Epping Forest District Council Climate Change Action Plan 2021

Version 8, March 2022

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Introduction

Climate Change Context

Climate change is a global issue primarily as a result of greenhouse gas (GHG) emissions from human activity and land use change. Communities, businesses and the natural environment are already feeling the impacts of the changing climate with higher average temperatures and more extreme weather events such as droughts, flooding, heat waves and storms. Continued change is now unavoidable and is disrupting everyday life, particularly for the more vulnerable where climate change deepens existing inequalities.

More locally, flooding, water stress and overheating are the key changes already experienced and projected for the East of England. Increased urban development as well as changes in weather patterns will result in a reduced capacity for regions to absorb water, leading to more water surface runoff and increased flooding. Climate change projections suggest that in the period to 2050 and beyond, the UK will experience wetter winters and drier summers with overall summer rainfall likely to decrease by up to 15% leading to pressure on our water supplies. There is only limited awareness of the effect that climate change is having on causing overheating in our homes. With average temperatures set to increase, and more hot spells anticipated, overheating could become more commonplace in the future especially in urban areas. This will result in greater discomfort for people and exacerbate underlying health issues.

In August 2021, the Intergovernmental Panel on Climate Change (IPCC) published the Climate Change 2021 Report: The Physical Science Basis. The report gives evidence to show the 'widespread and rapid' changes to our climate that have occurred as a result of human influence. It then gives further evidence on the wide-ranging and severe impacts of global warming where temperatures reach 1.5^{o}C above pre-industrial levels. In 2015, the UK committed to keeping global temperature increase well below 2^{o}C by signing the Paris Agreement of the United Nations Framework Convention on Climate Change. In November 2021 the Glasgow Climate Pact was agreed at the COP26 Climate Change Conference. The aim of the pact is to keep alive the hope of limiting the rise in global temperature to 1.5C and increase climate ambition and action from countries. The UK also set a statutory target in the Climate Change Act 2008 to reduce UK GHG emissions by 80% from 1990 levels by 2050. In June 2019, this was revised to reduce all GHG emissions to net zero by 2050.

After considering the overwhelming evidence on climate change Epping Forest District Council (EFDC) declared a Climate Emergency in September 2019 and pledged to do everything within its power to make the area carbon neutral by 2030. This target is more ambitious than the UK target to take bold action and reduce emissions at a faster rate. It also contributes towards the Essex wide recommendations set out in the Essex Climate Action Commissions Net Zero: Making Essex Carbon Neutral 2021 report.
Reaching this target will be a considerable task involving collaboration and engagement from staff, residents, businesses, suppliers, partners and support from the UK Government to reduce emissions throughout the District.

By stepping up action now there is a better chance of avoiding the catastrophic impacts that a global temperature increase of greater than 1.5^{o}C would have. Many of the climate actions that we can take are known to deliver valuable social and economic benefits in terms of creating new jobs, saving money, improving air quality, widening market opportunities and providing health benefits that can help to make Epping Forest District a great place where people enjoy living, working, learning and leisure.

Climate Change Action Plan Purpose

The Climate Change Action Plan supports the Council's ambition to do everything within its power to become carbon neutral by 2030. The Action Plan identifies the main sources of carbon emissions, both within the Council's own operations and across the District, and outlines actions to reduce them.

Achieving reductions in emissions across the wider District will require close collaboration and action from residents, community groups, businesses and other organisations. Therefore, this Plan sets out how the Council plans to engage with these groups to support, influence and facilitate change.

The Plan will be regularly updated to account for further developments in national legislation, regulation and policy. The Council is also undertaking further work to assess its indirect emissions; therefore, the plan will be updated when additional emission reduction pathways are identified.

The following main themes summarise the key emissions reduction pathways identified:

Council Operations Emissions	•Buildings and land •Policy, service provision and processes •Staff Travel
District Emissions	•Behaviour Change •District Travel •Air Quality •District Buildings •Natural Environment •Waste •Climate Change Adaption

The section on Council Operations sets out how the Council aims to reduce its own carbon emissions to become carbon neutral and identifies actions on how this is to be achieved. Council operations include emissions reduction in Council buildings, including the Civic offices, museum and sheltered housing as well as emissions from the goods and services that the Council purchases, business travel, staff commuting, waste and leased assets.

Further sections of the Plan outline action that can be taken to reduce carbon emissions by residents, businesses and others across the District, either through direct initiatives, using statutory powers or by influencing behaviour change. This ranges from emissions arising from travel, as well as from homes, business premises and production processes, through to the management and disposal of waste. Improvement of the natural greenspace in the area can help to capture carbon, increase biodiversity and relieve pressure on the Epping Forest Special Area of Conservation (SAC), which is an important natural feature of the District. Actions to address air quality and climate change are closely linked, so many of the measures proposed in this Plan will also support improvements in air quality in the District and have beneficial effects on both human health and the Epping Forest SAC.

Monitoring and reporting

Key Performance Indicators (KPIs) are listed within the document, these will be reviewed and published on an annual basis.

Policy Context

This document aligns with policy across the Council including the strategic objectives in the Corporate Plan to keep the district moving sustainably and enable residents to access new opportunities for employment and to reduce the carbon footprint across the district and within our council.

The Council's emerging Local Plan contains a number of policies that align with the themes within this Action Plan. However, these policies only apply to new development and so this plan focuses on what we can do now. Appendix 1 contains summaries of the following local plan policy.

DM1 Habitat protection and improving biodiversity
DM2 Epping Forest SAC and the Lee Valley SPA
DM4 Green belt
DM5 Green and blue infrastructure
DM9 High quality design
DM10 Housing design and quality
DM11 Waste recycling facilities in new developments
DM12 Subterranean, basement development and lightwells
DM15 Managing and reducing flood risk
DM16 Sustainable drainage systems
DM17 Protecting and enhancing water courses and flood defences
DM18 On site management and reuse of wastewater and water supply
DM19 Sustainable water use
DM20 Low carbon and renewable energy
DM21 Local environmental impacts, pollution and land contamination
DM22 Air quality
T1 Sustainable Transport Choices
T2 Safeguarding of routes and facilities

Other related plans, strategies and guidance:

EFDC Green Infrastructure Strategy Primer 0 – July 2021
EFDC Green Infrastructure Strategy Implementation: Enhancing our Existing Network 1 – July 2021
EFDC Green Infrastructure Strategy Implementation: Landscape Led Design 2 – July 2021
EFDC Green Infrastructure Strategy Implementation: Green Infrastructure in Strategic Allocations 3 – July 2021
EFDC Green Infrastructure Strategy Implementation: Infrastructure Enhancement Projects 4 – July 2021
EFDC Interim Air Pollution Mitigation Strategy – December 2020
Essex Highways Epping Forest District Cycling Action Plan – March 2018
Green Arc Strategy
Epping Forest District Council Infrastructure Delivery Plan – September 2020
EFDC Sustainability Guidance & Checklist Vol. 01 (Major Developments) – March 2021
EFDC Sustainability Guidance & Checklist Vol. 02 (Minor Developments) – March 2021

Net Zero: Making Essex Carbon Neutral 2021
Essex Green Infrastructure Strategy 2020
ECC Bus Service Improvement Plan

Epping Forest District Council's Own Emissions

Baseline and Methodology

Over the 2020/21 financial year the baseline carbon footprint for the Council's own estate and service provision was calculated using information and data from the 2018/19 financial year. The new baseline considers changes to the Council's estate and has the most comprehensive data set before the Covid-19 pandemic caused marked changes in building usage and staff travel. The baseline will give the figures for comparison against emissions reported up to 2030.

Where the term carbon emissions is used throughout the Climate Change Action Plan, this refers to all Greenhouse Gases (GHGs) expressed as carbon dioxide equivalents (CO_2e). The table below shows the GHG's covered by the Kyoto Protocol and where they come from.

Greenhouse Gas	Where it comes from
Carbon Dioxide (CO_2)	Power stations, transport, industrial and domestic power, cement production, general fuel combustion
Methane (CH_4)	Landfill, agriculture and oil and natural gas operations
Nitrous Oxide (N_2O)	Fertiliser, road transport, industrial processes, fuel combustion
Hydrofluorocarbons (HFC's)	Refrigerants and air conditioning, foams and aerosols
Perfluorocarbons (PFC's)	Electronics, aluminium production
Sulfur Hexafluoride (SF_6)	Electricity transmission and distribution
Nitrogen Trifluoride (NF_3)	Semiconductor manufacture

The Department for Business, Energy and Industrial Strategy (BEIS) publishes GHG Conversion Factors each year to aid calculation of carbon emissions for a range of activities.

To calculate the District's carbon footprint, we have used our own data multiplied by the BEIS emission factors for that activity to give the kilograms of carbon dioxide equivalent emitted. This is divided by 1000 to convert to tonnes.

An example for energy use is:

(Energy (kWh) x emissions factor) / 1000 = tonnes of carbon dioxide equivalent

Boundary of the Climate Change Action Plan

Carbon emissions are categorised into three groups to define how emissions are generated and who is responsible:	
Scope 1	Direct emissions from gas sources owned or controlled by an organisation. Including fuel combustion from heating buildings and council vehicle fleet.
Scope 2	Emissions from the generation of purchased electricity consumed by an organisation. Including lighting, heating and cooling in buildings.
Scope 3	All other indirect emissions from an organisations activity but from sources not owned or controlled by that organisation. Including emissions from business travel in cars not owned by the Council and purchased good and services.

Previously the Council have reported Scope 1 and 2 emissions, with emissions from business travel and electricity transmission and distribution losses reported as Scope 3.

However, with the declaration of a Climate Emergency the Council recognises the need to show leadership and demonstrate collaboration with our partners and suppliers across the District. Therefore, Scope 3 emissions reported will be expanded to cover purchased good and services, leased assets, waste and staff commuting. Work is currently underway to establish the scale of emissions in some of these areas.

The below tables and diagrams show the baseline emissions data the Council will use as a comparison for reporting up to 2030, unless stated the data is from the 2018/19 financial year.

Scope 1 – Direct emissions from gas sources owned or controlled by the Council.	
Category	**Tonnes of CO_2e**
Council Owned Operational Buildings	194
Fleet Fuel	237
Sheltered Housing Gas	867
Total	**1297**

Scope 2 – Emission from generation of purchased electricity consumed by the Council	
Category	**Tonnes of CO_2e**
Operational buildings electricity	350
Other purchased electricity	335
Electricity Sheltered Housing communal areas	85
Total	**770**

Scope 3 - All other indirect emissions from Council activity but from sources not owned or controlled by the Council	
Category	**Tonnes of CO_2e**
Business Travel (Grey Fleet)	103
Transmission and distribution losses	74
Further scope 3 emissions eg. leased assets, staff commuting, purchased goods and services and waste services	To be calculated as further data received
Total	**179**

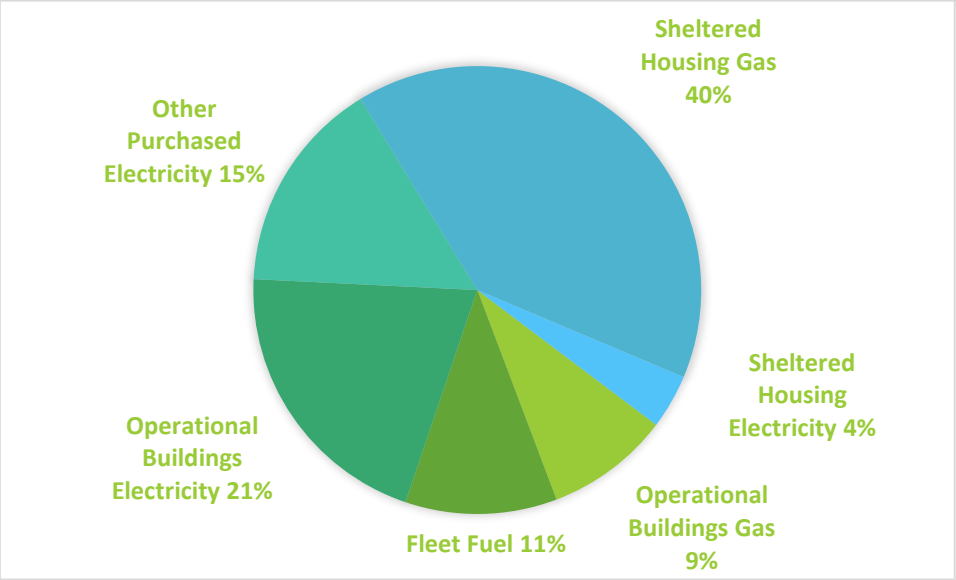

Figure 1. Councils Scope 1 and 2 emissions

The total emissions from Council controlled (Scopes 1 and 2) sources is 2,067 tCO_2e, this is equivalent to 250 homes' energy use for one year or 5.4 million miles driven by an average passenger vehicle. The overall total including Scope 3 emissions is under development to include further data being gathered.

The boundary of the Council's operations is to include Qualis as a wholly owned subsidiary of Epping Forest District Council. As a newly formed entity Qualis has not had any property or paid utility bills up to March 2021. From April 2021 the Council will work closely with Qualis to collate scope 1 and scope 2 emissions data.

Approach to offsetting

Reducing emissions through direct interventions will be the Council's main approach to becoming a carbon neutral organisation. But there will be a certain level of emissions which will not be possible to reduce before 2030 either for practical or financial reasons.

The Council are taking actions to increase tree planting and the provision of natural greenspace in the District, through an endorsed tree planting strategy and the Green Infrastructure Strategy. By taking steps now on tree planting this will allow woodland to become more established by 2030. The need for further offsetting will be considered closer to 2030 having monitored the progress being made. This will be influenced by the development of technology but is likely to include considering renewable technologies.

District Wide Emissions

The Council's pledge shows a commitment to be carbon neutral across the whole District. Although the Council are unable to directly control District wide emissions, statutory powers and our role of community leader and facilitator can be used to influence emissions reductions. Data for these emissions comes from national data compiled for all local authorities in the UK, the scope of the District's emissions will be limited to Scope 1 and 2 emissions as realistically these are the emissions that can be reasonably influenced.

To become carbon neutral on this scale is a challenging task and this will require communities and businesses to take responsibility by also making significant emissions reductions. Changes in national policy and financial intervention from the UK government, as well as advances in technology and decarbonisation of the national grid will also be key to enable the District to become carbon neutral by 2030.

District Wide Emissions – Scopes 1 and 2 (SCATTER Cities 2017)	
Category	**Tonnes CO_2e**
District Waste Operations	20,214
Transport (on-road, off road and aviation)	546,159
Industry and Commercial	125,822
Domestic	168,422
Agriculture and Land Use	-13,052
Total	**837,565**

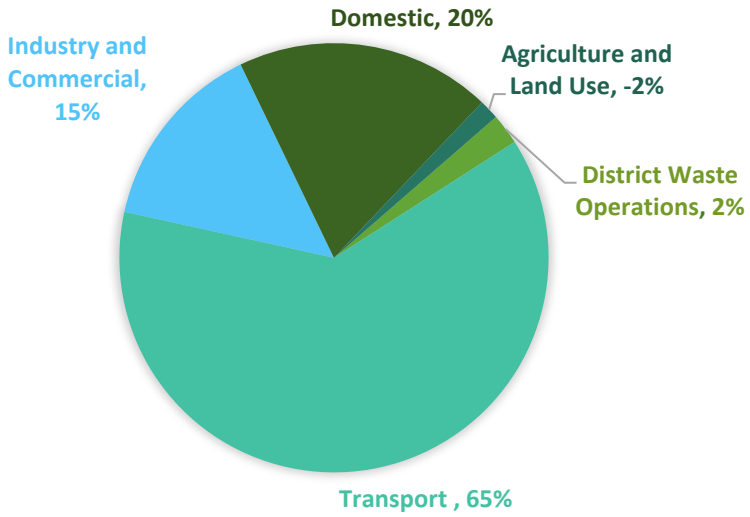

Figure 2. District Scope 1 and 2 emissions

It is also possible to look at how well different parts of the District are performing using a tool called the Place-Based Carbon Calculator. It is a free tool that maps the carbon footprint of every neighbourhood in England. Its purpose is to provide a resource for both councils and community organisations to help them plan and enact the changes that are needed to meet net-zero goals and their own climate emergency declarations. We will be using this information to look at areas in the District to help us understand where it may be helpful to focus some of our resources. It will also help local communities and businesses to understand what activities are causing the greatest impacts and for us all to monitor progress over time.

Progress in 2021/22

The draft Climate Change Action Plan for consultation highlighted priority actions for 2021/22, the tables below show progress that has been made on these priorities.

Council Operations

Action	Description	Progress
Waste contract review	As part of the ongoing contract review, consideration is to be given to provision of low emissions refuse vehicles and route efficiencies to reduce emissions.	The waste contract review is complete
Staff Travel Plan	To adopt measures that support sustainable travel into employee's place of work and by means of flexible working the need to travel to work will fall from around five days to two days per week.	An EFDC Employee and Member Travel Plan has been published to staff alongside the new reduced parking at the Civic. Internal publicity of staff car sharing options has taken place.
Grounds Maintenance vehicle fleet upgrade	The EFDC Grounds Maintenance fleet is to be replaced in 2021 with lower emissions Euro VI vehicles and EV's where the market allows.	30 electric vehicles purchased for the EFDC fleet.
Staff Training - Carbon Literacy Certified	Engagement and education of staff.	Pilot training session run with good feedback from participants. Training to be rolled out further across the organisation.
Measurement of Scope 3 emissions	Establish the Councils scope 3 emissions and identify key areas where these can be reduced.	Data received from consultancy to measure the carbon emissions from the councils spend. From this the most carbon emitting contracts can be identified.

District Wide Actions

Action	Description	Progress
Develop a communication and engagement plan to facilitate behaviour change across the District	Educate, persuade and incentivise behaviour change in sustainable travel, air quality and climate change. Newsletters, one stop shop website, collaboration with community groups and partners. Link co-benefits of action such as health and wellbeing.	The climate change webpages have gone live and initial contact has been made with community groups, voluntary organisations and businesses in the area to provide information on climate change and related opportunities.
Initiatives to support walking, cycling and public transport use.	Investigation to implement recommendations and projects within the District. Includes Interim Public Transport Strategy, Essex Highways Study, Infrastructure Development plan and working with Essex County Council (ECC) on Epping Forest Cycle Action Plan.	Awaiting Update

Electric Vehicle charge point provision on Council land	Rapid charge point provision in car parks, leisure centres and shopping centres.	Feasibility studies undertaken at all EFDC owned car parks to understand suitability for rapid charging. Rapid chargers installed at Oakwood Hill in March 2022.
Large Scale Tree planting	Internal call for sites ongoing, strategy underway to start tree planting by end of March 2021. Includes tree planting ambition in the Green Infrastructure Strategy, the Essex Forest Initiative call for sites and the Green Arc.	Successful Local Authorities Treescapes Fund bid, 2320 trees to be planted by EFDC across 3 sites by end of March 2022.
Domestic energy efficiency	Installation of energy efficiency measures in low income, low efficiency homes.	14 energy efficiency measures and a heat pump were installed in EFDC using funding from the GHG LAD Phase 1a scheme. As of March 2022, 71 referrals have been made to the GHG LAD 2 scheme, with works to be completed for June 2022. A successful consortium bid for Sustainable Warmth grant funding has resulted in a further £1.3m of funding that will be available to March 2023.

Council Operations

Between 2008/09 and 2018/19 reported Council emissions decreased by 51% due to the implementation of more energy efficient technologies in our offices, the installation of solar panels and the decarbonisation of the UK electricity grid. This is a good basis to build on but to become carbon neutral by 2030 further critical changes will be needed in the way the Council operates.

Operational buildings and Council owned housing will need to be assessed on their ability to meet future needs and where suitable undertake deep retrofitting to improve their efficiency and resilience to the expected effects of climate change. Modes of business travel and staff commuting will require a shift to active travel and the use of ultra-low emissions vehicles (ULEVs). Consideration of the Climate Emergency will be required in all service areas to influence how services are delivered and how goods and services are procured.

Previous Successes

- In October 2020 the Council endorsed meeting Passivhaus standards for new build Council Housing
- In 2016 Solar PV was installed on Civic Centre offices roof and previously installed on the Limes Community Centre roof.
- Refurbishment of the Civic includes more efficient boilers, lighting and heating controls, more efficient AHUs, 4 EV charge points and facilities to provide for cycling and active travel
- In January 2021 a revised procurement strategy was adopted that puts more emphasis on climate change and social value
- Up to the end of 2020/21, 2 Council owned electric vehicles (EV's) in the fleet and 12-month trial of 1 electric transit van.
- Reduction in business travel mileage reimbursement in staff's own cars (grey fleet)
- In December 2020 greener driver training was conducted for those regularly driving fleet vehicles
- Introduction of software to more accurately measure fleet emissions and fuel use
- Rapid response to enable staff to work from home effectively during the Civic refurbishment and Covid-19 pandemic (includes process/system changes and grants for more ergonomic home office setup)

Actions

Council Buildings

Action	Activities	Timescale	Portfolio Holder	Resource
Energy efficiency improvement of Council owned estate	Including operational buildings, community halls and the common parts of the sheltered housing units to assess and implement carbon reduction measures. Building energy survey at Waltham Abbey Museum. Note that the Condor Building was vacated completely in May 2021 and only two thirds of the remaining Civic Centre used by EFDC.	Now and ongoing	Housing and Community Services	2022/23 onwards – capital budget to be requested Grant funding
Review renewable energy and storage potential at existing council owned sites	Assessment of suitability for measures such as heat pumps, solar PV and solar thermal. Installation of Vehicle to Grid fleet technology at the Civic Offices. Installation of battery storage at the Civic Offices.	Now and ongoing	Housing and Community Services	2022/23 onwards – capital budget to be requested
Improvement of energy efficiency of Council owned social housing provision	Build database to aid stock assessment processes Stock condition survey underway to inform energy efficiency works. Implementation of external wall insulation. Deep retrofit energy assessments. Prioritising energy reduction in estate regeneration projects.	Now and ongoing	Housing and Community Services	Grant Funding - Social Housing Decarbonisation Fund
Implement water saving and sustainable drainage initiatives	Investigate water saving opportunities the councils own estate and raise awareness of water saving behaviours with staff. Implementation of drainage solutions and consideration of initiatives such as green walls in estate regeneration projects.	Now and ongoing	Housing and Community Services	Regeneration budget
Best practice in new Council Developments	Planning applications for new council facilities and developments to lead by example meeting Sustainability Guidance net zero by 2030 levels	Now and ongoing	Ongoing	Developers
Switch utilities to renewable energy tariffs	Electricity tariff switched to 100% renewable energy select tariff where energy is generated from renewables based in the East of England.	Electricity- October 2021	Housing and Community Services	Internal utilities budget

	Feasibility of switching to a 'green' gas supply under investigation on a case by case basis.			
Minimise waste within the council offices and promote recycling	Drive forward paperless and digital working to minimise paper waste. In line with procurement strategy consider 'end of life' requirements before purchasing goods. Information by bins to make recyclable waste clear	Now and ongoing	Environmental and Technical Services	Internal budget identified

Council Processes and Behaviour Change

Action	Activities	Timescale	Portfolio Holder	Resource
Staff engagement and training to influence behaviour change	Carbon Literacy training to be rolled out in stages across the organisation. With individual climate actions developed as part of the training.	May 2021 onwards	Customer and Corporate Services	Internal budget identified
Include consideration of the Climate Emergency in Council decision making processes	Consideration of Climate Change to be embedded at the project concept stage through to cabinet decision reports	2022/23	Customer and Corporate Services	N/A
Alignment of policy across the organisation to consider the climate declaration	Climate change to be embedded in the revision of the Corporate Plan. List and review of policies to align with climate pledge.	2022	Customer and Corporate Services	N/A
Establish and analyse the Council's Scope 3 emissions	Calculation and analysis of indirect Scope 3 emissions using financial data.	Now and ongoing	Planning and Sustainability	Internal budget identified
Identification of carbon intensive contracts based on Scope 3 emissions analysis	Assess carbon reduction opportunities and develop a carbon reduction plan to eliminate waste in the supply chain and engage suppliers.	2022	Planning and Sustainability	Internal budget identified

Staff Travel

Action	Activities	Timescale	Portfolio Holder	Resource
Make the Council an exemplar on staff commuting and business travel	Use held data and staff surveys to identify, analyse and deploy viable options to increase sustainable commuting. Enter for Modeshift accreditation for Staff Travel Plan	2021/22	Environmental and Technical Services	N/A
Encourage and incentivise sustainable commuting	Online personal travel planning tools, investigate bus/rail discounts, build on learnings from DRT trial to launch viable service,	2021/22	Environmental and Technical Services	N/A

	car share scheme launch, investigate park and ride options.			
Business travel in staff owned cars 'grey fleet'	Revisit demand for pool car options to increase % of electric vehicle mileage for business travel	To be reviewed on return to the office	Environmental and Technical Services	
Identify and bid for all OZEV and commercial funds to improve EV experience including EFDC estate and fleet	Bid inputs given to ECC for OZEV/Connected Kerb funding bid for on-street EV chargers. Identification of viability of emerging rapid charging network operators, suitable for EFDC estate use Pilot to convert empty EFDC owned garages to EV charging spaces	Now and ongoing	Environmental and Technical Services	OZEV and other grant funding
Improve experiences of EFDC staff working remotely to reduce the need to commute and travel for business	Consider further access to EFDC sites closer to where staff may live and/or are visiting on business (eg. Museum, Oakwood Hill sites)	Now and ongoing	Environmental and Technical Services	

Monitoring

Key Performance Indicators	Baseline	Current	Target
% reduction in reported Scope 1 and 2 Council emissions	2,067 tCO_2e (2018/19)	1,746 tCO_2e (2020/21)	14% reduction per year
Average SAP rating of Council owned social housing	71 (2011)	Will be based on stock condition survey	81 by 2030
% of staff certified as Carbon Literate through the Carbon Literacy Program	0% (2020/21)	1% (2021/22)	100% by 2030
No. of electric vehicles in the EFDC fleet	2 (2020/21)	32 (2021/22)	All by 2030

District Wide Actions

Behaviour Change and Engagement

To become a carbon neutral District by 2030 changes to the way that we go about our daily lives will be needed to reduce emissions particularly from transport and energy use. The Council are unable to directly influence most emissions within the District; therefore, the success of this Plan will be down to all of us. The Council will build awareness and actively engage with the District's communities, schools and businesses to ensure its success.

Actions identified in this section of the Plan will be supported by raising awareness of the issues and opportunities, sharing information on ways in which we can help become carbon neutral, inspiring behaviour change and making it as easy as possible for people to make the changes needed. Each theme contains a section highlighting planned behaviour change and engagement activity to support residents, businesses and organisations in making informed choices and taking climate change action themselves.

In addition to the themes below the council will also promote carbon reductions through diet and sustainable food. This theme is introduced with growing projects in the natural environment section, but the council will also provide information through its climate change food webpage and through events such as the Climate Action Youth Conference held in November 2021.

Adopting changes to help lower emissions also has many co-benefits that will help to make the District a great place to live, work, learn and play including through, improving health, resulting in better air quality and economic growth as well as helping to save money and creating employment opportunities.

The District already has active community groups that focus on climate change and sustainable transport. By working together with these groups as well as our partners, broader community groups, schools and the public, we are looking to expand our communication channels to reach a wide and varied audience.

For business engagement EFDC are supporting ECC in their Green Skills Sector Development and are part of the BEST Growth Hub where specialist support is available to assist new business start-ups as part of the UK's economic recovery from the Covid pandemic. To recognise the urgent need to tackle climate change, and the various Government led initiatives, the focus of support will ensure applicants are supplied with the expertise and specialist knowledge to help establish their new enterprise with a business model that is as environmentally sustainable as possible.

General behaviour change actions

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Develop a behaviour change strategy to support emissions reduction throughout the District	Develop and implement communication and engagement plan. With the aim to educate on and incentivise behaviour change in sustainable travel, consumption, waste, energy use and food.	Jan 2023	Planning and Sustainability	Internal budget identified

Keep website relevant with climate knowledge and information/advice from national campaigns and local partners including ECC and ECAC.	Quarterly update of website information and promotion of campaigns	Now and ongoing	Planning and Sustainability	N/A

District Travel

65% of the District's carbon emissions come from on road transport sources. Reducing the number of journeys made by vehicles, encouraging sustainable transport choices and maximising opportunities to make it easier for residents and businesses to change to using Ultra Low Emissions Vehicles (ULEV's) are major components of this Plan. Emissions from petrol and diesel vehicles have also been shown to be harmful to both human health and the health of the Epping Forest Special Area of Conservation. Therefore, actions in this area will have multiple and significant benefits for the District as a whole.

The Epping Forest District Council area contains key transport corridors that are not under the Council's control including the M11 and M25 motorways and the London Underground Central Line. The remainder of the road network is managed by Essex County Council. Although this makes influencing what we can achieve more challenging there are opportunities to be innovative with proximity to transport hubs and to collaborate with ECC and transport operators such as TfL.

Previous Successes

- Focussing as much of the new development proposed in our emerging Local Plan in places which either have good sustainable transport provision or where new provision can be provided by the development proposed.
- Policies in our emerging Local Plan which require the creation of viable sustainable transport corridors and choices, safeguarding of routes/facilities and better provision of Electric Vehicle (EV) charging points.
- DRT (DaRT87) bus service pilot launched, replacing Arriva 87 service
- Funding and delivery of 10 public fast EV chargers at Epping Forest Shopping Park
- Development of our Interim Air Pollution Mitigation Strategy which supports our focus on the way we travel and for getting more people and businesses to buy ULEV's.

Actions

Reducing the need to travel by car

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Promote car share options to residents and businesses.	Re-promotion of 'Liftshare' website Use available data to identify car share bubbles in partnership with the NHS to	Now and ongoing	Environmental and Technical Services	N/A
Identify broadband gaps and areas with no fibre to the premises (FTTP) option to support home working	Support of early 5G rollout in 'not-spot'/rural areas. Digital Innovation Zone (DIZ) programme and Essex Broadband Improvement programme	Now and ongoing	Digital Innovation Zone	
Stipulate the most futureproof FTTP options in new developments.	Developer toolkit to ensure FTTP from outset. Openreach, Gigaclear, Hyperoptic, 5G operators have incentives and offers for developers/LAs, to identify and exploit	Now and ongoing	Planning applicants	Section 106 and/or planning conditions

Encourage co-working spaces for start-up business sites within large developments	Engage with Business Development team, Qualis	Now and ongoing	Digital Innovation Zone	
Reduce number of journeys by increasing EFDC's remote touchpoints for public and businesses.	Work with other businesses and public entities like NHS. EFDC customer services looking at online/cashless service delivery and support to bridge the 'digital divide'	Now and ongoing	Customer Services	

Public transport – Work with Essex County Council and operators to make bus services more attractive and financially viable

Action	Activities	Timescale	Portfolio Holder/ Partner	Resource
Defend and grow bus usage	Understand and address declining bus patronage and cessation of some subsidised routes. Work with ECC and operators to promote. Publicise public transport options available. Bus Back Better Initiative for the DfT for Essex to create enhanced partnership with bus operators	July 2021 onwards	ECC	ECC
Modern technology at stops and on vehicles to enhance public transport experience	Installation of real time travel information at train stations and bus stops across the district; contactless and app-based ticketing and payment; multi-operator ticketing.	Now and ongoing	ECC	Developer contributions, ECC
Explore potential of new and more frequent bus services to connect key settlements	Including increased frequency of the Epping-Harlow and North Weald-Epping bus routes as suggested from EFDC Public Transport Infrastructure Strategy.	2016-2031	ECC, Developers, TfL, other operators	Developer contributions, ECC, transport operators
Ensure emission levels from bus services are minimised.	Lobby and work with ECC, to specify low emission vehicles (Euro VI) when contracting subsidised and commercial bus services. Join low emission bus trials and funding bids. Engage with operators on Euro engine standards, new and battery or fuel-celled fleet	Now and ongoing	ECC, transport operators	

Facilitate and encourage sustainable public transport focusing on rural community connection to key settlements.	DRT bus service stipulated as part of Dowding Way development. Private DRT staff service in use: Epping station to North Weald HMRC customs site. DaRT87 DRT trial retaining Theydon Bois and Epping Green's access to public bus service. Investigate further DRT and community bus options.	Now and ongoing	Environmental and Technical Services	Budget in place for DaRT87 trial
Identify innovations likely to encourage DRT usage.	Phone booking service allows for inclusive demographics and IT literacy (concessionary passes accepted).	Now and ongoing	Environmental and Technical Services	Budget for payment app and contactless payment

Active travel

Action	Activities	Timescale	Portfolio Holder Area	Resource
Create and improve active travel routes in rural and urban areas	Work with ECC Rights of Way and EFDC Green Infrastructure Strategy team Ensure footpath and bridleway network maintenance plans meet resident's needs. Improve signage and highlight 'short cut' routes	Now and ongoing	Planning and Sustainability	Developer contributions
Encourage active travel to schools to address the impact of school traffic	Investigate community travel for school journeys, reinstate walking buses. Support and promote school streets and ECC's school travel plans.	2022	ECC	ECC
Support and influence Essex County Council's cycling strategy.	Pan-authority meetings with adjoining boroughs started. To engage with Conservators of Epping Forest and the City of London. Engage with ECC cycling strategy team on urban options eg. collaboration with Redbridge Council on extending segregated lanes to Buckhurst Hill LCWIPs required to justify this and other ideas. Work with ECC to implement flagship Waltham Abbey cycle route as described in the Cycling Action Plan	2021/22	Conservators of Epping Forest, CoL, ECC	

Raise standards and availability of cycle parking	Including at tube stations where some inadequacies noted. Engage with new Town Centres manager and Planning. Review best practice for new developments.	Now and ongoing	Environmental and Technical Services, ECC, Parish and Town Councils	Internal budget identified in some areas
Review of one-way streets to assess scope for contraflows for walking and cycling lanes	To improve active travel network	Unknown based on Infrastructure Delivery Plan	EFDC, ECC, Developers	Developer contributions, grant funding
Commission Local Cycling and Walking Infrastructure Plans	Done for Harlow/HGGT. Funding bids required for others. To start in the South West of the District and Epping.	Now and ongoing	EFDC, ECC, Parish and Town Councils	

Electric Vehicles and Electric Vehicle Infrastructure

Action	Activities	Timescale	Portfolio Holder/ Partner	Resource
Increase availability of public EV charge points	In EFDC car parks and at public visitor trip attractors including private sector sites via Economic Development team. Active engagement with innovative providers of public rapid charge sites. Parking team feasibility review of EFDC car park EV bays, streetlight EV charging, power supply constraints	Now and ongoing	Environmental and Technical Services	Network providers, Finance from EFDC
Work with Essex Highways to provide on street charging infrastructure	Awaiting result of OZEV on-street charging bid via ECC Call for sites to understand EV charging demand and appraisal to ensure suitability Engage with Taxi licence holders to understand where home infrastructure is required	Now and ongoing	Environmental and Technical Services ECC	ECC, grant funding
Secure a switch from petrol cars to Ultra Low Emissions Vehicles	Preferential car parking rapid charging for electric vehicles Awareness raising of incentives to switch Provision of EV charging points in developments Potential for scrappage scheme	Now and ongoing	Planning and Sustainability, Environmental and Technical Services	
Raise awareness of funding for off street charging points for residents and businesses	Working with EFDC Economic Development team and innovative providers to identify suitable high traffic sites	Now and ongoing	Planning and Sustainability	N/A

Engagement with residents, community groups, schools and businesses to secure behaviour change

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Identify and engage community groups and influencers.	Epping Forest Transport Action Group (EFTAG), Epping Forest Climate Action Group (EFCAG), EFDC community wellbeing initiatives, sport-driven schemes, NHS/CCG/GP led active travel messaging	Now and ongoing	Environmental and Technical Services	N/A
Help ECC target their business, housing development and schools Travel Plan (TP) processes to all suitable large sites in the District	ECC TP guidance and process review. Promote travel plan guidance to schools, businesses and other relevant organisations. Large TPs need to be secured via Section 106 to ECC Travel Plan team for 5-year monitoring post-build.	Now and ongoing	ECC	ECC
Work with Conservators of Epping Forest and ECC to encourage development of a Transport Access Management Strategy for Epping Forest.	Encourage visits to the forest by means other than the Car eg. developing a low emission Forest shuttle for visitors/ramblers.	Ongoing	Conservators of Epping Forest, ECC	
Design and run local social media and press campaigns to promote new and existing services	To increase bus use, car share, EV take up and active travel Use demographic tools to understand local populations.	Now and ongoing	Environmental and Technical Services	Internal budget

Monitoring

Key Performance Indicator	Baseline	Current	Target
% of ULEV's registered in the District	0.6% (2018)	2.1% (December 2021)	4-5% by 2025 8-10% by 2029
No. of EV chargers on Council owned public land	10 (2020/21)	12 (2021/22)	105 by 2025

Air Quality

As well as impacting on the District's natural environment, and particularly the Epping Forest, poor air quality is detrimental to people's health. Poor air quality (including as a result of particulate matter) arises from sources and activities including; vehicle emissions (including particulate matter from engines, brake pads and tyres), industrial processes, domestic and commercial gas and use of other fossil fuels, energy generation, agriculture, non-road mobile machinery, rail and construction activities to name a few. Air pollution is associated with many adverse health impacts including being a recognised contributing factor in the onset of heart disease, cancer and respiratory problems.

Air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equalities issues, because often less affluent areas are more densely populated and located closer to roads and near to industrial areas with poor air quality. The annual cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion. Measures in this plan look to mitigate the negative impacts of poor air quality on human health and support the delivery of the Council's Air Quality Action Plan and Interim Air Pollution Mitigation Strategy (IAPMS). The IAPMS has been developed to avoid causing harm to the Epping Forest Special Area of Conservation (SAC) from traffic on roads passing through it, recognising that it is already under pressure due to both traffic levels and the harmful emissions created by petrol and diesel cars. Many of the actions in this Plan will be beneficial to responding to both our climate change and air quality issues.

Previous Successes

- Adoption of Interim Air Pollution Mitigation Strategy for the Epping Forest SAC.
- The Council's Local Plan includes policies which seek to address air quality issues for both human and ecological health.
- Clean Air Day held annually with the aim of improving public understanding and awareness of air pollution and how it affects our health. Also explaining easy action, we can all take to tackle air pollution.
- Adoption of anti-idling legislation.
- Nitrogen Dioxide is monitored across the District using ongoing assessment, and appropriate action is taken if elevated concentrations are identified. This is reviewed annually.
- A bespoke monitoring framework has been established for monitoring progress on avoiding harm to the Epping Forest SAC.

Actions

Initiative/Activity	Description	Timescale	Portfolio Holder/ Partner	Resource
Liaise with internal departments on the emerging Local Plan ensuring policies facilitate mitigation to protect human health	Develop a guide for developers to outline Council expectations when assessing the impact of development on Air Quality and incorporate appropriate mitigation to minimise any impacts	2021	Commercial and Regulatory Services	Internal budget identified

Reduce concentrations of nitrogen dioxide in the Bell Common AQMA to below the objective	Liaise with Epping Forest Conservators and ECC Highways to improve air quality in the Air Quality Management Area, with the aim of making sufficient progress to continue updating the Air Quality Action Plan.	2021	Commercial and Regulatory Services	Internal budget identified
Reduce impacts of new development on existing receptors and ensure new developments are not subjected to poor air quality	Work with the Council's Development Management Service to update standard conditions on planning applications, ensuring they address current and future issues resulting from development.	2021	Commercial and Regulatory Services	Internal budget identified

Engagement and promotion of incentives to encourage behaviour change

Initiative/Activity	Description	Timescale	Portfolio Holder	Resource
Idling vehicles promotion campaign and enforcement	Continue to raise awareness of the impacts of idling vehicles and that idling is an offence that may lead to a fixed penalty notice (FPN). Use of powers granted to nominated officers in respect of the issuing of FPNs for idling stationary vehicles.	2021	Commercial and Regulatory Services	Internal budget identified
Campaign Raising Awareness of the effects of air pollution on the Epping Forest SAC	Highlight the long-term effects on habitat associated with driving through the Forest. Information on grants, incentives and benefits when switching to electric vehicles.	2021	Planning and Sustainability	Internal budget identified

Monitoring

Monitoring will be undertaken in accordance with the Council's Air Quality responsibilities and as set out in the Council's Interim Air Pollution Mitigation Strategy for the Epping Forest SAC. District Travel is closely linked to air quality therefore monitoring from this area will also inform progress.

District Wide Buildings

Up to 20% of the District's carbon emissions come from the electricity and gas used to light, heat and cool buildings. This is second only to emissions from transport. If we are to become carbon neutral by 2030 this will be a key area that we need to address.

It will be expected that all new buildings adopt an approach which maximises energy efficiency through the their design and the materials used for their construction, minimise emissions from energy use, ensure fossil fuel free generation of energy (which will also help to improve local air quality) and be able to adapt to climate change. Existing buildings will need to be assessed on their suitability to meet carbon efficiency standards in the future and where appropriate undertake retrofitting to be more efficient and resilient to the effects of climate change.

The Council's emerging Local Plan policies and its supporting Sustainability Guidance gives the Council the ability to embed climate change and air pollution measures into new development. This goes beyond just reducing carbon emissions. However, it has less influence over what happens to existing buildings in private ownership whether they be homes or premises. The Council will work to engage with property owners and landowners to highlight the importance of, and opportunities for, introducing climate change measures and behaviours as well as the incentives available to undertake improvements. This work will also need to be supported by the UK government to introduce legislation and funding opportunities that help the residents, businesses and landowners in the District implement the required measures.

Previous Successes

- The Council's emerging Local Plan provides policies to improve the sustainability and resilience of new buildings and places.
- The Sustainability Guidance Vol.01 Major Developments and Vol.02 Minor developments sets out clear expectations for the design, energy consumption, provision of sustainable transport opportunities and use of renewable energy in new developments.
- Support of the Energy Company Obligation (ECO3 Flex) funding for energy efficiency improvements in domestic properties. This funding has helped 175 households cut their energy bills and reduce carbon emissions since May 2019.
- Decent Homes Repayable Assistance or Small Works Grant are available to eligible residents in the private sector whose homes fail the Decent Homes Standard. The Small Works Grant is specifically for thermal comfort.
- A successful consortium bid with Essex County Council and seven other District Councils for grant funding (Green Homes Grant Local Authority Delivery Phase 1A) to install insulation measures in private domestic properties at risk of fuel poverty.

Actions

New Developments

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Sustainability Guidance Vol.01 (Major Developments) and Vol.02 (Minor	Encourages fabric first and sound design approaches. Considers Energy Efficiency and Carbon, Renewable Energy, Green	Endorsed by Cabinet in March 2021	Planning and Sustainability	Internal budget identified

Developments); developed as material planning considerations	Infrastructure, Sustainable Movement, Water, Circular economy, Waste Management, Air Quality and Social and Economic impacts			
Sustainability Guidance Vol.03 (Extensions and refurbishments); developed as material planning consideration	The document will aid submission of planning applications and inform asset owners of sustainability expectations.	Endorsed by cabinet in March 2022	Planning and Sustainability	Internal budget identified
Training of Planning Officers on use of the suite of Sustainability Guidance documents	To guide the assessment of planning applications within the District, inform pre-application discussions and assist sustainable decision making.	2022	Planning Team	Internal budget identified
Harlow and Gilston Garden Town Sustainability Guidance and checklist.	Applies to the Garden Town masterplan sites within the District. Aims to help applicants meet the Garden Town goals of becoming net zero-carbon by 2030, and, to build strong and integrated communities across new and existing places.	Endorsed by Cabinet in March 2021	East Herts District Council Harlow District Council, ECC, Herts County Council	Internal budget identified

Existing Buildings

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Facilitate domestic energy efficiency improvements	Installation of energy efficiency measures in low income, low efficiency homes using grant funding. Maximise opportunities from central government grant funding.	April 2021 onwards	Commercial and Regulatory Services	Green Homes Grant Local Authority Delivery Phase 2, Sustainable Warmth

Engagement and promotion of incentives to encourage behaviour change

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Education and empowerment of residents to encourage reduction of household emissions	Campaigns to link emissions reductions to health, indoor air quality, savings on energy bills	March 2021 onwards	Planning and Sustainability	Internal budget
Proactively engage with housing associations to understand their carbon reduction plans	Highlight incentives related to implementing energy efficient and low carbon solutions. Introduce Carbon Literacy Training.	2023 onwards	Housing Associations	N/A

Actively engage with landlords and residents to promote grants that improve home energy efficiency	Promotion of schemes on Council tax bills. Generate referrals through community care organisations Research inefficient housing and those at risk of fuel poverty to target Publicise to tenant associations and through the Council's housing webinars	Now and ongoing	Landlord associations and residents' groups, community organisations	
Encourage businesses to take-up grants to implement carbon reduction initiatives	Investigate and publicise finance available through businesses newsletter eg. LoCASE funding Highlight other incentives eg. Tax based incentives for green improvements	Now and ongoing	Planning and Sustainability	N/A
Encourage Community Energy initiatives	Suitable buildings for solar PV engagement with local groups. Promote schemes available such as Solar Together	Now and ongoing	Residents associations, housing associations, community groups	N/A

Monitoring

Key Performance Indicator	Baseline	Current	Target
Cumulative value of grants awarded to homeowners for energy efficiency and renewable heating measures	£45.6k (2019/20)	£89.2k (2021/22)	£1.74m by March 2023

Natural Environment

The character of Epping Forest District is defined by large areas of agricultural land, the ancient Epping Forest and other area important for their biodiversity, pockets of woodland and mature trees as well as large areas of common land. Epping Forest provides important habitat and is labelled as a Special Area of Conservation (SAC). Therefore, this plan along with other Council policies, plans and strategies aims to protect the SAC by reducing emissions and air pollution while also creating new, and enhance existing, natural greenspace to alleviate recreational pressure on the Forest and protect against biodiversity loss. This will also support climate change and biodiversity objectives.

The District is also home to the Roding Valley Meadows Site of Special Scientific interest, nine other nature reserves and the Roding, Stort and Lea rivers together with their tributaries. This green and blue infrastructure is important to help mitigate against climate change by contributing to carbon storage, cooling and shading, opportunities for species migration to more suitable habitats, and the protection of water quality and other natural resources. It can also be an integral part of providing multifunctional approaches to securing sustainable drainage and natural flood risk management measures. By conserving and enhancing the natural environment we can therefore bring a range of benefits, including additional storage for carbon, ecological connectivity, increased biodiversity and opportunities for communities to engage with nature to increase their health and wellbeing.

Previous Successes

- Development of a Green Infrastructure Strategy (GIS) to ensure that high quality Green and Blue Infrastructure, including the provision of Suitable Alternative Natural Green Space (SANG) and Infrastructure Enhancement Projects are delivered alongside the growth proposed in the District as part of the emerging Local Plan.
- Tree planting activities at 16 schools in the area
- Promotion of community tree planting offers to Parish and Town Councils
- Development of the Longfields Allotment in Waltham Abbey in Summer 2020. The planting planner includes crop rotation and enhancement of the growing space to produce edible plants.

Actions

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Movement and wayfinding - Developing and supporting the implementation of a Strategy for the enhancement of the District's Public Rights of Way (PRoW) network	Provision of improved signage, removal of physical barriers to support access for all, provide more complete routes across the PRoW network and the introduction of maintenance regimes.	2021 onwards	Planning and Sustainability, ECC, Parish and Town Councils	Developer contributions, Highways England, Active travel grants
Increase the amount of natural and semi-natural greenspace	Such as the linking of different greenspaces to connect open space, linking of settlements, and provision of improved wildlife habitats. Examples include the	2021-2033 alongside Local Plan Development	Planning and Sustainability	Developer contributions

	Roding Valley and Theydon Bois Wood			
Roadside wildflowers - To implement cutting regimes for roadside verges, and undertake the seeding of areas, to provide for the creation of wildflower verges.	Work with ECC and Highways England to identify verges and roadside areas that are appropriate for wildflower planting. Encourage local communities to identify local opportunities for highway verge wildflower planting.	2021 onwards	EFDC Countrycare, ECC, Highways England	Existing highway maintenance budgets, Plantlife, Biffa Award for Rebuilding Biodiversity
Community Greenspace Improvements - through a community-led design approach, by developing a toolkit of guidance on initiatives and stewardship strategies.	Seek nominations from community-based organisations to establish a trial project. Advice provided by the Council and its Countrycare Service in relation to maintenance, stewardship and funding applications.	2021 Onwards	EFDC Countrycare, Community Groups Parish and Town Councils	The National Lottery Community Fund, Groundwork, s106 planning obligations, Town and Parish Council precepts
Veteran Tree Management Plan	Measures to address possible effects of predicted increases in nitrogen deposition rates. Potential to include further EFDC managed woodlands and veteran trees.	2021 plan adoption, Then on-going implementation	Planning and Sustainability, Conservators of Epping Forest	Financial contributions from planning applications
Tree planting strategy - new tree planting on appropriate sites, can be on rural or urban sites, and range from a few trees to extensive woodland	Implementation of a strategy to significantly increase tree and hedge planting across the District. In partnership with parish and town councils and community groups, help to implement planting using 'Right Tree Right Place' principles. Work with ECC to coordinate schemes as part of the Essex Forest Initiative.	Now and ongoing	Planning and Sustainability, ECC, Parish and Town Councils, Schools, Landowners	Developer contributions, Capital budget, grant funding for community groups

Engagement and education to encourage behaviour change

Action	Activities	Timescale	Portfolio Holder/ Partners	Resource
Engagement of residents in community growing projects	Residents to learn about and experience the wildlife attracted by the growing projects. Creation of planted sensory zones for wellbeing and to encourage biodiversity. Involvement of schools with recycling and planting projects.	Now and ongoing	Housing and Community Services	Internal budget

	Weekly gardening sessions to learn organic growing methods, how to attract and provide for biodiversity and the health, cultural and environmental benefits of growing techniques.			
Information provided on sustainable agricultural practices	Through the Natural Environment section of the Climate Webpages, including information on sustainable land management practices	Now and ongoing	Planning and Sustainability	N/A
Information provided on sustainable growing of food and home composting	Home composting leaflet available from the Waste Team Natural environment and food sections of the Councils climate change webpages.	Now and ongoing	Planning and Sustainability	N/A
Engagement of the community in tree planting activities	Invitation of schools and the community to EFDC run tree planting events.	Now and ongoing	Planning and Sustainability. Schools, Parish Councils, Residents Associations, other community groups	Internal budget identified, grant funding

Monitoring

Key Performance Indicator	Baseline	Current	Target
% of the high-quality Green Infrastructure projects in the Green Infrastructure Strategy that have been delivered.	0%	Awaiting data from Green Infrastructure Strategy monitoring	56% by 2026
No. of new trees planted within the District	Unknown	2,605 (2021/22)	50,000 by 2030

Waste

District wide waste and its disposal contributes up to 2% of emissions in the District. Whilst Essex County Council is responsible for decisions relating to the District's waste management disposal options, Epping Forest District Council has a clear ambition of preventing waste going to landfill. Therefore, the Council will continue to encourage residents and organisations to do everything they can to accord with the waste hierarchy where reduction is the main priority followed by reuse, recycling and recovery with disposal being the last resort.

Through the Council's emerging Local Plan policies and Sustainability Guidance developers will be expected to incorporate solutions to achieving waste reduction at the design stage by increasing recycling opportunities and reducing household residual waste. Developers will need to provide operational waste strategies, contribute to waste reduction and design in areas for local food production. New developments within Epping Forest District Council are also expected to promote the circular economy and be designed to reduce construction waste.

Previous Successes

- Campaigns have been run on a twice-yearly basis to help reduce different sources of waste across the District. Examples include signing up to reduce plastic waste, home composting, stamp out junk mail, shop Eco and the Food Lovers Cookbook.
- Trial Waste Electrical and Electronic Equipment (WEEE) bins were introduced to a sample selection of flats in December 2020 to encourage recycling of electrical items that would have gone to landfill.
- From June 2020 up to the present there has been a roll out of further food waste bins in flats to increase recycling rates.

Actions

Action	Activities	Timescale	Portfolio Holder /Partner	Resource
Improve recycling and food waste collection in flatted areas.	Clear and accessible communications at the point of disposal. Consultation with stakeholders to introduce more bespoke collections. Design communal bin areas to increase accessibility and housing of bin compounds	Now and ongoing	Environmental and Technical Services	Internal budget identified
Facilitate further recycling opportunities for residents	Expansion of WEEE flat collection scheme. Investigate service improvements that would lead to higher recycling rates eg. Hessian sacks, research on mattress recycling.	Now and ongoing	Environmental and Technical Services	TBC for service improvements such as hessian sacks
Implementation of a Litter Strategy to keep	Development and implementation of a litter strategy	Now and ongoing	Environmental and Technical Services	N/A

streets and areas free of litter				
Development of Personal Digital Assistant (PDA) devices and software	To record data and report bin contamination and repairs. Potential for targeted campaign use.	2021 onwards	Environmental and Technical Services	Internal budget identified
Encourage innovation in waste reduction and collection in new developments	Planning applicants are to explore innovative ways to reduce waste at the design stage by increasing recycling opportunities and reducing household residual waste.	2021 onwards	Planning and Sustainability	Developers
Wider provision of recycling bins in public areas	With recycling information for the area on show. Audit of bin numbers and locations.	Now and ongoing	Environmental and Technical Services	Internal budget identified
Review of waste contract	To minimise emissions from waste collections and ensure climate change taken into account Review options for waste depot site.	2021/22	Environmental and Technical Services	Internal budget identified
Essex Waste Partnership	New legislation under consultation for plastic deposit schemes and waste practices expected in 2030. Work together on county wide initiatives and campaigns.	2023	ECC	TBC depending on outcomes

Education and engagement to encourage behaviour change of businesses, schools, organisations and residents

Action	Activities	Timescale	Portfolio Holder /Partner	Resource
Household waste reduction	Reinvigorate behaviour change through publicity and awareness campaigns. Emphasis on reducing waste in all campaigns. Information booklets available on food waste reduction and composting.	Now and ongoing	Environmental and Technical Services	Internal budget identified
Promote good household recycling practices	Information campaign on recycling and contaminates to reduce high contamination rates. Focus on right materials, right container, right time. Information booklet available on recycling.	Now and ongoing	Environmental and Technical Services	Internal budget identified
Education on what happens to waste in the District	Publicise existing video to show what happens at the waste depot	2022	Environmental and Technical Services	Internal budget identified

Promote a reduction in commercial waste	Educate businesses on circular economy principles to encourage waste reduction Consider supportive business rates and licensing conditions for businesses reducing food waste and/or eliminating single use plastic	2022	Environmental and Technical Services	Internal budget identified
Promote community waste and litter-based activities	Litter picking equipment available for loan through the EFDC website. Promotion of grants and funding available for communities for example the Love Essex Fund.	Now and ongoing	Environmental and Technical Services	Internal budget identified

Monitoring

Key Performance Indicator	Baseline	Current	Target
% kerbside waste that is recycled, reused or composted	56% (2018/19)	54% (2020/21)	70% by 2030
Average Annual Household Residual Waste Collected	479kg per household per year (2020)	311kg per household per annum (2021/22 – note full year data to be received therefore will increase)	10% reduction per household per annum by 2030

Climate Change Adaption

The expected impacts of climate change in the East of England include experiencing drier, hotter summers and wetter winters. Less rainfall in summer coupled with the District's growing population, changing land use and a finite supply of water means action to secure availability of water for the future is required now. The Environment Agency has identified the District as being in an area of 'serious water stress'. It is important that any new development does not lead to an overall increase in demand for water and that general water use in the District is reduced.

The heavier and more frequent rainfall expected in winter will increase the scale and severity of flooding in the District. The incorporation of sustainable drainage systems (SuDS) in new developments will limit surface run off by mimicking natural drainage and encouraging passive infiltration and attenuation. To make effective use of existing and planned drainage infrastructure, rainwater should be managed as a valuable resource rather than a waste product. A multi-functional approach to the delivery of SuDS can help to provide interest in the provision of public open space and increase biodiversity. In addition, existing households and premises can take action to reduce their water consumption.

Previous Successes

- The Local Plan puts in place an approach which will secure the incorporation of water saving measures and provide targets for water efficiency standards.
- The Council's Sustainability Guidance that supports a number of policies within the Council's emerging Local Plan policies requires most new development to make provisions for SuDs, water saving measures and promote the use of rainwater harvesting and grey water recycling measures.

Actions

Action	Activities	Timeline	Portfolio Holder/ Partners	Resource
Tree planting for flood resilience and shading	100 trees to be planted in the Roding Valley for flood resilience	2021	Environmental and Technical Services	Internal budget identified
Investigate opportunities with partner organisations for example the Environment Agency to support mitigation projects	Opportunities to support work on the River Lee catchment	2021	Environment Agency	

Education and engagement to encourage action from businesses, organisations and residents

Action	Activities	Timeline	Portfolio Holder/ Partners	Resource
Information to residents, businesses and landowners to	Addition of adaption section to the website to include information on	2023	Planning and Sustainability	N/A

prepare for predicted climate change effects	flooding, water shortages and heat waves. Ventilation and protection from over heating Increase of water storage			
Encourage retrofit of water conservation measures in housing and businesses	Rainwater harvesting and greywater re-use Promotion of water saving kits and water saving home visits through the Save our Streams campaign run by Affinity Water. Through website information	Now and ongoing	Planning and Sustainability	N/A
Encourage retrofit of measures to protect from overheating in housing and businesses	Passive solar shading methods and low energy ventilation to be explored. Strategic planting of trees for shade	2023	Planning and Sustainability	

Appendix 1 - Glossary

AQMA - Air Quality Management Areas are designations used by DEFRA (Department for Environment, Food and Rural Affairs) to manage areas with air pollution, that are unlikely to meet

the Government's national air quality objectives.

Air Quality Action Plan - A document produced by the Council with Natural England setting out the steps that will be taken to reduce pollution within an Air Quality Management Area (AQMA). This could include steps to reduce car usage and promote public transport.

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.

Carbon Footprint - The amount of carbon dioxide released into the atmosphere as a result of the individual, organisation or community

Carbon Literacy - The awareness of climate change and the impact of humans on the global climate.

Carbon Neutral - no net release of carbon dioxide into the atmosphere, where some emissions remain these emissions are offset making the overall carbon dioxide emissions zero.

Carbon Offset - the process of trying to reduce the impact of releasing carbon dioxide into the environment by doing other things to remove atmospheric carbon dioxide, for example, by planting trees

Circular Economy - The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended.

Climate Change - A large-scale, long-term shift in the planet's weather patterns and average temperatures.

Climate Emergency - The intention to take immediate action and develop policy to mitigate climate change beyond current government targets and international agreements.

DRT - Demand-responsive transport is a user-oriented form of passenger transport characterised by flexible routes and smaller vehicles operating in shared-ride mode between pick-up and drop-off locations according to passengers needs

EV – Electric Vehicles.

EPC – Energy Performance Certificate. A requirement under The Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007 for properties to have a valid EPC (valid for 10 years) when the property is rented or sold. The EPC provides an indicative rating for the energy efficiency of the property and an indicative rating for retrofit improvements that could be made.

Fabric First - buildings are designed so that they are extremely efficient and need less energy than a building of standard construction. This is done through several methods including maximising airtightness, insulation, optimising solar gain using openings and shading, optimising natural ventilation, using thermal mass of the building fabric and using energy generated by occupants and equipment.

GoO – A Guarantee of Origin is a document that proves the origin of electricity from a specific energy source. A guarantee of origin enables the traceability of renewable energy from the producer to the final consumer. It is worth noting that electricity networks provide electricity from mixed sources to the end user the document shows that the share of energy was produced from renewable sources.

Green House Gas - a gas that absorbs infrared radiation and reradiating it back to Earth's surface contributing to the greenhouse effect.

Green Tariff – A portion of or all the electricity purchased is matched by purchased or generation of renewable energy from the energy supplier. Renewable energy can be from sources such as wind, solar, tidal, hydroelectric or nuclear energy. Some tariffs do not contain nuclear energy.

Grey Fleet - is a term used to describe the business miles travelled by an employee in their own vehicle.

IPCC – Intergovernmental Panel on Climate Change, who published a special report in 2018 on the impacts of global warming of 1.5 degrees Celsius.

LCWIP - Local Cycling and Walking Infrastructure Plans

Modal Shift - Modal shift means a switching of energy consumption methods, such as when people switch from fossil fuel reliant forms of transport (such as cars) to sustainable transportation options such as busses, trains and (electric) bicycles.

OZEV – The Office for Zero Emissions Vehicles formerly the Office for Low Emissions Vehicles (OZEV)

Passivhaus - a building in which thermal comfort can be achieved solely by post-heating or post-cooling the fresh air flow required for a good indoor air quality, without the need for additional recirculation of air.

PV – photovoltaics, also known as solar panels. PV is a technology that converts sunlight into electricity through its solar photovoltaic cells.

Renewable Energy - Renewable energy is energy that is collected from renewable resources, which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, waves, and geothermal heat.

REGO – The Renewable Energy Guarentees of Origin scheme is administered by Ofgem and gives transparency to consumers about the proportion of electricity that suppliers source from renewable generation.

Retrofit – modifications to existing buildings to improve its energy efficiency and/or decrease energy demand.

SAP – Standard Assessment Procedure (SAP) is the methodology used by the Government to assess and compare the energy and environmental performance of dwellings. Its purpose is to provide accurate and reliable assessments of dwelling energy performances that are needed to underpin energy and environmental policy initiatives.

SuDs - Sustainable drainage systems (SuDS) are drainage solutions that provide an alternative to the direct channelling of surface water through networks of pipes and sewers to nearby watercourses. By mimicking natural drainage regimes, SuDS aim to reduce surface water flooding, improve water quality and enhance the amenity and biodiversity value of the environment. SuDS achieve this by

lowering flow rates, increasing water storage capacity and reducing the transport of pollution to the water environment.

ULEVs - a low emission car or van that emits 75g/km CO2 or less, based on the NEDC test. ULEVs include pure electric vehicles, electric range-extender vehicles, and plug-in hybrids (PHEVs).

Appendix 2 – Local Plan Policies Summary

Policy number and name	Policy detail
Policy DM1 Habitat protection and improving biodiversity	This policy sets out that all development should, where possible, seek to deliver net biodiversity gain in addition to protecting existing habitat and species. Development proposals should seek to integrate biodiversity through their design and layout and provide connections between physical and functional networks. Development proposals must seek to avoid harm to, protect and enhance natural habitats, areas and corridors for biodiversity. Development will not be permitted where significant impacts upon areas of international designation (including sites designated as Special Areas of Conservation or Special Protection Areas and Ramsar sites) or national designation (including Sites of Special Scientific Interest) cannot be avoided, mitigated or as a last resort compensated. Developments that are likely to have an adverse impact, either alone or in combination, on internationally designated sites must satisfy the requirements of the Habitats Regulations, determining site specific impacts and avoiding or mitigating against impacts where identified. The creation of new corridors for biodiversity will be supported in appropriate locations. The provision of buffers to protect sensitive habitats including those of wetlands and ponds will be required where necessary. In exceptional circumstances where the negative impacts of development on natural habitat and biodiversity are unavoidable, the negative impacts must be proportionately addressed in accordance with the hierarchy of: (i) mitigation; (ii) compensation in the form of habitat; and finally (iii) offsetting within the locality. The loss, deterioration or fragmentation of irreplaceable habitats, such as Veteran trees and Ancient Woodland, will not be permitted unless the need for, and benefits of, the development in that location can be demonstrated to clearly outweigh the loss. Ecological impacts of a proposed development will need to be quantified by using the Biodiversity Impact Assessment Calculator (BIAC) where appropriate and development proposals must demonstrate a net gain in ecological units.
Policy DM2 Epping Forest SAC and the Lee Valley SPA	This policy sets out that the Council will expect all relevant development proposals to assist in the conservation and enhancement of the biodiversity, character, appearance and landscape setting of the Epping Forest Special Area of Conservation (SAC) and the Lee Valley Special Protection Area (SPA). It includes specific reference to the strategic approach that the Council has taken through the development and adoption of: • an Air Pollution Mitigation Strategy, • an Approach to managing recreational pressure on the Epping Forest SAC (SAMM Strategy • a Green and Blue Infrastructure Strategy. It then provides details of the requirements in relation to individual development proposals to secure the implementation of these strategies in order to ensure that there will be no harm to the integrity of the protected sites.

Policy DM4 Green belt	This policy sets out the five purposes of the Green Belt, the approach to the determination of applications for development in the green belt in relation to very special circumstances and the consideration of openness. It also identifies development that is not considered to be or has the potential to not be considered to be, inappropriate development in the Green Belt or may be considered.
Policy DM5 Green and blue infrastructure	This policy requires development proposals to demonstrate that they have been designed to retain and enhance the Districts Green and Blue Infrastructure. In addition, proposals for Green and Blue Infrastructure need to be appropriate and adequate, taking into account the nature and scale of the development, its setting, context and intended use. In the Garden Communities a full concept plan of proposed green and blue infrastructure that incorporates existing features on the site and its links to the wider landscape and townscape will be required for submission with the application along with any requirements set out in the Strategic Masterplans. It also makes clear that provisions for enhanced connectivity and integration to existing Green Infrastructure should not increase increased visitor pressure on the Epping Forest SAC.
Policy DM9 High quality design	This policy sets out the Council's requirement that all new development must achieve a high specification of design and contribute to the distinctive character and amenity of the local area. The Council will require all development proposals to be design-led, use sustainable design and construction principles that consider adaptation and mitigation approaches to address climate change and minimise vulnerability to climate change impacts and which will not exacerbate vulnerability in other areas. It also includes the Council's required approach to achieving high quality design within the Strategic Masterplan Areas, design standards, landscaping, the Public Realm, Connectivity and Permeability (development proposals must maximise connectivity within, and through, the development and to the surrounding areas including the provision of high quality and safe pedestrian and cycle routes) and privacy and amenity (including needing to address issues of vibration, noise, fumes, odour, light pollution, air quality and microclimatic conditions).
Policy DM10 Housing design and quality	This policy sets out the Council's requirements that development should meet or exceed the minimum internal space standards set out in National Prescribed Space Standards and open space standards. Where appropriate development proposals should seek to include enhanced provision of green infrastructure, including the quantity and quality of landscaped areas, tree provision and the provision of additional open space.
Policy DM11 Waste recycling facilities in new developments	This policy sets out that all development which generates waste will be required to make on site provision for general waste, the separation of recyclable materials and organic material for composting. In addition, on-site provision must ensure adequate dedicated internal and external storage space to manage the volume of waste arising from the site.
Policy DM12 Subterranean, basement development and lightwells	This policy sets out the approach the Council will take when considering proposals for subterranean developments, basements, or extensions to existing basements. This includes the consideration of local geological conditions. In determining proposals for basements and other underground development the Council will require an assessment of the scheme's impact on drainage, flooding, groundwater conditions and structural stability in the form of a Basement Impact Assessment and where appropriate a Basement Construction Management Statement.

Policy DM15 Managing and reducing flood risk	This policy sets out the approach that the Council will take in relation to managing and reducing flood risk. The Council will require all development proposals to demonstrate that they avoid and reduce the risk of all forms of flooding to future occupants and do not increase the risk of flooding elsewhere. Local Plan allocations are directed towards Flood Zone 1 or to areas with the lowest probability of flooding. Any proposals for new development (except water compatible uses) within Flood Zone 2 and 3a will be required to provide sufficient evidence for the Council to assess whether the requirements of the Sequential Test and Exception Test, have been satisfied. It identifies when a development proposal will be required to be supported by a site-specific Flood Risk Assessment (FRA) which should take account of all potential sources of flooding and climate change allowances and the matters that should be addressed within it. All proposals for new development will be required to manage and reduce surface water run-off, manage water and waste water discharges, ensure safe access and egress for future users of the development and an emergency evacuation plan where appropriate include measures to assist existing communities at risk of flooding where feasible. All proposals for development within a Critical Drainage Area or a Flood Risk Assessment Zone will be required to provide a site-specific flood risk assessment.
Policy DM16 Sustainable drainage systems	This policy sets out that all proposals for new development must seek to manage surface water as close to its source as possible in line with the drainage hierarchy set out in the policy. The Council will require Sustainable Drainage Systems (SuDS) to be incorporated into new development by way of site layout and design and sets out the requirements for reducing surface water flows in major and non-major developments on greenfield and brownfield sites. The policy also sets out the requirements for SuDS including that they are designed to maximise biodiversity and local amenity benefits and where appropriate, ensure that they provide for clean and safe water at the surface and improve water quality.
Policy DM17 Protecting and enhancing water courses and flood defences	This policy sets out the distances that new development must be set back from main rivers and ordinary watercourses in order to provide a naturalised and undeveloped buffer zone. Buffer zones should be designed for the benefit of biodiversity and should be undisturbed by lighting. It also identifies when environmental enhancements should be investigated and secured. In addition, proposals must not adversely affect the natural functioning of main rivers and ordinary watercourses, including through culverting and development on or adjacent to a watercourse must not result in the deterioration of the water quality of that watercourse or impact on the stability of the banks of a watercourse or river.
Policy DM18 On site management and reuse of wastewater and water supply	This sets out the approach the Council will take to ensure that there is adequate surface water, foul drainage and treatment capacity to serve a proposed development, demonstrate that it does not impact on existing development and ensure the separation of surface and foul water systems. The Council will expect new development to connect to mains foul drainage and will restrict the use of non-mains drainage for foul water disposal, particularly in Groundwater Source Protection Zones. In addition, all proposals for new development will be required to ensure that there is adequate water supply infrastructure capacity both on and off site to serve the development with sufficient quality and quantity, flow rate and pressure of water, without impacting on existing users. It also requires the installation and management of measures for the efficient

	use of mains water and where possible with direct connection to the mains public water supply.
Policy DM19 Sustainable water use	This policy sets out the requirement to incorporate water saving measures and equipment in all new development and the water efficiency standards to be met.
Policy DM20 Low carbon and renewable energy	This policy encourages the incorporation of low carbon and renewable energy measures in new and existing development. Low carbon and renewable energy technologies will be permitted provided that they do not have any adverse impact on the integrity of any European sites, wildlife sites, protected species or habitats or the openness of the Green Belt. A positive assessment has to be provided as part of any application demonstrating how any impacts on the environment and heritage assets, including cumulative landscape, noise, visual, air quality and emissions, and traffic generation impacts can be avoided or mitigated through careful consideration of location, scale and design. The use of combined heat and power (CHP), and/or combined cooling, heat and power (CCHP) and district heating will be encouraged in new developments. Bio-mass based CHP proposals are required to demonstrate that they would not have an adverse effect on the integrity of the Epping Forest SAC. Strategic Masterplans will be required to demonstrate how the potential to incorporate infrastructure for district heating can be provided.
Policy DM21 Local environmental impacts, pollution and land contamination	This policy sets out that the Council will require that the residual local environmental impacts of all development proposals after mitigation do not lead to unacceptable impacts on the health, safety, wellbeing and amenity of existing and new users or occupiers of a development site, or the surrounding land. These potential impacts can include, but are not limited to, air and water (surface and groundwater) pollution, dust, noise, vibration, light pollution, odours, and fumes as well as land contamination. The Council will resist development which, amongst other things, leads to unacceptable local environmental impacts, including, but not limited to, air pollution, noise and vibration, light pollution, odours, dust and land and water contamination. It requires that activities likely to generate pollution are located away from sensitive uses and receptors where possible, practical and economically feasible. Development proposals must mitigate and reduce to a minimum any adverse local environmental impacts and activities that may have wider cumulative effects.
Policy DM22 Air quality	This policy sets out that the Council will seek to ensure that the District is protected from the impacts of air pollution. Potential air pollution risks will need to be properly considered and adequate mitigation included in the design of new development to ensure that neither future, nor existing residents, workers, visitors, nor environmental receptors are adversely affected. As well as managing the impacts of air pollution on human health it also specifically addresses the need to demonstrate that development will have no adverse effect on the integrity of the Epping Forest SAC as a result of the development and the strategic approach that the Council has taken through the adoption of an Air Pollution Mitigation Strategy.
Policy T1 Sustainable Transport Choices	This policy sets out the approach that the Council will take to promote a safe, efficient and convenient transport system. Of particular relevance to this Assessment is that the Council will: • promote transport choice, through improvements to public transport services and supporting infrastructure, and providing coherent and direct cycling

	and walking networks to provide a genuine alternative to the car and facilitate a modal shift; and • provide opportunities to improve access to the two town and four district centres and rail stations by all modes of transport and ensure good integration between transport modes; It sets out that development should minimise the need to travel, promote opportunities for sustainable transport modes, improve accessibility to services and support the transition to a low carbon future. Development proposals that generate significant amounts of movement will normally be required to provide a Travel Plan and those developments which generate a significant number of heavy goods vehicle movements will be required to submit a Routing Management Plan. Reduced car parking, including car free, development in sustainable locations will be supported and in order to accommodate the use of low emission vehicles to support improvements in air quality within the District the provision of electric vehicle charging points will be required within all new developments which make provision for car parking for vehicles.
Policy T2 Safeguarding of routes and facilities	This policy seeks to protect any land required for proposed transport schemes and local facilities.