

Climate and Ecological Emergency Action Plan

22 April 2020



Contents

| | |
|--|----|
| Foreword..... | 3 |
| Introduction | 4 |
| Scope..... | 9 |
| Leadership..... | 10 |
| Communication and Collaboration..... | 10 |
| Structure of the Action Plan..... | 11 |
| Key to Tables..... | 12 |
| Overall structure and carbon reduction focus areas..... | 13 |
| Enabling tools – cross cutting themes and actions..... | 14 |
| Ten high priority key actions..... | 15 |
| Council Operations..... | 16 |
| Buildings and energy efficiency..... | 19 |
| Transport and air quality | 23 |
| Resource consumption and waste..... | 27 |
| Ecology and biodiversity | 30 |
| Energy generation and storage..... | 33 |
| Resilience, adaptation and offsetting..... | 35 |
| Appendix I- Swale Borough Council’s Declaration of Climate and Ecological Emergency ... | 39 |
| Appendix II - Adopted Local Plan and Local Plan review | 40 |
| Appendix III Strategies relevant to our Climate Change and Ecological Emergency Action Plan..... | 42 |
| Appendix IV - Glossary | 44 |

Foreword

“It may sound frightening, but the scientific evidence is that, if we have not taken dramatic action within the next decade, we could face irreversible damage to the natural world and the collapse of our societies.”

Sir David Attenborough, *Climate Change: The Facts*. BBC TV transmitted 18/04/2019.



Councillor Tim Valentine, Cabinet Member for Environment at Swale Borough Council

Following the local elections in May 2019, a new coalition of Labour, Swale Independent Alliance, Liberal Democrat, Green and Independent councillors took office. One of the first actions of the new administration was to declare a climate and ecological emergency. The declaration sets very ambitious targets, in line with the science described by Sir David Attenborough. The target is to make the council's operations carbon neutral in five years' time and the borough carbon neutral by 2030. In adopting these ambitious targets Swale Borough Council aims to lead the local transition to a low carbon economy. The declaration requires the council to draw up this action plan. It is very apposite that this plan was presented to Cabinet for adoption on Earth Day 2020, an international day of climate action.

Research by leading climate scientists at the Tyndall Centre has found that for Swale to make its fair contribution towards the Paris Climate Change Agreement, it should emit no more than 7.7 million tonnes of carbon dioxide before 2100. At 2017 emission levels, Swale would use this entire budget within seven years. The recommended pathway requires: a 13% cut in carbon dioxide emissions each year from 2020; 80% reduction in annual emissions by 2030 and 95% reduction by 2042. Historically, the reduction in annual carbon emissions has been just over 3%. The recommended pathway would leave 20% of emissions to be offset to meet our target of carbon neutrality by 2030.

At its heart, the action plan has ten high-priority key actions. These actions are specific and deliverable, although some set very challenging targets. The council will show what can be done, and support organisations, businesses and local residents on their pathway to low carbon living. Many actions can only be taken in partnership with others, including central government, Kent County Council, business and community groups. To succeed changes in government policy are required.

This action plan does not set out a full list of actions that will deliver a carbon neutral borough in 2030. It is not possible to know exactly all of the actions necessary at the start or how they may be implemented. The action plan is a living document that will be updated and modified as progress is made, and the national policy framework changes. In keeping with the declaration, progress will be reported to council every year.

We are at the beginning of a long, but very exciting, journey that will bring many benefits; cleaner air, lower fuel bills, healthier lifestyles, more enjoyment and engagement with our environment, better mental health and a vibrant, more locally based economy. Swale Borough Council will lead on this journey, but we cannot reach the destination alone. We need everyone to travel along with us, share ideas and to support each other.

Introduction

The need for change

Greenhouse gases are present in the atmosphere, without which our planet would be too cold to support life. However, since the industrial revolution, human activities have significantly increased the amount of these gases, and particularly carbon dioxide (CO₂), that are present in the atmosphere.

Over the past 50 years, the average global temperature has increased at the fastest rate in recorded history and the trend is accelerating. According to the World Meteorological Organization (WMO), the 20 warmest years on record have been in the past 22 years, with the top four in the past four years. The Intergovernmental Panel on Climate Change (IPCC) special report on Global Warming of 1.5°C reported that the past five years, 2014-2018, was 1.04°C above the pre-industrial baseline.

The scale of the challenge that climate change presents is unprecedented in human history. The warming climate due to anthropogenic emissions (emissions originating from human activity), coupled with rapid biodiversity and ecosystem loss, is combining to create an event that threatens or severely impacts all life on our planet.

The climate crisis is not something that any of us are insulated from, and the impact of climate change is already being felt across the globe. While major national and intercontinental organisations can plan for how we meet this challenge head on, action is incumbent on us all, across multiple systems, communities, organisations and individuals.

The opportunity for Swale

As a council, Swale Borough Council recognises that with the scale, complexity and pervasive nature of the challenge, identifying which actions to take can be difficult, but we also recognise that the need for action is urgent, and that we must respond immediately to the climate and ecological emergency. This was recognised on 26th June 2019 when Swale Borough Council unanimously declared a Climate and Ecological Emergency (See Appendix I).

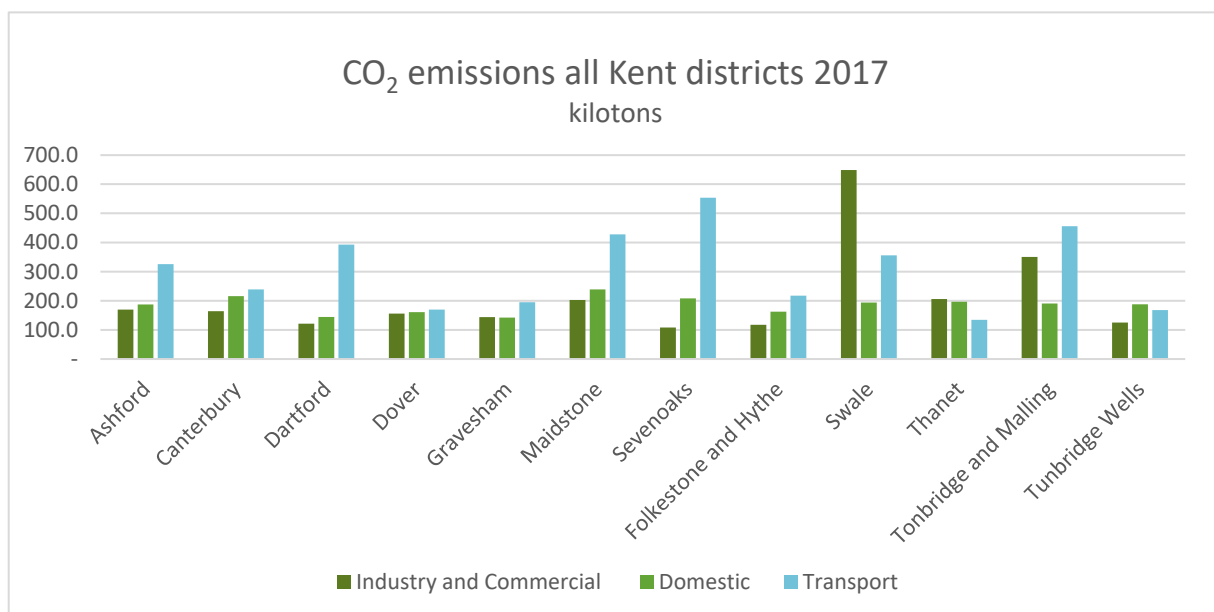
The declaration includes the commitment to

- take all measures within our control to make Swale Borough Council's own operations carbon neutral by 2025
- engage with businesses, organisations and residents to facilitate the action required to make the Borough of Swale carbon neutral by 2030.
- make space for nature as a key priority, and safeguard our wild places,
- ancient woodlands and hedgerows

The scope of these commitments includes both production and consumption emissions (scope 1, 2 and 3 carbon). The above commitments are Swale's 'overarching objectives' under which sits this action plan

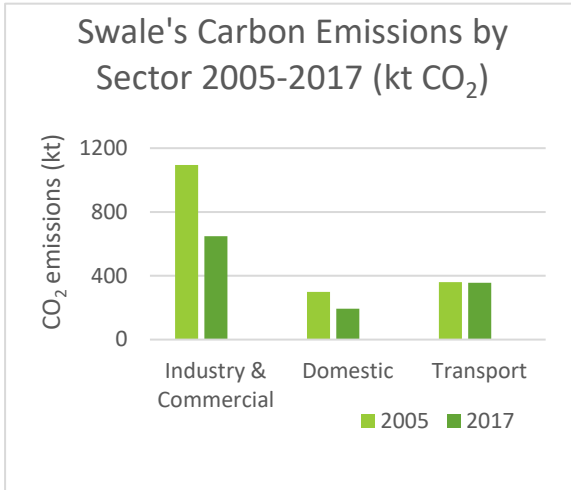
Researchers at the Tyndall Centre for Climate Change Research have developed a tool which local authorities can use to determine reductions. Inputting our details gives an annual reduction across the borough of between 13 - 25% reduction per year in order to achieve our targets.

Latest figures on CO₂ emissions are released annually by the Department for Business, Energy and Industrial Strategy (BEIS). The latest figures, released in July 2019, give us the data up until the end of 2017. Due to the nature of businesses in Swale, the district has always had high energy consumption and emissions compared with other Kent districts.



Source: BEIS

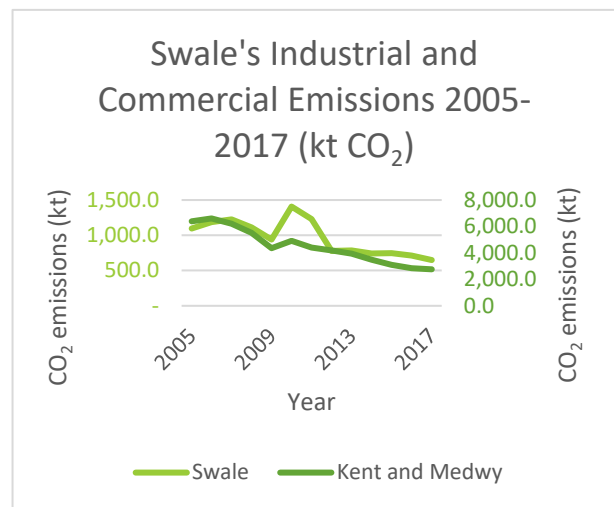
In order to establish the activities required to achieve our targets we need to understand the existing situation in both the council and the borough as a whole.



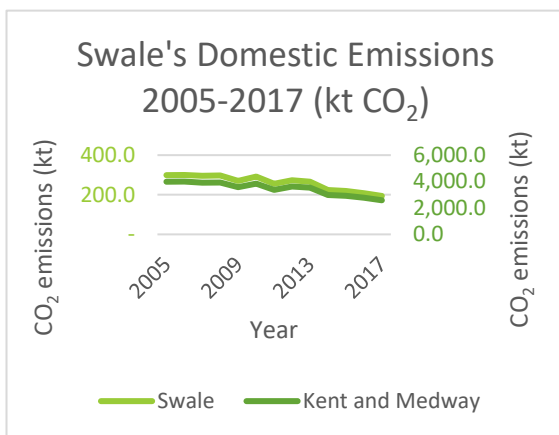
Source: BEIS

If we look at levels of emissions over the last 12 years, we can see an overall decrease across the borough, with the exception being in the Transport sector, which has hardly changed during the same period. In Swale 29% of emissions come from domestic properties, 32% from transport, and 39% are industrial and commercial emissions.

At both borough and county level there has been a decrease in emissions from industry. Within Swale's industrial and commercial sector there has been a 41% decrease in CO₂ emissions between 2005-2017 with a steep fall to between 2010-2012, which has continued to decline overall. The 2017 total of 648.4kt CO₂ comprises 55% of the districts total CO₂ emissions.



Source: BEIS. LH scale refers to Swale; RH scale refers to Kent & Medway.



Source: BEIS. LH scale refers to Swale; RH scale refers to Kent & Medway.

Consumption of electricity in Swale was 691GWh in 2017, of which domestic consumption was 235GWh, and non-domestic consumption was 456GWh. The typical (median) household electricity consumption in Swale was 3,909kWh.

The total gas consumption (domestic and non-domestic) in Swale in 2017 was 1,124GWh. of which domestic consumption was 666GWh, and non-domestic consumption was 458GWh. The typical (median) household gas consumption in Swale was 12,052kWh.

Despite an overall downward trend in emissions they are not falling quickly enough to achieve our borough wide target of net zero carbon by 2030.

For the council to become carbon neutral by 2025 and the borough to become carbon neutral by 2030 is a considerably ambitious target. Success will require the

council to work in partnership with a wide range of partners and all the residents of the borough. This creates great opportunities and potential to realise significant economic, social and environmental benefits, including new businesses, jobs and improved quality of life for local residents.

The Tyndall Centre presents climate change targets for Swale that are derived from the commitments enshrined in the Paris Agreement, informed by the latest science on climate change and defined in terms of science-based carbon setting.¹

The carbon budget is based on translating the “well below 2°C and pursuing 1.5°C” global temperature target and equity principles in the United Nations Paris Agreement to a national UK carbon budget. The UK budget is then split between sub-national areas. Aviation and shipping emissions remain within the national UK carbon budget and are not scaled down to sub-national budgets. Land Use, Land Use Change and Forestry (LULUCF) and non-CO₂ emissions are considered separately to the energy CO₂ budget.

For Swale to make its ‘fair’ contribution towards the Paris Climate Change Agreement, it should stay within a maximum cumulative carbon dioxide emission budget of 7.7 million tonnes (MtCO₂) for the period of 2020 to 2100. **At 2017 CO₂ emission levels, Swale would use this entire budget within 7 years from 2020.**

The recommended pathway to stay with the carbon budget requires:

- 13% cut in CO₂ emissions each year from 2020
- 81.1% reduction in annual emissions by 2030
- 95 % reduction to be near zero by 2042

This recommended pathway would leave 19.9% (227kt CO₂e) plus emissions from non-CO₂ sources of greenhouse gases to be offset to meet our target of carbon neutrality by 2030.

A report from the Carbon Trust, commissioned by Swale Borough Council, recommends a similar pathway to cutting carbon emissions from our own estate. If we implemented all of the actions recommended by the Carbon Trust, 1,481 tCO₂e must be offset to meet our target of the council operations being carbon neutral by 2025. This could be achieved by planting 148,100 trees or approximately 60 acres of woodland.

Both the UK Government and the Committee on Climate Change consider that this shift to a very low carbon energy future represents the best course for the UK’s economic development.

It cannot be stated strongly enough that to meet the ambition of the motion by 2030 will be incredibly challenging. It is an ambition the Council is prepared to pursue in good faith and in endeavouring to achieve the goal will take us further than backing off from the challenge. The evidence available shows that the scale of change is

¹ <https://carbonbudget.manchester.ac.uk/reports/E07000113/>

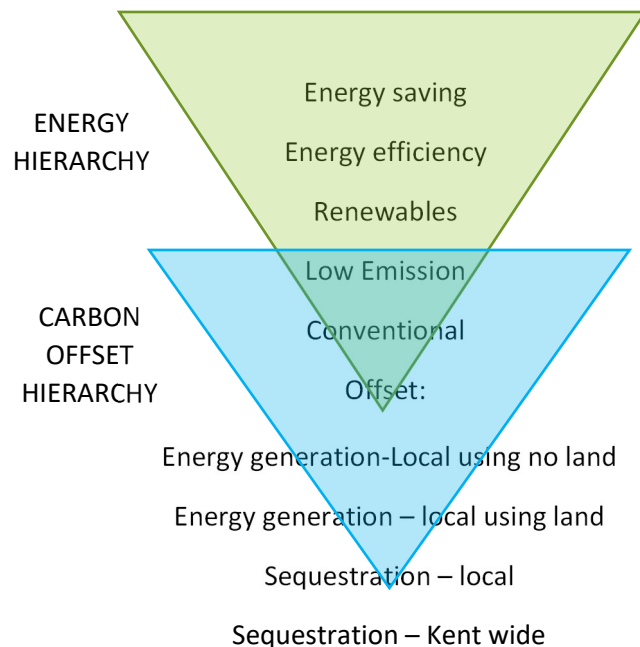
unprecedented. Global and national system change will be needed to support local action.

This is a challenge where the totality of the solutions needed is not clear and the approach that we take will be emergent. The council cannot provide all of the solutions, as combating climate change needs system-wide change that involves communities, business, individuals and stakeholders across all sectors of the economy. Swale Borough Council's direct control over the emissions from across Swale is minimal, at around 1%. There is recognition of the important role the council must play to stimulate and support climate action from others.

Given the scale of the challenge to achieve a net zero carbon goal 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 a national and international level to achieve an overall carbon reduction target. As was recognised in the declaration, the council cannot do this alone.

The scope of the Swale Borough Council zero net carbon commitment is all greenhouse gases determined as carbon dioxide equivalents (CO₂e). For ease throughout this report we refer to CO₂e as '**Carbon**'.

Zero net carbon (also referred to as carbon neutral) means that the activity balances its energy use with its renewable energy generation, or carbon sequestration, and emits no 'net' carbon. This may be through 100% reduction of carbon using efficiencies and renewable technologies at the location, or could be using a **carbon offset**, which absorbs carbon or generates electricity without carbon emissions to achieve zero 'net' carbon emissions.



As well as reducing our carbon emissions to stop contributing to climate change, we also need to consider how we will ensure Swale is resilient and adapts to the climate change that is predicted to occur based on previous carbon emissions.

This plan is not intended to provide a step-by-step response to how the key changes or outcomes set out in the declaration are to be achieved, but its purpose is to describe the initial pathways and process that will be engaged in order to achieve the outcomes.

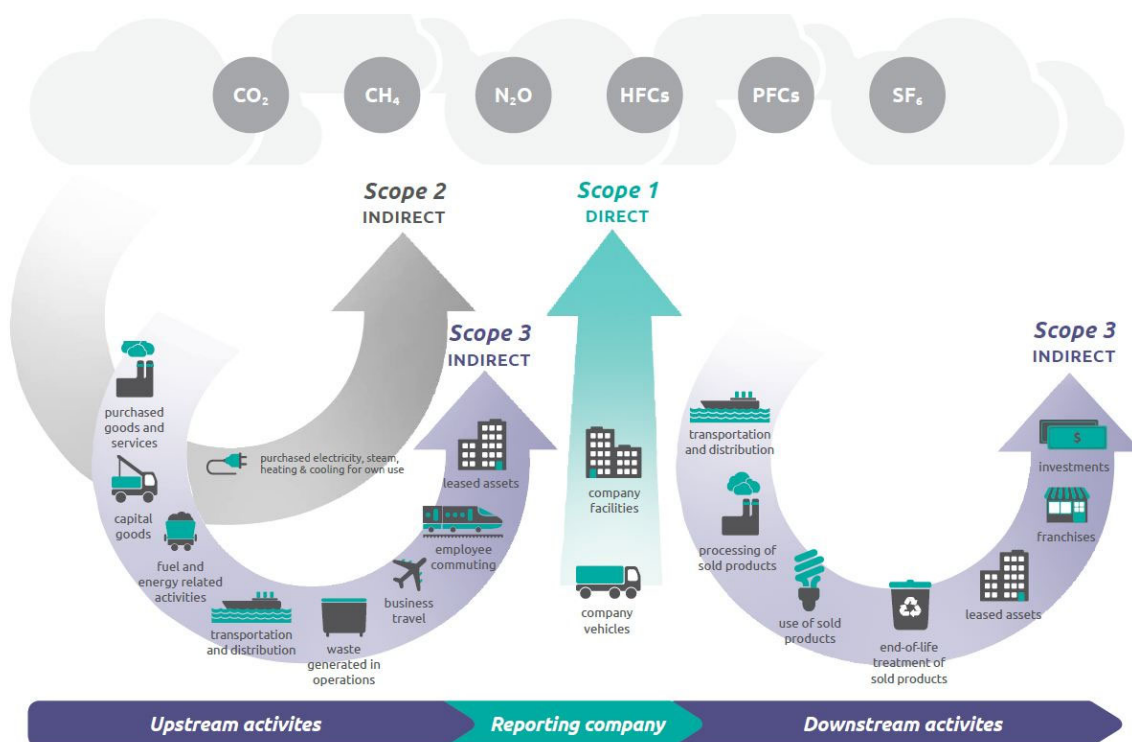
This is a living plan, will evolve as needed and progress will be reported on an annual basis.

Scope

The scope of the Swale Borough Council Climate and Ecological Emergency Action Plan incorporates all greenhouse gases (GHGs) and uses carbon dioxide equivalents (CO₂e) as the unit of measure. For ease throughout this report we use the term 'carbon'.

The globally accepted carbon accounting standard known as the World Resources Institute (WRI) Greenhouse Gas (GHG) Protocol defines direct and indirect organisational emissions as follows:

- Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity.
- Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity but occur at sources owned or controlled by another entity.



Overview of the World Resources Institutes GHG Protocol accounting methodology.

The GHG Protocol further categorises these direct and indirect organisational emissions into three broad scopes:

- Scope 1: All direct GHG emissions.
- Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

- Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. transmission and distribution losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

Scope 1, 2, and 3 carbon emissions are included within the scope of our commitment, which means all carbon emissions resulting from activities undertaken in the borough, including the emissions from the supply chain in procurement, use, and eventual disposal.

Much of the resulting carbon emissions are outside the direct control of the council and it is vital that the council works with others to tackle the climate emergency.

Leadership

Climate emergency action is urgent and Swale Borough Council recognises the importance of leadership, to rapidly build and maintain momentum and therefore has determined to establish itself as a beacon of best practice and learning, to stimulate and support borough-wide action. A three-point framework has been developed to help prioritise actions:

1. **Lead:** Get SBC operations improved (as set out in a separate action plan commissioned from the Carbon Trust) and engage with local businesses and organisations and residents who are already taking positive action on carbon.
2. **Show:** Use Swale House refurbishment and retrofit as a beacon of best practice for zero carbon, demonstrate and communicate positive actions of local businesses and others.
3. **Support:** Provide guidance, support and signposting to local residents and businesses including technical, and commercial 'How to Guides', use the new ultra-low carbon Swale House as a local green business incubator and use the building to help build zero carbon skills and capacity in the borough.

Communication and Collaboration

In order to deliver services to residents and local businesses Swale Borough Council works in partnership with other councils, organisations, businesses. We work closely with Kent County Council who provide many services in the Swale area (e.g. highways, social care, education, libraries). The council works with housing associations who provide affordable housing. Swale Borough Council contracts private businesses to provide services. The council collaborates with other borough councils to provide shared services (e.g. building control, legal services,

environmental health, IT support, Kent Resource Partnership, Mid Kent waste and recycling contract).

The following partnerships carry out work that is relevant to the climate and ecological emergency:

- Kent Climate Change Network (A network including Kent County Council all of the 12 district councils in Kent, Kent Police, Kent Fire and Rescue Service and the NHS.);
- Kent Energy Efficiency Partnership;
- Kent Downs Area of Outstanding Natural Beauty (AONB);
- Swale Green Grid (a forum including the National Farmers Union, Medway Swale Estuary Partnership, Natural England, Environment Agency, Making a Buzz for the Coast, Royal Society for the Protection of Birds, Kent Wildlife Trust), Faversham Town Council, Sheerness Town Council, and the Quality Bus Partnership)

Collaborative working means that there are strategies, management plans and contracts with partner councils and organisations that are relevant to targets for the climate and ecological emergency. (e.g. Kent Environment Strategy, Kent Energy and Low Emissions Strategy). Some partners have set a target for their carbon reduction plan. For example, Kent County Council aim to be carbon neutral by 2050. A list of relevant strategies and management plans can be found at Appendix III.

We recognise that the council is part of society at large and we need to communicate, engage, and collaborate with local stakeholders in order to share, learn and implement improvements efficiently together. To effectively tackle the climate and ecological emergency Swale Borough Council must engage and consult town and parish councils, business groups, community groups, and engage directly with residents and with the council's own employees. It is important to develop mutually supportive networks to ensure that the climate and ecological emergency is tackled as effectively and efficiently as possible, for example, through our Green Grid partners, or the Swale Youth Forum.

Structure of the Action Plan

In the diagram labelled 'overall structure and carbon reduction focus areas', the broad structure of the action plan is illustrated. Enabling tools, which provide the means to communicate and implement the planned actions, are listed. Also a number of focus areas for carbon reduction are identified. Finally, a hierarchy for the preferred options for offsetting carbon emissions that cannot be further reduced is illustrated.

Actions to develop enabling tools and ten high priority key actions are set out in subsequent tables. Finally, an action plan for each focus area is set out in section on each focus area.

Key to Tables

Each action in the plans for each focus area is assigned to a department at Swale Borough Council to lead. The following abbreviations are used:

CEL Commissioning, Environment & Leisure

ECS Economy and Cultural Services

EH Environmental Health

EP Emergency Planning

HR Human Resources

Other departments are named in full

Each action is assigned a timescale: short, medium or long. The definition of each is as follows:

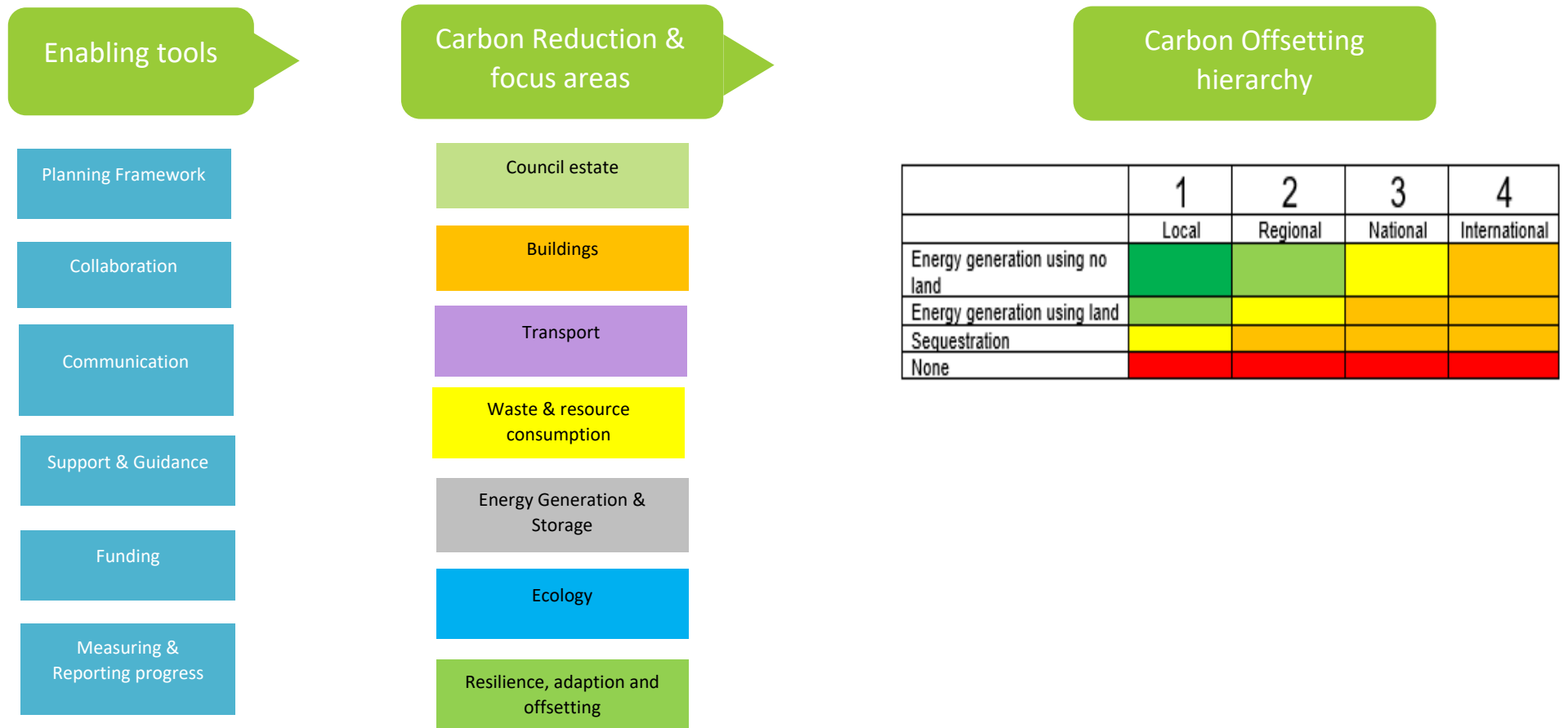
Short: completed by the end of 2023

Medium: completed between the end of 2023 and the end of 2027

Long: completed by the end of 2030.

Overall Structure and Carbon Reduction Focus Areas

Swale Borough Council’s approach to tackling the climate and ecological emergency is to focus on the tools within its control and specific actions that it can take in partnership with others, to focus on specific areas of carbon reduction. Residual carbon emissions will be a secondary focus with a preference for offsetting within the boundary of the borough. Offsetting these residual carbon emissions, is important to achieve borough-wide net zero carbon by 2030, but will not actively be promoted over tackling and reducing carbon emissions at source.



Enabling Tools – cross cutting themes and actions

Swale Borough Council recognises that there are cross-cutting actions that are needed to underpin the actions that are specifically targeted at the particular causes of carbon emissions. These are outlined below and build on the council’s three-point framework of Lead, Show, Support.

| Dept. | Action | Timescale |
|---|---|-----------|
| Actions Swale Borough Council can take: | | |
| 1 | Policy and HR Rolling out a climate change learning and development programme for staff to improve understanding of carbon and the wider environmental context. The skills programme will include: <ul style="list-style-type: none"> • Base level training for all employees • Encouraging personal responsibility and roll out of a Green Champions Network. • More targeted/ intensive training for organisational decision-makers to enable them to adequately assess carbon impacts in their decisions | Short |
| 2 | Policy Sharing our knowledge – we will provide capacity to share our learning and approaches with others, such as town and parish councils and community groups. | Short |
| 3 | Policy Promotion of low carbon food through council facilities and communication. Promotion of vegan and vegetarian diets using seasonal, local sources to support local food networks. | Short |
| 4 | Policy Identify and align to national days of action to reinforce the message of collective action. | Short |
| 5 | Cabinet A special projects fund has been set up to fund projects including those to tackle the emergency. | Short |

Ten High Priority Key Actions

The actions specified below are key actions, across the focus areas, which Swale Borough Council can take now. They have been selected because they are within our control and/or area of responsibility and are necessary early actions to making deep reductions in carbon emissions. Communications and engagement need to be run alongside these actions.

| | Topic | Dept. | Action | Target date | Annual carbon reduction (tCO ₂ e) | Progress |
|---|------------------------|----------|---|-------------|--|--|
| 1 | Council | Property | Retro-fit Swale House to cut carbon emissions (e.g. extra insulation, triple glazing, heat pump, solar PV). | 2025 | 186 | Carbon Trust report March 2020 |
| 2 | Council | CEL | Replace SBC fleet vehicles with electric vehicles. | 2025 | 26 | 6-8 vehicles – 2020 |
| 3 | Council | CEL | Revise procurement strategy to embed the climate and ecological emergency into all procurement decisions. | 2023 | 780 | Not yet started |
| 4 | Buildings | Planning | Prior to the adoption of the new Local Plan, use a planning condition based on a 50% improvement over current building regulations, ratcheting to 75% and 100% improvement by 2025 and 2028 respectively, as the basis for negotiation with developers through pre-application and planning application negotiations. | 2020-2030 | 400 - 1,000+t extra reduction p.a. | Proposed condition to be used in the interim in advance of progress on the Local plan review as the basis for negotiation with developers through pre-application and planning application negotiations. |
| 5 | Council | Property | Eliminate single-use plastic from council operations wherever possible. | 2021 | - | Some eliminated at Swale House |
| 6 | Ecology & biodiversity | CEL | Tree planting on council land (target; 148,100 trees or 60 acres of woodland) to offset 20% of council emissions. | 2025 | 1,481t offset (25t to date) | 2,500 trees planted in country parks 2019/20 |
| 7 | Transport | CEL | Install EV charging points across the borough. | 2025 | to be monitored | 8 planned for council carparks in 2020. |

| | | | | | | |
|-----------|-----------|--------|--|---------|-----------------|--|
| 8 | Transport | ECS | Improve facilities and incentives for walking and cycling. | 2030 | Large | Local plan transport strategy under review |
| 9 | Buildings | Policy | Bulk buying scheme for solar PV installations paid-for by residents (in partnership with KCC). | 2020-21 | 100 | In progress |
| 10 | Buildings | Policy | Fuel and water poverty outreach service to reduce fuel and water bills for vulnerable residents. | 2020-23 | to be monitored | in progress |

Council Operations

The council's own estate and operations are the only area where Swale Borough Council has direct control to reduce carbon emissions. This includes the council's buildings, parks and green spaces, and all the services that the council provides directly or procures. The majority of the council's carbon footprint comes from procured services. The council can only influence this carbon footprint through a revised procurement policy. A difficult funding situation for local government makes it challenging to impose extra costs on suppliers. However, as contracts come up for renewal and further technology becomes more mainstream there is an opportunity to secure services that have a lower carbon footprint.

The direct emissions from Swale Borough Council's own offices at Swale House are significant and produce 13% of the council's own emissions (336 tCO_{2e}). Swale Borough Council's own fleet transport emissions are 40 tonnes CO_{2e} (<1.5% of the council's total carbon emissions). The furthest a fleet vehicle drives in a year is 17,000 miles, assuming operation 200 days of the year, yields a typical daily mileage of 85 miles. This is well within the range of a typical electric vehicle.

Current activities, actions and programmes

The council has contracted the Carbon Trust to understand the carbon footprint of its operations and advise on the retro-fit of Swale House to reduce carbon emissions from the building

The council has recently agreed to contract a fuel and water poverty outreach service to help vulnerable residents reduce the utility bills and energy consumption.

The council is promoting a Kent wide bulk purchase solar scheme for householders and businesses.

Objectives

Minimise carbon emissions from the Council's own estate and operations.



Reduce fuel poverty in Swale.

Encourage the take up of solar photovoltaic technology.

Opportunities and benefits

The council will use its experience of carbon reduction to become a beacon of good practice, show business and community organisations what can be achieved and support other organisations to make similar changes. Actions taken to improve the efficiency of buildings, and to replace the SBC fleet of vehicles with EVs, will reduce fuel bills for the council. Early adoption of EVs will provide leadership in the council's work to improve air quality in the borough.

Council operations action plan (High priority key actions in bold.)

| Dept. | Action | Target date | Annual carbon reduction (tCO ₂ e) | Progress | |
|----------|----------|---|--|----------|---|
| 1 | Property | Retro-fit Swale House to cut carbon emissions (e.g. extra insulation, triple glazing, heat pump, solar PV). | 2025 | 186 | Carbon Trust report March 2020 |
| 2 | CEL | Replace SBC fleet vehicles with electric vehicles. | 2025 | 26 | 6-8 vehicles – 2020 |
| 3 | CEL | Revise procurement strategy to embed the climate and ecological emergency into all procurement decisions. | 2023 | 780 | Not yet started |
| 4 | Property | Eliminate single-use plastic from council operations wherever possible | 2021 | | Some eliminated at Swale House |
| 5 | HR | Carry out regular staff commuting survey and encourage commuting by walking, cycling or public transport. | 2025 | 20 | First survey complete |
| 6 | HR | Encourage use of IT to reduce business travel to meetings. | 2025 | 15 | Use of IT for virtual meetings established. |
| 7 | HR | Review HR strategy to remove incentives to use a car for business travel. | 2025 | 15 | |
| 8 | HR | Introduce a cycle to work scheme that includes e-bikes. | 2021 | 2 | |

| | | | | | |
|-----------|------------------|---|------|----|--|
| 9 | Property | New waste contract for Swale House to reduce waste & increase recycling. | 2020 | 6 | Out to tender |
| 10 | Property | Provide facilities to encourage cycling to work (e.g. secure cycle storage, shower) | 2020 | 1 | Shower refurbishment complete. 6 extra secure spaces for bike storage |
| 11 | Cabinet/IT | Develop working practices to use IT to reduce use of paper. | 2025 | 5 | |
| 12 | Property and CEL | Ensure LED lighting is fitted across the council estate, including parks and open spaces. | 2023 | 19 | Most of Swale House has LEDs. No budget for rest of estate but payback is short. |

Buildings and Energy Efficiency

Improving the energy efficiency of the homes in Swale poses a major challenge. Only 39% of Swale's homes are well insulated (Energy Efficiency band C or above.) Swale needs to ensure all homes are properly insulated by 2030, which requires upgrading the insulation of 3,604 homes per year. A change in government policy and financial support for a mass programme of retrofitting existing homes is required to achieve this goal. Poorly insulated homes cost more to run, and contribute to fuel poverty. A retro-fit programme would help to eliminate fuel poverty.

Swale's homes also need to switch from gas central heating, which is a major source of greenhouse gases, to highly efficient low-carbon heating (such as heat pumps). The government provides grants for installing low carbon heating, through the Renewable Heat Incentive. The UK needs to fit around one million low carbon heating systems per year. A fair share for Swale would be to fit 2,181 low carbon heating systems every year. To date there are only 128 government funded low carbon heating systems in the Swale area.

As soon as possible, all new buildings in Swale should be built and tested to a zero carbon specification. This can be achieved through the development of the emerging local plan. Unfortunately, this plan is unlikely to be adopted before 2023. In the meantime, the planning system should be used to drive up the energy efficiency of new domestic and non-domestic buildings as much as possible, in line with the existing local plan.

Current activities, actions and programmes

The council has recently agreed to contract a fuel and water poverty outreach service to help vulnerable residents reduce the utility bills and energy consumption.

Another example of positive engagement and outcomes is at Perry Court, Faversham where the SBC Planning Committee has successfully requested more renewable energy and energy-efficiency measures to be included in new developments. This includes solar PV and the use of air-source heat pumps to heat a care home, hotel and supermarket.

Objectives

Encourage installation of improved insulation and eco-heating in Swale's homes.

All new buildings in Swale are to achieve at least a 50% improvement based on the current building regulations, and this will increase to 75% improvement by 2025 and a 100% improvement by 2028 in order that all new buildings are zero net carbon by 2030.

Opportunities and benefits

Actions taken to improve the efficiency of buildings will reduce fuel bills for residents and businesses. The council will work with developers and other businesses to support them in the journey to achieving zero net carbon in new developments. Warmer homes will increase health and well-being of vulnerable residents.

Buildings and energy efficiency action plan. (High priority key actions in bold.)

| Dept | Action | Timescale | Annual carbon reduction (tCO ₂ e) | Progress | |
|--|----------|---|--|--|--|
| Actions Swale Borough Council can take: | | | | | |
| 1 | Planning | Prior to the adoption of the new Local Plan, use a planning condition based on a 50% improvement over current building regulations, ratcheting to 75% and 100% improvement by 2025 and 2028 respectively, as the basis for negotiation with developers through pre-application and planning application negotiations. | 2020-2030 | 400 - 1,000+ tCO ₂ extra reduction p.a. | Proposed condition to be used in the interim in advance of progress on the Local plan review as the basis for negotiation with developers through pre-application and planning application negotiations. |
| 2 | Policy | Bulk buying scheme for solar PV installations paid-for by residents (in partnership with KCC). | 2020-21 | 100 | In progress |
| 3 | Policy | Fuel and water poverty outreach service to reduce fuel and water bills for vulnerable residents. | 2020-23 | to be monitored | In progress |
| 4 | Planning | Use the local plan review to investigate the potential to introduce minimum requirements for on-site renewables on new developments. | Short | Large | Local Plan Review underway |
| 5 | Planning | Review Local Plan and incorporate recommended actions on spatial land use strategy and integrated transport strategy, including focusing development in Swale's conurbations to utilise existing vacant sites and under-utilised sites within the settlement confines. | Short | Medium | Local plan review underway |
| 6 | Planning | Encourage high-quality, medium-high density dwellings near to transport nodes. Development could be supplemented by restricted parking, and EV pool-cars. | Short | Large | Local plan review underway |

| | | | | | |
|----|----------|---|--------|--------|---|
| 7 | Policy | Signpost householders and businesses to grant schemes for insulation and energy improvements, such as the Renewable Heat Incentive (RHI), Warm Homes and advice services such as the Energy Saving Trust. | Short | Medium | |
| 8 | Policy | Encourage Town and Parish Councils to fit LED lighting and other low energy technology by providing information on cost savings and carbon reduction. | Short | Small | |
| 9 | Planning | Consider development of a financial viability toolkit to ensure that the cost of low and zero-carbon methods is accurately assessed (e.g. building materials, design and orientation, natural ventilation, landscaping, renewable generation and off-setting). Toolkit to be used by development management for pre-application advice. | Short | Large | Early discussion with Kent colleagues |
| 10 | Planning | Develop, initially through a Supplementary Planning Document and subsequently the Local Plan Review Policy, the potential to move rapidly towards zero-carbon development in Swale including using tools such as the Home Quality Mark and BREEAM. | Short | Large | Commenced |
| 11 | Planning | Provide pre-application advice on energy efficiency and carbon standards and statements for future developments | Short | Large | |
| 12 | Planning | Investigate the potential to set up an offset fund (106 Agreements) or allowable mechanism for developers to pay into if a certain energy efficiency of buildings is not able to be met in the development and use this money for carbon saving projects | Short | Large | Part of the viability study for the Local Plan Review |
| 13 | Planning | Investigate options for monitoring and testing conditions compliance on significant major planning applications (250 dwellings +), including those related to climate change (e.g. the performance gap between buildings designed energy use and actual energy use), with a view to securing S.106 obligations from developers to contribute towards the cost of such compliance monitoring | Short | Large | To be progressed through the drafting of the Sustainable Design and Construction SPD currently underway |
| 14 | Housing | Enforce private rented and non-domestic Minimum Energy Efficiency Standards regulations | Medium | Medium | Resource implications |

Transport and Air Quality



In Swale CO₂ emissions from the transport sector have risen by 6% since 2014. Between 2005-2014 transport emissions had fallen by 7%. Between 2016 and 2017 Swale has seen a 0.21% increase in transport CO₂ emissions.

Currently only 24% of commuter journeys are made by public transport, walking or cycling – this needs to increase to at least 40% by 2030.

Much more is possible. Research shows that 22% of commuter journeys in Swale could be by bike (assuming good cycling infrastructure, such as segregated cycleways and the uptake

of e-bikes), better walking routes can encourage more journeys on foot and improve health, and six in ten drivers would shift to public transport if its quality improved

According to research published in April 2019, the Swale area has 10 electric vehicle charging points (EV chargers). This puts Swale at mid-range across Kent. The Committee on Climate Change, which advises the government, says there should be one EV charger for every thousand cars by 2030. This suggests that in Swale there should be at least 75 EV chargers, although this target seems unambitious.

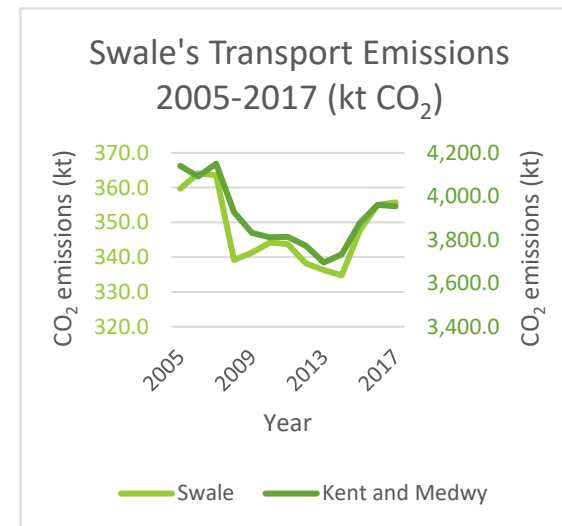
Current activities, actions and programmes

Swale Borough Council's 2018 Air Quality Action Plan (AQAP), was approved by the Department for Environment, Food and Rural Affairs (Defra) in September 2019 and identifies key measures to improve air quality within all five of its declared Air Quality Management Areas (AQMAs).

The SBC Planning Committee recently secured 2 x 50Kw rapid chargers, and a number of fast chargers, for the development of a care home, hotel and supermarket at Perry Court, Faversham.

Objectives

We are seeking to make sustainable transport more attractive than any alternative, based on speed, cost, convenience and safety. The council, working with KCC, is seeking to develop an integrated transport strategy, favouring public transport and active travel. This could include improving urban design and the connectivity between existing and new residential developments and town



Source: BEIS LH scale refers to Swale; RH scale refers to Kent & Medway.

centres for cyclists and pedestrians, improving the quality of the public realm and raising design and landscaping standards, improving public transport and increasing its uptake, the provision of bikeshare schemes (including e-bikes), and 20mph speed limits across built up areas.

Opportunities and benefits

- Improved air quality
- Reduction in carbon emissions
- More active local population
- Healthier local population
- Improved road and pedestrian safety

Transport and air quality action plan. (High priority key actions in bold.)

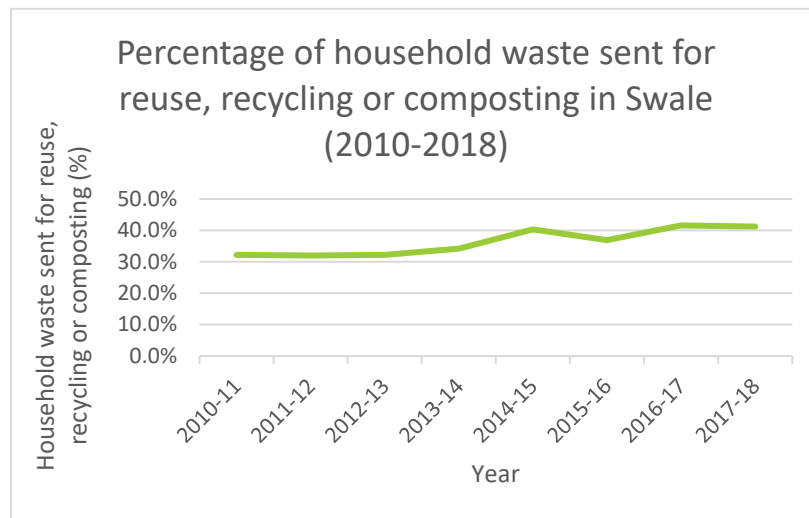
| Dept | Action | Timescale | Annual carbon Reduction (tCO ₂ e) | Progress | |
|---|------------|--|--|------------------------|---|
| Actions Swale Borough Council can take | | | | | |
| 1 | CEL | Install EV charging points across the borough. | 2025 | to be monitored | 8 planned for council carparks in 2020 |
| 2 | ECS | Improve facilities and incentives for walking and cycling. | 2030 | Long | Local Plan Transport Strategy under review |
| 3 | Planning | Review Local Plan and incorporate recommended actions on spatial land use strategy and integrated transport strategy, including favouring public transport and active transport. Use Local Plan Review to reduce the need to travel (e.g. for work). | Short | Medium | Commenced |
| 4 | ECS | Promote work-place car chargers (Government funding available). | Medium | Medium | |
| 5 | Planning | Through the Local Plan Review, require that 10% of parking spaces in new developments are provided with Electric Vehicle | Short | Medium | Implemented in parking SPD |

| | | | | | |
|--|---------------|--|--------|--------|--|
| | | charge points (best technology available at the time of planning approval) which may be phased with 5% initial provision and the remainder at an agreed trigger level | | | |
| 6 | Planning | <p>Use the Local Plan Review to require that where a development is for more than 50 residential units measures such as the following be provided-</p> <ul style="list-style-type: none"> • Travel plan including mechanisms for discouraging high emission vehicle use and encouraging the uptake of low emission fuels and technologies • A welcome pack available to all new residents online and as a booklet, containing information and incentives to encourage the use of sustainable transport modes from new occupiers. • EV car club provision within development or support given to local car club/EV car clubs. • Designation of parking spaces for low emission vehicles • Improved cycle paths to link cycle network. • Adequate provision of secure cycle storage. • Using green infrastructure to absorb pollutants. | Short | Medium | Already required in development management decisions |
| 7 | Planning / EH | Incorporate a policy on air quality in the local plan review (and initially via an environmental SPD). | Short | Small | Commenced |
| 8 | Planning / EH | Work with KCC to develop the Swale Local Transport Strategy (to run in parallel to the Local Plan Review) and the promotion and facilitation of a major shift in priorities to public transport and active travel. | Short | Medium | Commenced |
| 9 | EH / CEL | Establish an anti-idling campaign, initially around school sites from which it can be expanded. | Short | Small | Approved by Cabinet |
| Actions we can take in partnership with others. | | | | | |
| 10 | Policy | Develop EV charging strategy including publicly accessible fast and rapid chargers, in council and private car parks (e.g. hotels, shopping centres), and working with KCC for on-street charging. | Short | Medium | |
| 11 | ECS | Promote business fleet decarbonisation, including the potential cost and reputational benefits. | Medium | Small | |
| 12 | EH | Engage with public transport providers to improve the quality, quantity and affordability of public transport, so that more people commute by public transport, and reduce carbon emissions from buses. | Medium | Medium | |

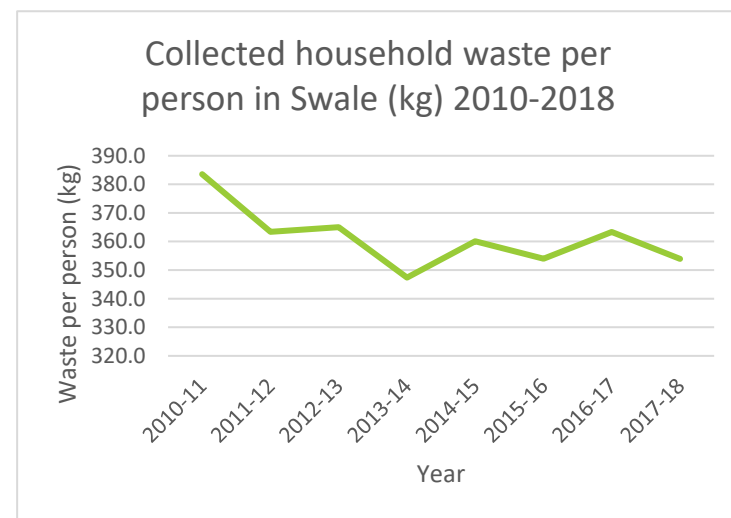
| | | | | | |
|-----------|-----------------|---|--------|-------|---|
| 13 | EH/ Planning | Work with KCC to implement 20mph limit across built up areas of borough as a cost effective and swift way to improve air quality, reduce health inequalities, lower carbon footprint and encourage active travel (following the implementation of a comprehensive 20mph zone in Faversham). | Medium | Small | 20mph zone in Faversham under development by FTC & KCC |
| 14 | EH | Undertake a feasibility study on implementing a Clean Air Zone along the length of the A2 from Brenley Corner to the western boundary with Medway. | Short | Small | Contract issued |
| 15 | EH | ECO Stars fleet recognition scheme - business case is for engaging and inviting new operators with key information on benefits to business, fuel savings and environment. At present Swale has 22 operators signed up. | Short | Small | Commenced |
| 16 | EH | Apply to Defra's Air Quality Grant Scheme for an electric bus (joint bid with Arriva our main local bus company). | Short | Small | Awaiting outcome |
| 17 | EH | Encourage local school and business travel plans to reduce car journeys. | Short | Small | SBC encourages schools to adopt Kent Smarter Travel Plans (KCC) |
| 18 | EH | Establish a tree planting strategy for schools (links with biodiversity) | Short | Small | Commenced |

Resource Consumption and Waste

The amount of household waste collected has fallen over the last ten years, and while recycling rates have risen, they are lower than our partners in the Mid-Kent Partnership. In 2018-19 42.7% of household waste was reused, recycled, or composted. The remainder is incinerated to generate electricity. Household waste and recycling collections are subject to a long-term contract in partnership with two other councils (10 years ending in 2023). This means we cannot easily make changes to the way we collect materials. An opportunity arises with a new contract due to come into force in late 2023. Waste and recycling will be affected by new legislation and government policy which will affect the waste collection methods.



Source: DEFRA



Source: DEFRA

Current activities, actions and programmes

Baselines of performance have commenced. Initial progress is being made, for example as part of the council’s commitment to eliminate single use plastic, by substituting plastic envelopes with compostable envelopes.

Objectives

Reduce the amount of waste. Maximize the proportion that is recycled or composted. Process all waste and recycling as locally as possible (ideally in Kent). Aim for zero waste exported, and zero to landfill.

Resource consumption and waste action plan.

| | Action | Timescale | Annual carbon reduction (tCO2e) | Progress |
|--|--|-----------|---------------------------------|--|
| 1 | Provide guidance on waste minimisation and resource consumption via a Sustainable Design & Construction SPD. | Short | Medium | |
| 2 | Decrease the amount of household waste collected by promoting each separate method of recycling | Short | Medium | Ongoing |
| 3 | Increase amount of garden and food waste collected for compost. | Short | Medium | |
| 4 | Encourage residents to recycle small electricals, textiles and batteries. | Short | Medium | Ongoing |
| 5 | Signpost residents to recycling facilities for products that cannot be recycled in the kerbside collections. | Short | Small | |
| 6 | Reduce contamination of recycling that leads to rejected loads. | Short | Medium | |
| 7 | Encourage litter picks and measures to reduce the amount of plastic litter in the sea | Short | - | 3 plastic recycling bins on Sheppey beaches. Community litter picks supported. |
| Actions we can take in partnership with others. | | | | |
| 8 | Work with KCC to stop export abroad of recyclables | Medium | - | Currently 18.7% (10,000t) of all waste & recycling from Swale is exported |
| 9 | influence KCC to maintain or improve the low levels of waste that go to landfill. | Medium | Small | Currently 0.3% which is one of the best rates in the county |

| | | | | |
|-----------|---|-------|--------|----------|
| | | | | |
| 10 | Promote reduced use of single-use plastic (e.g. in partnership with Plastic-Free Faversham and Plastic-Free Sheerness). | Short | Small | Ongoing |
| | | | | |
| 11 | Work with Kent Resource Partnership on county-wide education/communication schemes | short | medium | On-going |
| 12 | Promote improved recycling of commercial waste with businesses across the Borough | Long | Large | |

Ecology and Biodiversity



Biodiversity net gain is now a requirement within the National Planning Policy Framework (NPPF). New developments will need to demonstrate how this has been achieved.

Existing policies on landscape and biodiversity in the Local Plan are robust, nevertheless these will be reviewed in light of updated policy, guidance and best practice. A recent review of AONBs suggests they are well situated to be the focus for nature recovery and climate change mitigation and form the backbone of the Nature Recovery Networks. With part of the North Downs AONB within Swale, we are well placed to advance this agenda with the AONB.

The development of the Kent Nature Partnership (KNP) Biodiversity Strategy 2019-2044 is nearing completion. The aim of the strategy is to deliver the restoration and creation of habitats that are thriving ensuring Kent's terrestrial, freshwater, intertidal and marine environments regain and retain good health. Key themes are terrestrial habitats; marine habitats; freshwater and intertidal ecosystems and connecting people with the natural environment

According to the Government's National Forest Inventory (NFI) 8% of the Swale area is woodland. Trees play an important role in removing carbon dioxide from the atmosphere and storing it as carbon. They also provide a home for nature, mitigate air pollution and reduce flood risk.

Current activities, actions and programmes

There are many existing networks working on the ecological and biodiversity projects within Swale. These groups, such as the Green Grid Network are highly active and engaged in Kent-wide initiatives.

Objectives

To improve development outcomes which support and improve people and places, access and recreation, connectivity and green spaces and the natural and built environment. Some reports recommend Swale should more than double our tree cover by 2030.²



² <https://takeclimateaction.uk/climate-action/methodology-local-authority-data-project>

Opportunities and benefits

Ecology, biodiversity and green space are vital to both mitigating climate change and to helping us to adapt to the inevitable climate change due to historic carbon emissions. We rely on these assets for our quality of life, and provision of food and water. Protecting and enhancing these assets is vital. Green spaces and planting in urban areas promote good physical and mental health.

Ecology and biodiversity action plan. (High Priority key actions in bold.)

| Dept. | Action | Timescale | Annual Carbon Reduction (tCO ₂ e) | Progress | |
|---|------------|---|--|------------------------------------|---|
| Actions Swale Borough Council can take: | | | | | |
| 1 | CEL | Tree planting on council land (target; 148,100 trees or 60 acres of woodland) to offset 20% of council emissions. | 2025 | 1,481t offset (25t to date) | 2,500 trees planted in country parks 2019/20 |
| 2 | Planning | To use planning policy (local plan and a supplementary planning document) to improve development outcomes which support access and recreation, green spaces, biodiversity and climate change adaptation and mitigation. | Short | Medium | Ongoing |
| 3 | CEL | Establish a baseline of trees and woodland on council land and develop a funded action plan to increase tree cover in Swale and promote the benefits of sequestration. | Short | Medium | |
| 4 | Planning | Ensure the installation and maintenance of landscaping in new developments to contribute to biodiversity net gain via suitable conditions or Section 106 agreements. | Short | Medium | Ongoing |
| 5 | CEL | Minimise use of fertilizers, pesticides and weed killers. | Short | Small | |
| 6 | CEL | Promote use of locally produced compost derived from garden and food waste collections | Short | Small | |
| Actions we can take in partnership with others | | | | | |
| 7 | CEL | Encourage coppicing of council woodland to promote biodiversity and use of local woodland products in Swale's country parks. | Short | Small | |

| | | | | | |
|-----------|------------|--|-------|-------|---------|
| 8 | CEL/ECS/EH | Engage business and community groups to support tree planting and conservation work in Swale's efforts to achieve action 1 | Short | Large | Ongoing |
| 9 | CEL | Promote forest and beach schools | Short | Small | |
| 10 | CEL | Support Swale in Bloom working with schools, community groups, voluntary groups and Town and Parish Councils to enhance local habitats and wildlife corridors improving biodiversity conditions across Swale | Short | Small | Ongoing |

Energy Generation and Storage



The renewable energy generated by the London Array comes ashore in the borough of Swale. It generates over 2,000,000MWh of electricity per year. Unfortunately, renewable generation that is connected to the grid cannot be counted to offset the borough's carbon footprint because it is already accounted for as part of decarbonising the grid. Therefore, the carbon reduction is distributed across the nation. Renewable generation that is consumed locally (e.g. from solar panels on the roof) does help to reduce our carbon footprint through reduced electricity consumption.

At the end of 2017 there were 1,628 installation sites in Swale producing renewable electricity. 99.3% of these installations were photovoltaic – the majority being domestic roof top installations. In terms of renewable energy generated across the borough (and excluding the London Array),

photovoltaics produced around 27%, onshore wind produced 11%, sewage gas and landfill gas produced around 1% each. By far the largest producer was plant biomass, which produced 61% from the plant located on the Isle of Sheppey.

As of September 2019, logged on the public database (BEIS Regional Renewable Statistics) there are the general facility details for 12 operating renewable energy sites – seven are solar PV sites, four are onshore wind and one is a dedicated biomass site. Swale also has two domestic wind installations.

Current activities, actions and programmes

Swale Borough Council is participating in the Solar Together bulk-buying scheme for householders and businesses who wish to purchase solar PV panels. (See key actions above.) SBC is considering including microgeneration in the refit of Swale House (see Council estate above).

Objectives

Swale Borough Council seeks to encourage developments which utilise renewable and low carbon energy sources, and as stated in the Local Plan 2017, give priority to development on previously developed land or buildings and proposals which incorporate renewable, decentralised and low carbon energy as integral to new commercial or residential schemes.



Opportunities and benefits

Renewable energy generation within the borough is a key component of how Swale will achieve zero net carbon emissions by 2030. The Smart (electricity) Export Guarantee came into force in January 2020 enabling domestic and small-scale renewable energy generators to be paid for energy fed into the grid. This includes the following technology types up to a capacity of 5MW, or up to 50kW for Micro-CHP: Solar photovoltaic (solar PV), Wind, Micro combined heat and power (CHP), Hydro, Anaerobic digestion (AD). The Renewable Heat Incentive (RHI) is a government scheme that aims to encourage the uptake of renewable heat technologies amongst householders, communities and businesses through financial incentives. Between April 2014 and April 2019, 128 domestic installations have been accredited in Swale – 11% of Kent and Medway’s total.

Energy generation and storage action plan.

| Dept. | Action | Timescale | Annual carbon reduction (tCO ₂ e) | Progress |
|---|--------------------|--|--|----------|
| Actions Swale Borough Council can take | | | | |
| 1 | Property | Perform a viability survey at all existing council owned sites to potentially accommodate solar PV. | Medium | Small |
| Actions we can take in partnership with others | | | | |
| 2 | Policy | Signpost residents and businesses through communicating benefits, understanding financial and business cases for installing energy storage with grid balancing capability. | Long | Medium |
| 3 | Planning | Investigate the possibility of increasing thermal storage (e.g. hot water and ground inter-seasonal storage) for greater maximisation of local energy generation.' | Medium | Medium |
| 4 | Policy | Investigate a pilot programme to use new technology such as virtual private wire technology to balance between energy generation, storage and use within the borough as part of achieving net zero carbon. | Medium | Medium |
| 5 | Policy | Develop Swale as an innovation area promoting new low-carbon technology, linked to incubator units for low-carbon start-ups in a retrofitted Swale House. | Medium | Medium |
| 6 | Policy/ Finance | Encourage and support community energy projects. Consider community energy as a financial investment. | Medium | Small |

Resilience, Adaptation and Offsetting

The effects of the changing climate are already impacting on Swale and adaption measures are being implemented. Many of these are considered in the existing Local Plan (2017) and will be further considered in the going review.

The UK Climate Impacts Programme (UKCIP) 2018 projections for Swale state that we are likely to have:

- Hotter summers with an increase in average summer temperature of 2-3°C by 2040 and 5-6°C by 2080.
- Warmer winters with an increase in average winter temperature of 1-2°C by 2040 and 3-4°C by 2080.
- Drier summers with a reduction in average precipitation of 20-30% by 2040 and 30-50% by 2080.
- Wetter winters with an increase in average precipitation of 10-20% by 2040 and 20-30% by 2080.
- Sea level is projected to rise by up to 0.3m by 2040 and 0.8m by 2080.

These in turn present a number of risks, including:

- Risks to health, wellbeing, productivity and infrastructure from high temperatures.
- Flooding and coastal change risks to communities, businesses and infrastructure.
- Risk of storm events / intense rainfall impacting productivity and transport infrastructure.
- Risks of shortages in the public water supply and for agriculture, energy generation and industry.
- Overheating, flooding, drought and coastal change risks for natural capital.
- Soil erosion and slope destabilisation as a result of flooding and drought, impacting infrastructure, natural environment and productivity.
- Risk of new and emerging pests and diseases and invasive non-native species affecting people and biodiversity, and likely to affect Kent (first in the UK) in the future.

Researchers have identified over 10,000 neighbourhoods across the UK where people are particularly vulnerable to flooding due to their location and factors such as income. Swale has 52 of these neighbourhoods with high social flood risk for surface flooding, taking account a range of vulnerability factors.³ The local authority needs to target these areas for support in order to help people living there prepare for extreme weather and respond and recover when it occurs.

Current activities, actions and programmes



Planning for adaptation is already taking place in the borough. This could be extended by encouraging local communities to discuss local impacts and adaptation measures. The most effective way of doing this requires further consideration. One option may be to organise a workshop for local community groups, and Parish and Town Councils, focusing on local resilience building. Thought will need to be given to how this sort of initiative links with actions to mobilise stakeholders to engage with carbon reduction measures.

Objectives

Ensure that the borough is robustly prepared for a changing climate and that robust adaptation measures are implemented to ensure resilience for all.

Opportunity and benefits

Adapting to the changing climate is a dynamic policy area for government. Plans and strategies to deal with the changing climate are in development by several government agencies and are brought together in *The National Adaptation Programme* and the *Third Strategy for Climate Adaptation Reporting: Making the country resilient to a changing climate* (Defra July 2018).

³ https://www.projectenportfolio.nl/images/d/d2/Community_analysis_Kent.pdf

Resilience, adaptation and offsetting action plan. (See also tree planting actions under Ecology & Biodiversity.)

| Dept. | Action | Timescale | Annual Carbon Reduction (tCO2e) | Progress | |
|--|---------------|--|---------------------------------|----------|---|
| Actions Swale Borough Council can take | | | | | |
| 1 | Planning | Incorporate a policy on climate change adaptation in the local plan review | Short | - | Commenced |
| 2 | Planning | Investigate the feasibility of determining an indicative price for offsetting carbon and establishing a carbon offsetting fund. (the majority of Local Planning Authorities are currently using a price of £60 per tonne). | Short | Large | |
| 3 | EP | Regularly update the Emergency Plan for the borough in partnership with the County Council | Short | - | |
| 4 | Planning | Ensure the Local Plan reflects the level of current and future flood risk, and development in flood risk areas is avoided. | Short | - | Strategic Flood Risk Assessment 2019 complete. Sequential test underway |
| 5 | Planning | Ensure the Local Plan provides for linking habitat restoration and creation to improve access, flood protection and water quality. | Short | - | Ongoing |
| 6 | Planning | Ensure the installation and maintenance of green infrastructure via the Local Plan and suitable conditions or Section 106 agreements in subsequent developments. | Short | Medium | Ongoing |
| Actions we can take in partnership with others: | | | | | |
| 7 | CEL Planning | Work with the Environment Agency, KCC and the Lower Medway Internal Drainage Board to manage flood risk and coastal erosion across Swale. | Medium | - | Ongoing |
| 8 | ECS | Work to restore natural processes within river systems to enhance water storage capacity and improve water quality. | Medium | - | |
| 9 | Planning/ ECS | Develop and start to implement a Nature Recovery Network, linking habitat restoration and creation to improved access, flood protection and water quality | Medium | Small | Commenced |
| 10 | Planning/ CEL | Work with Lower Medway Internal Drainage Board to minimize the long-term risk of flooding | Short | - | |

| | | | | | |
|-----------|----|---|--------|---|--|
| 11 | EP | Make sure everyone is able to access the information they need to assess any risk to their lives, livelihoods, health and prosperity posed by flooding and coastal erosion; | Medium | - | |
| 12 | EP | Bring the public, private and third sectors together to work with communities and individuals to reduce the risk of harm – particularly those in vulnerable areas. | Medium | - | |

Appendix I- Swale Borough Council's Declaration of Climate and Ecological Emergency

A Climate and Ecological Emergency was unanimously declared by Swale Borough Council on 26 June 2019 which committed:

1. To declare a 'Climate and Ecological Emergency'.
2. To draw up an action plan with improvement in energy efficiency and making space for nature as key priorities in all strategies and plans.
3. Pursue the Swale Strategic Air Quality Action Plan 2018-22 and to actively lobby all responsible authorities to improve air quality within Swale.
4. To provide leadership by taking all measures within our control to make Swale Borough Council's own operations carbon neutral by 2025, taking into account both production and consumption emissions (scope 1, 2 and 3).
5. To engage with businesses, organisations and residents to facilitate the action required to make the Borough of Swale carbon neutral by 2030, taking into account both production and consumption emissions (scope 1, 2 and 3).
6. To undertake actions including, but not be limited to, spatial and transport planning to make fewer journeys necessary, improvement to the energy efficiency of new and existing housing and buildings, improved public transport especially in rural areas; encouraging active transport, developing the infrastructure for EVs; deploying renewable energy at every opportunity, while continuing to safeguard our wild places, ancient woodlands and hedgerows
7. To call on Westminster to provide the powers and resources to make the 2030 target possible.
8. To call upon the MPs for Sittingbourne & Sheppey and for Faversham & Mid Kent to support this motion.
9. To work with other governments (both within the UK and internationally) to determine and implement best practice methods to limit global warming to less than 1.5°C.
10. To work with partners across the Borough to deliver these new goals through all relevant strategies and plans.
11. To become a 'Plastic-Free Council' by eliminating single-use plastics from the Council's operations, whenever possible, by 2021.
12. To request the Cabinet, working through the Policy Development and Review Committee, to report the actions the Council will take to address this emergency to Full Council by the end of the 2019/20 municipal year.
13. In meeting this pledge, the Council will take steps to avoid any adverse impacts on our most vulnerable residents.
14. This Council pledges to produce in January of each year, between now and 2030,

an annual report detailing the council's progress against Swale's carbon neutral action plan, enabling members, residents and other stakeholders to hold the council to account for the delivery of this pledge.

Appendix II - Adopted Local Plan and Local Plan review

The 2017 adopted Local Plan, Bearing Fruits 2031's no. 1 Core Objective is to 'Adapt to climate change with innovation, reduced use of resources, managed risk to our communities and opportunities for biodiversity to thrive' (p.20). Furthermore, policy ST1, Delivering sustainable development in Swale, sets out that 'to deliver sustainable development in Swale, all development proposals will, as appropriate Meet the challenge of climate change, flooding and coastal change through a) the promotion of sustainable design and construction, the expansion of renewable energy, the efficient use of natural resources and the management of emissions b) the management and expansion of green infrastructure and c) applying planning policies to manage flood risk and coastal change. A range of other policies across the plan also seek to mitigation and adapt to the challenges of climate change.

The 2019 National Planning Policy Framework (NPPF) defines the purpose of the planning system as to contribute to the achievement of sustainable development with three overarching objectives – economic, social and environmental. The environmental objective includes mitigation and adaptation to climate change, including moving to a low carbon economy. As such climate change is an important element running through the adopted local plan and through national planning policy.

The Local Plan is currently being reviewed and the Local Plan Review is due to be adopted in April 2023. In order to reflect the increased importance of climate change in the public, governments and Swale Borough Council's priorities (i.e. as reflected in the declaration of a Climate and Ecological Emergency) its importance will need to be elevated in the Local Plan Review. As such Climate Change and the Ecological Emergency will be a golden thread running through the Local Plan Review.

The key action is for Swale Borough Council to review and update all adopted Local Plan policies, with particular reference to:

- a) ST 1 – Delivering sustainable development
- b) ST 3 – The Swale settlement strategy (Strategic Housing Land Availability Assessment and Settlement Hierarchy study already underway)
- c) CP 2 – Promoting sustainable transport (see reference below to Swale Local Transport Strategy and major shift to promotion of public transport and active travel)
- d) CP 4 - Requiring good design (update likely to include reference to Building for Life standard and best urban design requirements – with cross referencing to policy DM 19)
- e) CP 7 – Conserving and enhancing the natural environment – providing for green infrastructure (update likely to include specification of new blue and green infrastructure to improve habitat connectivity objectives and the Nature Recovery Network)
- f) DM 6 – Managing transport demand and impact (see CP 2)

- g) DM 7 – Vehicle parking (SPD on vehicle parking in preparation)
- h) DM 19 – Sustainable design and construction (update likely to include specification of Home Quality Mark and BREEAM standards. Furthermore, a Supplementary Planning Document on Sustainable design and construction is likely to be prepared alongside the Local Plan Review)
- i) DM 20 – Renewable and low carbon energy (update likely to include renewable energy requirement for development (including retrofitting) and specific energy standards for new buildings)
- j) DM 21 – Water, flooding and drainage (Strategic Flood Risk Assessment near complete and Planning Policy team will continue to work with KCC on best practice sustainable drainage)
- k) DM 28 – Biodiversity and geological (update will include requirement for measurable biodiversity net gain)
- l) DM29 – Woodlands, trees and hedges (Supplementary Planning Document on Woodlands, trees and hedges to be prepared alongside Local Plan Review)
- m) DM 31 – Agricultural land

Appendix III Strategies relevant to our Climate Change and Ecological Emergency Action Plan

Swale Borough Council Strategies and plans

Bearing Fruits 2031 – Local Plan adopted July 2017

<https://www.swale.gov.uk/local-plan-for-swale>

Green Grid Strategy - June 2016

<https://www.swale.gov.uk/Green-Grid-Strategy/>

Biodiversity Action Plan – June 2016

<https://swale.gov.uk/biodiversity-action-plan/>

Cycling and Walking Guidance Statement 2018-2022

<https://www.swale.gov.uk/cycling-and-walking-pathways/>

Air Quality Action Plan

<https://www.swale.gov.uk/air-quality/>

Air Quality Planning Guidance

<https://www.swale.gov.uk/local-planning-guidance/>

Parking SPD

<https://www.swale.gov.uk/local-planning-guidance/>

Tree Maintenance Policy 2019-2023 (internal document)

Kent County Council Strategies

Kent Environment Strategy – March 2016

<https://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/environmental-policies/kent-environment-strategy>

Kent and Medway Energy and Low Emissions Strategy – not yet adopted

<https://kccconsultations.inconsult.uk/consult.ti/energyandlowemissionconsultation/consultationHome>

Kent Active Travel Strategy

<https://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/active-travel-strategy>

Kent Nature Partnership

Kent Biodiversity Action Plan

<http://www.kentnature.org.uk/kent-biodiversity-strategy2.html>

Kent Downs AONB

Kent Downs AONB Management Plan

<https://www.swale.gov.uk/local-planning-guidance/>

new version under consultation

Kent Energy Efficiency Partnership

Fuel Poverty Strategy – April 2016

<https://www.swale.gov.uk/fuel-poverty>

Appendix IV - Glossary

| | |
|------------------------------------|--|
| Abatement | Refers to reducing the degree or intensity of greenhouse-gas emissions. |
| Adaptation | Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities |
| Afforestation | Planting of new forests on lands that historically have not contained forests. |
| Anaerobic digestion (AD) | AD is a sequence of processes by which microorganisms break down biodegradable material in the absence of oxygen. The process is used for industrial or domestic purposes to manage waste or to produce fuels |
| Anthropogenic greenhouse emissions | Greenhouse-gas emissions resulting from human activities. |
| BAU | Business as Usual. Future emissions trend if the current state of affairs continue as they are today |
| BEIS | UK government department of Business, Energy and Industrial Strategy |
| Biodiversity | The variety of plant and animal life in the world or in a particular habitat, a high level of which is usually considered to be important and desirable. |
| CO ₂ | Carbon dioxide, which is the most significant long-lived greenhouse gas in Earth's atmosphere. Since the industrial revolution anthropogenic emissions – primarily from use of fossil fuels and deforestation– have rapidly increased from pre-industrial levels of 280ppm to a concentration of about 410ppm by volume. Carbon dioxide also causes ocean acidification because it dissolves in water to form carbonic acid. |
| CO ₂ e | Carbon dioxide equivalent. measures for estimating how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount or concentration of carbon dioxide as the reference. For the purposes of this report we refer to carbon dioxide equivalent simply as 'carbon'. |
| Carbon Budget | The maximum amount of carbon dioxide that can be emitted to be in line with keeping temperatures well below 2°C and pursue a 1.5°C limit to rising temperatures |

| | |
|--|--|
| Carbon neutrality | Achieving net zero carbon emissions by balancing a measured amount of carbon released with an equivalent amount sequestered or offset |
| Carbon sequestration | The process of removing carbon from the atmosphere and depositing it in a reservoir |
| Climate | Climate is typically defined as the average weather (or more rigorously a statistical description of the average in terms of the mean and variability) over a period of time, usually 30 years. These quantities are most often surface variables such as temperature, precipitation, and wind. This is different to weather, which is now. Climate in a wider sense is the state, including a statistical description, of the climate system. |
| Climate change | The long-term change of climate, typically measured over decades or longer. |
| Climate extreme (extreme weather or climate event) | A change in the state of the climate that can be identified (e.g. by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use |
| Climate Change | A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. |
| Climate change risk | Additional risk to investments (such as buildings and infrastructure) and actions from potential climate change impacts. |
| Committee on Climate Change | The Committee on Climate Change is an independent body established under the Climate Change Act (2008) that advises the UK Government on setting and meeting carbon budgets and on preparing for the impacts of climate change. |

| | |
|--------------------------|--|
| Climate scenario | A plausible and often simplified representation of the future climate, based on an internally consistent set of climatological relationships that has been constructed for explicit use in investigating the potential consequences of anthropogenic climate change, often serving as input to impact models. Climate projections often serve as the raw material for constructing climate scenarios, but climate scenarios usually require additional information such as about the observed current climate. |
| Ecosystem | Community of living organisms and the natural environment |
| Emissions scenario | A plausible representation of the future development of emissions of substances that are potentially radiatively active (e.g., greenhouse gases, aerosols), based on a coherent and internally consistent set of assumptions about driving forces (such as technological change, demographic and Socio economic development) and their key relationships. Concentration scenarios, derived from emissions scenarios, are used as input to a climate model to compute climate projections. |
| Flood | The overflowing of the normal confines of a stream or other body of water, or the accumulation of water over areas that are not normally submerged. Floods include river (fluvial) floods, flash floods, urban floods, pluvial floods, sewer floods, coastal floods, and glacial lake outburst floods. |
| Global Warming | Increase in temperature of the Earth's atmosphere over long timescales, caused by increased levels of greenhouse gasses |
| Greenhouse gasses (GHGs) | The atmospheric gases responsible for causing global warming and climate change. The major GHGs are carbon dioxide (CO ₂), methane (CH ₄) and nitrous oxide (N ₂ O). Less prevalent --but very powerful -- greenhouse gases are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF ₆). |

| | |
|----------------------------|---|
| IPCC | The Intergovernmental Panel on Climate Change. The IPCC is the United Nations body for assessing the science related to climate change. The objective of the IPCC is to provide governments at all levels with scientific information that they can use to develop climate policies |
| Mitigation | In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the insulation of buildings, and expanding forests and other "sinks" to remove greater amounts of carbon dioxide from the atmosphere |
| Protocol | An international agreement linked to an existing convention, but as a separate and additional agreement, which must be signed and ratified by the Parties to the convention concerned. Protocols typically strengthen a convention by adding new, more detailed commitments. |
| Resilience | The ability of a social or natural system to absorb disturbances while retaining the same basic structure and ways of functioning, the capacity of self-organisation and the capacity to adapt to stress and change. |
| Scope 1 (carbon emissions) | Greenhouse gas emissions from using owned or controlled sources (mainly energy related) |
| Scope 2 (carbon emissions) | Greenhouse gas emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling |
| Scope 3 (carbon emissions) | All other greenhouse gas emissions that occur as a result of activities taking place within wider operations, supply chains, investments etc |
| Sink | Any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere. Forests and other vegetation are considered sinks because they remove carbon dioxide through photosynthesis. |

| | |
|---------------|---|
| Vulnerability | The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity. |
| WMO | World Meteorological Organization. The WMO is a specialised agency of the United Nations (UN) with 193 Member States and Territories. It is the UN's authoritative voice on the state and behaviour of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources. |

Contacting Swale Borough Council

The Customer Service Centre deals with all enquiries across the Council; it should be your first stop when contacting us.

Call 01795 417850.

Copies of this report are available on the council website