

Climate Emergency Advisory Committee



Report of Head of Partnership and Insight

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To: Climate Emergency Advisory Committee

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AGENDA ITEM

Background Paper

Appendix One - Scene Setting

Recommendation

Committee members are asked to note the content of this paper and review it as a supporting document to the report 'Climate Emergency: Options and Next Steps.'

Purpose of Report

1. This paper is for information only, to inform discussions arising out of the report 'Climate Emergency: Options and Next Steps'. This paper does not require any recommendations.
2. This paper outlines;
 - a. The national and international context
 - b. South Oxfordshire District Council (SODC) history of activity up until December 2018
 - c. Current projects January 2019 to date
 - d. 'Business as usual' in regard to council activity to reduce energy usage and carbon dioxide and equivalent (CO₂e) emissions

Climate Change: National and International Context

3. “Human activities are estimated to have caused approximately 1.0°C of global warming above pre industrial levels”¹; researchers and scientists outline that human activities such as the burning of fossil fuels and deforestation have impacted on the balance of the carbon cycle, leading to a rise in greenhouse gases (carbon-based gases such as carbon dioxide and methane) in the atmosphere and as a consequence, a rise in global temperature. Global temperature rises cause climate patterns to alter, impacting on natural and human systems.

The below sets out a timeline of international and national milestones in addressing global warming and climate change:

4. **Intergovernmental Panel on Climate Change:** The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change and was established in 1988.
5. **The United Nations Framework Convention on Climate Change (UNFCCC):** An international environmental treaty adopted on 9 May 1992 and opened for signature at the Earth Summit in Rio de Janeiro June 1992. The IPCC produces reports that contribute to the work of the UNFCCC.
6. **Kyoto Protocol:** An international agreement linked to the UNFCCC, which committed its Parties by setting internationally binding emission reduction targets. The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. Under Kyoto, industrialised nations pledged to cut their yearly emissions of carbon by varying amounts, averaging 5.2% by 2012 (as compared to 1990 levels).
7. **The UK Climate Change Act:** Implemented in 2008 and provided a policy framework for carbon targets and carbon budgeting, placing the government under a legal duty to reduce greenhouse gas emissions by 80% below 1990 levels by 2050. The Act also created an independent Committee on Climate Change to provide advice to the government on these targets and related policies.
8. **Doha Amendment to the Kyoto Protocol:** The Doha Amendment refers to the changes made to the Kyoto Protocol in 2012, after the First Commitment Period of the Kyoto Protocol concluded. The Amendment adds new emission reduction targets for Second Commitment Period (2012-2020) for participating countries.
9. **The Paris Agreement:** At the Conference of Parties 21 in Paris, 12 December 2015, Parties to the UNFCCC reached an agreement to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The Paris Agreement’s central aim was to strengthen the global response and keep a global temperature rise below 2°C above pre-industrial levels and to pursue efforts to limit the temperature

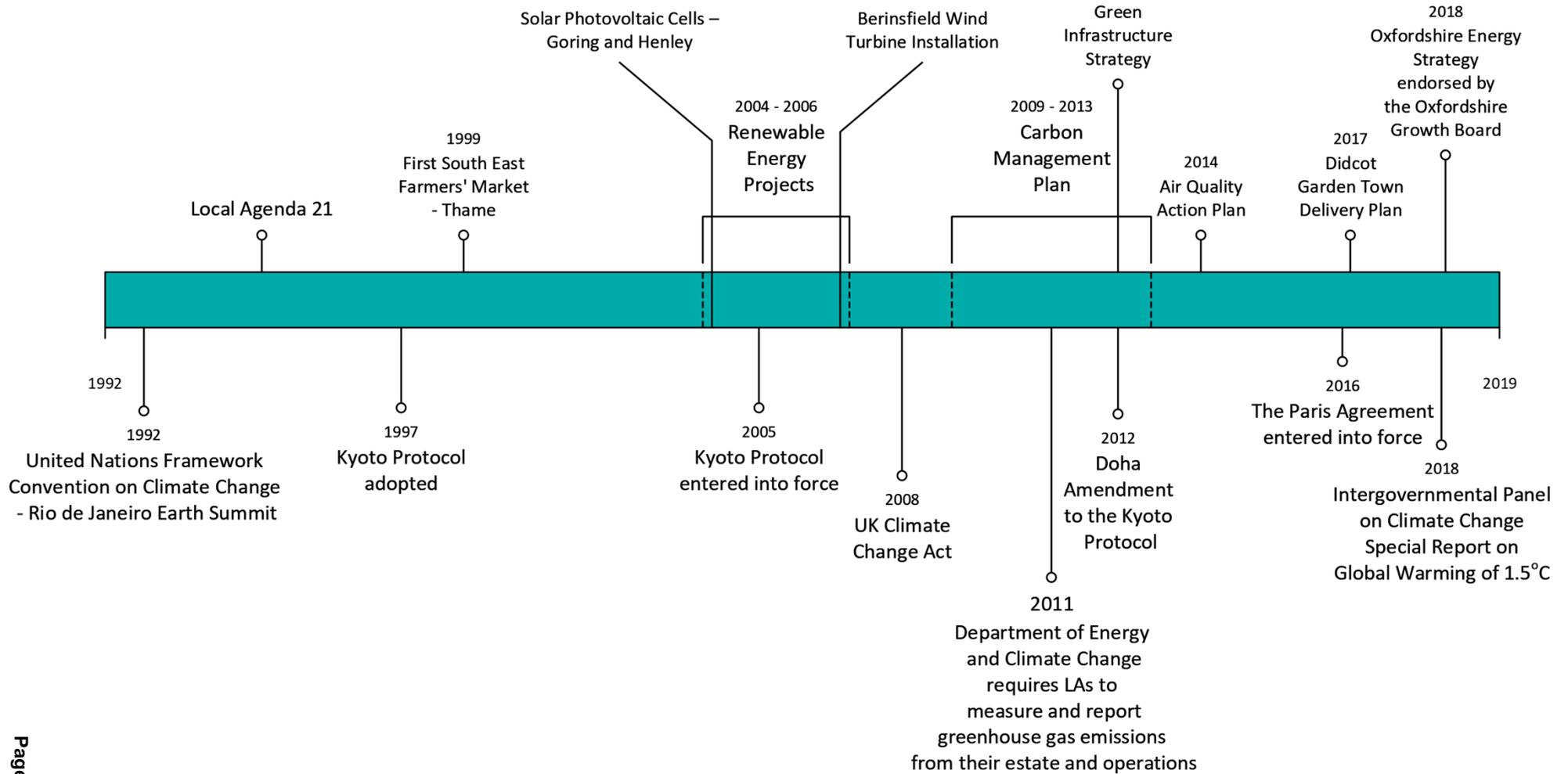
¹ IPCC, 2018 ‘Summary for Policymakers: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty’, p.4.

increase even further, to 1.5°C. The Paris Agreement opened for signature on 22 April 2016, it entered into force on 4 November 2016.

10. **Intergovernmental Panel on Climate Change (IPCC) Special Report: Global Warming of 1.5°C:** Released October 2018, the report analyses how global warming can be limited to 1.5°C and outlines that this goal requires significant transformation. The report finds that significant climate impacts already occur at 1.5°C, but outlines risks associated with warming are substantially lower at 1.5°C than 2°C. The report estimates with high confidence that global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.
11. **Committee on Climate Change: Net Zero the UK's contribution to stopping global warming:** May 2019 the Committee on Climate Change released a report recommending a new emissions target for the UK: net-zero greenhouse gases by 2050. The Committee conclude that net-zero is necessary, feasible and cost-effective.
12. **Intergovernmental Panel on Climate Change (IPCC) Special Report: Climate Change and Land:** Released August 2019, the report emphasises a necessity to manage land resources sustainably and outlines several land-based climate solutions which the report proposes could reduce emissions.

South Oxfordshire District Council History of Activity to December 2018

13. Timeline:



14. Local Agenda 21

- a. In the late 1990s, the Council participated in the Local Agenda 21 sustainable development initiative arising from the 1992 UN Rio Earth Summit. Councils used a participative consultation method to consult with communities to produce their own Local Agenda 21 plans.
- b. Residents in South Oxfordshire were very keen to promote the local food economy and as a result, the Council was pioneering in organising the first farmers' markets in the South East, in Thame 1999. These were quickly followed by similar events in Henley, Wallingford and Didcot and are now a well-established activity across the region.
- c. The Council followed this up by funding a 'Buy Local' food directory, giving everyone a chance to get in touch with local suppliers and producers and find out about local markets, box schemes and farm shops.
- d. Other themes that were popular included renewable energy and biodiversity. Along with the Vale of White Horse Council, the Council took the lead in promoting affordable solar hot water heating to householders, through the Solarsavers initiative. This then expanded to become a Thames Valley wide scheme. The Council also funded the Gardeners' Wildlife Challenge project in partnership with Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust.

15. Renewable Energy Projects

- a. From 2004-2006, following feedback from public consultation, the Council actively sought opportunities to incorporate renewable energy technologies into the Council's own developments and demonstrate a range of renewable energy technologies across the district. Projects delivered included:
 - i. Solar photovoltaic cells on two public conveniences at Goring and Henley-on-Thames using a grant from the DTI Major PV Demonstration Programme
 - ii. Financing a 15-metre micro wind turbine at Berinsfield Community Primary School using match funding from the Clear Skies scheme
 - iii. Five solar thermal panels were installed to meet 60 per cent of the annual hot water needs at the Council offices

16. Carbon Management Programme

- a. In 2009, the Council adopted a Carbon Management Plan, in partnership with the Carbon Trust. The Council made good progress in reducing energy use and therefore carbon emissions, with an overall reduction in emissions from the baseline of 23 per cent at the end of 2012/13.
- b. The savings were mainly due to ongoing investment in the leisure centres and a substantial reduction in fuel use following the adoption of a new, shared waste collection contract. Projects delivered included:

- i. Swimming pool covers
- ii. Pipe and valve insulation
- iii. Lighting upgrades and movement sensors
- iv. Server virtualisation (reducing the number of physical servers and their requirement for cooling)
- v. Variable speed drives (allowing a reduction in the speed of pumps and fans)
- vi. Voltage optimisation (reducing the voltage of electricity entering a building)

17. Didcot Garden Town Delivery Plan

- a. In October 2017 South Oxfordshire and Vale of White Horse District Councils adopted the Didcot Garden Town Delivery Plan to achieve an exemplary sustainable future. Key development concepts include provision of carbon neutral homes, green energy supply, cycling, walking and public transit as primary means of transport and other ideas to reduce CO₂ emissions. The document is a good reference for ideas for future living. 64 projects identified in the delivery plan are intended to implement the overall plan by 2031.

18. Oxfordshire Energy Strategy

- a. In 2018, South Oxfordshire District Council worked closely with partners across Oxfordshire to develop the Oxfordshire Energy Strategy. At the end of the year the Strategy was approved by the OxLEP Board and the Growth Board. The Oxfordshire Energy Strategy was prepared following an invitation from the government department BEIS for each Local Enterprise Partnership to work with their local partners to prepare strategies which responded to the main energy concerns in their localities. The vision of the Oxfordshire Energy Strategy is for Oxfordshire to be at the forefront of energy innovation to foster clean growth. The Energy Strategy Delivery Plan identifies key priorities and sets out immediate and short-term actions.

19. Biodiversity

- b. The County and District Councils have worked together with various partners since the late 1990's to establish and fund a number of partnership projects which continue to be important in the delivery of Biodiversity initiatives in the County. This includes the Local Wildlife Sites Project hosted by BBOWT and the Thames Valley Environmental Records Centre (TVERC).
- c. Since the establishment of the Countryside Team in 2001 it has delivered significant biodiversity enhancements at Council owned sites at Wallingford Castle Meadows, Riverside Meadows and Mowbray Fields in Didcot. Castle Meadows was awarded a Green Flag for the first time in 2007 and has won the award every year since.
- d. In 2003 the council designated two new Local Nature Reserves at Ewelme Watercress Beds and Watlington Chalk Pits

- e. In 2007 Oxfordshire became one of the first counties in the Country to establish a network of Conservation Target Areas - these are the forerunners of the current initiative to establish a Nature Recovery Network. SODC was instrumental in working with the County to establish the CTA's.
- f. In 2011 the council helped to establish the Trust for Oxfordshire's Environment (TOE). A charity which has distributed over £1million in grant funding for Low Carbon and biodiversity projects. The Council still holds a board level involvement, chairs the grants panel and distributes most of the offsetting funding through TOE.
- g. In 2012 the Council published the first Green Infrastructure Strategy in the County. In 2017 this was replaced by the South Oxfordshire Green Infrastructure Strategy.
- h. In 2013 SODC was one of the first Authorities in the Country to agree a Biodiversity Offsetting Scheme. SODC continues to pioneer new initiatives in Offsetting ensuring that all major developments achieve a net gain for biodiversity.
- i. In 2018 the Council became one of the first Authorities in the Country to hold a District Licence for Great Crested Newts. An initiative aimed at providing significant enhancements for newts and the environment on the back of new development.

Current Activity

20. Projects 2019

A wide range of projects are underway in 2019 as set out below;

Project	SODC role and current status
<p>Oxfordshire Electric Vehicle Infrastructure Strategy This Strategy will establish principles and an action plan to deliver the charging infrastructure needed to support the transition to low emission vehicles.</p>	<p>Led by Oxfordshire County Council, and supported by other Oxfordshire councils</p> <p>Status: Early discussions underway SODC role: SODC is a full partner in the EV Working Group</p>

<p>Park and Charge Park and Charge will see up to 300 electric vehicle (EV) chargers installed in ‘charging hubs’ using car parks located in residential areas, where properties don’t have their own off-street parking. Smart meters will regulate when cars are charged. The majority of the £750K funding is earmarked for the district and city councils to deliver EV charging in their local authority car parks. The project will also include general communication about EVs.</p>	<p>Innovate UK funded project led by Oxfordshire County Council. Status: Launch event to take place October 2019 SODC role: SODC is a full partner in this project, lead team: Technical Services</p>
<p>Project LEO (Local Energy Oxfordshire) This project will demonstrate a smart, flexible energy system in Oxfordshire, including energy trading to balance supply and demand. Two aspects of particular interest to SODC are:</p> <ol style="list-style-type: none"> 1) County wide mapping project to identify sites best suited for renewable energy and heat, focusing on key development/regeneration sites 2) Installation of new renewable energy projects that can demonstrate flexibility in the grid, with 25% match funding 	<p>This Innovate UK funded project is led by SSEN Status: New project under development SODC role: Meetings underway with partner organisations to identify how SODC can best benefit from this project</p>
<p>Oxford Energy Superhub The project will trial a new 50MW battery system, linking directly to the national grid, with the aim of accelerating Oxfordshire’s EV and fleet charging capacity and providing low carbon ground-source heating to residential and commercial properties</p>	<p>An Innovate UK funded project, led by Pivot Power Status: New project under development SODC role: Pivot Power have been invited to present the project to relevant SODC teams</p>
<p>South Oxfordshire Capital Grants Scheme Scoring criteria for Capital Grants Scheme under review to ensure that projects funded meet high standards of energy efficiency and incorporate low carbon technologies</p>	<p>Status: Proposals under review</p>

<p>South and Vale Taxi Licensing Policy Revised taxi licensing policy will encourage low carbon vehicles and set out our future aspirations</p>	<p>Status: Revised policy under development</p>
<p>Hello EV Research project modelling the business case for establishing an electric pool car scheme in place of business mileage</p>	<p>Project funded by European Investment Bank and led by Urban Integrated UK</p> <p>Status: Awaiting report SODC role: The council has commissioned a report from Hello EV using SODC data</p>
<p>Cosy Homes programme This project will trial and demonstrate a model to deliver domestic energy efficiency, establishing trusted suppliers and installers and a follow through service to deliver best practice</p>	<p>Project led by the Low Carbon Hub and National Energy Foundation.</p> <p>Status: Project currently in trial phase SODC role: To be delivered through Housing Team</p>
<p>Oxfordshire Greentech Oxfordshire Greentech is a new low-carbon business network, that brings businesses together to encourage innovation, collaboration and knowledge transfer</p>	<p>European funded project led by the Low Carbon Hub.</p> <p>Status: Network established in 2019 with full programme of events SODC role: Regular promotion through Economic Development Team and other channels</p>
<p>Oxfordshire Green Fund Oxfordshire Green Fund supports implementation of business energy efficiency measures through free energy audits and grants. Low carbon feasibility funding is available for new start-ups</p>	<p>European funded project led by the Low Carbon Hub.</p> <p>Status: Project well established SODC role: Regular promotion through Economic Development Team and other channels</p>
<p>Hydrogen hub The Hydrogen Hub is an organisation which is committed to advancing the deployment of hydrogen and fuel cell technologies in the UK. 2018 marked the launch of the second Hydrogen Hub, in Oxfordshire. Initial goals are to establish an Oxfordshire site for hydrogen generation and a hydrogen fuelling station</p>	<p>Industry-led partnership of stakeholders</p> <p>Status: Projects subject to successful funding applications SODC role: Support and promote local projects</p>

<p>Connected autonomous vehicles This project will use autonomous (self-driving) public transport vehicles, initially operating in Milton Park, and linking to existing bus and rail services in the area. The project aims to establish good practice for integrating public transport offerings</p>	<p>Innovate UK funding the majority of the consortium project, with partners contributing industry matching funding.</p> <p>Status: Project launch is planned for early 2020 SODC role: Support and promote project; Didcot Garden Town team participate on consortium as a stakeholder</p>
<p>Countywide Local Cycling Walking Infrastructure Plan (LCWIP) LCWIPs are a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and walking networks and form a part of the Government’s Cycling and Walking Investment strategy to increase the number of trips made on foot or by cycle. The County’s Active and Healthy Travel team will be producing initial LCWIPs for Didcot, Bicester and Oxford over the next 18 months</p>	<p>Status: Led and funding held by Oxfordshire County Council SODC role: Stakeholder participation on the research, engagement, delivery and implementation of the LCWIP, with reference to the Didcot LCWIP – lead team: Didcot Garden Town</p>
<p>Berinsfield Garden Village Successful application submitted into the Government’s Garden Communities Programme, for Berinsfield. As a garden village, the area will have access to extra funding to help plan for new open spaces, high-quality housing, new employment opportunities, transport links and community facilities for its residents and wider community. Sustainability will be a key focus of this work</p>	<p>Status: Newly awarded status – programme of work under development SODC role: To be delivered through Development and Regeneration Team</p>
<p>Didcot Garden Town (DGT) The DGT delivery plan outlines projects which help plan for the expected new growth of just over 15,000 new homes and 20,000 new jobs coming to the town and surrounding areas. Garden town status emphasises the importance of keeping areas of unique green space for everyone living in area. A garden town can attract new sustainable and smart technology that helps to reduce the impact on the environment and funding to help to improve connections between the town and local villages and the surrounding countryside. The Delivery Plan (DP) ensures that sustainability is embedded in every aspect of decision making</p> <p>Below details some of the DGT sustainability projects within the DGT DP:</p>	

<p>Projects to design and construct transport improvements including cycleways and pedestrian provision:</p> <ol style="list-style-type: none"> 1. Science Bridge and A4130 Capacity Improvement (DP project 15) 2. Access to Culham Science Centre Phase 1 (DP project 18) 3. New Thames Crossing (DP project 22) 	<p>Status: Housing Infrastructure Funding (HIF) awarded. DGT DP identifies these as medium-term projects. Role: DGT participation on design teams as a primary stakeholder</p>
<p>Feasibility Study for Sustainable Fuels (DP project 38)</p> <p>This project will carry out feasibility and costing for implementation of sustainable fuels for council fleet and local private fleet operators</p>	<p>Status: Capacity funding (revenue) awarded from Homes England, subject to cabinet budget approval. DGT DP identifies this as a near-term project. Role: To be coordinated through DGT team</p>
<p>Third Party Development for Housing Projects (DP Project 62)</p> <p>This project, exploring the use of a third party to deliver the council owned 116-118 Broadway, may include requiring third party delivery models to demonstrate smart, tech and sustainable living features in house construction. The intent is to showcase homes that achieve net zero carbon emissions, low water uses and flexible living spaces that can respond to the changing needs of people over time.</p>	<p>Status: Capacity funding (revenue) bid/request made to Homes England July 2019. DP identifies this as a medium-term project. Role: To be coordinated through DGT team</p>
<p>Feasibility Study for Renewable Energy Sources (DP project 26)</p> <p>This project will conduct a feasibility study, including costing, for installation of renewable energy sources for new build and retrofit housing, implementation would be largely by private developers.</p>	<p>Status: Funding not sourced. Estimated cost £15,000. DGT DP identifies this as a near-term project. Role: To be coordinated through DGT team</p>

<p>Feasibility study for combined Recycle and Reuse Hub in Didcot (DP project 39)</p> <p>This project will carry out feasibility and costing for introduction of recycling centre combined with Reuse Shop and community initiatives.</p>	<p>Status: Funding not sourced. Estimated cost £20,000. DGT DP identifies this as a near-term project. Role: To be coordinated through DGT team</p>
<p>Strategy for promotion of growing local food (DP project 48)</p> <p>This project will produce a strategy to bring together initiatives for growing local food, from community groups, bio-science organisations and landowners to bring about a strategy for projects. Implementation would largely rely on non-governmental organisations.</p>	<p>Status: Funding not sourced. Estimated cost £45,000. Further funding to support implementation by third parties may be required. DGT DP identifies this as a near-term project. Role: To be coordinated through DGT team</p>
<p>Air Quality</p> <p>Launched a vehicle anti-idling campaign, 'Turn it Off', that targets idling at locations with sensitive receptors, such as schools and medical practices (www.southandvale.gov.uk/turnitoff)</p> <p>Feeding into Taxi Licensing Policy review proposing updates on reduced fees for low emission vehicles and penalties around anti-idling.</p> <p>Producing an Air Quality Planning Guidance and updating it to ensure it promotes most recent best practice.</p> <p>Completed modelling work to assess the impacts on the proposed 'edge road' on local air quality in Watlington.</p> <p>Oxford Bus Company continue to improve the emissions standard of their fleet by retrofitting vehicles progressively. In 2018 30% of their fleet operating in South Oxfordshire meet Euro 6 Standards.</p> <p>Installation of 4 EV charging points in council owned car parks (Wallingford and Henley).</p>	<p>Status: Active area of work led by Housing and Environment Service Role: Active role local air quality monitoring and improvement sits with district councils, whereas traffic management and planning sit with Oxfordshire County Council.</p>

<p>Development of a Nature Recovery Network for Oxfordshire,</p> <p>This project is being initiated by Wild Oxfordshire and the Oxfordshire Biodiversity Action Group and is being funded by the County Council. The project will identify and map a Nature Recovery Network for the County.</p>	<p>Status: Initial funding secured. This is a partnership project being led by Wild Oxfordshire. SODC Role: Input to project being led by the Specialist Team in Planning</p>
<p>CIL Spending on Biodiversity/Green Infrastructure.</p> <p>The CIL Spending Strategy allocated 5% of CIL receipts to funding Biodiversity/Green Infrastructure projects.</p>	<p>Status: Expressions of interest received, and initial project proposals being worked up for award of funding later in 2019. Role: Spending proposals being developed in partnership between the Specialist Team in Planning and the Infrastructure Development Team to be considered at a future CEAC meeting</p>

21. Business as Usual

- a. On an ongoing basis the council seeks to achieve reductions in energy use and carbon emissions through the following routine activities:
 - i. Energy and water saving specifications in routine capital works including leisure centre maintenance programme and public convenience upgrade projects
 - ii. Specification of contracts involving the use of buildings and vehicles, and tender evaluation
 - iii. Installation of energy efficient technologies, for example new LED stage lighting at Cornerstone Arts Centre

Financial Implications

22. There are no financial implications arising from the past achievements and activity described in this report. Current projects will go through their own formal approval processes where necessary, before any commitments are made.

Legal Implications

23. There are no legal implications arising from the past achievements and activity described in this report. Current projects will go through their own formal approval processes where necessary, before any commitments are made.

Risks

24. Risks associated with any existing projects described in this report will be noted in their relevant project documentation.

25.