move towards a net zero carbon environment as soon as possible.
- **No policy for new tree planting and rely on the NPPF** - This would not pick up on local policies for tree planting.
- **No policy requirement for optional Building Regulations requirement for water efficiency or rainwater harvesting** – This would not cover additional sustainable features which are at the forefront of climate change and are a key issue for the Plan period.

4. Next Steps

- 4.1. Since the publication of the Preferred Options Local Plan it should be noted that Anglian Water have shared a draft Policy which includes requirements for new dwellings to achieve a water efficiency of 110 litres/person/day or 80 litres/person/day for developments over 10 dwellings. The Council acknowledge the emerging protocol and proposals set out by Anglian Water and will continue to review this position and any policy amendments including those proposed within the Detailed Water Cycle Study (2023) required at the next stage of the Local Plan.
- 4.2. Essex County Council, as the Lead Local Flood Authority for Chelmsford prepares and maintains Surface Water Management Plans (SWMPs) to plan for future flooding and to better understand the local surface flood risk within parts of the county. The SWMPs define the Critical Drainage Areas (CDAs) within the SWMP study areas providing evidence to inform Local Plan preparation. The Chelmsford Surface Water Management Plan (CSWMP) was published in 2014 and was based on a hydraulic modelling methodology.
- 4.3. The modelling of the CDAs was revised in 2018 to reflect the 'Hydraulic Catchment' and the Environment Agency's latest Climate Change Allowances. The latest SWMP and CDA interactive mapping outlining the hydraulic modelling areas, CDA flood data and areas at risk from flooding from surface water (High, Medium, Low) is set out in the [SuDs Design Guide for Essex - Chelmsford SWMP](#). Further information is also available on the Essex [flood risk and asset register map](#). This information will be used to inform further policy requirements in the Local Plan. The Council will continue to work with the LLFA on this issue and make any necessary updates accordingly.
- 4.4. This Topic Paper will be updated and expanded on following feedback to the Preferred Options consultation and progress of further evidence-based documents. An updated version will be published at the next stage of Local Plan Consultation (Pre-Submission) setting out the progress made and the reasoning behind the proposals in the Pre-Submission Consultation Document.

Appendix 1 – Essex County Council Implementation and Monitoring Guide 2024

Climate and Planning Unit (CaPU) Net Zero Carbon Development (in Operation) Policy – Implementation and Monitoring Guide 2024							
MINOR DEVELOPMENT APPLICATIONS							
Pre-Application		Outline		Full/Reserved Matters		Post Planning Conditions	
Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Strategic Definition	Preparation and Brief	Concept Design	Spatial Coordination	Technical Design	Manufacturing and Construction	Handover	In-use
RIBA Plan of Work 2020 stages in approximate timeline order with key planning application stages							
Pre-Application Process		Planning Application In Progress		Pre-Commencement	In-construction	Post-construction	Post-Occupation
<p>Chargeable Pre-application advice can be sought with the CaPU team. 2024 Pricing TBC.</p> <p>Signpost Greater Essex policy position paper stating the requirements for meeting net zero standards</p> <p>Ensure proposal embeds key design requirements</p> <ul style="list-style-type: none"> Solar gain Orientation Simple form Overheating provision Shading Ventilation & Airtightness* Roof Orientation and size to maximise solar energy potential Low/ No Thermal Bridging <p>Key Industry Design Guidance to be signposted</p> <ul style="list-style-type: none"> Essex Solar Design Guide Avoiding Summer Overheating Shading for Housing Good Practice Guide to Airtightness Passivhaus Primer: Airtightness Guide (Key for testing) Thermal Bridging Guide <p>Industry Standards</p> <ul style="list-style-type: none"> ISO 10211:2017 Thermal bridges in building construction BS 40101:2022 Building performance evaluation of occupied and operational buildings <p><small>*Ventilation design and airtightness are key – ensure airtightness strategy is designed from the outset and that MVHR with 90%+ efficiency is included.</small></p>		<p>Predictive Energy Model Approach (Route A)</p> <p>The Net Zero Spreadsheet (Version A) (see Appendix B of the Essex Net-Zero Policy Study) to be included on Local Validation Checklist and submitted with planning application.</p> <p>Minimum Standards Approach (Route B)</p> <p>If the applicant does not use a Predictive Energy Model, an alternate policy compliance approach can be utilised by adhering to the Minimum Standards for Fabric and Systems Specification, as outlined in Appendix C of the Essex Net-Zero Policy Study and submit The Net Zero Spreadsheet (version B).</p> <p>The Net Zero Spreadsheet is to be reviewed by the Local Planning Authority (LPA) or by CaPU if resourcing is agreed with Essex Planning Officers Association (EPOA) or through a Planning Performance Agreement (PPA).</p> <p>Versions A and B of Net Zero Spreadsheet will be available as templates on the Essex Design Guide.</p> <p>As a minimum, the following indicators will be monitored in terms of compliance with the Essex Net-zero policy when determining a planning application:</p> <p>Space Heating Demand</p> <p>Has the appropriate limit been met? (Policy Requirement 1)</p> <p>Use of Fossil Fuels</p> <p>Is the development fossil fuel free? (Policy Requirement 2)</p> <p>Energy Use Intensity</p> <p>Has the appropriate limit been met? (Policy Requirement 3)</p> <p>Renewable Energy Generation</p> <p>Route A: Does it at least match predicted annual energy demand? Route B: Has a minimum of If not, has it maximised? (Policy Requirement 4)</p> <p>Renewable Energy Offsetting Mechanism*</p> <p>If the renewable energy generation on-site does not meet the annual energy demand, the renewable energy offsetting mechanism may be triggered to achieve policy compliance. A financial payment is made to fund additional renewable energy capacity off-site that meets the shortfall in generation that cannot be met on-site. The price (as of July 2023) is set at £1.35 per kWh.</p> <p>The use of assured performance standards (e.g. Passivhaus) that are accredited and certified independently will also be monitored</p> <p><small>*The offset contribution will be used to fund additional renewable energy capacity elsewhere in the plan area or County. The aim is to make up for the shortfall in renewable energy that can't be generated on-site. The offset mechanism is purposely limited in role and scope and is only intended for use as a last resort.</small></p>		<p>Potential pre-commencement planning conditions to be secured:</p> <p>Compliance with</p> <ul style="list-style-type: none"> The Net Zero Spreadsheet Solar PV Detail Specification of systems and appliances <p>Where energy off-setting is required, LPA to collect energy offsetting contribution (price is set in the Essex Net Zero Policy Study or later update) through a direct payment / S106 Agreement / unilateral undertaking (S111 agreement).</p> <p>Administration of Renewable Energy Offsetting Fund is initially proposed to be through Essex County Council and details will be finalised in consultation with EPOA.</p>	<p>On Site Best Practice Advice</p> <p>Ensure quality is at the centre of all on site practice.</p> <p>It is recommended that at least three air-pressure tests are carried out in-construction:</p> <ol style="list-style-type: none"> Air Barrier Completion Post-install of services Practical Completion <p>Encourage the main contractor to assign an "Airtightness Champion."</p> <p>Regular updates to a quality tracker to assess against the policy requirements.</p>	<p>Potential post-construction planning conditions (prior to occupation) to be secured:</p> <p>Minor applications following the "minimum standards approach" (without an energy model), do not have to report their space heat demand, energy use intensity and offset contribution at as-built stage.</p> <p>Applications need to re-confirm the specifications that the development has been built to.</p> <p>As built performance indicators as outlined in Table 1 of Appendix D of the Essex Net Zero Study or equivalent to be submitted by applicant.</p> <p>Full commissioning of ventilation and heating systems to be carried out.</p> <p>Handover information & training packs for occupiers.</p> <p>Key Industry Best Practice Guidance to be signposted</p> <p>Handover, soft landings and POE</p>	<p><i>Homes/buildings that meet acceptable as-built indicators reviewed by LPA/CaPU to be deemed 'Essex net-zero'.</i></p> <p><i>Carry out lessons learnt review.</i></p>

Climate and Planning Unit (CaPU) Net Zero Carbon Development (in Operation) Policy – Implementation and Monitoring Guide 2024							
MAJOR DEVELOPMENT APPLICATIONS							
Pre-Application		Outline		Full/Reserved Matters		Post Planning Conditions	
Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7
Strategic Definition	Preparation and Brief	Concept Design	Spatial Coordination	Technical Design	Manufacturing and Construction	Handover	In-use
RIBA Plan of Work 2020 stages in approximate timeline order with key planning application stages							
Pre-Application Process		Planning Application In Progress		Pre-Commencement	In-construction	Post-construction	Post-Occupation
<p>Chargeable Pre-application advice can be sought with the CaPU team. 2024 Pricing TBC.</p> <p>Signpost Greater Essex policy position paper stating the requirements for meeting net zero standards</p> <p>Ensure proposals embed key design requirements</p> <ul style="list-style-type: none"> Solar gain Orientation Simple form Overheating provision Shading Ventilation & Airtightness* <p>Roof Orientation and size to maximise solar energy potential</p> <p>Low/ No Thermal Bridging</p> <p>Whole Life Carbon Assessment</p> <p>Key Industry Design Guidance to be signposted</p> <ul style="list-style-type: none"> Essex Solar Design Guide Avoiding Summer Overheating Shading for Housing Good Practice Guide to Airtightness Passivhaus Primer: Airtightness Guide (Key for testing) Thermal Bridging Guide <p>Industry Standards</p> <ul style="list-style-type: none"> ISO 10211:2017 Thermal bridges in building construction BS 40101:2022 <p>Building performance evaluation of occupied and operational buildings</p> <p><small>*Ventilation design and airtightness are key - ensure airtightness strategy is designed from the outset and that MWH with 90% efficiency is included.</small></p>		<p>An Energy Strategy* and the Net Zero Evidence Checklist (refer to information requirements set out in Appendix A of the Essex Net Zero Policy Study) or equivalent to be included on Local Validation Checklist and submitted with planning application.</p> <p>Over 100 dwellings or 5000sqm of non-resi: Information in relation to compliance with Net-zero Policy to be reviewed by CaPU throughout planning process stages including the discharge of conditions.</p> <p>Under 100 dwellings or 5000sqm of non-resi: Information in relation to compliance with net-zero policy to be reviewed by LPA. CaPU will provide guidance and training for LPA officers and will seek to increase capacity (in conjunction with EPOA) and/or through PPAs to assist LPAs with the review of these applications.</p> <p>Where applications are submitted in outline, both the energy strategy and the Net Zero Evidence Checklist will need to be revised and updated in line with the actual detailed design proposed at reserved matters stage</p> <p>As a minimum, the following indicators will be monitored in terms of compliance with the Essex Net-zero policy:</p> <p>Space Heating Demand Has the appropriate limit been met? (Policy Requirement 1)</p> <p>Use of Fossil Fuels Is the development fossil fuel free? (Policy Requirement 2)</p> <p>Energy Use Intensity Has the appropriate limit been met? (Policy Requirement 3)</p> <p>Renewable energy generation Does it at least match predicted annual energy demand? If not, has it maximised? (Policy Requirement 4)</p> <p>Renewable energy offsetting mechanism** If the renewable energy generation on-site does not meet the annual energy demand, the renewable energy offsetting mechanism may be triggered to achieve policy compliance. A financial payment is made to fund additional renewable energy capacity off-site that meets the shortfall in generation that cannot be met on-site. The price (as of July 2023) is set at £1.35 per kWh.</p> <p>In-use energy monitoring (over 100 dwellings) Is this being carried out? What percentage of homes and for how long?</p> <p>The use of assured performance standards (e.g. Passivhaus) that are accredited and certified independently will also be monitored.</p> <p><small>*A template Energy Strategy will be provided on the Essex Design Guide to aid applicants provide the required information in the appropriate format.</small></p> <p><small>**The offset contribution will be used to fund additional renewable energy capacity elsewhere in the plan area or County. The aim is to make up for the shortfall in renewable energy that can't be generated on-site. The offset mechanism is purposely limited in role and scope and is only intended for use as a last resort.</small></p>		<p>Potential pre-commencement planning conditions to be secured:</p> <p>Compliance with</p> <p>The Net Zero Evidence Checklist</p> <p>Energy Strategy</p> <p>Solar PV Detail</p> <p>Specification of systems and appliances</p> <p>Where energy off-setting is required, LPA to collect energy offsetting contribution (price is set in the Essex Net Zero Policy Study or later update) through a direct payment / S106 Agreement / unilateral undertaking (S111 agreement). Administration of Renewable Energy Offsetting Fund is initially proposed to be through Essex County Council and details will be finalised in consultation with EPOA.</p> <p>On sites over 100 dwellings, monitoring of 10% of dwellings in-use energy performance over 5-year period to be requested supported by s106 contribution (value to be determined) to cover cost of monitoring.</p>	<p>On Site Best Practice Advice</p> <p>Ensure quality is at the centre of all on site practice.</p> <p>It is recommended that at least three air-pressure tests are carried out in-construction:</p> <ol style="list-style-type: none"> Air Barrier Completion Post-install of services Practical Completion <p>Encourage the main contractor to assign an "Airtightness Champion."</p> <p>Regular updates to a quality tracker to assess against the policy requirements.</p>	<p>Potential post-construction planning conditions (prior to occupation) to be secured:</p> <p>As built performance indicators as outlined in Appendix D of the Essex Net Zero Study or equivalent to be submitted by applicant.</p> <p>Handover information & training packs for occupiers</p> <p>The use of assured performance standards (e.g. Passivhaus) that are accredited and certified independently will also be monitored.</p> <p>Full commissioning of ventilation and heating systems to be carried out.</p> <p>CaPU to be consulted in relation to discharge of Climate Change related Planning Conditions</p> <p>Key Industry Best Practice Guidance to be signposted</p> <p>Handover, soft landings and POE</p>	<p>Homes/buildings that meet acceptable as-built indicators as reviewed by LPA/CaPU to be deemed constructed to 'Essex net-zero'.</p> <p>On schemes over 100 dwellings where 10% of dwellings should be monitored for in-use energy performance, the developer would provide annual reports of monitoring.</p> <p>Where energy targets are not met, developers would need to demonstrate how they apply learning to future phases (where applicable) and provide feedback to residents to aid knowledge and learning about how they could make their dwelling more energy efficient.</p> <p>The monitored information will be evaluated by CaPU to understand how buildings are performing, minimise the performance gap, and to aid the learning, innovation and skills development in the design and construction industry.</p> <p>Qualitative feedback from building users via occupant satisfaction questionnaires should also be undertaken.</p> <p>This information can be used to enhance the training and advice given to residents / occupiers of new homes and buildings.</p> <p>Key Industry Best Practice Guidance to be signposted</p> <ul style="list-style-type: none"> Building Performance Network Building Performance Evaluation Guide

Chelmsford Local Plan

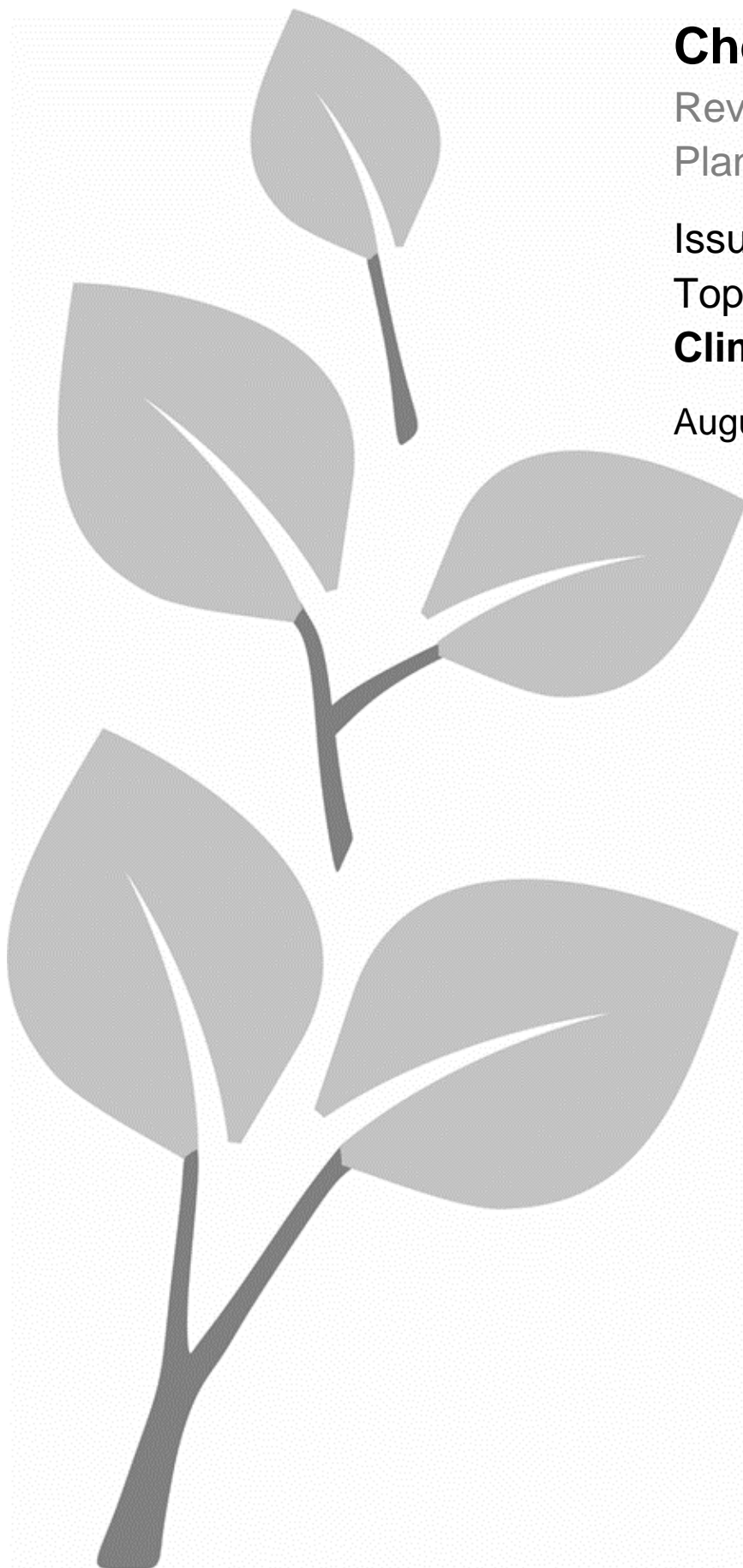
Review of the adopted Local Plan

Issues and Options

Topic Paper:

Climate Change

August 2022



1. Purpose

- 1.1. This Topic Paper is one of a number produced by Chelmsford City Council to set out how the review of the adopted Local Plan has been developed. Topic papers will be refreshed and updated at each stage of the Local Plan Review process to ensure the latest information/position is available. This will avoid confusion and duplication and the latest topic paper will supersede any previous versions.
- 1.2. The intention of the topic papers is to provide background information; they do not contain any policies, proposals or site allocations. Topic papers will form part of the Local Plan evidence base which will be submitted alongside the Local Plan for independent examination.
- 1.3. This paper covers how climate change has been considered when preparing the review of the adopted Local Plan and how the Review will seek to provide a development strategy which seeks to support the transition to a low carbon future.
- 1.4. The Topic Paper provides background information and provides context of how the Local Plan has been formulated. This Topic Paper should be read alongside the other Topic Papers produced.
- 1.5. The main issues covered by this Topic Paper are:
 - Implementation of the Climate Change Act
 - Implementing the Council's Climate and Ecological Emergency Action Plan
 - Policy proposals to assist in combating climate change

2. Background

- 2.1. The Climate Change Act 2008 establishes a legally binding target to reduce the UK's greenhouse gas emissions by 100% in 2050 from 1990 levels. To drive progress and set the UK on a pathway towards this target, the Act contains a legally binding requirement for carbon budgets which acts as 'stepping-stones'. The sixth carbon budget announced in April 2021 includes a target to reduce emissions by 78% by 2035 compared with 1990 levels.
- 2.2. The Council declared a Climate and Ecological Emergency on 16 July 2019. Essentially this declaration represents a commitment to take appropriate action to make the Council's activities net-zero carbon by 2030. In January 2020 the Council agreed a Climate and Ecological Emergency Action Plan with an initial focus on fifteen key areas of activity. It is aimed at:
 - reducing carbon emissions
 - lowering energy consumption
 - reducing waste and pollution
 - improving air quality

- greening Chelmsford
- increasing biodiversity
- encouraging more sustainable travel choices

2.3. We are already experiencing some of the impacts in Essex with hotter summers, water supply pressure and more frequent and intense weather events. The number of homes at risk of flooding in Essex could double by 2050²⁹. This is all consistent with projections of climate change. The independent Climate Commission for Essex has been established and published its interim report in November 2020. This report recommends that all new homes and commercial buildings granted planning permission should be carbon net zero by 2025 and carbon positive by 2030.

2.4. Progress is being made in Essex and in Chelmsford, from extensive tree planting to improvements to the cycle networks, but we can do so much more and the sooner we do the better to avoid the worst effects. The responsibility doesn't just lie with the national and local government but with parish councils, businesses, voluntary groups as well as individuals.

3. Issues and Options

Policy Context

National Policy

- 3.1. All policies in the Local Plan must be positively prepared, justified, effective and consistent with national policy. The National Planning Policy Framework (NPPF) sets out the overarching planning policy framework, supported by the National Planning Practice Guidance (PPG).
- 3.2. The adopted Local Plan was examined under the 2012 National Planning Policy Framework (NPPF). There have subsequently been updates to the NPPF and the Review of the Local Plan needs to be considered against the requirements of the 2021 NPPF.
- 3.3. Although large areas of the NPPF remain unchanged in respect of climate change any new development proposals and policies will still be required to be tested against the relevant NPPF requirements. There are also some areas of the NPPF which have been updated/amended since the adoption of the Local Plan which will need to be reflected.
- 3.4. Further detail on these key changes for consideration are set out in the table below, included under the section 'Local Plan Approach'.

²⁹<https://assets.ctfassets.net/knkzaf64jx5x/1fzMJKNmIfz8WHx4mzdy2h/e7c57523466f347fd6cdccb3286c113c/Net-Zero-Report-Making-Essex-Carbon-Neutral.pdf>

National Policy Guidance

- 3.5. Paragraphs 001 Reference ID: 6-001-20140306 to 012 Reference ID: 6-012-20190315 of the PPG set out the relevant climate change evidence base required to support plan making and decision taking in full. The following is a summary of the points for consideration.
- 3.6. Addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-taking. To be found sound, Local Plans will need to reflect this principle and enable the delivery of sustainable development in accordance with the policies in the National Planning Policy Framework. These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008, and co-operate to deliver strategic priorities which include climate change.
- 3.7. In addition to the statutory requirement to take the Framework into account in the preparation of Local Plans, there is a statutory duty on local planning authorities to include policies in their Local Plan designed to tackle climate change and its impacts.
- 3.8. The PPG includes the following as examples of how the challenges of climate change could be addressed through a Local Plan:

Examples of mitigating climate change by reducing emissions:

- Reducing the need to travel and providing for sustainable transport
- Providing opportunities for renewable and low carbon energy technologies
- Providing opportunities for decentralised energy and heating
- Promoting low carbon design approaches to reduce energy consumption in buildings, such as passive solar design

Examples of adapting to a changing climate:

- Considering future climate risks when allocating development sites to ensure risks are understood over the development's lifetime
 - Considering the impact of and promoting design responses to flood risk and coastal change for the lifetime of the development
 - Considering availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality
 - Promoting adaptation approaches in design policies for developments and the public realm
- 3.9. When preparing Local Plans local planning authorities should pay particular attention to integrating adaptation and mitigation approaches and looking for 'win-win' solutions that will support sustainable development. The PPG offers examples that could achieve this:
 - by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;

- through district heating networks that include tri-generation (combined cooling, heat and power); or
- through the provision of multi-functional green infrastructure, which can reduce urban heat islands, manage flooding and help species adapt to climate change – as well as contributing to a pleasant environment which encourages people to walk and cycle.

3.10. The PPG advises the impact of climate change needs to be taken into account in a realistic way so Local Plans should consider:

- identifying no or low cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity and amenity
- building in flexibility to allow future adaptation if it is needed, such as setting back new development from rivers so that it does not make it harder to improve flood defences in future
- the potential vulnerability of a development to climate change risk over its whole lifetime

3.11. The Local Plan's evidence base should include information on climate change risks, such as the Strategic Flood Risk Assessment and Water Resource Management Plan and water cycle studies.

3.12. The National Planning Policy Framework expects local planning authorities when setting any local requirement for a building's sustainability to do so in a way consistent with the government's zero carbon buildings policy and adopt nationally described standards. Local requirements should form part of a Local Plan following engagement with appropriate partners, and will need to be based on robust and credible evidence and pay careful attention to viability. In this respect, planning authorities will need to take account of government decisions on the Housing Standards Review when considering a local requirement relating to new homes.

3.13. If considering policies on local requirements for the sustainability of other buildings, local planning authorities will wish to consider if there are nationally described standards and the impact on viability of development. Further guidance can be found under Viability.

3.14. Different rules apply to residential and non-residential premises. In their development plan policies, local planning authorities:

- Can set energy performance standards for new housing or the adaptation of buildings to provide dwellings, that are higher than the building regulations, but only up to the equivalent of Level 4 of the Code for Sustainable Homes.
- Are not restricted or limited in setting energy performance standards above the building regulations for non-housing developments.

Other relevant legislation

- 3.15. [Section 19\(1A\) of the Planning and Compulsory Purchase Act 2004](#) requires local planning authorities to include in their Local Plans “policies designed to secure that the development and use of land in the local planning authority’s area contribute to the mitigation of, and adaptation to, climate change”. This will be a consideration when a Local Plan is examined.
- 3.16. The [Climate Change Act 2008 \(2050 Target Amendment\) Order 2019](#) establishes a legally binding target to reduce the UK’s greenhouse gas emissions by 100% in 2050 from 1990 levels. To drive progress and set the UK on a pathway towards this target, the Act contains a legally binding requirement for carbon budgets which acts as stepping stones. The sixth carbon budget announced in April 2021 includes a target to reduce emissions by 78% by 2035 compared with 1990 levels.
- 3.17. The Climate Change Act 2008 also requires the government:
- to assess regularly the risks to the UK of the current and predicted impact of climate change;
 - to set out its climate change adaptation objectives; and
 - to set out its proposals and policies for meeting these objectives.
- 3.18. These requirements are fulfilled by the [UK climate change risk assessment](#) and the [National adaptation programme report](#) respectively, which may provide helpful information for plan-making.
- 3.19. In 2021 the government carried out a public consultation on proposed changes to the Building Regulations ([The Future Buildings Standard](#)). This was the second stage of a 2-part consultation. It built on the [Future Homes Standard consultation](#) by setting out energy and ventilation standards for non-domestic buildings, existing homes and includes proposals to mitigate against overheating in residential buildings. It set out proposals for a Future Buildings Standard, which provides a pathway to highly efficient non-domestic buildings which are zero carbon ready, better for the environment and fit for the future.
- 3.20. The interim outcomes of this consultations are awaited, but it is understood that they are intended to be implemented through a statutory instrument and new approved documents which will deliver an uplift in energy efficiency standards for new homes and buildings, improved ventilation and a requirement to mitigate any overheating in residential buildings.

Local Policy

Current policy

3.21. The adopted Local Plan includes a variety of policies which seek to support the transition to a low carbon future. However, it does not include a specific strategic priority to address this issue and it is not specifically covered within the 'Vision'. It is, however, a thread which runs through the adopted Plan in the following ways:

- **Strategic Policy S1 (Spatial Principles)** – includes a requirement to locate development to avoid or manage flood risk.
- **Strategic Policy S2 (Addressing climate change and flood risk)** - encourages development to provide opportunities for green infrastructure and new habitat creation. Requires all development to have appropriate flood mitigation measures in place.
- **Site allocation policies** – where relevant, require developments to provide conserve and enhance nearby designations such as Local Wildlife Sites, create a net gain in biodiversity, habitat mitigation and enhancement/protection, ensure appropriate surface water management and SUDs are provided, improved GI network, including tree planting/protection. enhanced and additional sustainable modes of transport (cycle, pedestrian, public transport, car clubs), all of which contribute to a transition to a low carbon future.
- **Development Management Policies** – **DM18** requires all development to be safe from flooding. Major development is required to incorporate appropriate water management measures to reduce surface water run-off and volumes as far as is reasonably practical. **DM19** supports the provision of renewable and low carbon energy development subject to relevant criteria being met. **DM23** seeks to ensure all development is built to a high quality. This includes minimising the use of natural resources. **DM25** sets out the expectation for all new buildings to meet specific sustainability criteria, including water efficiency criteria, EV charging points and build criteria for non-residential buildings. **DM30** deals with contamination and pollution and seeks to ensure developments in or adjacent to an Air Quality Management Area, or where an air quality impact assessment has been provided, that appropriate mitigation is put in place so the development will not have an unacceptable impact on air quality and the health and wellbeing of people.

3.22. The adopted [Making Places Supplementary Planning Document](#) (SPD) and its [Self Build and Custom Design Code Template](#) (January 2021) seek to promote and secure high-quality sustainable new development. It is aimed at all forms of development, from large strategic developments, public spaces and places, to small extensions to individual homes. It sets out detailed guidance for the implementation of the policy requirements set out in the adopted Local Plan and provides practical advice to help with schemes from single house extensions to strategic sites and their masterplans. It also provides good practice examples on how development can go beyond planning policy requirements to create the most sustainable and environmentally friendly development possible.

- 3.23. The SPD offers further detailed guidance on principles to consider in respect of sustainable design and construction. It covers ways to reduce water consumption, BREEAM, reducing carbon dioxide and nitrogen emissions, and recycling and waste requirements. Following this guidance will help to secure high quality, well designed sustainable development, future proof new development to allow for fast changing technology and building standards, as well as reduce the use of non-renewable resources and carbon emissions from new buildings. It will also ensure appropriate recycling and waste requirements are provided to all developments.
- 3.24. The [Council's Planning Obligations SPD](#) (January 2021) sets out the Council's approach to seeking planning obligations needed to make sure development is acceptable in planning terms. Of relevance to this topic is the need for possible Section 106 Planning contributions towards flood protection and water management, as well as Environmental Mitigation measures, which include tree and new woodland planting to assist in the challenge to tackle climate change. The SPD also seeks to negotiate Section 106 agreements which secure show homes that incorporate optional sustainable design features to showcase the benefits of including such features in a new build and how to move towards a zero-carbon home on developments of over 100 homes.
- 3.25. The Council also has an adopted [Solar Farm Development SPD](#). This SPD gives guidance on how to prepare and submit planning proposals for solar farms, and how we assess them. It considers and applies advice from a number of sources, including the requirements of National Planning Policy and Guidance, local planning policies and other relevant strategies.
- 3.26. Collectively these seek to mitigate and adapt development to assist in meeting the climate change challenge. In addition to the Local Plan, there are a number of other local and regional strategies or guidance that inform this topic area.
- 3.27. [Our Chelmsford: Our Plan](#) sets out the Council's priorities which will improve the lives of residents. There are four themes; a fairer and inclusive Chelmsford; a safer and greener place; healthy, active and enjoyable lives and connected Chelmsford.
- 3.28. The City Council [declared a Climate and Ecological Emergency](#) on 16 July 2019. Essentially this Declaration represents a commitment to take appropriate action to make the Council's activities net-zero carbon by 2030.
- 3.29. In January 2020 a [Climate and Ecological Emergency Action Plan](#) with an initial focus on fifteen key areas of activity was agreed by the Council. It is aimed at:
- reducing carbon emissions
 - lowering energy consumption
 - reducing waste and pollution
 - improving air quality
 - greening Chelmsford
 - increasing biodiversity
 - encouraging more sustainable travel choices

- 3.30. [Net Zero: Making Essex Carbon Neutral \(Essex Climate Action Commission, July 2021\)](#) The Essex Climate Action Commission was formed in 2020. It is an independent, voluntary, cross-party body. The report sets out key steps for how to reach zero carbon by 2050 and recommendations within six core themes; land use and green infrastructure, energy, built environment, transport, waste and community engagement.
- 3.31. The [South East Inshore Marine Management Plan](#) also forms part of the Statutory Development Plan. It has been adopted since the adoption of the Chelmsford Local Plan. This includes policies to help enhance and protect the marine environment and achieve sustainable economic growth while respecting local communities both within and adjacent to the marine plan area, which includes the coast within Chelmsford's administrative area.
- 3.32. Local Cycling and Walking Infrastructure Plans (LCWIPs), as set out in the Government's Cycling and Walking Investment Strategy, are a new, strategic approach to identifying cycling and walking improvements required at the local level. Essex County Council has identified 9 strategic corridors within the [Chelmsford LCWIP](#) within the urban area, which is to be updated within the timescales of the plan review. As well as assisting in providing better accessibility these will help to reduce the need for motorised transportation on the roads, helping to reduce emissions.
- 3.33. The Essex [Minerals Local Plan](#) and [Waste Local Plan](#) set out further detailed policies and guidance regarding the re-use and recycling of materials on sites.

Duty to Co-operate

- 3.34. The Council is committed to co-operating with other bodies on strategic planning matters. The Duty to Co-operate Strategy was reviewed and adopted in January 2022.
- 3.35. The Council will make every effort to seek co-operation on cross-boundary and strategic planning matters in a focused, positive and structured way. We will discuss the review of the adopted Local Plan with neighbouring planning authorities and the prescribed bodies at stages which align with and inform the stages of the review of the adopted Local Plan. These discussions will help to formulate the quantum and distribution of Chelmsford's future growth, which will be supported by updated evidence
- 3.36. At the same time, we will continue to work constructively with nearby planning authorities on their own local plan preparation. Early engagement and demonstrating co-operation both with neighbours and the prescribed bodies through Statements of Common Ground are key to meeting the legal duty to co-operate.
- 3.37. In some cases, discussion on strategic matters will continue through existing joint working arrangements. We will also arrange joint Officer and Member meetings, technical stakeholder meetings, focused workshops, and Statements of Common Ground.

3.38. The strategic matters that may apply to the review of the adopted Local Plan have been identified as follows:

- Delivering homes for all including Gypsy and Traveller accommodation
- Jobs and economy including green employment and regeneration
- Retail, leisure, and cultural development
- Sustainable transport, highways and active travel
- Climate change action and mitigation including flood risk and zero carbon
- Natural and historic environment including increased biodiversity and green/blue/wild spaces and connectivity of ecological networks
- Community infrastructure including education, health and community facilities
- Utility infrastructure including communications, waste, water and energy
- London Stansted Airport future airspace redesign.

3.39. As part of on-going Duty to Co-operate relevant to this topic, CCC has attended relevant meetings and provides updates on our plan review such as through the Essex Planning Officers Association (EPOA). We've approached other LPAs and the Environment Agency for relevant information to support our Strategic Flood Risk Assessment (SFRA) update which is in progress.

3.40. As part of the Issues and Options consultation we will be having meetings with neighbouring Local Planning Authorities as well as other relevant Duty to Co-operate bodies. Any strategic cross boundary issues relating to Climate Change raised through these meetings and the consultation will be further considered and any further engagement undertaken if required.

Integrated Impact Assessment

3.41. The Council is carrying out an ongoing Integrated Impact Assessment (IIA) as the review of the adopted Local Plan develops.

3.42. The IIA will assess the following aspects of sustainable development:

- Sustainability Appraisal (SA)
- Strategic Environmental Assessment (SEA)
- Habitats Regulations Assessment (HRA)
- Health Impact Assessment (HIA)
- Equality Impact Assessment (EqIA)

3.43. The SA, SEA and HRA are a requirement of national policy. The HIA and EqIA are voluntary, but the Council believes they will help to provide a complete picture of the sustainability of the review of the adopted Local Plan.

3.44. The IIA identifies the key sustainability issues for the review of the adopted Local Plan, which feed into a framework against which proposals will be assessed. It will cover the potential environmental, social, economic and health performance of the proposed changes to the adopted Local Plan and any reasonable alternatives. It will be used at each stage of reviewing the Plan, and be subject to separate consultation, as follows:

- Scoping Report
- Issues and Options – Current Stage
- Preferred Options
- Submission
- Adoption

3.45. The Issues and Options IIA appraises key sustainability issues (Table 3.19) and Appraisal Framework Objectives (Table 4.1) relating to this Topic Paper. Please see the Issues and Options IIA for more information.

Evidence base

3.46. In accordance with the requirements of the NPPF, policies and their requirements should be based on up-to-date evidence.

3.47. The following documents are of particular relevance to addressing climate change in the adopted Local Plan and will require reviewing and/or updating to support the Review of the Local Plan:

- All local Air Quality assessments and reports
- Surface Water Management Plan
- Strategic Flood Risk Assessment
- Water Cycle Study
- Waste and Recycling

3.48. The following documents are new or updated documents of particular relevance to addressing climate change to support the Review of the Local Plan which have been completed:

- Integrated Impact Assessment of the Review of the Adopted Local Plan

3.49. Following the feedback from the Issues and Options consultation further relevant evidence will be undertaken to support any new policies or requirements intended to be included in the Plan.

Local Plan Approach

3.50. The table below sets out the key issues to be considered at this Regulation 18 Issues and Options Stage. The table below assesses the adopted Local Plan against the key NPPF requirements in respect of addressing climate change and Plan making and identifies CCC's assessment of the adopted Local Plan's compliance with the 2021 NPPF. The proposed approach to the Review of the Local Plan is then set out using the following colour codes:

Adopted Local Plan meets NPPF requirement
Adopted Local Plan partially meets NPPF requirement
Adopted Local Plan does not meet NPPF requirement

NPPF Paragraph	NPPF Requirement	Approach in Review of the Local Plan
NPPF Para 153	Take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperature.	Set out in adopted Local Plan through a suite of policies (Strategic Policy S2 and Policy DM18, DM19 and DM25). Making Places SPD further supports this. Review of adopted Local Plan needs to consider if some aspects of guidance in Making Places SPD should be added to policy within the Plan. Need to check any amendments through the review continue to be NPPF compliant.
NPPF Para 153	Support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts.	Set out in adopted Local Plan through a suite of policies (Strategic Policy S2 and Policy DM18, DM19 and DM25). Making Places SPD further supports this. Review of Local Plan needs to consider if some aspects of guidance in Making Places SPD should be added to policy within the Plan. Need to check any amendments through the review continue to be NPPF compliant.
NPPF Para 155	Increase the use and supply of renewable and low carbon energy and heat by providing a positive strategy for energy from these sources, identifying suitable areas for renewable and low carbon energy sources, and identifying opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.	Set out in adopted Local Plan through a suite of policies (Strategic Policy S2 and Policy DM19). Making Places SPD further supports this. Review of Local Plan needs to consider if some aspects of guidance in Making Places SPD should be added to policy within the Plan and will need to consider identifying locations for renewables. Partial review required to address this NPPF requirement.
NPPF Para 160 & 161	Manage flood risk from all sources and apply a sequential, risk based approach to the location of development.	Set out in adopted Local Plan through a suite of policies (Strategic Policy S2 and Policy DM18). Making Places SPD further supports this. Review of Local

		Plan needs to consider if some aspects of guidance in Making Places SPD should be added to policy within the Plan and evidence needs to be updated to support any new development allocations in respect of flooding.
NPPF Para 162, 163, 164 and NPPF Annex 3	Steer new development to those areas with the lowest risk of flooding from any source. If this is not possible, the exception test may have to be applied, informed by the potential vulnerability of the site and of the development proposed. Where this is the case, sites needs to demonstrate that the development would provide wider sustainability benefits outweighing the flood risk and that the development would be safe for its lifetime without increasing flood risk elsewhere (and where possible will reduce flood risk overall).	Set out in adopted Local Plan through a suite of policies (Strategic Policy S2 and Policy DM18). Review of Local Plan needs to update evidence to support any new development allocations in respect of flooding.
NPPF Para 171	Avoid inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast.	Adopted Local Plan informed by South East Coast Marine Management Plan. This has been updated since the Local Plan adoption so needs to be reviewed to ensure development is not placed in areas that would exacerbate coastal change to ensure the Plan will continue to be NPPF compliant.

3.51. The adopted Local Plan policies generally remain consistent with national policy and are leading to effective decision making as demonstrated in the latest [AMR](#). However, we want to be more proactive in addressing the climate and ecological emergency and are using the review as an opportunity to see if there are ways the Local Plan can assist further in meeting the Council’s Climate and Ecological Emergency Action Plan. We want to ensure that tackling the climate change challenge is a theme running through the Plan so that all development contributes to addressing these priorities as well as improving the environment around us.

3.52. As set out above the adopted Local Plan includes a variety of policies which seek to support the transition to a low carbon future. However, it does not include a specific dedicated strategic priority to address this issue and it is not specifically highlighted within the ‘Vision’. Given the Council declared a climate and ecological emergency review of the Local Plan is seeking to ensure that the need to address climate change is a high priority which should be addressed from the outset within the review of the Local Plan.

3.53. Considering this the review of the Local Plan seeks to amend the Strategic Priorities as set out in the Issues and Options Consultation Document. Specific to this topic paper the following priorities for Climate Change are relevant:

Priorities for climate

1. Addressing the Climate and Ecological Emergency

- Mitigate the impacts of climate change and adapt to its consequences
- Ensure new development moves towards delivering net-zero carbon emissions (energy efficiency, sustainable construction, renewable energy, infrastructure for active and sustainable travel)
- Ensure development adapts to minimise adverse impacts that create climate and ecological change, including managing flood risk and reducing carbon emissions
- Encourage tree planting and an increase in woodland expansion
- Ensure sustainable drainage systems in developments

2. Promoting smart, active travel and sustainable transport

- Promote/prioritise active travel and sustainable transport
- Reduce reliance on fossil fuelled vehicles
- Support the provision of strategic and local transport infrastructure to enable a future for alternatives to fossil fuelled vehicles
- Make provision for charging electric vehicles
- Make provision for infrastructure to support active travel and the use of sustainable modes of transport
- Promote innovations in transport including smart technology

3. Protecting and enhancing the natural and historic environment, and support an increase in biodiversity and ecological networks

- Plan positively for biodiversity net gain and green infrastructure including high quality green spaces
- Minimise the loss of the best and most versatile agricultural land to ensure future food production
- Protect/enhance the River Valleys and increase opportunities for sustainable travel
- Ensure that new development respects the character and appearance of the City's varied landscapes

3.54. As a result, a new Vision is also proposed to replace the Vision in the adopted Local Plan:

Guiding Chelmsford's growth towards a greener, fairer and more connected community.

3.55. Policies will therefore need to be strengthened/updated and some new policies may be explored to better reflect the updated Plan Vision and Strategic Priorities and other relevant changes since adoption including the:

- Adoption of the Council's Climate Change and Ecological Emergency declaration and Action Plan to make the Council's activities net-zero carbon by 2030
- Recommendations of the Essex Climate Action Commission (ECAC)
- Adoption of the South East Inshore Marine Management Plan to ensure policies continue to not exacerbate coastal change
- Alternative proposals for the Chelmsford Flood Alleviation Scheme are being explored by the Environment Agency in partnership with the City Council
- Adoption of the Council's Making Places SPD and Solar Farm SPDs which encourage development requirements that go beyond the adopted plan

3.56. Areas we may explore for new or significantly altered local policies include:

- **Requiring all new development to include small-scale renewable energy on-site, such as PV panels and small wind turbines, and requiring all large-scale developments to consider community scale renewable energy generation.**

Such additional requirements would help encourage new developments to reduce carbon emissions and could also include:

- Air and ground source heat pumps (small scale)
- Solar farms (community scale)
- Combined Heat and Power energy systems (community scale)

However, it could have cost implications for new development so would need to be carefully assessed to ensure it did not adversely affect development viability.

- **Net zero new homes**

Nationally a number of initiatives have been introduced to address energy efficiency, including tightening of the standards required by building regulations. The Future Homes Standard (FHS) will change the Building Regulations so that by 2025 new homes will be expected to produce 75-80% lower carbon emissions compared with current levels. Working with Essex County Council and the ECAC, we will explore how we can push these standards to achieve net zero at a faster rate.

- **BREEAM alternatives**

BREEAM is the current standard in the Local Plan used to assess the environmental performance of non-residential buildings. Policy DM25 currently requires all non-residential schemes of 500 sqm or above to meet a Very Good BREEAM standard. The Council could consider introducing a more simplified, yet robust alternative benchmark approach to verify sustainability standards and moving to net-zero. This could focus on delivering key sustainability features and could be tailor-made to meet local requirements. Similar examples elsewhere work from a core set of criteria determined by actual impacts the building has on the area, environment and user and can be cheaper and quicker than a full BREEAM assessment.

- **New site allocations**

Exploring whether we should allocate land for other land uses such as large-scale renewable energy generation sites, such as solar and wind, and areas specifically for new tree and/or woodland planting

- **Requiring three new trees to be planted for all net new dwellings**
This will assist in combating the climate and ecological emergency and reflect aspirations in the Making Places SPD.
- **Ensuring new streets are tree-lined**
This will assist in meeting the requirements of paragraph 131 of the NPPF, which recognises the importance of incorporating trees in developments to assist in mitigating and adapting to climate change and enhancing the character and quality of urban environments.
- **Water use and re-use**
Consider setting a framework to reduce water use and promote water re-use where possible, to reflect the emerging ECC Water Management Cycle Strategy and the Water Resources Regional Plan.
- **Re-use/recycling of materials in development**
Requiring developments to follow the waste hierarchy of reduce, re-use, recycle, recover, disposal, as set out in the policies within the Minerals Local Plan and Waste Local Plan.

3.57. Although not mutually exclusive of one another, further issues surrounding ecological issues and tree planting are covered more widely in the Natural Environment Topic Paper.

Next Steps

3.58. This Topic Paper will be updated and expanded on following feedback to the Issues and Options consultation and progress of further evidence-based documents. An updated version will then be published at the next stage of Local Plan Consultation (Preferred Options) setting out the progress made and the reasoning behind the proposals in the Preferred Options Consultation Document.



This publication is available in alternative formats including large print, audio and other languages

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