HOUSING, HEALTH AND ENVIRONMENT POLICY ADVISORY COMITTEE	**11 July 2023**

Biodiversity and Climate Change Action Plan Update and Estimated Costs for Achieving Net Zero 2030

Timetable	
Meeting	***Date***
Corporate Leadership Team	20 June 2023
Communities, Leisure, and Arts Policy Advisory Committee	4 July 2023
Planning, Infrastructure and Economic Development Policy Advisory Committee	5 July 2023
Housing, Health, and Environment Policy Advisory Committee	11 July 2023
Corporate Services Policy Advisory Committee	12 July 2023
Cabinet	26 July 2023

Will this be a Key Decision?	No
Urgency	Not Applicable
Final Decision-Maker	Cabinet
Lead Head of Service	Angela Woodhouse, Director of Strategy, Insight and Governance
Lead Officer and Report Author	James Wilderspin, Biodiversity and Climate Change Manager
Classification	Public
Wards affected	All

Executive Summary

This is the biannual report on the implementation of the Biodiversity and Climate Change Action Plan following the annual review of the Action Plan agreed in April 2023 and includes an overview of each action's status, comments from action owners, and key indicators used to monitor progress (**Appendix 1**).

This report also details indicative costs for electrifying the fleet, retrofitting, and decarbonising key buildings, upgrading housing stock EPCs, as well as costs for offsetting (investing in renewable energy generation and carbon sequestration), to achieve as close to Net Zero by 2030 for the Council's own operations. This is set out at **Appendix 2**.

Purpose of Report

Noting / Recommendation

This report asks Housing, Health and Environment Policy Advisory Committee to consider the following recommendations:

1. That the Cabinet be recommended to note the action plan implementation updates and indicative costs of achieving net zero by 2023 for the Council's operations, subject to the consideration of any further recommendations made by the Committee.

Biodiversity and Climate Change Action Plan Update and Estimated Costs for Achieving Net Zero 2030

Issue	Implications	Sign-off
Impact on Corporate Priorities	The four Strategic Plan objectives are: • Embracing Growth and Enabling Infrastructure • Safe, Clean and Green • Homes and Communities • A Thriving Place Accepting the recommendations will materially improve the Council's ability to achieve all its priorities.	Anna Collier Insight Communities and Governance Manager
Cross Cutting Objectives	The four cross-cutting objectives are: • Heritage is Respected • Health Inequalities are Addressed and Reduced • Deprivation and Social Mobility is Improved • Biodiversity and Environmental Sustainability is respected Delivering the Biodiversity and Climate Change Action Plan supports the achievement of the Biodiversity and Environmental Sustainability is respected cross cutting objective. It also supports cross cutting objectives of Health Inequalities are Addressed and Reduced Deprivation and Social Mobility is Improved as delivery of actions have the opportunity to improve the health of residents in the longer term and reduce residents' energy costs.	Anna Collier Insight Communities and Governance Manager
Risk Management	Already covered in the risk section (see paragraph 5)	Anna Collier Insight Communities and Governance Manager
Financial	The specific costed proposals will be funded from within existing budgets. Future changes to policies and strategies will need to be assessed to understand the impact to ensure	Section 151 Officer & Finance Team

	they remain affordable during the year and in future years as part of the Medium-Term Financial Strategy.	
Staffing	We will deliver the recommendations with our current staffing.	Anna Collier Insight Communities and Governance Manager
Legal	Local authorities have a duty under Section 40 of the Natural Environment and Rural Communities Act 2006 in exercising their functions to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. The Council's Biodiversity and Climate Action Plan demonstrates compliance with the statutory duty.	Legal Team
Information Governance	The recommendations do not impact personal information (as defined in UK GDPR and Data Protection Act 2018) the Council Processes. Some individual actions may have implications in the future and the appropriate review and documentations will be completed as required	Information Governance Team
Equalities	The recommendations do not propose a change in service therefore will not require an equalities impact assessment	Policy & Information Manager
Public Health	We recognise that the recommendations will have a positive impact on population health or that of individuals.	Public Health Officer
Crime and Disorder	No implications	Anna Collier Insight Communities and Governance Manager
Procurement	Some actions will have implications and the appropriate procurement exercises will be undertaken	Anna Collier Insight Communities and Governance Manager

Biodiversity and Climate Change	The delayed/stalled actions as part of this update are slowing the progress of implementing the Action Plan. The costs detailed to achieve Net Zero by 2030 must be fully committed to achieve 'Making our estate carbon neutral' Action 7.1 Deliver Maidstone Borough Council 2030 Net Zero Commitment, by: • Decarbonising the councils' buildings through low carbon heating, LEDs, insulation and smart controls, • decarbonising the council's fleet to fully EV, • investing in renewable energy generation, • incorporating energy saving principles into office strategies, and • supporting staff to shift to electric/ultra-low emission vehicles, public transportation and more flexible working.	Biodiversity and Climate Change Manager

2. INTRODUCTION AND BACKGROUND

2.1 The Policy and Resources Committee adopted the Biodiversity and Climate Change Action Plan on 21st October 2020. This report is the fifth biannual update report on the implementation of the Biodiversity and Climate Change Action Plan. The last update was November 15th, 2022, to Communities, Housing and Environment Policy Advisory Committee. The Action Plan has undergone a comprehensive update as part of the Annual Review, which was agreed by the Executive in April 2023 and now comprises 38 actions, which can more readily be monitored and aligned with Cabinet Member Portfolios.

2.2 This report summarises the status of each action (**Appendix 1**) and details the estimated costs to the Council to achieve Net Zero for its own estate and operations in line with its commitment by 2030 (**Appendix 2**).

Biodiversity and Climate Change Action Plan Implementation Update

2.3 In previous updates the status of actions has been summarised in a RAG rating. Following feedback from Cabinet, a new more detailed scale of the action's status is used to give greater clarity of progress on actions. A summary of performance can be seen in the table below and full details of each action's status, including the November 2022 updates, responsible officers, outputs, and outcomes - please see **Appendix 1**.

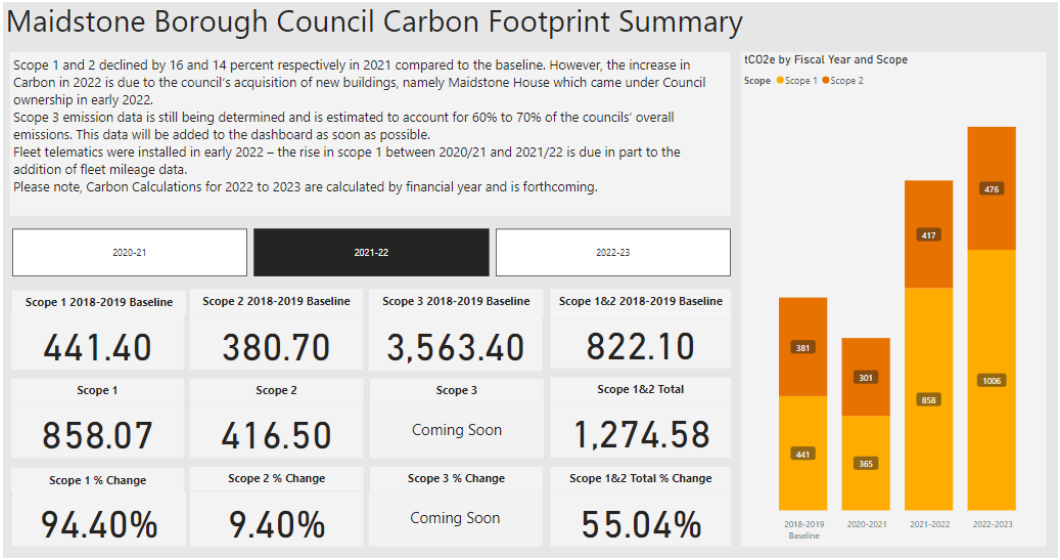
Status	Number of Actions
Yet to commence / Delayed	9
Being Investigated	11
Planning and Development	7
Being Implemented	9
Complete and being monitored	2

Carbon Footprint

2.4 The overarching key performance indicator for the implementation of the Action Plan is the Council's operational Carbon Footprint (Scope 1 and Scope 2). Progress is measured by carbon emission equivalent each year towards meeting the Council's net zero 2030 commitment/target.

2.5 Officers have developed a Carbon Footprint Dashboard, that automates the utility data (gas/electricity is kWh) from each MBC building, and fleet telematics data collecting engine type and mileage data in each vehicle, calculating the carbon emissions into tonnes of carbon dioxide equivalent (tCO2e). The carbon footprint is updated on a 6 monthly basis.

2.6 In 2020/21 there was a 19% decrease in total Scope 1 and 2[1] carbon emissions compared to the baseline (totalling 665.9tCO2e) this is due to the impact of Covid19 measures and a decreased usage of buildings and vehicles. However, in 2021/22 financial year there was an increase of +55% in carbon emissions compared to the baseline, this was predominantly in Scope 1 which rose to 858.4tCO2e and Scope 2 also rose to 416.6tCO2e (totalling 1274.9tCO2e).



[1] Scope 1 covers emissions from sources that an organisation owns or controls directly – for example from burning fuel in our fleet of vehicles. Scope 2 are emissions that a company causes indirectly and come from where the energy it purchases.

2.7 This rise is likely due to staff returning to work in Council buildings, following the lifting of restrictions put in place in response to Covid19, as well as the Council's acquisition of Maidstone House in early 2022. Additionally, more accurate milage data is now captured from the fleet telematics software and more reliable utilities data collected as part of the dashboard process. This also suggests that the baseline footprint calculated in 2020, underestimated the Council's carbon emissions. The 2022/23 carbon footprint is still being calculated but estimated to be similar to last year's total.

Estimated Costs of Decarbonising the Council Operations

2.8 It was highlighted at the last annual review that understanding the costs associated with achieving Net Zero by 2030 would help inform Members understanding and better enable them to prioritise actions.

2.4 To achieve Net Zero by 2030 MBC must decarbonise its operations and needs a large-scale financial commitment to reducing greenhouse gas emissions. The Council has set an ambitious net zero by 2030 target and is implementing a comprehensive Biodiversity and Climate Change Action Plan, with substantial financial commitment already set aside.

2.5 MBC plays a wider role in supporting residents, businesses and the borough reduce emissions to meet the national government target of the UK achieving net zero by 2050. However, this section looks only at the estimated costs of achieving Net Zero for the Councils' own operations or in its direct control, to demonstrate leadership in addressing climate change and transitioning to a sustainable future.

2.6 Calculating the costs of achieving net zero for the Council is crucial for several reasons:

- Understanding the costs associated with achieving net-zero emissions will allow MBC to develop a clear and comprehensive capital strategy, allocate resources effectively, prioritise initiatives, and set realistic targets and timelines.
- Calculating the costs of achieving net zero helps MBC allocate resources efficiently on investments in renewable energy, energy-efficient technologies, carbon offset projects, and other emission reduction initiatives. This ensures that financial resources are directed towards the most impactful and cost-effective measures, optimising the MBC's ability to achieve its sustainability goals and save costs in the long term.
- Net-zero targets require long-term planning and financial forecasting. Understanding the costs involved will enable MBC to allocate appropriate budgets, submit bids and secure financing, and plan for the necessary investments over the required time frame.
- Assessing the costs of achieving net zero will help MBC identify and manage financial risks. It allows for a comprehensive evaluation of potential cost drivers, market fluctuations, and uncertainties related to technology advancements, policy changes, or external factors.

- Transparently communicating the costs associated with achieving net zero is crucial for stakeholder engagement and buy-in.
- Calculating the costs of achieving net zero will allow MBC to assess the potential return on investment and quantify the financial benefits.

2.9 Estimated costs for achieving net zero are at **Appendix 2**, this includes:

- Energy Efficiency Measures (retrofits, efficient equipment upgrades),
- Converting the Fleet to Electric Vehicles and the infrastructure required to assure operations,
- Energy Transition Costs (transition to renewable energy sources and decarbonize energy consumption), and
- Carbon Offsetting (costs of purchasing carbon credits or supporting projects that sequester carbon).

Please note that this does not include an assessment of the 1,000 affordable homes, but that consideration of the net zero commitment must also be included as part of this scheme.

2.10 Investigations into Borough wide emission targets and associated costs for housing and transportation are underway; however, officers are currently only able to calculate estimates based on the Council's own operational emissions and actions under its direct control.

2.11 The calculations in **Appendix 2** are based on technical advice and expertise, including;

- Detailed energy audits conducted by APSE Energy on 12 MBC buildings and recommendations of heating, insulation, glazing, smart control options to decarbonises each building and improve energy efficiency.
- Detailed market analysis and site EV infrastructure modelling of the depot conducted by SWARCO, to ensure transitioning the fleet to EV vehicles would not hinder operations and that capacity would be sufficient to achieve net zero.
- Energy market advise and analysis from LASER Energy on green tariffs and longer-term renewable energy generation investment.
- The latest carbon offsetting evidence from Natural England and potential carbon costs scenarios.

2.12 The following table summarises the estimated costs to achieve Net Zero across Council operations (against the 2021-22 carbon footprint).

MBC Net Zero Operational Areas	Total Estimated Costs	Carbon Reductions (tons and %)
1. Estimated cost to decarbonise 13 MBC key/largest properties	£12,364,224.00	888.6 tCO2e (60%)
2. Estimated cost to purchase Green Tariffs to decarbonise procured energy across the estate	£55,320.00 (Per Annum)	Not Applicable

(excluding Maidstone House/The Leisure Centre/Lockmeadow Entertainment Complex)		
3. Estimated cost to improve current temporary accommodation housing stock to EPC-C minimum	£219,693.00	Unable to calculate carbon reductions of housing stock at this time
4. a. Estimated cost to electrify petrol/diesel fleet (based on today's technology, excluding heavy duty vehicles where replacements EVs are not yet on the market)	£3,469,091.35	160 tCO2e (11%)
b. Costs to upgrade the capacity of the depot to meet the electric demand	£253,000.00	Not Applicable
5. Estimated cost to offset remaining 10% operational emissions through third party carbon offsetting schemes (based on projected high carbon cost scenario)	£34,443.00 (Per Annum)	140 tCO2e (10% based on 2021-22 MBC carbon footprint)
6. a. Alternative estimated cost to offset remaining operational emissions through renewable energy generation schemes	Unable to calculate without further investigation	Not Applicable
b. Cost to maximise solar energy generation on Council estate (scoped projects)	£1,243,050.00	105.3 CO2te (7.5%)
7. 7. Alternative estimated cost to offset remaining operational emissions through potential direct land purchases for carbon sequestration schemes.	Unable to calculate without further investigation	Not Applicable
Estimated Total to achieve net zero carbon on Council Scope 1 and 2 emissions	**£17,638,821.35**	**1293.9 CO2te (92%)**

2.13 It has been estimated that it will cost £17,638,821.35 to reduce the Council's carbon emissions by 92% (based on 2021-22 carbon footprint). This total includes offsetting a maximum of 10% (as advised by the Climate Change Committee) of the Council's annual emissions through a high-cost carbon scenario. Please note that '6.b Cost to maximise solar energy generation on Council estate' is not removal of emissions, but is renewable energy generated on the estate to offset emissions.

2.14 A priority area is the decarbonisation of Council properties, and of those an 85% reduction in emission (of the 13 buildings in the table) can be achieved by upgrading/retrofitting just three building, namely Maidstone House and Link, Maidstone Leisure Centre, and Maidstone Museum which have the highest proportion of carbon emissions but would cost £7,710,720 (44% of the total estimated cost) to achieve Net Zero. Officers are working to apply

for Public Sector Decarbonisation Scheme funding to support up to two thirds of the costs to decarbonise the Council's highest carbon emitting buildings.

2.15 The proportion of tCO2e removed per annum by converting the entire fleet to electric, plus the costs to upgrade the infrastructure at the depot, suggests that the cost/benefit ratio is poor, and that the current Green Fleet Strategy, adopted on the 15th of November 2022 by the Communities, Housing and Environment Policy Advisory Committee, to gradually transition vehicles to EV based on the market and operational need is the better medium-term approach. Particularly as the heavy-duty vehicles proportionately account for more emissions and equivalent EV versions are not yet on the market. Waiting for other emerging technologies for the heavy vehicles and upgrading lighter vehicles will likely save the council costs in the medium term.

2.16 Investment in maximising the solar energy generation on Council property is a good medium-term investment in terms of both savings to the council and carbon reductions. Further investigation into larger renewable energy generation schemes is needed, as is longer term procurement of renewable energy (Green Tariffs) for the Council.

2.17 Options for indirectly or directly offsetting 10% of Council emissions also needs further investigation. However, it is likely that larger costs would be incurred for directly offsetting emissions through local renewable projects or tree planting, but these costs must be evaluated in regard to other local, social, biodiversity benefits and ecosystem services.

2.18 The work completed to date is indicative and have been included in this report to inform the debate on the next steps. To get complete and accurate figures further engagement will be needed from departments across the council and engagement of external expertise. Investigations into Borough wide emission targets and associated costs for housing and transportation are likely to require external advice and substantial work.

2.19 The next annual review will need to be completed by early 2024, as CLT have indicated that the costs should inform this discussion agreement on timing and the forum for this is sought from CLT.

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3. AVAILABLE OPTIONS

3.1 That the Cabinet be recommended to note the action plan implementation updates and indicative costs of achieving net zero by 2023 for the Council's operations, subject to the consideration of any further recommendations made by the Committee.

3.2 Members could choose not to receive regular updates on the action plan or alternatively could ask for more frequent updates.

3.3 Additional information has been provided on costs in this report. Members could ask for additional information on these costs.

4. PREFERRED OPTION AND REASONS FOR RECOMMENDATIONS

4.1 That the Cabinet be recommended to note the action plan implementation updates and indicative costs of achieving net zero by 2023 for the Council's operations, subject to the consideration of any further recommendations made by the Committee.

5. RISK

5.1 Responding to the climate emergency is a key corporate risk. Ongoing monitoring of the delivery of the Action plan is a key mitigation as the annual review of the action plan is ensures continued accountability.

5.2 Understanding the costs associated with achieving net-zero emissions will allow the Council to develop a clear and comprehensive strategy, allocate resources effectively, prioritise initiatives, and set realistic targets and timelines.

6. CONSULTATION RESULTS AND PREVIOUS COMMITTEE FEEDBACK

6.1 The Policy and Resources Committee adopted the Biodiversity and Climate Change Action Plan on 21st October 2020. Progress has been regularly reported to Policy Advisory Committees and the Cabinet. Monthly briefing meetings on Biodiversity and Climate Change are held with the Leader of the Council.

7. NEXT STEPS: COMMUNICATION AND IMPLEMENTATION OF THE DECISION

7.1 Continue to update the implementation of the Action Plan, monitor progress, and updates to members.

7.2 To organise a members strategy workshop to prioritise and act on the indicative costs outlined in this report.

8. REPORT APPENDICES

The following documents are to be published with this report and form part of the report:

- Appendix 1: Biodiversity and Climate Change Action Plan Implementation Status
- Appendix 2: MBC Operational Net Zero Estimated Costs