

## CLIMATE CHANGE ACTION PLAN

**Contact:** Damian Roberts, Chief Operating Officer  
Gillian McTaggart, Head of Policy,  
Performance and Governance

**Urgent Decision?(yes/no)** No

**If yes, reason urgent decision required:**

**Annexes/Appendices (attached):** Annex 1 – Climate Change Action Plan

**Other available papers (not attached):** Motion to Council 23 July 2019

### Report summary

This report sets out the Council's commitment and action plan to tackle climate change including actions to reduce the environmental impact of its activities and the steps to become carbon neutral. It reflects the work of the cross party Member Working Group which was established to coordinate the development of the Climate Change Action Plan.

### Recommendation(s) for Environment and Safe Communities Committee

**The Committee:**

- (1) endorses the adoption of 2035 as the year for when the Council should aim to be net carbon neutral;**
- (2) approves the Climate Change Action Plan, at Annexe 1, as its plan for future work programmes;**

**and recommends to full Council:**

- (3) the adoption of the climate change target of the year 2035 for the Council's operations to be net carbon neutral;**
- (4) the adoption of the Climate Change Action Plan set out in Annex 1;**
- (5) that the Council delegates to the Chairman of the Environment and Safe Communities Committee, action to make representations to Government to provide local authorities with the powers and resources necessary to address climate change in their local area.**

# Environment and Safe Communities Committee

## 20 January 2020

### **1 Implications for the Council's Key Priorities, Service Plans and Sustainable Community Strategy**

- 1.1 The Council's Climate Change Action Plan contributes directly to the delivery of the long-term vision for Epsom and Ewell as a Green and Vibrant place, and the delivery of the Council's corporate plan.
- 1.2 The Council's new corporate plan for 2020 – 2024, the Four Year Plan, is aligned to the long-term vision for Epsom and Ewell and also identifies the key themes of Green and Vibrant, Smart and Connected and Safe and Well and sets out a high level action plan for the next four years and includes specific actions that anticipate and contribute to the delivery of this Climate Change Action Plan.
- 1.3 The Council's Vision was developed out of the largest public engagement exercise ever undertaken in the borough and this has clearly demonstrated a strong priority for the local environment, for environmentally friendly living, eco-friendly buildings and climate friendly sustainable transport, where people come before traffic, and where cycling and walking is promoted alongside the borough's fantastic countryside, trees, biodiversity, and clean air.

### **2 Background**

#### **Positive Action the Council has taken so far**

- 2.1 The Council, at its full Council meeting on the 23 July 2019, agreed to a motion to establish a climate change action plan with targets to cut the Council's environmental impact and take steps to become carbon neutral.
- 2.2 The Council committed that the plan would be presented to the Environment and Safe Communities Committee and subsequently ratified by Full Council within the next 6 months.
- 2.3 To help ensure that this commitment is achieved, Members have been working together with officers, testing ideas, drawing on available data and guidance and listening to local stakeholders, to develop this detailed, ambitious and wide ranging action plan.

# Environment and Safe Communities Committee

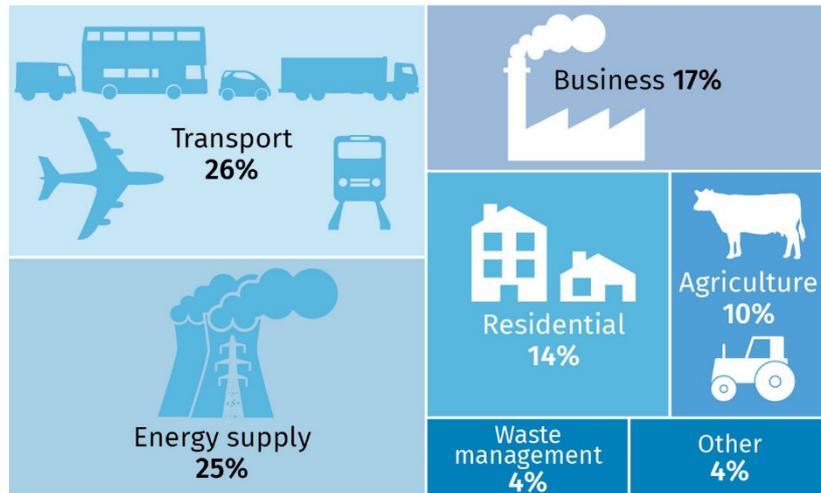
## 20 January 2020

- 2.4 Before the UK Government declared a climate emergency in 2019, Epsom and Ewell Borough Council has been taking progressive steps over a number of years to reduce the impact of its activities on the environment including reducing its CO<sub>2</sub> emissions. This includes investment in more energy efficient heating systems and LED lighting in many of its buildings, switching an increasing proportion of its electricity supply to renewable sources, installing photovoltaic panels on some of its buildings, phasing out the use of potentially harmful chemicals in Council operations, adopting a bio diversity action plan and introducing a single use plastics policy, promoting Cross Rail 2 to further expand the sustainable travel in the borough, and highlighting the environmental and climate change risks of the proposed third runway at Heathrow Airport.
- 2.5 Despite the action taken and positive progress made by the Council, many of these initiatives reflect the start of a longer journey where further action is needed over an extensive period of time, to impact on the scale of change needed to tackle the Council's and the borough's overall carbon footprint.

### **What is Climate Change and its cause**

- 2.6 Climate change is a well-recognised phrase and it is accepted by scientists and governments as the most serious environmental challenge facing society in the 21st century. There is clear scientific evidence that the activities of people and organisations have been having a significant detrimental impact on the climate, the environment and biological life.
- 2.7 Climate change is caused by the build-up of greenhouse gases in the atmosphere that lead to higher temperatures on the earth's surface.
- 2.8 Rapid increases in greenhouse gasses started in the 19th century at the beginning of the industrial age and continued alongside large scale global population growth. During this time it has been possible to rapidly intensify industry and support a rapidly growing global population by using fossil fuels including the burning of coal, oil and gas which has released growing quantities of carbon, which was stored over millions of years, in the form of carbon dioxide (CO<sub>2</sub>) directly into the atmosphere.

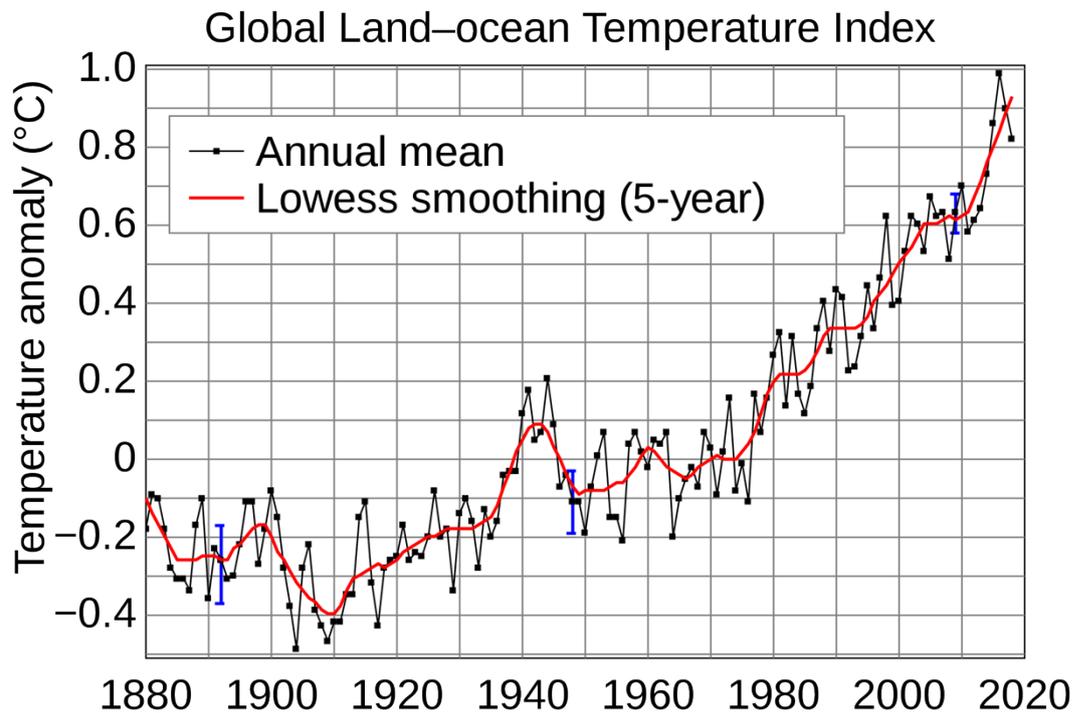
### Greenhouse gas emissions in the UK 2016



Source: Department for Business, Energy & Industrial Strategy



- 2.9 According to the Department for Business, Energy & Industrial Strategy, Carbon dioxide (CO<sub>2</sub>) accounts for the vast majority (over 80%) of the UK greenhouse gas emissions.
- 2.10 Global greenhouse gas emissions from human and industrial activities (particularly from the use of fossil fuels to drive industry, transport and to heat homes and the impact of agriculture and deforestation) increased by 70% from 1970 to 2004. The concentration of these greenhouse gases in the earth's atmosphere is now higher than at any time in the last 800,000 years and continues to increase.
- 2.11 This increase in the concentration of greenhouse gasses in the atmosphere is now causing progressive warming and with this, potentially devastating consequences for the climate. The graph below shows how global temperatures have risen over the last two centuries.



**Source:** National Aeronautics and Space Administration (NASA) and the Goddard Institute for Space Studies (GISS)

- 2.12 If this trend continues unabated, global temperatures are projected to rise by between 3C and 5C by 2100.

### **Consequences of climate change**

- 2.13 The Intergovernmental Panel on Climate Change - the leading international scientific body on global warming – advises that global average temperature rises above 1.5C will have devastating consequences for the planet and society.
- 2.14 Climate change with temperatures above 1.5C will include the social, economic impact of rising sea levels and ocean temperatures, flooding, higher ground temperatures, extreme weather patterns, water supply shortages, food production shortages; and the growth in pests and diseases and early deaths. Their analysis also indicates that temperature rises above 1.5C could place 20-30% of species at risk of extinction.

# Environment and Safe Communities Committee

## 20 January 2020

- 2.15 Since the findings of the Intergovernmental Panel on Climate Change has been published, there have been other national and international warnings about the implications from climate change. For example, the World Wildlife Fund for Nature (WWF) Report 2018 projected the decline in global wildlife populations of 60% in just over 40 years. The United Nations International Panel on Biodiversity & Ecosystems identifies “nature’s dangerous decline” at rates unprecedented in human history; accelerating species extinction and grave impacts on people around the world.
- 2.16 In the UK this level of climate change could result in a 30% decrease in river flows during ‘dry’ periods. The Environment Agency has warned that climate impacts will lead to an inadequate domestic water supply in the UK within the next 20-25 years. Within the South-East of England, Climate Change is projected to result in between 700 and 1,000 more heat-related deaths per year compared to today.

### **Legal Context**

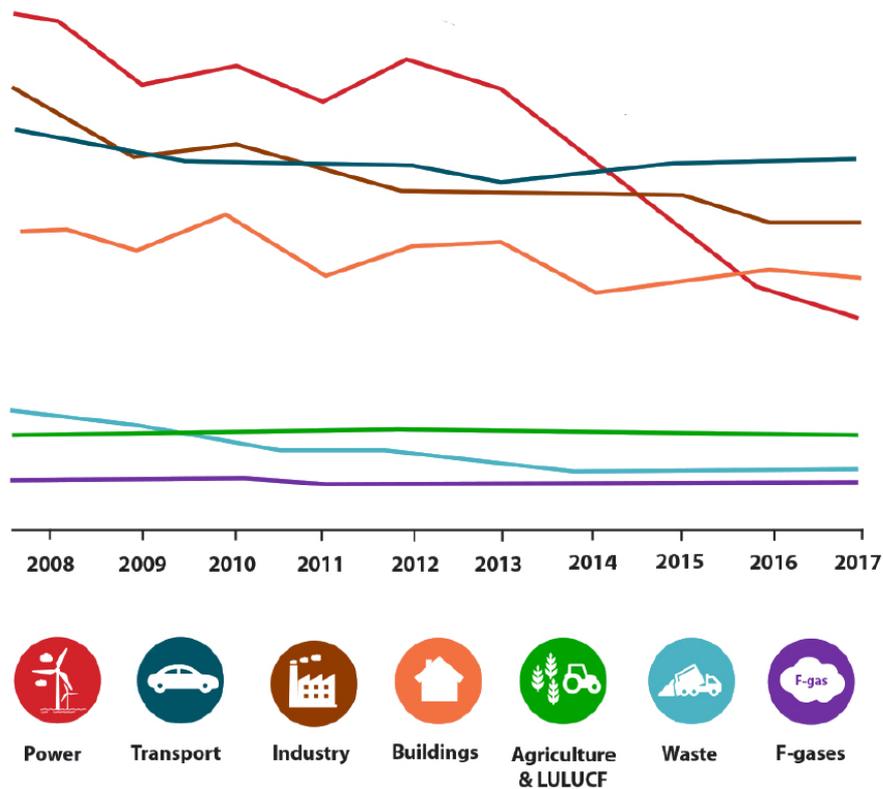
- 2.17 The UK Climate Change Act 2008 sets a statutory target to reduce UK greenhouse gas emissions by 80% from 1990 by 2050. In May 2019 the UK Committee on Climate Change recommended that the UK Government increase the statutory target to Net-Zero greenhouse gas emissions by 2050. This has now been formally adopted.
- 2.18 UK Parliament declared a climate change emergency in May 2019.

### **Carbon Footprint**

- 2.19 Despite the continued upward trend for global greenhouse gas emissions, UK greenhouse gas emissions have reduced by 43% since 1990 while over the same period, the economy grew by over 70%. This is the most substantial emissions reduction of any G7 country.
- 2.20 However, closer analysis shows that most of this reduction has been achieved through the energy sector with a progressive switch to more renewable sources of power and from the waste sector, with greater levels of recycling and less waste being burnt. Almost all other sources of greenhouse emissions in the UK are showing minimal change. Since 2017, Transport has become the main source of greenhouse gas emissions in the UK.

# Environment and Safe Communities Committee

## 20 January 2020

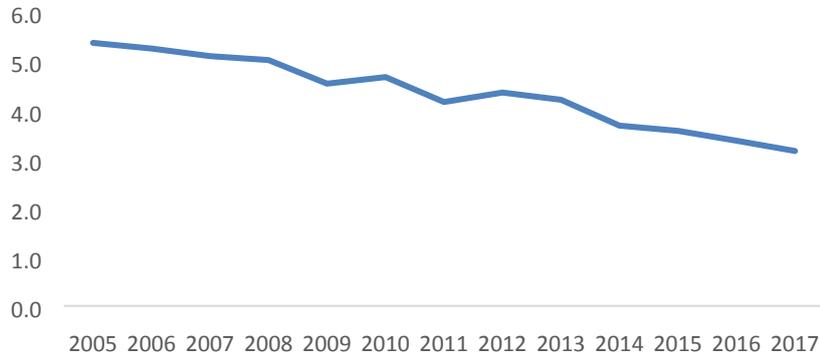


### Epsom and Ewell's Carbon Footprint

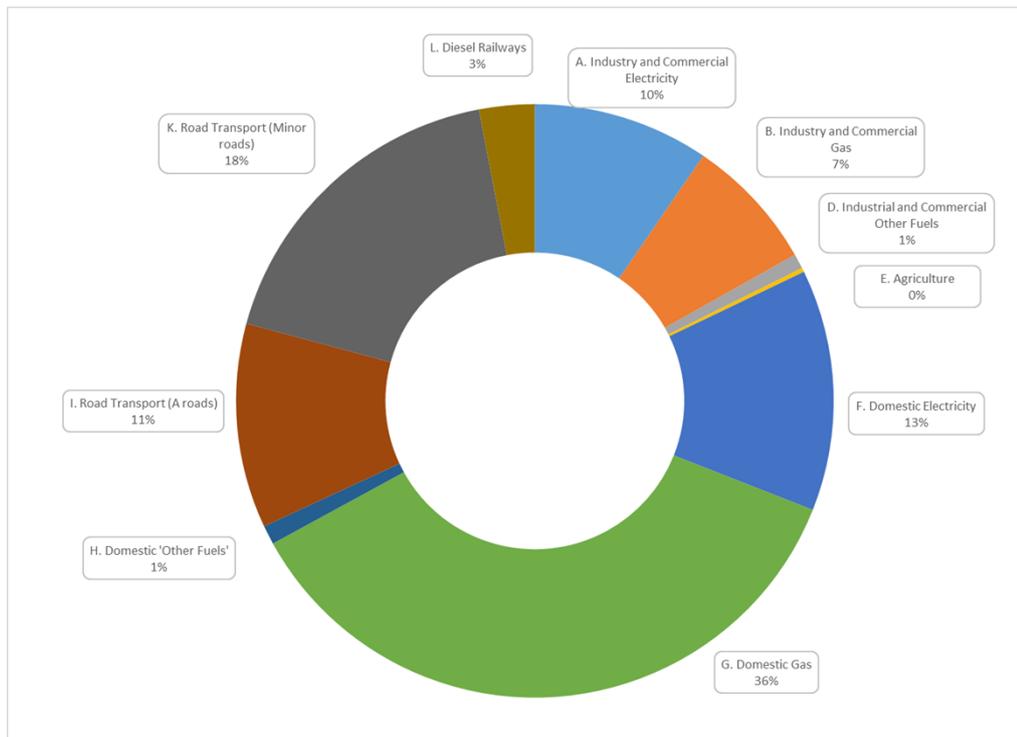
- 2.21 According to the Government's *Department for Business, Energy & Industrial Strategy*, Epsom and Ewell's carbon footprint as a place is estimated at 44.9 kilo tonnes per year. This includes both domestic and industrial CO<sub>2</sub> emissions.
- 2.22 This is the smallest carbon footprint of any borough in Surrey despite Epsom and Ewell being the most densely populated, The borough's relatively compact size undoubtedly contributes to this.
- 2.23 Epsom and Ewell also has the lowest per capita CO<sub>2</sub> emissions at 3.2 tonnes per person, some 38% below the Surrey Borough and District average. While this is clearly a welcome starting point, it is not a reason for complacency and significant and sustained work will be required to address the 45,000 tonnes of CO<sub>2</sub> produced across the borough each year.
- 2.24 The following graph illustrates how this borough's CO<sub>2</sub> emissions per capita have changed since 2005. The source of this data and the data set out in this section is taken from the *Department for Business, Energy & Industrial Strategy*, published in June 2019

Environment and Safe Communities Committee  
20 January 2020

Epsom and Ewell  
CO2 emissions per capita (t)



2.25 The following graph illustrates the main sources of greenhouse gas emissions for the Borough (based on 2017 data).



2.26 In line with the UK wide position, both transport and energy usage (gas, electricity, oil etc) account for the vast majority of greenhouse emissions. However, in Epsom and Ewell, it is domestic energy usage, rather than industry energy use or transportation that generates the largest proportion of these emissions.

# Environment and Safe Communities Committee

## 20 January 2020

### 3 Proposals

#### The Council's Carbon Footprint

- 3.1 The Council's carbon footprint reflects the same characteristics as the borough-wide one, with the majority of its annual CO<sub>2</sub> emissions arising from the energy use of Council buildings and the Council's own transport operations.
- 3.2 Initial analysis of these two key sources of Council CO<sub>2</sub> emissions provides an important starting point from which to plan from, and it sets out estimates as follows:

<b>1</b>	<b>CO<sub>2</sub> emissions from Council buildings</b>  (including heating, lighting, air conditioning, IT equipment, and energy used in food preparation (eg meals at home service) but excludes the Rainbow Leisure Centre operated by GLL, and other properties not occupied by the Council)	<b>895 tonnes per annum</b>
<b>2</b>	<b>CO<sub>2</sub> emissions from Council transport</b>  (including staff using their cars on Council business, and Council operations using petrol or diesel (eg grounds maintenance and tree maintenance equipment))	<b>570 tonnes per annum</b>

- 3.3 In relation to Council buildings, some 43% of the electricity used comes from renewable sources and therefore does not produce any CO<sub>2</sub> emissions.
- 3.4 The two buildings managed by the Council that are responsible for the largest CO<sub>2</sub> emissions are:
- Bourne Hall at 151 tonnes of CO<sub>2</sub> per annum
  - Town Hall at 161 tonnes of CO<sub>2</sub> per annum
- 3.5 Gas powered heating accounts for 67% of CO<sub>2</sub> emissions from Council buildings, which is a larger proportion than it has been in the past, because as described above, a significant amount of the electricity supply now comes from renewable sources.

# Environment and Safe Communities Committee

## 20 January 2020

- 3.6 In relation to the Council's transport operations, which includes business related mileage by Council staff, and use of equipment that relies on fuel such as use of grass mowers and chainsaws and all business related mileage, the Council's waste and recycling service (mainly refuse and recycling trucks) are the single largest contributor to CO2 emissions, accounting for just over 50% of all emissions from Council vehicles.
- 3.7 Although the vast majority of the Council's carbon footprint comes from energy use in buildings and transport operations, other activities also have a part to play such as the procurement of goods and services. For example, the Council's Leisure Centre which is operated by the company GLL has a significant carbon footprint (larger than any Council operated building) arising primarily from its size and the heating and cleaning processes associated with the two swimming pools, which are responsible for the greatest energy consumption in any leisure facility.
- 3.8 A more detailed and far reaching analysis will need to be undertaken as part of delivering the Climate Change Action Plan and reasonable estimates made where primary data may not be immediately available.

### **The important role of Carbon Capture**

- 3.9 Alongside an analysis of the organisation's carbon footprint, it is also necessary to consider the role of the Council owned and managed green spaces as a potential route for carbon capture. These spaces enable a proportion of carbon produced by Council operations to be absorbed by trees and green vegetation etc. on Council land. Carbon capture is an essential component in calculating net carbon emissions, as the carbon produced can be offset by the opportunities for this carbon to be absorbed through carbon capture.
- 3.10 In total the Council owns and/or manages 835 ha of open space, comprising of over 64 sites and representing almost 25% of the borough. This includes Nonsuch Park and Epsom Downs which are managed by the Council on a day to day basis. These two sites collectively account for 308 ha of the 825 ha.
- 3.11 Establishing a base line for this carbon capture based on the land that the Council owns and manages, as part of the action plan it would provide a starting point for any future carbon capture initiatives, such as replanting schemes.
- 3.12 An indication of the contribution that could be made by the Council's open space to Carbon Capture is that, as a broad estimate, 15 mature trees could capture 1 tonne of CO2 emissions per year.
- 3.13 There are specific actions in the Climate Change Action Plan that relate to Carbon Capture.

# Environment and Safe Communities Committee

## 20 January 2020

### **Community Engagement**

- 3.14 Engaging across the community including other local public services, local businesses and voluntary organisations will be an important part of the Council's approach to tackling climate change.
- 3.15 In the preparation of this report, the Council has received helpful input from local specialist groups and drawn on emerging guidance and advice from a number of reputable national sources, including the Local Government Association.
- 3.16 The cross party Member Working Group have considered these ideas and suggestions in preparing the Climate Change Action Plan.

### **Climate Change Target**

- 3.17 As mentioned earlier in this report, in May 2019 the UK Committee on Climate Change recommended that the UK Government commit to achieving net-zero greenhouse gas emissions by 2050 and this was then formally adopted by the Government.
- 3.18 The Council may choose to adopt this latest national target of 2050, and keep this under review as things continue to evolve at a national and international level.
- 3.19 As the Council is able to exercise much greater control over its own day to day operations, than what happens in the borough as a whole (i.e. the activities of residents, businesses, public sector organisations etc.), it would be helpful to consider setting an appropriate target for when the Council will be net Carbon neutral.
- 3.20 While there will be a shared aspiration for this to be as ambitious as possible, a practical constraint will be the availability of additional funding necessary to take some of this work forward. This is a particularly difficult issue given the further delay in the Government's National Funding Review of Councils' resources. In addition, some significant Council activities and services are tied into long-standing legal contracts, such as the Council's operational vehicles or the Council's Leisure Centre, and there will need to be a reasonable and appropriate period of time to review and renegotiate these. The Council can only purchase those items which are available in the market so as well as communicating higher expectations to current and future suppliers in relation to Climate Change, suppliers also need to reflect on the nature of their goods to ensure they meet the climate change agenda.

# Environment and Safe Communities Committee

## 20 January 2020

3.21 Taking all of this into consideration, an ambitious but potentially realistic and practical target for the Council to be net carbon neutral could be considered to be 2035. The Action Plan attached in Annex 1 sets out the initial steps that need to be taken to help achieve this goal, and sets these out under the following priority themes:

- Theme 1 - Council Leadership and influencing others
- Theme 2 - Council buildings and energy use
- Theme 3 - Council Transport
- Theme 4 - Environment
- Theme 5 - Tackling and minimising Waste
- Theme 6 - Use of Technology

3.22 Progress will be closely monitored by the Environment and Safe Communities Committee and as part of delivering the action plan, officers will be aligning policies and governance to ensure that the whole organisation rises to the challenge of climate change.

#### 4 Financial and Manpower Implications

4.1 Approval has already been given, following the Full Council meeting on 23 July 2019, to funding from the Corporate Projects Reserve, for a new officer post to help co-ordinate and help implement the Council's new Climate Change Action Plan. The post holder is due to start in February 2020.

4.2 Some of the actions set out in the Climate Change Action Plan will have additional financial implications, which may arise in this and future civic cycles, and it has not yet been possible to quantify these. Going forward, actions relating to climate change will identify the cost implications (if any) alongside the potential contribution to CO2 reductions to enable the Council to increasingly focus on those actions which deliver the greatest benefit from the resources available. Where additional funding is required, a separate report and business case will be considered by the Strategy and Resources Committee, which will also set out the costs and the potential environmental and CO2 reduction outcomes that could be achieved.

**Chief Finance Officer's comments:** Where future initiatives have a budgetary implication, they will be reported and considered by the Strategy & Resources Committee in accordance with the Financial Regulations.

#### 5 Legal Implications (including implications for matters relating to equality)

# Environment and Safe Communities Committee

## 20 January 2020

5.1 The legal implications are contained within the body of the report. There are no equality implications arising from the contents of this report.

5.2 **Monitoring Officer's comments:** none arising from this report.

### 6 Sustainability Policy and Community Safety Implications

6.1 This report contributes directly and significantly to improving the Council's sustainability practice. It also contributes to community safety in areas such as tackling air quality and seeks to address the root causes of more extreme weather conditions and temperature changes which are a risk to human life, biodiversity and the planet.

### 7 Partnerships

7.1 The Council makes use of a range of different partnerships to support its priorities and the delivery of local services. This includes its partnerships with other statutory agencies such as the police, working alongside other independent bodies such as the Business Improvement District, its partnerships with local voluntary sector organisations in receipt of grant funding and more formalised contracts such as the Council's Rainbow Leisure Centre.

7.2 This Climate Change Action Plan includes specific actions to promote wider understanding and action through the variety of relationships the Council has with other organisations operating in the borough including those that are subject to formal contracts.

### 8 Risk Assessment

8.1 The risks associated with climate change are well documented and are summarised in this report. The proposed Climate Change Action Plan represents this Council's commitment and actions currently identified to help address this through determined and sustained local action. As a living document the Climate Change Action Plan will be reviewed regularly along with associated risks of the actions therein.

8.2 The Council is rightly seeking to take an ambitious approach to how it deals with Climate Change in the borough, but in order to be effective and deliver the meaningful change that is being sought, appropriate care will need to be taken to ensure that actions taken are practical and deliverable and the wider resource implications are clearly understood.

# Environment and Safe Communities Committee

## 20 January 2020

### **9 Conclusion and Recommendations**

- 9.1** Given the significant local, national and global risks and consequences associated with the continued projected increase in CO<sub>2</sub> emissions on the environment, climate change and the wider planet, by adopting the attached Climate Change Action Plan the Council is setting an example of how it intends to demonstrate to other organisations what can be achieved, to ensure it plays its part in tackling this urgent global challenge.

**Ward(s) affected:** (All Wards)