	Cabinet	**Item 7(i)**
	29 January 2020	

Report of	**Assistant Director of Environment**	**Author**	**Rory Doyle ☎ 507855**
Title	**Climate Emergency Action Plan**		
Wards affected	All wards		

1. Executive Summary

1.1 This report provides an update on progress and current activity in addition to seeking approval for proposed action to be taken to address the Climate Emergency declared by full Council in July 2019.

2. Recommended Decision

2.1 To note the findings set out in the Climate Action Planning Report prepared by the Carbon Trust (Appendix A)

2.2 To approve the recommendations from the Conservation, Environment and Sustainability Task and Finish Group as set out below:

(a) The Climate Emergency Action Plan be approved, subject to the inclusion and clarification of Scope 3 elements to the section entitled “Scope of the Carbon Emission Target”.

(b)The Climate Emergency Action Plan be kept under review and that the Council commit to a target in respect of additional Scope 3 emissions once measurement of this wider carbon footprint has been undertaken.

3. Reason for Recommended Decision

3.1 The Council has declared a climate emergency in recognition of the urgent need to take action to address global warming and the crisis being created by unavoidable climate change.

In declaring a climate emergency, the Council has made tackling climate change a New Strategic Priority and our initial Climate Emergency Action Plan (Appendix B) reflects this.

4. Alternative Options

4.1 Not applicable

5. Background Information

5.1 In July 2019 the Council unanimously approved a motion to declare a climate emergency. The Council also resolved to:

Support the newly formed Conservation and Environmental Sustainability Task and Finish Group to consider the following actions:

Commission an environmental audit which identifies pollution hotspots, wildlife biodiversity and environmental health issues, and an urban impact assessment with an aim to identify areas of improvement across the borough.

Consult expert opinions in the field, as appropriate.

Collaborate with regional and neighbouring local authorities, as well as communities, to encourage practical measures to reduce emissions, reduce carbon footprints and develop community-based renewable energy projects.

Encourage all sectors of the economy across the borough to take steps to reduce waste and become carbon neutral.

Develop a roadmap for Colchester Borough Council to go carbon neutral by 2030.
Report to Cabinet and Full Council within six months with an action plan setting out conservation and environmental sustainability goals to address targets by 2030; incorporating proposals on the investment implications of this proposed activity.

Pledge to ensure future housing and community development projects meet a carbon-neutral standard by 2030

Call upon the Leader of the Council to write to the Minister of State for Energy and Clean Growth requesting that national policy is urgently developed to reflect the seriousness of the current emergency, and to release funds to local authorities, encouraging them to take the necessary measures at local level.

5.2 The Carbon Trust commended the action the Council has taken through previous carbon reduction strategies which have seen over £1.5m invested in projects. From a baseline in 2008 of 10,150 tCO2e the Council has achieved a 40% reduction in carbon emissions one year ahead of the 2020 target.

5.3 Action taken extends to more than carbon reduction. The Council has committed to phasing out the use of glyphosate herbicides as soon as practically possible and are exploring alternative methods to controlling weeds and encouraging bio-diversity. We are also working with other organisations and businesses in the borough to encourage them to stop using these herbicides.

5.4 The Council continues to take action to address poor air quality in the Borough and encourage people to connect with nature, green space and be more physically active through walking and cycling, particularly for short journeys through our Air Quality Management Areas.

5.5 Thousands of trees have been planted at sites in the Borough as part of the first year of the Colchester Woodland Project that will eventually see more than 200,000 trees planted across Colchester in the next five years.

5.6 The Climate Emergency Action plan aims to build on the progress made already and address the urgent challenge faced by the Council; one which is made harder because, compared to most places, Colchester has already completed many of the ‘easier’, ‘quick win’ projects. This means that moving forward at pace to achieve our targets will require significant investment of time, resource and energy from the Council, Central Government and our partners and citizens.

5.7 It is important to note this is the initial version of the Action Plan, it is only a starting point in a ten year journey. The Council will adapt as we go and update this plan regularly alongside the development of a new Environment & Sustainability Strategy and a Carbon Management Plan that will reflect many of the aspirations and actions from this plan. Meanwhile we will continue to act boldly on climate change.

5.8 The Climate Emergency Action Plan, in summary:

- Provides an assessment of Colchester Borough Councils' emissions and their sources and begins to explore likely future scenarios for the next decade.
- Demonstrates that the Council has achieved its 2020 emissions reduction target one year early and sets a goal for the Council to be Net Carbon zero by 2030.
- Demonstrates what action has already been taken and how this crisis is being addressed through partnership via the Conservation Environment & Sustainability Task & Finish Group.
- Highlights our commitment to work with the whole community in responding to the climate emergency and to work with other local authorities and partners to share learning and knowledge.
- Sets out existing and new actions that will be delivered and where necessary developed further to:
    - Embed the Climate Emergency in Organisational Culture & Decision Making
    - Create a Roadmap to reduce our Carbon footprint to net zero by 2030
    - Provide for environmental sustainability through Planning, Development &
    - Sustainable Travel
    - Embed Sustainability through the Management of Waste and Recycling
    - Undertake Mitigation, Climate Adaptation and Environmental Stewardship
    - Build Community Resilience through Enabling, Behaviour Change & Partnership Working

6. Equality, Diversity and Human Rights implications

6.1 There will be no equality, diversity and human rights implications in undertaking this work.

7. Strategic Plan

7.1 Activity to meet the requirements of the Climate Change Motion will potentially deliver against all streams of the Strategic Plan.

8. Consultation

8.1 Several experts and interest groups have been consulted through the work of the Conservation, Environment & Sustainability Task & Finish Group to date. Work will continue as part of the ongoing development and review of the Climate Emergency Action Plan to identify approaches to ongoing resident and wider stakeholder engagement on climate emergency issues.

9. Publicity Considerations

9.1 Working with businesses, schools, communities and citizens across the Borough will be critical. This is not something the Council can do on its own. Communication and

engagement with all stakeholders is and will continue to be a key strand of this work. An engagement and communications plan will be developed as part of our Climate Emergency Action.

10. Environmental and Climate Change Implications

10.1 Environmental and Climate Change Implications are fully considered through this work. Indeed it is as a result of this work that key decisions are now assessed for their likely environmental impact, including on the Council's commitment to reach a net carbo zero target by 2030.

11. Financial implications

11.1 As part of sound budgeting practice the Council identified an initial budget investment of £50K to be allocated for this work. This has been used to commission the report referred to above, undertake initial scoping work, gather more evidence and recruit a dedicated Climate Emergency Project Officer.

11.2 As one of the Councils New Strategic Priorities further funds will be made available to progress action against our ambitions as set out in the 2020/21 Revenue Budget, New Strategic Priorities and Medium-Term Financial Forecast Cabinet Report agreed by Cabinet in November 2019.

11.3 There are likely to be considerable additional financial implications associated with responding to the Climate Emergency albeit there may also be opportunities to partially mitigate these through other policies and associated financial savings e.g. energy costs. Even then it will be difficult to set out clear and actual costs for the next ten years at this stage. As work develops and further funding is required, actions and schemes will be subject to individual business cases and financial evaluation to assess associated costs as required.

12. Community Safety and Health and Wellbeing Implications

12.1 Responding to the Climate Emergency will have positive impacts on health and wellbeing through tackling areas such as air quality. There are also many physical and mental health and wellbeing benefits associated with solutions such as increased physical activity and connection to nature and open space associated with active travel, cycling and walking etc.

13 Health and Safety

13.1 There are no health and safety implications at this stage.

14 Risk Management Implications

14.1 The motion approved by Council sets ambitious targets and without robust prioritisation and risk management they will be difficult to achieve. Effective programme management will need to be utilised to ensure targets are achieved.

14.2 Rising to the challenge and tackling our climate emergency will not be achieved through Council action alone as it is a highly complex issue. Reducing greenhouse gas emissions in particular will require systems leadership across multiple sectors, communications and behavioural change that will result in adapted lifestyles, and potentially fundamentally different patterns of development and travel in the long term. Ultimately perceptions of success will need to evolve over time. Our emergent programmes will be related to the

degree of control and influence the Council directly has and our acknowledgement that partnership working across the region will be essential for us to address the challenge.

14.3 There are mixed perceptions of climate change within communities across Colchester that manifest into a spectrum of views which the Council are expected to navigate in the development of its action plan, the prioritisation of resource and communication to residents.

14.4 The resourcing requirements to undertake systems leadership and the change programme required will be significant. The scale of change required is unprecedented.

Colchester Borough Council Climate Action Planning

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December 2019

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Colchester Borough Council Conservation & Environmental Sustainability Task and Finish Group

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1

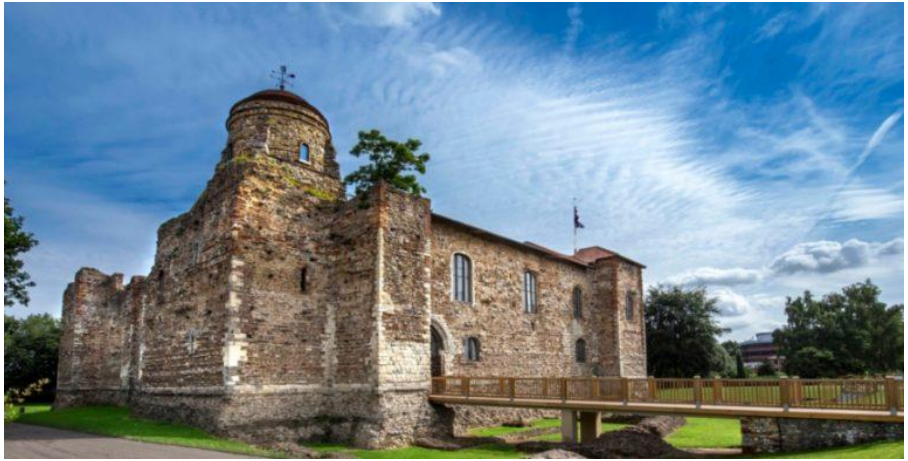
Introduction

About the Carbon Trust

Our mission is to accelerate the move to a sustainable, low carbon economy.

The Carbon Trust is an independent, expert partner of leading organisations around the world, helping them contribute to and benefit from a more sustainable future through carbon reduction, resource efficiency strategies and commercialising low carbon technologies.

About Colchester Borough Council



Colchester Borough Council provides public support services across the Borough including housing, waste management, transportation, communities, well-being, public safety and environmental services.

The council recognises the environmental impact of its activities and has made significant progress in the reduction of carbon emissions over the last 10 years supported by investment and strategic action to tackle its direct carbon emission sources.

Background

- Colchester Borough Council (CBC) declared a climate emergency in July 2019. One key aspect of the climate emergency declaration was the intention to become a **carbon neutral organisation by 2030.**
- The declaration builds on a **strong heritage of climate action in the borough** - CBC has set two previous carbon reduction targets through their Local Authority Carbon Management Plans.
- The Carbon Trust was commissioned by the Council to perform a **footprinting and scoping exercise** to inform an action plan setting out goals to address the target(s) out to 2030. In particular:
  - Undertake a qualitative review of the interaction between the Carbon Neutral target and other Council strategies
  - Provide analysis / insight on carbon reduction progress to date
  - Develop a revised carbon footprint (2018/19)
  - Undertake a workshop with Officers and Councillors to present results and identify & shape priorities going forward
- This report consolidates the results of the above activities and provides recommendations on future scope, targets and roadmap

2

Executive Summary

1. Key Findings

- Colchester Borough Council (CBC) has achieved impressive carbon reductions over the past decade & continues to view **climate action as a key strategic priority.**
- The Council has set a 2030 Carbon Neutral target which, whilst very ambitious, is in alignment with other Local Authorities who have declared a Climate Emergency.
- CBC's measured footprint for the FY 2018/19 was **6,180 tCO_2e.**
  - The Council's **gas consumption** for space and water heating in buildings is the largest emission source [47%]
  - **Leisure World** is the largest single emitter across the Council's portfolio and accounts for 35.3% of all emissions
- An error was found in how CBC have historically accounted for emissions from their fleet, resulting in an annual underreporting of ~1,300 tCO2e over the past five years.
  - Historical fleet emissions were recalculated to reflect the use of diesel fuel rather than biofuel
- Relative to a 2008/09 baseline, CBC has achieved a **40.8% decrease in CO2e emissions** and has reached the 40% emission reduction target set out in the 2016-2020 LACM Plan a year early.

2. Recommendations

Five recommendations are made to the Council:

1. **Collect available data and measure relevant Scope 3 emissions**
    - Before deciding on whether or not to expand the scope of the emissions target, the Council should quantify and understand the emission sources which the Council has some influence over.
2. **Perform pathway modelling to identify priority focus areas for the Council**
    - The Council should understand the impact of business as usual, national policies and local initiatives on the future carbon footprint to understand how their emissions will look in 2030. We would consider this to be a vital step in shaping a carbon neutral road map and action plan.
3. **Write and agree an internal data management plan**
    - Sets out roles and responsibilities for data capture and verification as well as a timetable for reporting to agree a formal process for monitoring against the target.
4. **Create an engagement plan**
    - Establish a plan to continue engaging internally and throughout the Borough on the Climate Emergency with a range of stakeholders.
5. **Ensure ethos of the Climate Emergency is embedded in broader strategies**
    - Engage broader strategy makers to ensure the Climate Emergency is a key feature of strategy revisions.

3

Qualitative review

Understanding CBC's portfolio of strategies and their relationship to the carbon neutral target

CBC's Carbon management planning to date

- Colchester Borough Council has actively engaged in monitoring and reporting carbon emissions from buildings and transport for more than 10 years.
- A number of carbon reduction strategies and action plans have been developed and implemented since 2008, as set out below.
- Progress against each plan has been analysed as part of this project and is presented later in the report.

Year	Document	Target
2008	**LACM Plan 2008 - 2012**	25% carbon reduction by 2012 (2008 baseline)
2015	**LACM Plan 2016 - 2020**	40% carbon reduction by 2020 (2008 baseline)
2019	**Climate Emergency Declaration**	Carbon Neutral by 2030

Comparison to other Councils

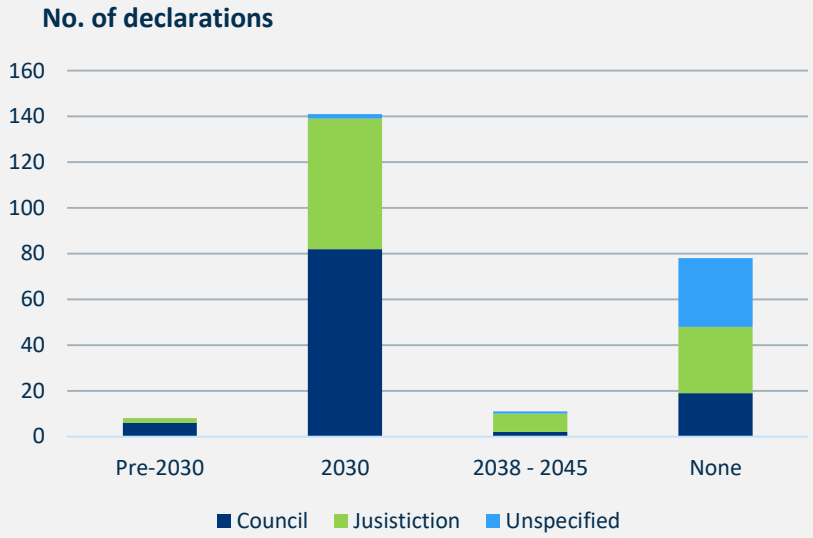
- **~ 65%** of District, County, Unitary, Metropolitan & Combined Authorities have declared a climate emergency (265/408, Oct 2019)
- Majority of Council's have set a 2030 target, with a mix of targeting the Council's own estate or the wider district

Examples of Concerns

- Not on track for limiting global warming to 1.5°C
- Loss of habitat
- Significant risk from flooding, drought and rising sea levels
- Impact on air quality, e.g. through heating, traffic

Examples of Commitments

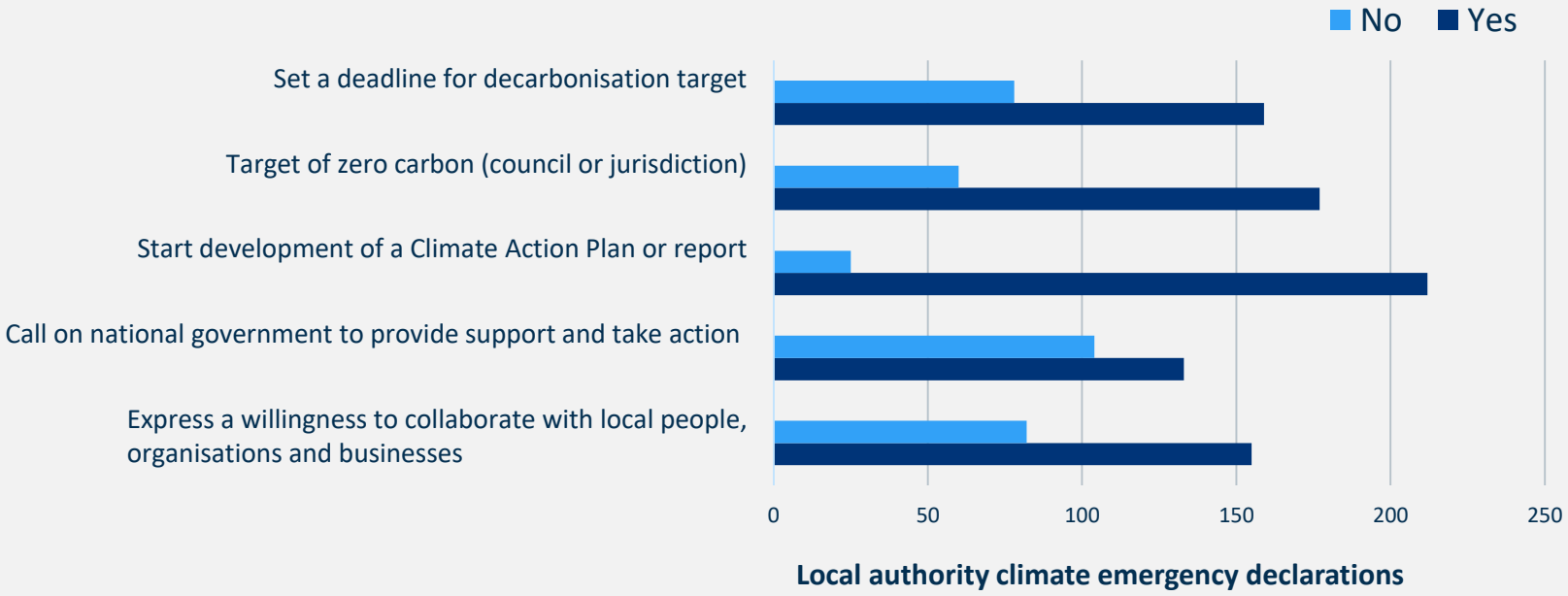
- Increase energy efficiency in buildings
- Deploy renewable energy
- Achieve high recycling rates
- Inspire and promote activities throughout the local community



Above. Summary of Climate Emergency deadlines & scope of 237 declarations of climate emergency (analysed by Igov, Sept 2019)

Climate Emergency Declarations

The following graph compares **common features of 237 Local Authority Climate Emergency Declarations**, based on analysis of the written declarations



Qualitative review of broader strategies

- In order to understand the broader Council context for the climate emergency declaration, the Carbon Trust has undertaken a review of all key active strategies and plans.
- The following slides show the relevance for each Strategy in relation to the Council's Scope 1, 2 and 3 footprint (further defined on slide 21) and in relation to carbon emissions in the broader Borough.
- The relevance rating has been colour coded as:
  - Green = very relevant
  - Orange = somewhat relevant
  - Blank = not relevant
- The analysis is intended to highlight the interaction between the Council's 2030 carbon neutral target and other active strategies and plans and recommend areas for future consideration.

Qualitative review (continued)

Strategy	Time period	Relevance to Colchester Borough Council Scope 1 & 2 emissions	Relevance to Colchester Borough Council Scope 3 emissions	Relevance to climate considerations in the broader Borough
Our Colchester - The Strategic Plan	2018 - 2021	• Direct mention of Council's emission reduction targets.		• Initiatives around pollution and improving energy efficiency of the private rented sector
Colchester Economic Development Strategy	2015 - 2021		• Infrastructure projects including: A120, A12 • Upgrading Great Eastern Mainline and improving public transport links. • Superfast broadband.	• Deliver STEM projects to school and college students & young people not in education, employment of training (NEET) and a STEM Centre in Colchester • Strategic employment zones: Colchester Northern Gateway, Stanway and University of Essex Knowledge Gateway.
Environmental Sustainability Strategy (2016 update)	2015 - 2020	• Close links to 2008 LACM target (to reduce carbon emissions in Council buildings by 25% by the year 2012). • Internal Environmental Sustainability awareness programme	• Embed green procurement	• 2010 Climate Change Risk Assessment Community Leadership on emissions reductions Opportunities to develop low carbon private sector housing.
Emerging Local Plan	Emerging 2017 – 2033			• Local Plan policies and development decisions will impact on the carbon emissions of the Borough
Colchester Borough Council – Asset Management Strategy	2016 – 2021	• Direct links to Operational and Community Asset Management strategies of: EPC report, Local Authority Carbon Management Plan and Housing Investment programme. • Housing Development Strategy	• Revolving Investment Fund • Strategic Land Purchases	• Garden communities strategy • Economic Growth Strategy • Employment Land Study, Colchester Ultra Ready for Business
Community Enabling Strategy	2015 onwards			• Community tree warden scheme • BIG Garden, High Woods Country Park

Qualitative review (continued)

Strategy	Time period	Relevance to Colchester Borough Council Scope 1 & 2 emissions	Relevance to Colchester Borough Council Scope 3 emissions	Relevance to climate considerations in the broader Borough
Connecting Colchester - Our Digital Strategy	2017 - 2022		• Could relate to Council broadband contracts	• Will enable Colchester to help plan better for its growing population, and the challenges of traffic congestion, protecting air quality and helping ensure technological innovation does not come at the expense of the Borough's high quality of life and environment.
Efficiency Statement	2016 onwards	• The projects identified by the Local Authority Carbon Management Plan will reduce future energy costs		
CBC Housing Strategy (and 2018/19 Progress report)	2015 – 2020	• Improving energy efficiency of the Council's housing stock. • Average SAP rating of CBC's housing (73.86) exceeded target set for 2019. • Work continues to complete loft and cavity wall fill within the stock with access issues hampering full stock completion. • Ground Source Heat Pump installed in Harrison Court to provide heating and hot water, replacing previous ageing gas boilers. • 45% of the Council Housing Stock now with Photo Voltaic panels.		• Standards and energy efficiency measures that the Council are setting for the wider Borough
Housing Asset Management Strategy	2018 – 2022		• Objective 7: Can be heated efficiently and cost effectively (whilst reducing environmental impact). Performance measurements include SAP and estimated CO2 emissions.	

Qualitative review (continued)

- Based on our review of current strategies and action plans, it is apparent that climate action touches many parts of the Council's core activities.
- Key findings of the analysis:
  - Most of the current strategies expire in 2020. When these are revised it is important that the **Climate Emergency ethos and targets are a key feature of the new strategies**.
  - The Climate Emergency targets should **build on the current Environmental Sustainability Strategy,** which has a Strategic Priority to reduce the impact of the Council's Buildings, Services and Operations. The Council should continue to work with the broader community to understand the most impactful strategic priorities for them to 2030.
  - It will be important that the **Climate Emergency is central to the updated Strategic Plan** and that all policies are assessed in light of their contribution to the emissions reductions target.
  - The Economic Development Strategy, Environmental Sustainability Strategy, Asset Management Strategy, Digital Strategy and Housing Asset Management Strategy could all link to the Council's Scope 3 emissions. Therefore, if the Council chooses to include Scope 3, consideration would need to be given to the impact of these strategies on the reduction of these emissions.
  - With a continuing need for Council efficiencies, it is important to continue to monitor (as per the Council's Efficiency Statement), and quantify where possible, any cost savings associated with energy efficiency and carbon reduction measures, to demonstrate broader benefits.

4

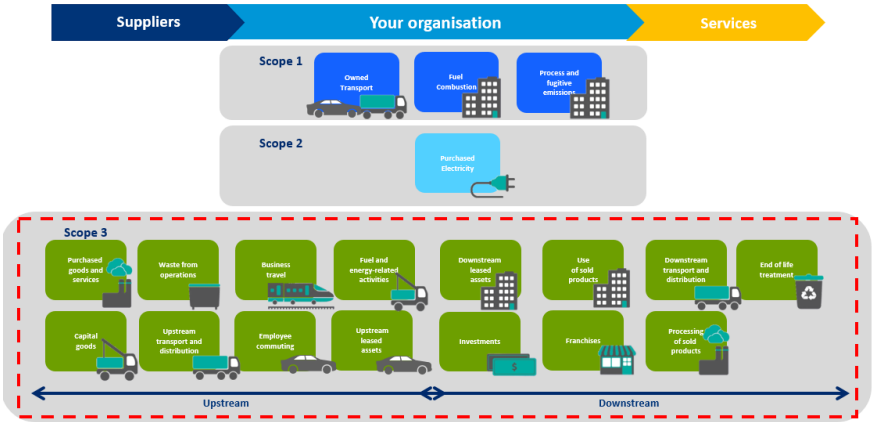
Carbon Footprint

Introduction to Greenhouse Gases (GHGs)

- Greenhouse gases (GHGs) are gases in Earth's atmosphere that trap heat. They let sunlight pass through the atmosphere, but they prevent the heat that the sunlight brings from leaving the atmosphere.
- **Carbon dioxide is not the only greenhouse gas**, there are five other key greenhouse gases that contribute to global warming: Methane, Nitrous Oxide, Hydrofluorocarbons, Perfluorocarbons and Sulphur Hexafluoride.
- Not all of these gases arise from combustion of fossil fuels, with some originating from refrigeration/cooling, agriculture, chemical production and electrical applications.
- **Under the GHG Protocol (see next slide), each gas has its own global warming potential (GWP).** By comparing each gas's GWP to that of Carbon Dioxide (CO_2) we are able to derive a **Carbon Dioxide equivalent value (CO_2e).**
  - Example: CO2 has a GWP of 1, Methane has a GWP of 24; therefore we can say that 1 ton of methane emissions is equal to 24tCO2e.
- **Values presented in this report will be given in CO_2e** and therefore reflect the emissions resulting from all greenhouse gases.
- Although CO_2 has the lowest GWP, with some other GHGs having a GWP thousands of times higher, it is by far the most abundant GHG and is therefore the focus when discussing emissions reduction and climate change.

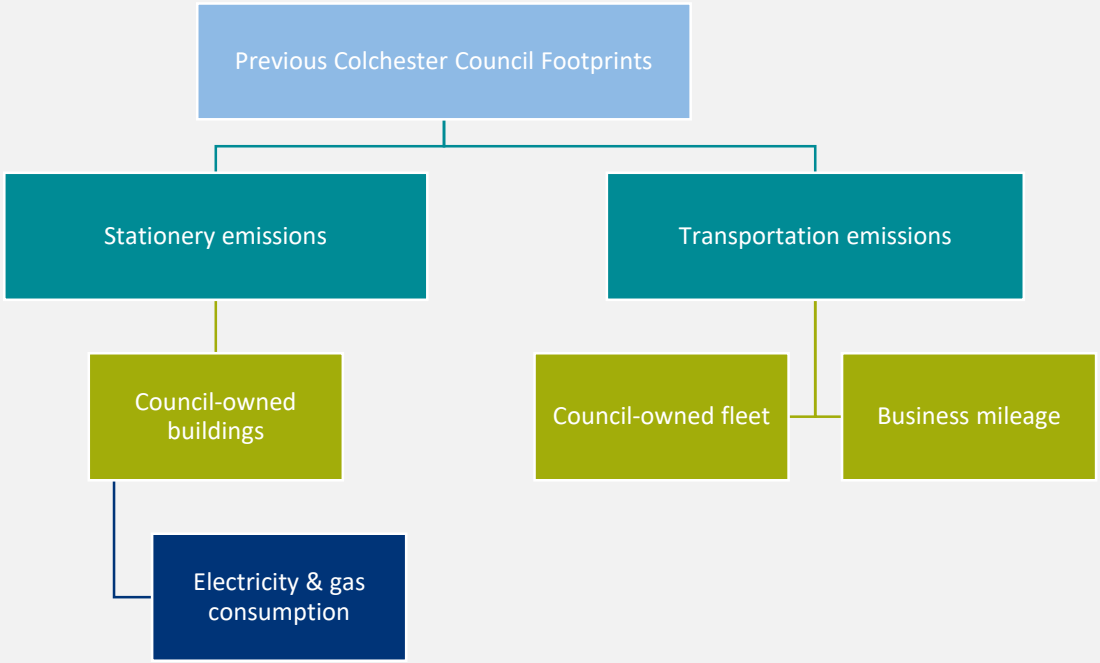
GHG Protocol and emission scopes

- The **greenhouse gas (GHG) protocol** is the most widely used and accepted methodology for GHG accounting. It has been followed to calculate CBC's footprint for FY 18/19.
- Under the GHG Protocol, emission sources are divided into **scopes 1, 2, and 3**. Scopes 1 and 2 emissions are a result of an organisations' **direct** operations, whereas scope 3 emissions result from an organisations' **indirect** activities or value chain (for example, from the manufacturing of products used by the Council).
- Scope 3 emissions are emitted by a third-party's operations and are generally **more difficult to monitor, control and reduce**. As a result, public (and private) sector carbon action has traditionally focused on scope 1 and 2 emissions.
- Where scope 3 emissions have been included, organisations have tended to only consider select elements. However, there is now **increasing appetite to include more scope 3 emissions** in footprints and to encourage carbon reduction in an organisations' value chain.



Above. Emissions scopes according to the GHG protocol

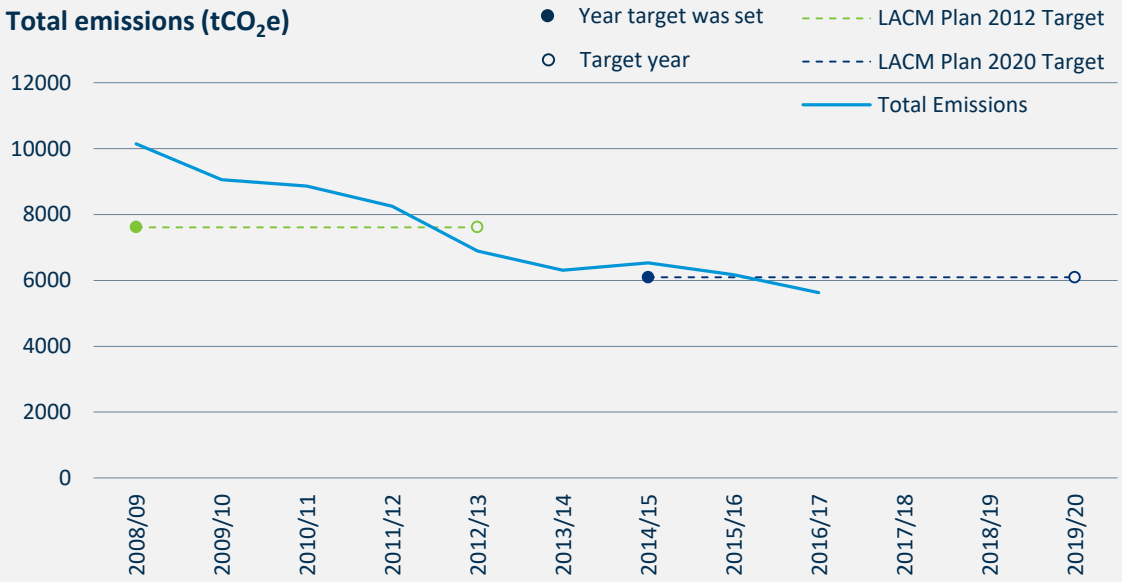
Footprint Scope



- In all previous footprints, CBC have included elements of their stationary emissions and transportation emissions. This has typically included:
- **Scope 1 elements**:
  - Gas consumption, typically used for space and water heating in buildings
  - Fuel consumption used to power the Council's fleet
- **Scope 2 elements**:
  - Electricity consumption
- **Scope 3 elements**:
  - Emissions resulting from business travel in non-Council operated vehicles

Historical Emissions

- **Analysis of CBC's historic GHG emissions** was carried out using annual GHG emissions reports. Data was available from 2008/09 up to 2016/17.
- Through a number of previous Carbon Management plans, CBC has been working towards **emission reduction targets for the past decade.**
- The emission reductions reported in the GHG reports indicate that **CBC has achieved their reduction targets**.
- The majority of emission reductions were attributed **to purchased electricity and the Council's fleet.**
- During the Carbon Trust analysis, an **accounting error** was found in the method for calculating GHG emissions from the Council's fleet.



Above: CBC's evolving footprint as per annual GHG emissions reports

Historical Emissions

Below. CBC's historic emissions as per the annual GHG reports

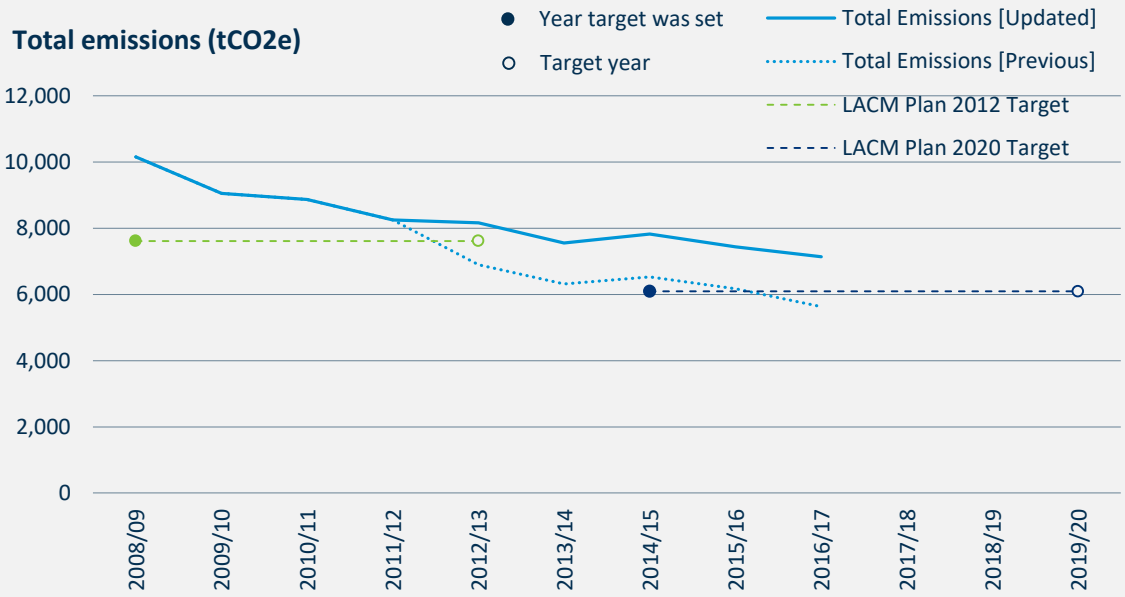
GHG emissions data – Total Tonnes of CO_2e									
		FY 16/17	FY 15/16	FY 14/15	FY 13/14	FY 12/13	FY 11/12	FY 10/11	FY 09/10	FY 08/09
Gas Consumption		2,918	3,012	2,993	2,915	3,231	2,642	3,048	4,473	5,285
Owned Transport		83	86	169	124	130	1,173	1,157		
Scope 1 Total		**3,001**	**3,098**	**3,162**	**3,039**	**3,361**	**3,815**	**4,205**	**4,473**	**5,285**
Purchased electricity		2,583	3,036	3,326	3,224	3,484	4,390	4,603	4,516	4,798
Scope 2 Total		**2,583**	**3,036**	**3,326**	**3,224**	**3,484**	**4,390**	**4,603**	**4,516**	**4,798**
Business Travel		47	41	45	49	50	48	58	65	67
Scope 3 Total		**47**	**41**	**45**	**49**	**50**	**48**	**58**	**65**	**67**
Total emissions		**5,631**	**6,175**	**6,533**	**6,312**	**6,895**	**8,253**	**8,866**	**9,054**	**10,150**
% decrease from baseline		44.5%	39.2%	35.6%	37.8%	32.1%	18.7%	12.7%	10.8%	-

Fleet emissions

- It was found that **emissions from the Council's fleet had been under-reported since 2012** as a result of the Council assigning the majority of their **fuel consumption to biofuel** when calculating emissions.
- It was confirmed that the Council's fleet has always been powered by a combination of diesel and gas oil.
- The calculation resulted in a **~1,300 tCO_2e** annual reduction in emissions (in error) since 2012.
- Since this error has been uncovered, historical fleet emissions have now been adjusted to allow for an accurate comparison in historic emissions, and are shown in the next slide.

Historical Emissions [ADJUSTED]

- The adjusted value does have a material impact on the Council's GHG reporting
- However, the Council are still on track to meet the 40% reduction set out in the LACM Plan 2016-2020
- As of FY 16/17, the Council had achieved a **29.7%** reduction in emissions from the 2008 baseline year
- **The updated emissions pathway will be used from herein**



Above: CBC's adjusted footprint reflecting an increase in emissions from the Council's fleet

Historical Emissions [ADJUSTED]

Below. CBC's historic emissions with adjusted 'owned transport' emissions.

GHG emissions data – Total Tonnes of CO_2e									
		FY 16/17	FY 15/16	FY 14/15	FY 13/14	FY 12/13	FY 11/12	FY 10/11	FY 09/10	FY 08/09
Gas Consumption		2,918	3,012	2,993	2,915	3,231	2,642	3,048	4,473	5,285
Owned Transport		1,589	1,350	1,461	1,363	1,395	1,173	1,157		
Scope 1 Total		**4,507**	**4,362**	**4,454**	**4,278**	**4,626**	**3,815**	**4,205**	**4,473**	**5,285**
Purchased electricity		2,583	3,036	3,326	3,224	3,484	4,390	4,603	4,516	4,798
Scope 2 Total		**2,583**	**3,036**	**3,326**	**3,224**	**3,484**	**4,390**	**4,603**	**4,516**	**4,798**
Business Travel		47	41	45	49	50	48	58	65	67
Scope 3 Total		**47**	**41**	**45**	**49**	**50**	**48**	**58**	**65**	**67**
Total emissions		**7,137**	**7,439**	**7,825**	**7,551**	**8,160**	**8,253**	**8,866**	**9,054**	**10,150**
% decrease from '08		29.7%	26.7%	22.9%	25.6%	19.6%	18.7%	12.7%	10.8%	-

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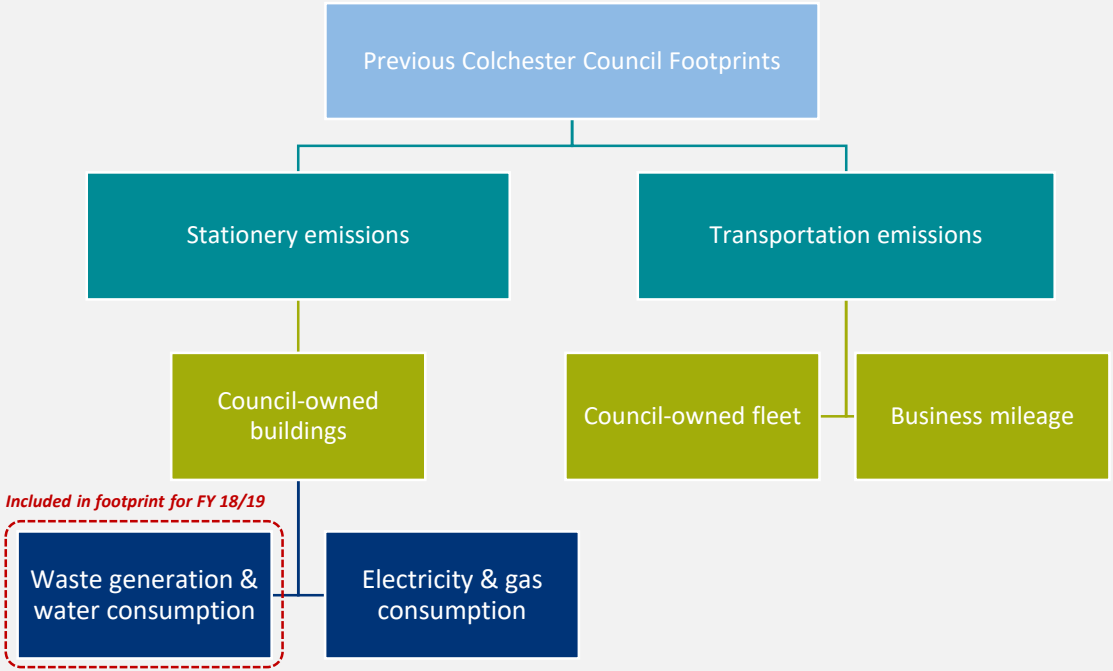
Carbon Footprint for FY 18/19

Footprint Scope for FY 18/19



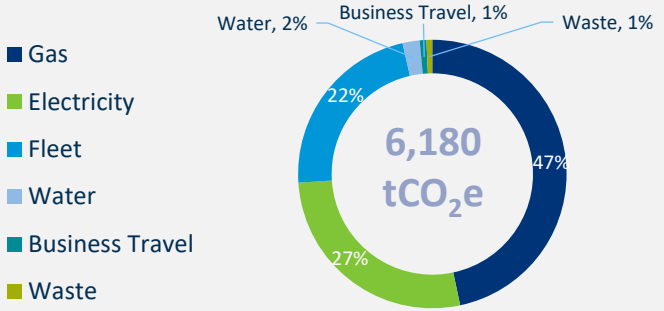
- CBC's carbon footprint was recalculated for the FY 18/19.
- In consultation with the Council, the scope of the footprint was expanded to include:
  - Emissions from the third-party disposal and treatment of waste generated in Council-controlled operations (scope 3).
  - Emissions resulting from the supply and subsequent treatment of water consumed by the Council's operations (scope 3).

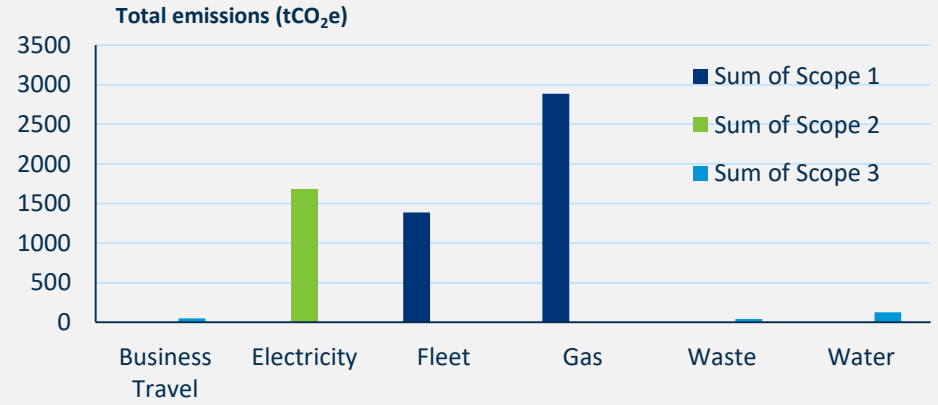
N.B. Renewable generation was initially included in CBC's footprint but was removed during the QA process. Renewable generation is not considered to offset emissions in the location-based method used by the GHG protocol and is accounted for by either a) reducing meter readings if the electricity generated is private wired to a building or b) in the national grid emissions factor if the electricity is exported to the grid.

2018/19 Carbon Footprint

- The total carbon footprint for Colchester Borough Council's own operations in the FY 2018/19 is equal to **6,180 tCO_2e**.
- The majority of this footprint is attributed to the Council's gas consumption for space and water heating in buildings. Emissions from electricity consumption and fuel consumption for vehicles also form a significant portion of emissions.

	Emissions [tCO_2e]
Scope 1	4,271 (69.1 %)
Scope 2	1,687 (27.3 %)
Scope 3	220 (3.6 %)





N.B. The raw excel data used to calculate the footprint is available to the Council

2018/19 Carbon Footprint

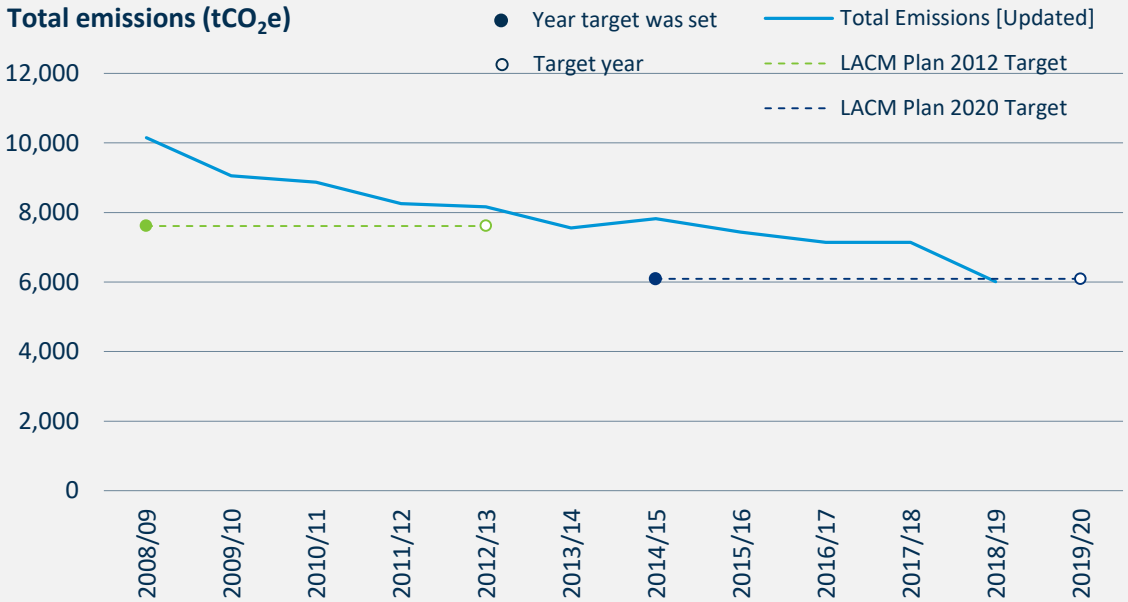
Below. CBC's historic emissions, updated with FY 18/19.

GHG emissions data – Total Tonnes of CO_2e										
	FY 18/19	FY 16/17	FY 15/16	FY 14/15	FY 13/14	FY 12/13	FY 11/12	FY 10/11	FY 09/10	FY 08/09
Gas Consumption	2,884	2,918	3,012	2,993	2,915	3,231	2,642	3,048	4,473	5,285
Owned Transport	1,383	1,589	1,350	1,461	1,363	1,395	1,173	1,157		
Scope 1 Total	**4,272**	**4,507**	**4,362**	**4,454**	**4,278**	**4,626**	**3,815**	**4,205**	**4,473**	**5,285**
Purchased electricity	1,687	2,583	3,036	3,326	3,224	3,484	4,390	4,603	4,516	4,798
Scope 2 Total	**1,687**	**2,583**	**3,036**	**3,326**	**3,224**	**3,484**	**4,390**	**4,603**	**4,516**	**4,798**
Business Travel	50	47	41	45	49	50	48	58	65	67
Waste [1]	43	-	-	-	-	-	-	-	-	-
Water [1]	127	-	-	-	-	-	-	-	-	-
Scope 3 Total	**221**	**47**	**41**	**45**	**49**	**50**	**48**	**58**	**65**	**67**
Total emissions	**6,180**	**7,137**	**7,439**	**7,825**	**7,551**	**8,160**	**8,253**	**8,866**	**9,054**	**10,150**

[1] Emission sources not included in CBC's footprint measurement up to FY 18/19

2018/19 Carbon Footprint

- The baseline year 2008/09 and LACM Plan targets did not include the emissions resulting from waste and water
- Excluding these emission sources, CBC's footprint is equal to **6,009 tCO_2e**
- This represents a **40.8% decrease** in emissions relative to 2008/09, and has resulted in CBC meeting their 40% emission reduction target a year early.



Above: CBC's evolving footprint. Footprint for FY 18/19 does not include water & waste to allow for direct comparison with previous years. No data for 2017/18 was available and it was assumed constant from 2016/17

6

Emission hotspots and priority focus areas

2018/2019 Footprint Breakdown

- The Council's **'stationary' footprint** from buildings, public lighting/amenities etc. accounts for **76.7%** of the overall footprint:
  - The stationary footprint was divided into use-types. **Leisure and recreation is by far the largest contributor to the Council's stationary emissions**, largely driven by Leisure World
- The emissions associated with the Council's fleet are also substantial:
  - As the grid continues to decarbonise and purchased electricity becomes 'greener' **emissions from the Council's fleet will become an increasingly larger portion** of the overall footprint

STATIONARY FOOTPRINT		
Ranking	**Site Type**	**Emissions (tCO2e)**
1	Leisure and recreation	2,388
1.a	*Leisure World*	*2,184*
2	Residential buildings	1,419
3	Council buildings	376
4	Public conveniences	286
5	Cemetery / Crem	191
6	Street amenities	79
7	Pumping stations	3
TOTAL		**4,742**

TRANSPORTATION FOOTPRINT		
Ranking	**Site Type**	**Emissions (tCO2e)**
1	Fleet Vehicles	1,388
1.a	*Waste vehicles*	*819*
1.b	*Other vehicles*	*569*
2	Business Travel	50
TOTAL		**1,438**

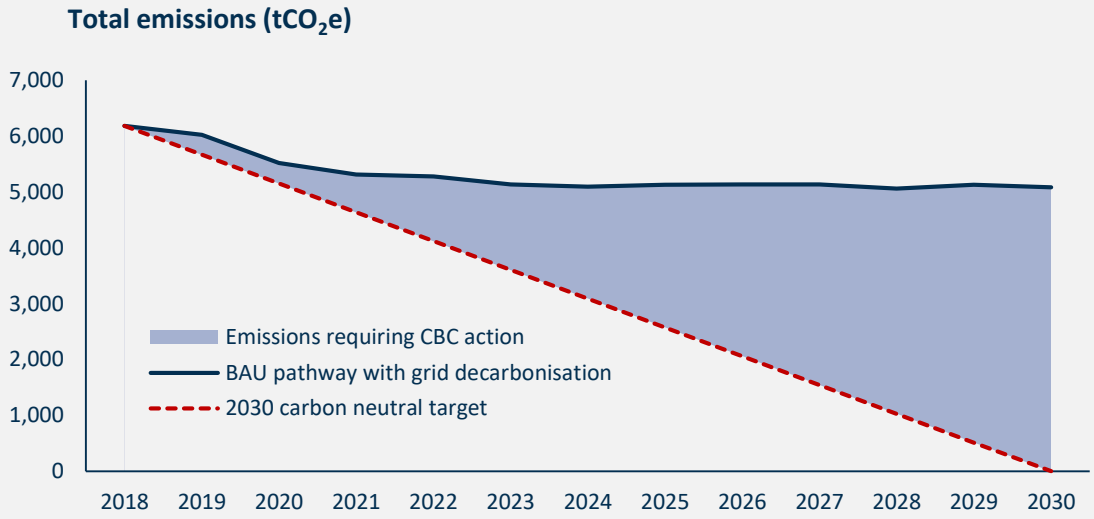
Stationary Breakdown

- Gas emissions, primarily from the space and water heating of buildings, make up the majority of the Council's stationary emissions (60.8%)
- Leisure world is the largest single emitter across the Council's portfolio and accounts for 35.3% of all emissions.
- Future reduction in gas emissions will need to be largely driven by Council-led interventions as national trends between now and 2030 will not impact gas emissions as much as other emission sources e.g. electricity consumption.

STATIONARY FOOTPRINT						
Ranking	Site Type	Electricity emissions (tCO2e)	Gas emissions (tCO2e)	Water emissions (tCO2e)	Waste emissions (tCO2e)	TOTAL
1	Leisure and recreation	762	1,511	82	33	2,388
1.a	*Leisure World*	*656*	*1,445*	*58*	*25*	2,184
2	Residential buildings	467	928	25	0	1,419
3	Council buildings	148	209	10	9	376
4	Public conveniences	207	72	7	0	286
5	Cemetery / Crem	23	165	2	1	191
6	Street amenities	78	0	1	0	79
7	Pumping stations	3	0	0	0	3
TOTAL		1,687	2,884	127	43	**4,742**

Decarbonisation of the grid

- Maintaining a business as usual (BAU) case, where energy consumption remains constant will still result in a **decrease in electricity emissions as a result of grid decarbonisation.**
- In a 'do nothing' scenario, CBC's emissions are **expected to reduce by 1,094 tCO_2e** as a result of CBC using greener electricity from the national grid.
- Beyond this, a further 5,085 tCO_2e reduction must then be achieved by CBC to achieve the 2030 carbon neutral target.



Above: BAU pathway for Colchester assuming a 'do-nothing' scenario whereby emission reductions come from the grid decarbonising.

7

Workshop

Workshop delivery

- Two workshop sessions were led by the Carbon Trust - one with a selection of Council officers and another with members of the Task and Finish Group who are overseeing the implementation of the Climate Emergency Declaration.
- Representatives from Colchester Borough Homes and Colchester Amphora (both wholly-owned subsidiaries of the Council) also attended the officers session
- The aims of the session were to:
  - Present interim results
  - Explore the idea of expanding the scope of CBC's target
  - Give consideration to other aspects of climate action planning (e.g. pathway modelling, science-based targets, approach to offsetting etc.)
  - Discuss potential next steps for the Council

Workshop delivery

- The workshops were used to present the interim results of CBC's updated footprint and to display what other Council's are doing in respect to Climate Emergency declarations. During the workshop, the following points were raised by the project team:
  - Relative to other Council's, **Colchester's climate action to date has been impressive**. Over £1.5mil has been invested in carbon reduction projects and significant emission reductions have been achieved through the Council's actions;
  - Despite the increased fleet emissions the Council has **achieved their 40% emissions reduction target**;
  - The Council's historical focus on scope 1 and 2 emissions is consistent with other public sector organisations, and the scope and target of the Climate Emergency declaration is **typical of other Council's**;

Workshop discussion

- A number of questions were posed to the Council to try and **structure the development of the Council's action plan** (e.g. scope and target setting, approach to offsetting). Some highlights of the discussion included:
  - **Scope.** There were extensive discussions around what should and should not be included within the scope of the target. Particularly, the inclusion of the housing stock managed by Colchester Borough Homes was debated. This currently falls within CBC's scope 3 emission sources and is not included. Before making a firm decision, it was recommended by the Carbon Trust to measure the emissions resulting from the Council's scope 3 emissions.
  - **Target setting.** Both the officers and councillors recognised that a 2030 carbon neutral target is extremely ambitious and will be hard to achieve. However, there was a common feeling that Colchester have an obligation to go 'above and beyond' what is expected. There is a clear desire to take a leading role in Climate Action both in the region and at a national context.
  - **Offsetting** will almost certainly be required for CBC to achieve a 2030 carbon neutral target, and it is unlikely that between now and 2030 tree planting initiatives will offset all of CBC's unmitigated emissions. Both the Officers and Councillors recognised that this could result in a large annual expenditure, and various discussions were had as to how to make best-use of this (for example, by funding carbon-reducing initiatives in the local area). The consideration of and robust strategy towards offsetting should be explored by the Council in any plan that is put forward.

Workshop discussion

- Additionally, the workshops were used to explore concepts that the Council could potentially explore as part of their climate action.
- In particular, **Scenario modelling** and **science-based targets (SBTs)** were presented as points for consideration to the Council. More information can be found in the appendix of this report.
  - There was a **consensus that SBTs should not make up CBC's core target** and that the Council should continue to pursue a 2030 carbon neutral target. However, the **potential for SBTs to form wider targets** (e.g. for scope 3 emissions) was considered as an option;
  - There was particular interest in scenario modelling, and how it could be used to **focus carbon reduction efforts in the appropriate areas** by taking account of national and local trends & policies.
- Examples of good governance procedures (e.g. integrating climate-related KPIs for senior officers) and potential project ideas were also discussed as part of the broader carbon management planning.
- The workshop was concluded by the project team making a series of recommendations to the Council (see section 8 'Recommendations and next steps).

8

Recommendations and next steps

Recommendation 1

Understanding key Scope 3 emissions sources

- CBC are responsible for a much wider footprint outside of their direct control, which is currently not included in the Council's target. This includes contracts (e.g. grounds maintenance) as well as wholly-owned companies such as Colchester Borough Homes and Colchester Amphora;
- We would expect CBC's scope 3 to account for a significant portion of the Council's emissions. Emissions arising from these sources can be reduced from the corporate, procurement and everyday decisions made by the Council;
- There was significant debate amongst Council representatives as to whether or not these sources should be considered within the scope of the Council's target;
- Before making any decision, we recommend for the Council to measure and understand these emission sources to better inform the debate and allow the Council to come to a target that is ambitious but realistic.

Recommended next steps:

- Collect available data and measure relevant Scope 3 emissions

Recommendation 2

Moving towards a road map and action plan – pathway modelling

- We recommend that, before identifying specific project opportunities, the Council need to understand the impact of business as usual, national policies and local initiatives on the future carbon footprint.
- To do so the Council should perform macro-level scenario analysis, which would layer national and Council-level trends & policies to map CBC's emissions out to 2030;
- This will show what the make-up of the Council's emissions will be in 2030 on the current pathway, and in doing so provide steer on focus areas that the Council should prioritise for project implementation between now and then.
- This was discussed at the workshop and received positive feedback from both the Officers and Councillors. The slides presented are contained in the appendices.

Recommended next steps:

- Perform pathway modelling to identify priority focus areas for the Council

Recommendation 3

Footprint calculation

- CBC already has a strong data management and collection process in place for their scope 1 and 2 emissions. However, discrepancies in the calculation of previous footprints were identified and therefore it is important that CBC set up and maintain a robust data capture and verification process to be able to assess their progress.
- In addition, data collection for Rowan House should be refined so that greater confidence can be placed in the meter readings.

Recommended next steps:

- Write and agree an internal data management plan which sets out roles and responsibilities for data capture and verification as well as a timetable for reporting.

Recommendation 4

Maintain collaboration with business and the wider area

- It was very positive to see good collaboration within the organisation and a range of interests from the wider Borough. This should be maintained through ongoing engagement activities.

Recommended next steps:

- CBC should create an engagement plan for continuing to engage a range of stakeholders internally and throughout the Borough on the Climate Emergency

Recommendation 5

Ensure ethos of the Climate Emergency is embedded in broader strategies

- The qualitative review identified that a number of key strategies within CBC will need to be revised in 2020. In order to have maximum impact in the District, it is important that the Climate Emergency ethos and targets are a key feature of the new strategies.

Recommended next steps:

- CBC should engage officers responsible for the development of key strategy revisions early, to ensure the Climate Emergency forms a central pillar of the emerging strategy.

9

Appendix

Science-based targets (SBTs)

What is a science-based target?

- Within the Paris Climate Agreement 195 nations agreed to hold the increase in global average temperatures to 2°C and pursue efforts to limit the increase to 1.5°C.
- The Intergovernmental Panel on Climate Change (IPCC) along with the International Energy Agency (IEA) have developed a multitude of greenhouse gas reduction pathways that are required to achieve these warming targets.
  - This sets a ‘carbon budget’ of how many GHG emissions can be emitted over a certain period of time (e.g. 2050 or 2060).
- If a company, organisation, region, or otherwise is to set an emission reduction target in line with climate science requirements to meet the above, then that target is said to be ‘science based’.

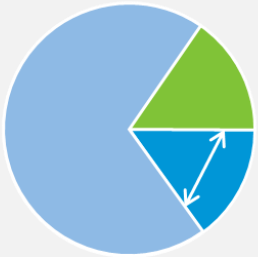
Science-based targets (SBTs)

Setting a science-based target

- There are three fundamental components to the development of a science based target:
  - A carbon budget – a finite amount of carbon can be emitted
  - An emissions scenario – how is the budget distributed over time
  - An allocation approach – how is the budget within that scenario allocated amongst companies in the same level of disaggregation
- An analogy can be drawn by considering a pie:

1. Assessing the global carbon budget
How large is the pie?

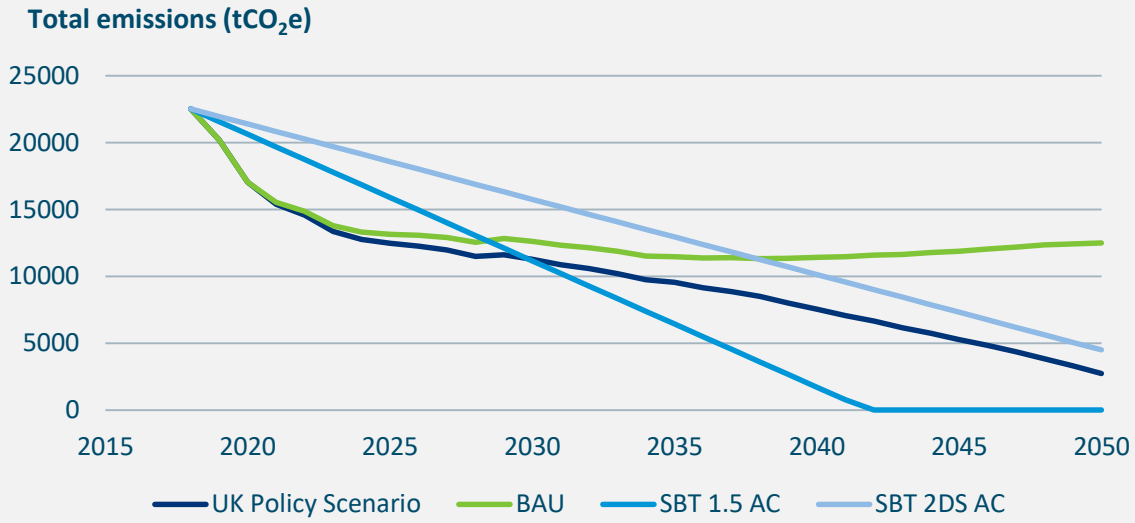
2. Calculating the Councils carbon budget
How large is my slice?



3. Compare your budget and your footprint
Am I eating too much?

Science-based targets (SBTs)

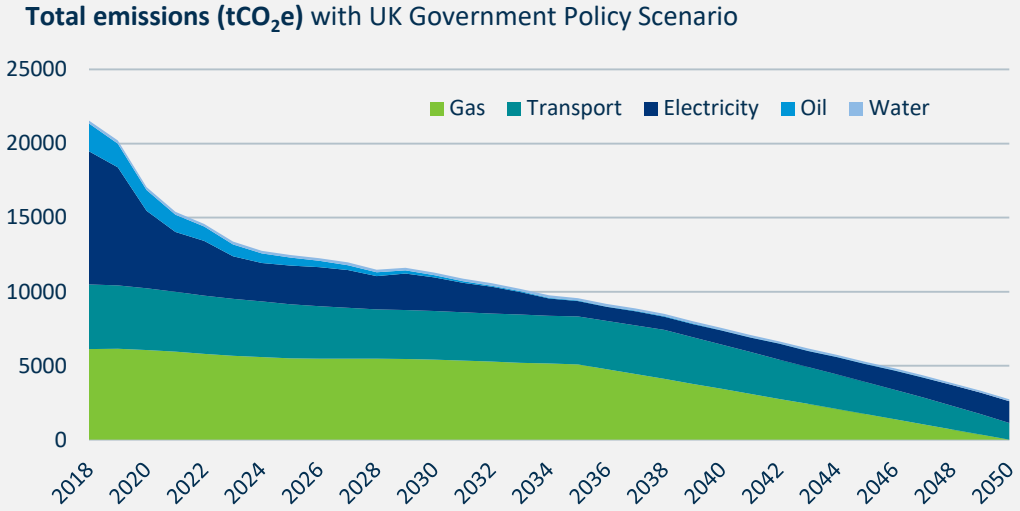
- An example of a science-based target that was conduced by the Carbon Trust was presented to the Council during the workshop.
- A 1.5ºC-aligned reduction pathway would result in this Council reaching carbon neutral by 2042.



Above: Science-based target example. This data does not represent Colchester Borough Council

Pathway modelling

- An example of pathway modelling that conduced by the Carbon Trust was presented to the Council during the workshop.
- For this Council, the modelling showed that by 2050 the majority of their emissions would be a result of electricity and transport.
- The allows the Council to identify where the gap to target exists and therefore prioritise implementation measures.



Above: Pathway modelling example. This data does not represent Colchester Borough Council

Appendix: Data Sources

- Energy, vehicle mileage, utilities data – Colchester Borough Council
- Building benchmarks - CIBSE
- Emission Factors – BEIS
- UK emission factors projections – BEIS

Published in the UK: 2019.

Colchester Borough Council

Climate Emergency Action Plan

January 2020

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Executive Summary

Taking action to tackle our Climate Emergency is an absolute priority for Colchester Borough Council (CBC). In July 2019 the Council was one of the first in the region to make a Climate Emergency declaration.

This Action Plan builds upon many years of achievement and environmental innovation, underlined by Colchester's status as one of the top performing Climate Friendly Council's in England & Wales by Friends of the Earth.

This is the first version of our Climate Emergency Action Plan, it is only a starting point in a ten year journey. We will adapt and update this plan regularly alongside the development of a new Environment & Sustainability Strategy and a Carbon Management Plan that will reflect many of the aspirations and actions from this plan.

Meanwhile we will continue to act boldly on climate change to ensure the whole organisation rises to the challenge of the climate emergency.

The Plan, in summary:

- Provides an assessment of CBC's emissions and their sources and begins to explore likely future scenarios for the next decade.

- Demonstrates that the Council has achieved its 2020 emissions reduction target one year early and sets a goal for the Council to be Net Carbon zero by 2030.

- Demonstrates what action has already been taken and how this crisis is being addressed through partnership via the Conservation Environment & Sustainability Task & Finish Group.

- Highlights our commitment to work with the whole community in responding to the climate emergency and to work with other local authorities and partners to share learning and knowledge.

- Sets out existing and new actions that will be delivered and where necessary developed further to:
    - Embed the Climate Emergency in Organisational Culture & Decision Making
    - Create a Roadmap to reduce our Carbon footprint to net zero by 2030
    - Provide for environmental sustainability through Planning, Development & Sustainable Travel
    - Embed sustainability through the Management of Waste and Recycling
    - Undertake Mitigation, Climate Adaptation and Environmental Stewardship
    - Build Community Resilience through Enabling, Behaviour Change & Partnership Working

Introduction

Taking action to tackle our Climate Emergency is an absolute priority for Colchester Borough Council (CBC). In July 2019 the Council was one of the first in the region to make a Climate Emergency declaration.

The Council is committed to firm action, from setting an ambitious target to be carbon neutral by 2030 to driving forward a significant programme of environmental stewardship to sustain and enhance biodiversity and invest in cleaner, greener, renewable energy projects.

This Action Plan builds upon many years of achievement and environmental innovation, underlined by Colchester's status as one of the top performing Climate Friendly Council's in England & Wales by Friends of the Earth.

The plan aims to address the urgent challenge faced by the Council; one which is made harder because, compared to most places, Colchester has already completed many of the 'easier', 'quick win' projects. This means that moving forward at pace to achieve our targets will require significant investment of time, money and energy from the Council, the government, our partners and citizens.

We are aware of growing public support for environmental action and this has been exemplified by groups such as Extinction Rebellion's People's Assembly & Festival and the work of Eco Colchester, with both groups presenting to the Council's Conservation, Environment & Sustainability Task & Finish Group in 2019.

It must be highlighted that opinion is divided on the pace required to meet this emergency; Extinction Rebellion state that we should aim for carbon net zero by 2025, The UK Committee on Climate Change along with the Intergovernmental Panel on Climate Change (IPaC) both reference dates of 2050 for carbon neutral, which the UK Government announced that it would adopt on the 12 June 2019.

Given the scale of the challenge to achieve a net zero carbon goal by 2030 it is likely that some future measures will entail radical steps that will require far reaching policy and societal changes. They will also rely on the measures taken at regional and national level to achieve an overall carbon reduction target. As was recognised in the agreed motion, the council cannot do this alone.

It is important to note this is the initial version of our Action Plan, it is only a starting point in a ten year journey. We will adapt as we go and update this plan regularly alongside the development of a new Environment & Sustainability Strategy and a Carbon Management Plan that will reflect many of the aspirations and actions from this plan. Meanwhile we will continue to act boldly on climate.

Challenge and Risks associated with Climate Change

In 2018, the Intergovernmental Panel on Climate Change (IPCC) published a report which advised that global warming must be limited to 1.5°C, as opposed to the previous target of 2°C. The IPCC's review of over 6,000 sources of evidence found that, with a rise of 1.5°C, there would be risks to health, livelihoods, food security, water supply, human security and economic growth. A rise to 2°C would be even more catastrophic. It warned that there were 12 years within which to take the serious action required to avert this crisis and avoid the worst impacts.

CBC's Comprehensive Climate Risk Assessment outlines the climate change predictions for Colchester; it identifies risks and looks at existing and potential actions to reduce risks.

The short term climate change risks for Colchester are:

- Milder, wetter winters (central estimate shows an increase in mean winter temperature of 1.3ºC and 6% increase in winter precipitation)
- Hotter, drier summers (central estimate shows an increase in mean summer temperature of 1.3ºC and 7% decrease in summer precipitation)
- More frequent extreme high temperatures (central estimate shows an increase in the mean temperature of the warmest day of 0.9 ºC)
- More frequent downpours of rain (central estimate shows an increase of 5% precipitation on the wettest day)
- Significant decrease in soil moisture content in summer
- Sea level rise and increases in storm surge height (central estimate for sea level rise in the East of England shows a 9.7cm increase under the medium emissions scenario and a 11.5cm increase under the high emissions scenario)
- Possible higher wind speeds.

It is clear that the climate of Colchester is very likely to change in the short term, with more significant changes likely in the longer term. Colchester currently has one of the highest average temperatures and lowest rainfall in the East of England. It is likely that Colchester will be more affected than other areas and it is therefore essential that adaptation measures are put in place to reduce Colchester's vulnerability to climate change.

Benefits associated with Climate Change Action

Whilst there are significant challenges, taking action to mitigate and adapt to climate change could also bring multiple benefits for the environment, society and economy in Colchester. There are new opportunities to promote sustainable local development, enhance quality of life, stimulate investment and innovation, create jobs and reinforce stakeholder participation and co-operation.

Action taken already

Colchester is not starting from scratch on its journey towards becoming net carbon neutral or adapting to climate change impacts.

The Council has made significant reductions in carbon through previous carbon reduction strategies. Over £1.5m has been invested in carbon reduction projects and from a baseline of 10,150 tCO2e in 2008 **the 40% reduction target has been met, one year ahead of the 2020 target.**

In July 2019, the Council passed a motion to declare a climate emergency and to:
Support the newly formed Conservation and Environmental Sustainability Task and Finish Group to consider the following actions:

Commission an environmental audit which identifies pollution hotspots, wildlife biodiversity and environmental health issues, and an urban impact assessment with an aim to identify areas of improvement across the borough.

Consult expert opinions in the field, as appropriate.

Collaborate with regional and neighbouring local authorities, as well as communities, to encourage practical measures to reduce emissions, reduce carbon footprints and develop community-based renewable energy projects.

Encourage all sectors of the economy across the borough to take steps to reduce waste and become carbon neutral.

Develop a roadmap for Colchester Borough Council to go carbon neutral by 2030.

Report to Cabinet and Full Council within six months with an action plan setting out conservation and environmental sustainability goals to address targets by 2030; incorporating proposals on the investment implications of this proposed activity.

Pledge to ensure future housing and community development projects meet a carbon-neutral standard by 2030

Call upon the Leader of the Council to write to the Minister of State for Energy and Clean Growth requesting that national policy is urgently developed to reflect the seriousness of the current emergency, and to release funds to local authorities, encouraging them to take the necessary measures at local level.

Since the motion was passed, the Council has been working closely with a wide range of stakeholders to develop our approach to addressing the climate emergency as set out in appendix 1 and as reported to Cabinet in November 2019.

Carbon Emission Baseline

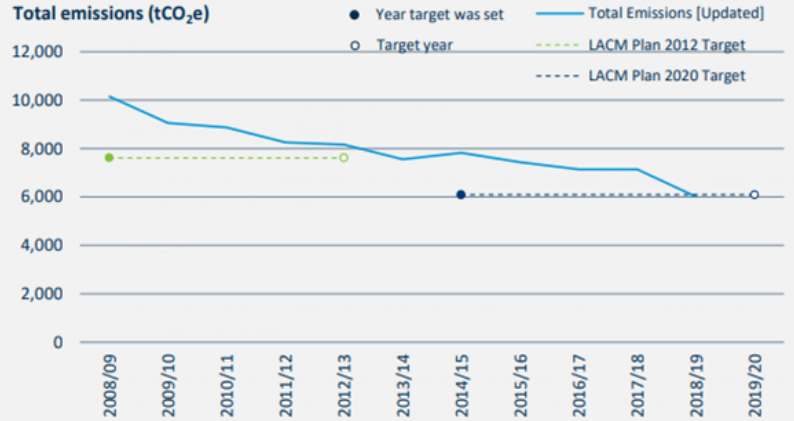
Achieving a net zero carbon target depends on a sound understanding of not only where we have come from, but also where we are now and ultimately where our current plans are taking us.

The Carbon Trust was commissioned to provide the initial evidence base to help us ensure that Colchester Council's response to the climate emergency is informed by sound recommendations and expert guidance to ensure we deploy the most effective solutions to help us tackle climate change.

Analysis of CBC's historic Green House Gas (GHG) emissions was carried out using annual GHG emissions reports. Data was available from 2008/09 up to 2016/17. The emission reductions reported in the GHG reports indicate that CBC achieved its reduction targets with the majority of emission reductions attributed to purchased electricity and the Council's fleet. *(Note: During the Carbon Trust analysis, it became apparent that fleet emission data had been under reported since 2012. However even with this historical calculation error the Carbon Trust report states that in Colchester we have a 40.8% decrease in emissions relative to 2008/09 baselines. This equates to a reduction of 3,970 tonnes of CO2e)*

Figure 1 – 2018/19 Carbon Footprint

- The baseline year 2008/09 and LACM Plan targets did not include the emissions resulting from waste and water
- Excluding these emission sources, CBC's footprint is equal to **6,009 tCO_2e**
- This represents a **40.8% decrease** in emissions relative to 2008/09, and has resulted in CBC meeting their 40% emission reduction target a year early.



Above: CBC's evolving footprint. Footprint for FY 18/19 does not include water & waste to allow for direct comparison with previous years. No data for 2017/18 was available and it was assumed constant from 2016/17

Scope of Carbon Emission Target

The GHG protocol is the most widely used and accepted methodology for GHG accounting. It is the method the Council has used since 2008 and is the method that has been followed to calculate CBC's footprint for FY 18/19.

Under the GHG Protocol, emission sources are divided into scopes 1, 2, and 3. Scopes 1 and 2 emissions are a result of an organisations' direct operations, whereas scope 3 emissions result from an organisations' indirect activities or value chain (for example, from the manufacturing of products used by the Council).

Scope 3 emissions are emitted by a third-party's operations and are generally more difficult to monitor, control and reduce. As a result, public (and private) sector carbon action has traditionally focused on scope 1 and 2 emissions.

Where scope 3 emissions have been included, organisations tend to only consider certain elements where there is a degree of influence or control. However, there is now increasing appetite to include more scope 3 emissions in footprints and to encourage carbon reduction in an organisations' value chain.

All previous carbon footprints for CBC have included:

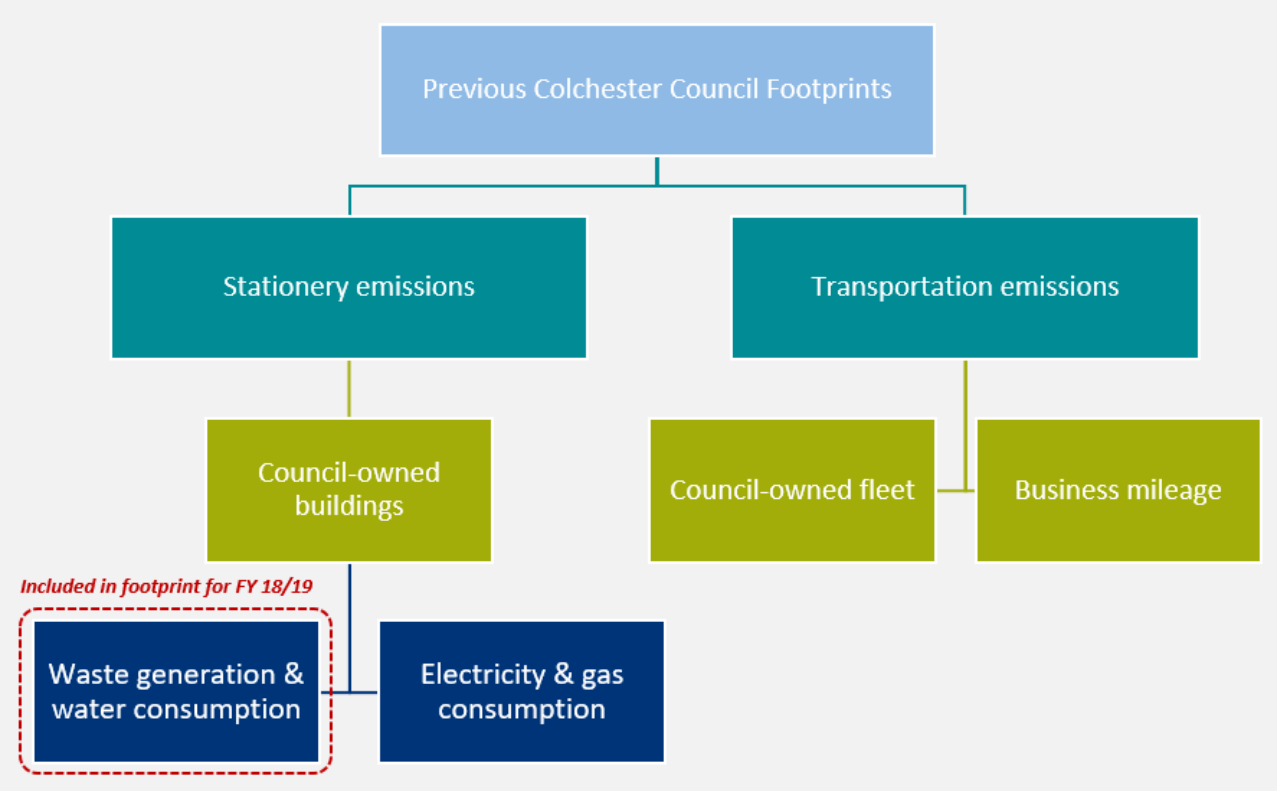
- Emissions from gas consumption for space and water heating in buildings (scope1)
- Emissions from fuel consumption used to power the Council's fleet (scope 1)

- Emissions from electricity consumption (scope 2).
- Emissions resulting from business travel in non-Council operated vehicles (scope 3)

The Council's carbon footprint was recalculated for the financial year 2018/19 and the scope of the footprint was expanded to include further scope 3 emissions including:

- Emissions from the third-party disposal and treatment of waste generated in Council controlled operations (scope 3)
- Emissions resulting from the supply and subsequent treatment of water consumed by the Council's operations (scope 3)

Figure 2 - 2018/19 Adjusted Carbon Footprint Scope



The total carbon footprint for CBC's own operations in the financial year 2018/19 within the scope above is equal to **6,180 tCO2e**.

The majority of this footprint is attributed to the Council's gas consumption for space and water heating in buildings. Emissions from electricity consumption and for fleet vehicles also form a significant portion of emissions.

Figure 3. – Carbon footprint breakdown by scope

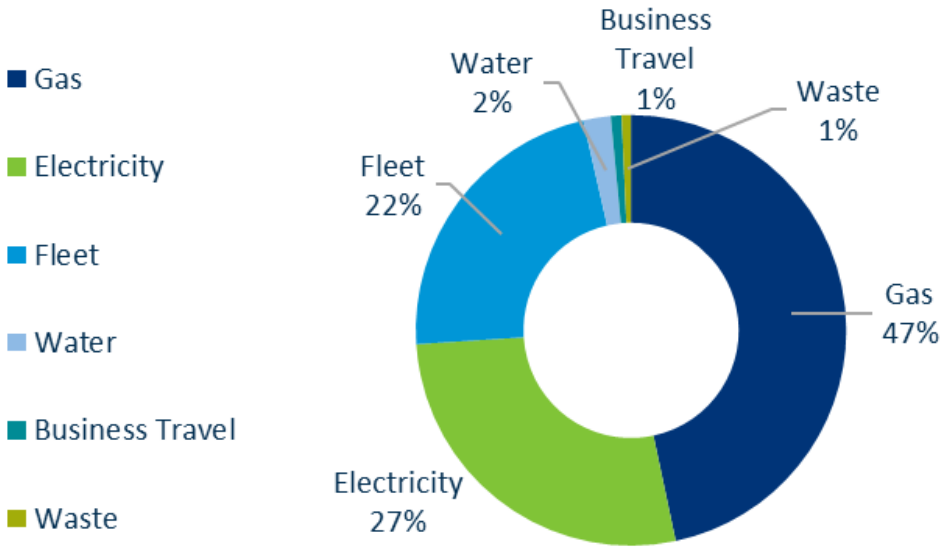


Figure 4. – Historic emissions, updated with data for 18/19.

GHG emissions data – Total Tonnes of CO_2e	FY 18/19	FY 16/17	FY 15/16	FY 14/15	FY 13/14	FY 12/13	FY 11/12	FY 10/11	FY 09/10	FY 08/09
Gas Consumption	2,884	2,918	3,012	2,993	2,915	3,231	2,642	3,048	4,473	5,285
Owned Transport	1,383	1,589	1,350	1,461	1,363	1,395	1,173	1,157		
Scope 1 Total	**4,272**	**4,507**	**4,362**	**4,454**	**4,278**	**4,626**	**3,815**	**4,205**	**4,473**	**5,285**
Purchased electricity	1,687	2,583	3,036	3,326	3,224	3,484	4,390	4,603	4,516	4,798
Scope 2 Total	**1,687**	**2,583**	**3,036**	**3,326**	**3,224**	**3,484**	**4,390**	**4,603**	**4,516**	**4,798**
Business Travel	50	47	41	45	49	50	48	58	65	67
Waste [1]	43	-	-	-	-	-	-	-	-	-
Water [1]	127	-	-	-	-	-	-	-	-	-
Scope 3 Total	**221**	**47**	**41**	**45**	**49**	**50**	**48**	**58**	**65**	**67**
Total emissions	**6,180**	**7,137**	**7,439**	**7,825**	**7,551**	**8,160**	**8,253**	**8,866**	**9,054**	**10,150**

Areas of Focus for Carbon Emission Reduction

The Council's 'stationary' footprint from buildings, public lighting/amenities etc. accounts for 76.7% of the overall footprint.

The stationary footprint was divided into use-types. Leisure and recreation is by far the largest contributor to the Council's stationary emissions, largely driven by Leisure World, the largest single emitter across the Council's portfolio accounting for 35.3% of all emissions.

The emissions associated with the Council's fleet are also substantial. As the grid continues to decarbonise and purchased electricity becomes 'greener' emissions from the Council's fleet will become an increasingly larger portion of the overall footprint.

Gas emissions, primarily from the space and water heating of buildings, make up the majority of the Council's stationary emissions (60.8%).

Figure 5. Breakdown of Stationary Footprint 18/19

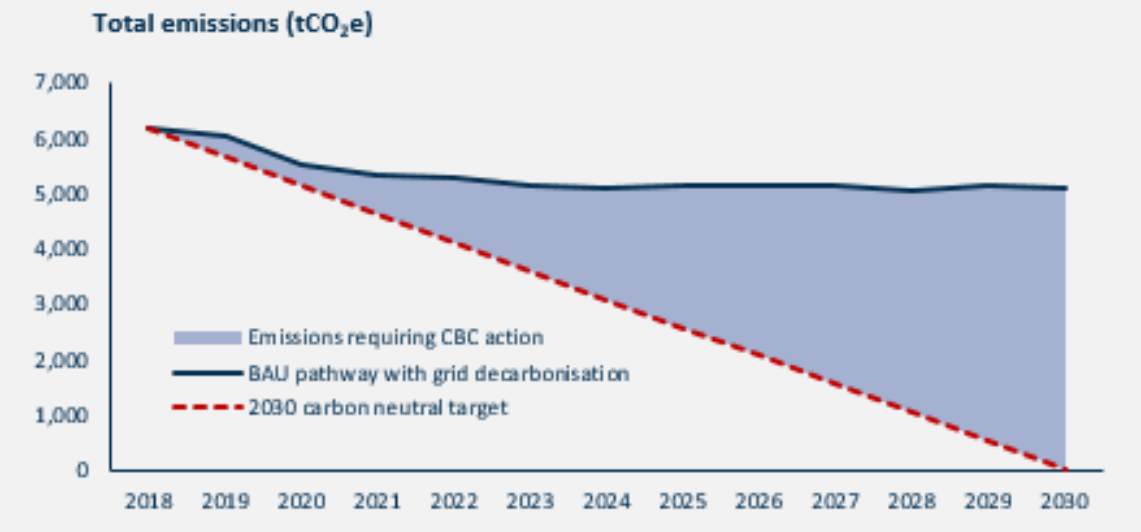
STATIONARY FOOTPRINT						
Ranking	Site Type	Electricity emissions (tCO2e)	Gas emissions (tCO2e)	Water emissions (tCO2e)	Waste emissions (tCO2e)	TOTAL
1	Leisure and recreation	762	1,511	82	33	2,388
1.a	*Leisure World*	*656*	*1,445*	*58*	*25*	2,184
2	Residential buildings	467	928	25	0	1,419
3	Council buildings	148	209	10	9	376
4	Public conveniences	207	72	7	0	286
5	Cemetery / Crem	23	165	2	1	191
6	Street amenities	78	0	1	0	79
7	Pumping stations	3	0	0	0	3
TOTAL		1,687	2,884	127	43	**4,742**

Maintaining a business as usual case, where energy consumption remains constant will still result in a decrease in electricity emissions as a result of grid decarbonisation.

In a 'do nothing' scenario, CBC's emissions are expected to reduce by 1,094 tCO2e as a result of the Council using greener electricity from the national grid.

Beyond this, a further **5,085 tCO2e reduction** must then be achieved by CBC to achieve the 2030 net carbon zero target.

Figure 6 - 'do nothing' scenario – emission reductions come from the grid decarbonising.



Further work will be required to ensure that emissions from electricity continue to fall, however greater emphasis will need to be placed on reducing diesel and gas emissions.

Future reduction in gas emissions will need to be largely driven by Council-led interventions as national trends between now and 2030 will not impact gas emissions as much as other emission sources e.g. electricity consumption.

Action Planning

There is a need for a flexible and iterative approach to action planning our carbon reduction strategy and our overall approach to the climate emergency.

As a result, we will adapt and update this plan regularly with more detail on specific projects, costings, milestones for delivery etc as the whole programme of work develops, as new technology becomes available, as we continue to consult with expert partners, wider stakeholders and as we undertake further examination of evidence and best practice.

Alongside the Action Plan we will develop a new Environment & Sustainability Strategy and a Carbon Management Plan that will set out specific carbon reduction projects in greater detail that reflect the aspirations and actions from this overarching initial plan.

Environment and Sustainability is a New Strategic Priority for the Council and has been highlighted in the 2020/21 Budget Strategy to enable the right level of focus, governance and resourcing to be provided to deliver real progress against this action plan.

1. Organisational Culture & Decision Making

We will build on the strategy review undertaken by the Carbon Trust and start a process of aligning CBC's policies and governance to ensure the whole organisation rises to the challenge of the climate emergency.

To make decisions that reflect the declaration of a Climate Emergency the Council will undertake the following actions to ensure all decisions are informed by perspectives on climate change. This will include:

1.1 Development and consultation on a new Environmental Sustainability Strategy for Colchester.

1.2 Ensuring internal strategies and policies are consistent with the climate change emergency

1.3 Embedding environmental/ carbon priorities within the Council's core internal and external communications and narrative

1.4 Acknowledging environmental stewardship within the core values of the organisation

1.5 Strengthening our assessment of climate and environmental impacts in all decision making and reporting, including project development processes and our performance management framework

1.6 Work to improve our procurement processes to ensure that suppliers support our carbon neutral ambitions, for example through specification development and selection processes, in line with the Council's wider commitment to delivering social value.

Climate change adaptation requires universal strategic thinking, a deeper understanding of the challenge and risks, and the adoption of responses that will be

critical to the Council achieving its ambitions. As a result the Council will take steps to:

1.7 Develop and roll out a climate change learning and development programme for staff and members to improve understanding of carbon and wider environmental context. The skills programme will include basic training/awareness for everyone, with more targeted/ intensive training for decision-makers to enable them to adequately assess carbon impacts in their decisions.

1.8 Continue to develop and support the Council's Travel Plan, to encourage sustainable transport choices by our workforce for both the commute to work and for business travel through schemes such as the 'cycle to work scheme', discounts on public transport and the provision of facilities to support active travellers.

2. Roadmap to Carbon Neutral

We will demonstrate leadership through ensuring that Colchester Borough Council operations will be net carbon zero by 2030.

2.1 Development of a new Carbon Management Plan based on insight and evidence gathered from a detailed pathway modelling of the current CBC footprint. Initial action areas for development and some likely measures to be include in the Carbon Management Plan are set out below:

- **2.1.1** Take steps to ensure the council's future electricity supply is provided by 100% renewably generated sources
- **2.1.2** Continue to review our estate and assets to investigate means of increasing energy efficiency of heating, lighting and cooling systems.
- **2.1.3** Investigate options for acquiring or funding further renewable energy generating and/or storage installations in the Borough.
- **2.1.4** Take a phased approach to renewal of our fleet as new technologies and associated infrastructure becomes available.
- **2.1.5** Understand the role of carbon offsetting and explore opportunities to develop a robust strategy for offsetting emissions that will keep investment within and benefit the local community e.g. operating own solar farms to provide local energy using currently unused CBC land.

The target for net carbon zero by 2030 relates specifically to the scope of our current footprint scope 1 and 2 emissions i.e. emissions as a result of CBC's direct operations and some scope 3 emissions (see page 7 & 8). However, there is an ambition to go 'as far as possible' and explore the wider footprint outside of the Council's direct control (further scope 3 emissions) not currently included in the target. This includes contracts (e.g. grounds maintenance) as well as wholly-owned companies such as Colchester Borough Homes and Colchester Amphora. As a result, there is a need to measure and understand these emission sources to inform a future target that is ambitious but realistic.

2.2 Collect available data and measure relevant scope 3 emission sources to ensure the Council is going as far as possible in its efforts to reduce carbon emissions.

The Council needs to understand the impact of business as usual, national policies, local initiatives and current procurement timelines on the future carbon footprint. This will show what the make-up of the Council's emissions will be in 2030 on the current pathway, and in doing so provide steer on focus areas that the Council should prioritise for project implementation between now and then. In order to achieve this the Council will:

2.3 Commission and undertake macro-level scenario analysis, to overlay national and Council-level trends & policies to map CBC's emissions out to 2030. Perform pathway modelling to identify priority focus areas for the Council

2.4 Write and agree an internal data management plan which sets out roles and responsibilities for data capture and verification as well as a timetable for reporting.

3. Planning, Development & Sustainable Travel

The Council will continue to play a central role in engaging communities and enabling environmentally friendly choices in everything from energy to active travel. The Planning system is one of the primary mechanisms for Colchester transitioning to a low-carbon society. The planning system does this by shaping new and existing developments in ways that reduce carbon emissions, sustains and enhances biodiversity and positively builds community resilience to challenges such as extreme heat or flood risk.

Central government changes to planning and building regulation legislation is required in order to enforce carbon neutrality on new developments.

Through the Conservation, Environment and Sustainability Task & Finish Group, a review has been undertaken of the measures that could be undertaken through the planning system to achieve carbon neutrality in new and existing developments. Although much work is already taking place, many opportunities have been identified as set out below. The full list of measures and actions to be explored can be seen in Appendix 2.

3.1 Pursue the table of actions and measures identified by the planning service (Appendix 2) that can be undertaken within existing planning legislation.

3.2 Respond to central government consultations that can influence changes to legislation in relation to increasing sustainability and carbon neutrality standards within planning and building regulations for future development.

3.3 Undertake visits to exemplar sustainable developments to better understand different financial models and approaches including for new development, retrofitting existing housing stock and innovative approaches to encouraging sustainable travel.

3.4 Investigate the opportunity for the Council to lead the way on its own forthcoming developments, where appropriate, such as Amphora led developments and the Garden Communities, as these provide opportunities to become exemplars of sustainable building and carbon neutrality.

3.5 Ongoing lobbying of central government for legislation which will enforce higher environmental standards and carbon neutrality for future developments.

3.6 Explore opportunities to develop and adopt shared standards with neighbouring authorities to provide consistency and set expectations on development set across the county.

4. Waste Management

The way we manage waste in Colchester has a significant impact on our carbon footprint, and that of the County Council as the waste disposal authority. Changes in material consumption patterns and a shift towards more sustainable waste management not only saves money but will also have significant implications for reducing emissions.

Future options regarding the collection and recycling of waste need to ensure that a carbon accounting approach is taken towards all aspects of the service. While the Council has control over the method of collection, it is not the Disposal Authority but will work with Essex County Council to continue to encourage the most sustainable options for waste disposal.

Colchester already has an outstanding waste and recycling service, but further opportunities have been identified in the action planning process as set out below:

4.1 Further enhance the systems for household waste, recycling, food and garden waste collections across the Borough with a focus on waste minimisation, increased recycling and composting and reduction of residual waste.

4.2 Stimulate increased reuse as well as upcycling and repairing opportunities and the necessary skills and training to undertake these.

4.3 Reduce resource use, particularly paper for printing and single-use plastic. Seek to progress towards single-use plastic-free status and support community plastic-free initiatives.

4.4 Seek to minimise or cease the sale of single use plastics and encourage alternative materials throughout our retail operations

4.5 Explore the trial of smart waste technology to improve waste monitoring and collection efficiencies in the Borough.

4.6 Continue to communicate frequently with Colchester residents to improve participation in recycling and waste minimisation initiatives.

4.7 Review our trade waste collection service to develop additional commercial recycling collections.

4.8 Take an asset based community development approach to discovering and enabling existing and new community led initiatives associated with repair, upcycle and reuse social movements.

5. Mitigation, climate adaptation and environmental stewardship

Local Strategic and Health & Wellbeing Partnerships carry out considerable planning to ensure that communities, especially the vulnerable, are supported during events that may cause an interruption to services and utilities, e.g. storms and flooding etc The Council also has robust Flood Emergency Plans in place and climate related risks are taken into account in the Councils Risk Register.

Open green space and parks, how they are utilised, and the activities they support are a real barometer for 'community' with important links to volunteer and community led action and initiatives. Colchester's rural, urban and coastal geography means outdoor space is a strong factor in the biodiversity, character and attraction of our place. These spaces provide a critical backdrop to our ecological and environmental action. There is also cross over with other key strategic priorities for the Council including; health & wellbeing, increasing physical activity, and active travel. As such the Council will:

5.1 Plant 200,000 trees by 2024 as part of the Colchester Woodland Project

5.2 Undertake a review and update of the climate risks, actions and control measures set out in the Council's Corporate Risk Assessment and gain a better understanding of what further potential adaptation will be required.

5.3 Maximise opportunities to collaborate with and integrate the whole system change approach being implemented through the Essex Local Delivery Pilot (ELDP) including opportunities to lever funds for investment in sustainable local community led initiatives e.g. Community food growing and gardening projects already in development.

5.4 Undertake a review of Council Strategies for parks and green space ensuring opportunities to tackle climate change are embedded within the approach including measures to safeguard and enhance existing habitats and species.

5.5 Ensure biodiversity is prioritised in green space maintenance including Ceasing the use of glyphosate herbicides in Council operations through a phased approach, identifying and trialling alternative sustainable practices including 'wilding' of open spaces and lobbying and encouraging wider stakeholders with grounds maintenance responsibilities to take the same approach.

5.6 Work with partners to develop a vision for the upper, middle, and lower River Colne that prioritises its value as a unique natural asset to be carefully utilised, protected and enhanced.

6. Build Community Resilience through Enabling, Behaviour Change & Partnership Working

Ensuring Colchester is a truly resilient Borough, where communities feel empowered and connected to take action on climate change will be a challenge. However we are aware of growing public support for environmental action, equally Colchester has excellent community partnerships that can be strengthened and nurtured to ensure a collaborative, innovative and inclusive approach to action can be taken by all:

6.1 Maximise opportunities to collaborate and support/promote local community led initiatives (including assistance to lever and source funding opportunities where needed) e.g. Wivenhoe Transition Town, Rowhedge Going Greener, Eco Colnes and Halstead

6.2 Ensure enabling action on our climate emergency is a key element of a new Community Enabling Strategy for the Council. As part of this undertake regular and ongoing dialogue with community groups across Colchester to ensure we make best use of the assets, skills, talents and creativity within our communities to tackle our climate emergency.

6.3 Utilise existing platforms, networks, and Groups such as Eco Colchester, Extinction Rebellion's People's Assembly and our own scrutiny processes to ensure that there is diversity in the development of solutions and proposals for climate action.

6.4 Take action to enable and support educational and awareness raising events e.g. Eco Colchester 2020 and the action of interested stakeholders, schools and businesses to promote behaviour change across our communities.

6.5 Work with town and parish Councils and seek to identify how we can work together optimally on this challenge, reflecting the wishes of the communities and residents we serve.

6.6 Develop a climate emergency communications and engagement plan to support delivery of our overarching action plan

Working with other Local Authorities across Essex will be crucial if we are to deliver against all of the aspirations within the motion, and in the coming months we will be continuing to seek dialogue with our neighbouring authorities and those throughout the UK who have also declared Climate Emergencies. There is already a growing appetite amongst other regional authorities to work together on this agenda, and we will support the principle that the climate change work should be one of the key priorities for the region.

6.7 Utilise existing partnering mechanisms to enable regional conversations with other Local Authorities across Essex and the Eastern region on joint climate emergency action.

Ongoing Review

During the next phase of our approach, via the Conservation, Environment and Sustainability Task & Finish Group we will continue to work with expert partners, stakeholders and the community to consult opinion on and fully evaluate activity, options, their associated benefits, impacts, risks and barriers across the 6 action themes described in this first Climate Emergency Action Plan.

In parallel we will mobilise a delivery programme to accelerate the planning and delivery of projects for early implementation, a number of which sit within the Council's 'New Strategic Priorities' programme.

Appendix 1 – Action taken as reported to Cabinet in November 2019.

Climate Emergency Motion Target	What we've done
Audit of pollution hotspots and environmental health issues.	A full audit of pollution hotspots has been undertaken as part of our air quality management activity. Hot spot areas have been identified and continue to be monitored. As a result of the action taken to tackle air pollution in Colchester additional Government funding has been secured to deliver a two-year behaviour change project to tackle levels of pollution in the borough. We also have full details of all potentially polluting processes and the controls they have in place through Environmental Permitting. These processes are monitored regularly for compliance.
Audit of Wildlife/ Biodiversity	Several specialist groups already undertaken audits. These will be assessed as we move forward with our plans to identify whether any gaps exist. Where this is the case a further audit will be engaged. A phased approach to cease the use of glyphosate herbicides has commenced based on the nature of the sites where herbicides are used, the need to encourage biodiversity where possible, and the availability of alternative sustainable practices.
Urban Impact Assessment	The local plan and resulting significant decisions all require a substantial impact assessment. Colchester's Cabinet agreed in November 2019 that environmental and carbon considerations are required to be taken into account in all decision making. All formal Council reports and decisions are now required to set out the environmental and sustainability implications of the decision, with particular reference to the definition of sustainable development set out in the National Planning Policy Framework.
Consult expert opinions in the field	Several experts have been consulted or have attended the task and finish group including the Carbon Trust, Eco Colchester. Feedback has also been considered from Extinction Rebellion Colchester. Through the delivery of wider projects supporting our ambitions from clean air, active travel to woodland planting Colchester is working with a wide range of expert partners including Intelligent Health, Active Essex, Essex University the Woodland Trust and Forestry Commission.
Collaborate with regional and neighbouring local authorities, as well as communities	Joint transport strategy/projects to facilitate increased cycling and walking are being developed with Essex County Council. Community activation, social movements and active travel are the primary means by which the Council aims to increase levels of physical activity, walking and cycling through the Essex Local Delivery Pilot a significant piece of work involving a wide range of stakeholders including Tendring District Council and Basildon Borough Council. The Council is working closely with Essex County Council to coordinate tree planting in addition to Parish Councils and community groups on this project. In November 2019 Colchester's cabinet also committed to working

	with other authorities, organisations and companies who use glyphosate herbicides within the borough to encourage them to cease their use.
Encourage all sectors of the economy across the borough to take steps to reduce waste and become carbon neutral.	Work has continued with the Single Use Plastic reduction campaign across the Borough. The refill campaign has also been publicised and supported through the introduction of 5 new/refurbished public water fountains. A review of our trade waste collection service is also underway to develop additional commercial recycling collections.
Develop a roadmap for Colchester Borough Council to go carbon neutral by 2030.	The Carbon Trust were commissioned to undertake a carbon foot printing exercise and to identify the key areas of focus that will form the basis of a roadmap and strategy for Colchester to be net carbon zero. Workshops have been undertaken with Officers & Members in December 2019 to inform our strategic approach moving forward. The Council has recruited a dedicated Climate Emergency Project Officer to coordinate the development of a new Environment and Sustainability Strategy, Carbon Management Plan and to support the wider delivery of climate emergency projects and ambitions.
Pledge to ensure future housing and community development projects meet a carbon-neutral standard by 2030.	A report was presented to the Environment & Sustainability Task and Finish group outlining measures CBC are already undertaking through planning and a table of new suggested measures recommended to enhance the delivery of sustainable development. This table of new measures will be developed as part of our action plan. Building regulations provide the most robust way of ensuring new housing is carbon neutral. The Council responds to consultations to improve the Building Regulations and will lobby central government to ensure they aim for carbon neutrality.
	The Leader of the Council has written to Minister of State for Energy and Clean Growth requesting that national policy is urgently developed to reflect the seriousness of the current emergency, and to release funds to local authorities, in order that Borough Councils' like Colchester can take the necessary measures at local level.

Appendix 2 - Proposed measures for implementation within existing planning legislation

Short term – within next 12 months
Medium term – within next 3 years
Long term – over 3 years

Measures Identified	Timeframe	How can this be achieved
Investigate the introduction of a Climate Emergency Checklist so decision makers can understand the sustainability of proposals & demonstrate compliance with these measures	Short term: Investigation Delivery: Medium term and ongoing	• Investigate the incorporation of all of these measures into a Climate Emergency Checklist. • Research examples of sustainability checklists from elsewhere.
Dedicated Travel Plan Co-Ordinators for larger developments to ensure that Travel plans are successful	Short term: Investigation Delivery: Ongoing	• Compile evidence to justify the need for Travel Plan co-ordinators • Consider monitoring requirements, i.e. what monitoring data is available from ECC, identify monitoring gaps.
Information on sustainable travel choices to be included in marketing of residential properties for developments where there are good sustainable transport options to encourage reduced car use and ownership.	Short term: Investigation Delivery: ongoing	• Add informative to relevant applications as part of Transport & Sustainability response/requests to planning permission consultations • Consider how this would be monitored.
Improve, enhance & expand the Colchester Orbital as a walking and cycling route	Short term: Ongoing Delivery: Ongoing	• A scoping paper has been prepared, which identifies further work.
Installation of electric vehicle charging points	Short term: Ongoing Delivery: Ongoing	• Liaise with other departments. • Request electric charging points as part of new development.
Require developers to provide a Canopy Cover Assessment for each major app & maintain or increase canopy cover on site	Short term: Investigation Delivery: Short – Medium term	• Guidance to be prepared outlining exactly what is required. • Talk to local groups about their help in establishing baseline cover across Colchester.
Tree Preservation Orders (TPOs) on allocated sites to safeguard canopy cover	Short term: Investigation Delivery: Ongoing	• TPOs to be made on all allocated sites where appropriate.
Produce guidance on small scale biodiversity	Short term: Investigate	• Investigate small scale net gain projects.

net gain projects	Delivery: Medium	• Prepare guidance document & discuss planning conditions with DM
Encourage sites or part of sites (e.g. Amphora & MOD sites & garden communities) to deliver exemplar buildings	Short term: Discussion Delivery: Medium to long term	• Arrange a site visit for T&F Group to passive house development in Norwich, and other local examples. • Research other local/national examples. • Discussions with developers.
Consideration given to car free developments and other approaches to reducing car parking provision and encouraging car free lifestyles	Short term: Discussion Delivery: Medium-long term	• Research car free developments & travel plans & discuss with the Highway Authority to inform discussion on future options.
Introduce car clubs	Short term: Ongoing Delivery: Short - medium	• Consider further locations in Colchester to implement car clubs.
Investigate measures to support sustainable modes of transport: investigate a workplace parking levy in the town centre	Medium term: Investigation Delivery: Medium-long term	• Research examples of a workplace parking levy and consider its application in Colchester. • Work with other departments to consider incentives such as green number plates, access to bus lanes and parking levy
Above ground SuDS to be designed as multifunctional features to form part of green infrastructure network	Medium term: Discussion Delivery: Medium – Long term	• Discuss with ECC as the Lead Local Flood Authority & other LPAs.
Council to adopt or management scheme to be secured to maintain SuDS features where these are also adoptable open space	Medium term: Investigation Delivery: Medium-long term	• Consider maintenance and management costs for each SuDS feature. 2. discuss with Parks team.
Require new dwellings to meet optional tighter water standard of 110 litres pppd	Short term: Investigation Delivery: Medium-long term	• Research how this is implemented elsewhere (Environment Agency & Anglian Water to advise). • Discuss implementation with DM.
Encourage green roofs and green walls	Short: Investigation Delivery: Medium term	• Look at examples of good practice elsewhere. • Consider the benefits of producing a guidance note for applicants.
Explore options for a long term, strategic biodiversity net gain strategy	Medium: Investigation Delivery: Medium - long term	• Follow the progress of the Environment Bill & Defra Metric 2.0.

		• Consider the benefits and options for a strategic project & how this conforms to legislation & best practice. • Discuss with other Essex LPAs.
Raise awareness of Home Quality Mark (HQM)	Short term: Discussion Delivery: Medium - long term	• Talk to ECC about how this is being promoted in Essex & how we can raise the profile of the HQM in Colchester.
Seek a proportion of homes to be built to lifetime homes standard	Short term: Discussions Delivery: Short - medium	• Discussions with developers.
Consider identifying suitable areas for renewable and low carbon energy	Short term: Investigation Delivery: Medium – longer term	• Look at examples from other LPAs and the benefits this has brought. • Discuss with Climate Emergency Officer as part of Carbon Trust project.
Identify opportunities for development to draw its supply from decentralised, low energy sources	Medium: Discussion Delivery: Long term	• Discuss with Amphora. • Look at allocations.