



Central Bedfordshire Sustainability Plan 2020-2030



**Central
Bedfordshire**

Foreword

I am delighted to present the Central Bedfordshire Council Sustainability Plan 2020-2030.

The climate change challenge we face as a council is in itself significant. The actions identified now and in the future that will impact our communities are aimed at the target of carbon neutrality by the end of 2030, but recognise the behaviour of both residents and businesses, together with those who visit our area, have a huge role in achieving that goal. That is why we need to take them with us in the journey we start in 2020.

My motion from 2019 has been developed into this Plan at significant pace and the following pages are a testament to the commitment of officers and members engaged in its development - aware that changes made now to the way we live, work, and travel can positively impact generations to come.

The work with partners to develop a 2050 Vision for Central Bedfordshire, which highlighted the importance of climate resilience, sustainability and the environment, has also shaped and informed this plan, which effectively will help set the first steps that the Council takes in realising some of the aspirations that are at the heart of the 2050 Vision.

Of course the Plan cannot be achieved by the Council alone. Our commitment to leading by example and investing in sustainability is reinforced by the way in which we will encourage others to adopt sustainable behaviours – including Central Bedfordshire residents, businesses and key partners.

We also need to acknowledge the impact of COVID-19 as the world has changed significantly since work on the Plan commenced at the start of the year. The pandemic has created a new 'normal' for Central Bedfordshire and beyond. For many, working from home has become the default, travel patterns have changed and people are spending more time outdoors.

However, it could be argued that given such behavioural changes now is the perfect time to launch the Plan – to embrace the benefits e.g. through sustainable transport, clean green spaces and green economic recovery planning for a sustainable future.

The world has changed but this ambitious Plan provides assurance that our long term vision to be climate responsive, to grow in a sustainable way and create benefits for local communities and businesses has not.

It places sustainability at the heart of what we do.

Councillor Steve Dixon

Central Bedfordshire Council's Executive
Member for Transformation & External
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Glossary

The Sustainability Plan includes the following terms and concepts:

Amnesty Hours: Specific hours where parking and/or deliveries are allowed. Usually implemented as part of active travel interventions, pedestrianisation programmes, or last miles delivery systems.

CO₂: Carbon dioxide (CO₂) is a naturally occurring molecule that plays a critical role in the Earth's carbon cycle. It has been in the atmosphere for millennia. However, in the past 200 years, human innovation and activities (especially burning fossil fuels) have caused increased amounts of CO₂ levels in the atmosphere, which is causing climate change. For reference purposes:

- 1 tonne of CO₂ is equivalent to the average emissions of one passenger on a return-flight from London to New York.
- 1 tonne of CO₂ is equivalent to driving 6000km with an average diesel car.
- 1 tonne of CO₂ is equivalent to 4300 kWh of power consumption from burning fossil fuels.
- Building a new two-bed cottage creates on average 80 tonnes of CO₂.
- According to the Carbon Trust, the average Briton's annual carbon footprint is 10.92t of CO₂.

Demand-Side Management: Also known as demand-side energy management (DSEM), is the modification of consumer demand for energy through various methods such as financial incentives and behavioural change through education.

Green and Blue Infrastructure: All natural and semi-natural landscape elements that form a green-blue network. It can refer to landscape elements on various spatial scale levels: from individual rows of trees to complete valley systems. Examples of green landscape elements include trees, hedgerows, copses, bushes, orchards, woodlands, green roofs, living walls, natural grasslands and ecological parks. Blue landscape elements are linked to water. They can be pools, ponds and pond systems, wadis, artificial buffer basins or water courses.

Circular Economy: A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use and regenerating natural systems.

Copenhagen Wheel: The Copenhagen Wheel is a self-contained rear wheel electric bicycle system which transforms a traditional bicycle into a hybrid e-bike.

Green Wave Concept: The City of Copenhagen established the first Green Wave for cyclists in 2007 on Nørrebrogade road and the concept has spread throughout the city. It involves coordinating the traffic lights for cyclists so that if they ride at a speed of 20 km/h, they will hit green lights all the way into the city during the morning rush hour. The wave is reversed in the afternoon/late evening when cyclists return home.

Last Mile Delivery: Terms used for transportation of goods from the nearest distribution hub to the final destination (home or business).

Micro-mobility: Refers to a range of small lightweight vehicles operating at speeds below 25km/h designed for individual use (e-scooters, e-bikes, bikes etc.).

Mobility as a Service (MaaS): Describes a shift away from personally-owned modes of transportation and towards mobility provided as a service. This is enabled by combining transportation services from public and private transportation providers through a unified gateway that creates and manages the trip, which users can pay for with a single account. Users can pay per trip or a monthly fee for a limited distance.

Modern Methods of Construction: Wide term embracing a range of offsite manufacturing and onsite techniques that provide alternatives to traditional house building. MMC ranges from whole homes being constructed from factory-built volumetric modules, through the use of innovative techniques for laying concrete blockwork onsite.

Net Zero Carbon: The Sustainability Plan uses UKGBC's definition of net zero carbon focusing on operational and embodied carbon dioxide (CO₂) emissions. Net zero carbon means operational and embodied CO₂ emissions are reduced as much as possible, with the remainder offset to achieve a net balance. Low-carbon refers to construction, design and operational strategies to reduce operational or embodied carbon as much as possible.

Permeability: Permeability or connectivity describes the extent to which urban forms permit or restrict movement of people or vehicles in different directions. Permeability is generally considered a positive attribute of an urban design, as it permits ease of movement and avoids severing neighbourhoods. Urban forms which lack permeability or with many long culs-de-sac, are considered to discourage movement on foot and encourage longer journeys by car.

Photovoltaics (PVs): A photovoltaic (PV) cell, commonly called a solar cell, is a non-mechanical device that converts sunlight directly into electricity.

SEMLEP: The South East Midlands Local Enterprise Partnership is one of 39 Local Enterprise Partnerships set up by the Government to drive economic development in England. SEMLEP includes 36 enterprises and innovation centres and five universities.

Social Value: The additional, wider benefits that can be created by organisations and projects, for individuals, communities and local businesses.

Supplementary Planning Document: They build upon and provide more detailed guidance about policies in the Local Plan. Legally, they do not form part of the Local Plan itself and they are not subject to independent examination, but they are material considerations in determining planning applications.

Sustainable Urban Drainage Systems (SuDS): Sustainable urban drainage systems are a collection of water management practices that aim to align modern drainage systems with natural water processes. They are more compatible with components of the natural water cycle such as storm surge overflows, soil percolation, and bio-filtration. They mitigate surface run-off and water pollution.

Take-Back Schemes: A "Take Back" scheme is an initiative organized by a manufacturer or retailer, to collect used products or materials from consumers (bottles, batteries etc.) and reintroduce them to the original processing and manufacturing cycle.

UNSDGs: The United Nations Sustainable Development Goals (UNSDGs or SDGs) are the blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice.

Vehicle to Grid Charging (V2G): A system in which plug-in electric vehicles communicate with the power grid to sell surplus electricity stored in their batteries during times of high demand.

Whole-Life Costing (WLC): Whole life costing is an investment appraisal and management tool which assesses the total cost of an asset over its whole life. It takes account of the initial capital cost, as well as operational, maintenance, repair, upgrade and eventual disposal costs.



Introduction

Overview

Our goal

Recognising Central Bedfordshire Council has to play a pivotal role in evolving the attitude, practices and behaviour of residents and businesses if we are to reach our goal, we have to create a culture that allows local communities and industry to grow in a sustainable way and creating multiple benefits for all. This is a significant challenge that the Council cannot work towards on its own – it requires us to work with our residents, businesses, supply chains, neighbouring authorities, SEMLEP and other partners from all sectors, to change the way we live, work and travel for the long-term.

As well as being collaborative, we are committed to being innovative in our approach. We know this is essential for us to cut CO₂ emissions from the area's key emissions sources: fossil fuel vehicles; existing homes, commercial and institutional buildings; and new developments, whilst at the same time doing this in a way that is most appropriate for our area and that delivers a wide range of broader sustainability benefits.

The Sustainability Plan 2020-2030

The Sustainability Plan has been co-developed with Council officers and members, and focuses on how the Council can: improve our own operations and processes; lead by example in buildings we are responsible for; facilitate investments in infrastructure-led projects; and influence, support and enable residents and local businesses to adopt sustainable behaviours and practices.

The Sustainability Plan was developed following a deep-dive [Baseline Review](#) of the Council and Central Bedfordshire's sustainability performance. This includes analysis of the Council and the area's carbon footprints.

This document is purposefully a plan rather than a strategy. It has specific actions, responsibilities and timescales for each opportunity/project area within the plan. We have also considered the CO₂ reduction potential, wider sustainable co-benefits, innovation potential and financial considerations associated with each opportunity. This will allow the Council to remain agile, adapt and change focus based on the progress being made, and other factors such as availability of funding and/or technological advancements.

UN Sustainable Development Goals

As a Council we recognise we have a vital role to play in achieving the United Nations Sustainable Development Goals (SDGs). We have previously mapped the status of the area against each SDG, and we have identified how each opportunity in the Sustainability Plan helps achieve them.

The Plan focuses on raising to the climate challenge,

however by embedding the SDGs within the Plan we have a platform to deliver wider co-benefits in other areas that might not traditionally be directly related to climate change action, but still play an underlying role in delivering the Council's ambitions. We are committed to taking action on SDGs in line with the [Local Government Association guidance](#).

Central Bedfordshire's 2050 Vision

Over the past year, we have been working with our partners to develop a 2050 Vision for Central Bedfordshire, that paints a clear picture of the type of place we all want Central Bedfordshire to be in 30 years' time. Climate resilience and the environment of Central Bedfordshire are at the heart of the 2050 Vision. This Sustainability Plan fully aligns with the Vision and provides practical actions for working towards it over the next 10 years.

Economic Recovery

The Sustainability Plan was also developed in conjunction with the Council's Economic Strategy, that will address the impacts of COVID-19 and other major challenges and opportunities the area faces. Each opportunity identified, and their associated actions, can deliver economic benefits and facilitate a green economic recovery.

Work in Progress

The Council has implemented many sustainability initiatives over the years, as summarised in the Baseline Review. Sustainability is at the heart of what the Council does and some actions identified in the Plan build on current projects and interventions. Since the climate action motion was passed in July 2019, we have already:

- Allocated significant revenue and capital budget to sustainability and climate action projects.
- Conducted a high level review of capital programme and projects adopted in 2020 /2021 budget.
- Invested in a tree planting programme.
- Acquired 7 electric vans for our highways fleet.
- Started trials for innovative sustainable highways technology at the Highways Depot.
- Awarded a new waste contract to a company committed to reducing carbon emissions from waste collection services and improving recycling rates.
- Continued the roll-out of LED street lighting.
- In the process of developing the Local Cycling and Walking Infrastructure Plan (LCWIP).
- Started a pedestrianisation initiative in Leighton High Street in response to the COVID-19 crisis.

Structure of the Plan

Overview

The Sustainability Plan is split into four main sections:

Section 1 focuses on improving the Council's processes, to enable us to deliver the Sustainability Plan. We need to embed CO₂ reduction and sustainability into everything we do, and enhance our internal capacity to deliver the Plan. This section is the foundation for all of the other areas and critical to success.

Section 2 is about how the Council can lead by example in the transition to carbon neutrality on our own Estate; both with existing and new buildings. Our ambition is to demonstrate leadership for sustainable and low-carbon buildings across Central Bedfordshire and the UK.

Section 3 sets out key opportunities for the Council to facilitate investments in infrastructure that supports carbon neutrality, sustainability and water resilience. This includes leveraging investments and funding opportunities renewable energy, electric vehicle charging, active travel and public transport, as well as green and blue infrastructure to address water stress, projected water shortages and biodiversity loss. This section also includes an opportunity for the Council to facilitate investments in delivering innovative infrastructure and be a leader in this area.

Section 4 focuses on how the Council can influence and support our communities, businesses and young people on the transition to carbon neutrality.

Implementation

The last part of the plan focuses on the implementation and governance of the Sustainability Plan. The Plan includes many actions and milestones which will begin to support both the Council and the Central Bedfordshire area towards better embracing sustainability, carbon neutrality, water resilience and biodiversity gain. The Plan recognises that in the context of the range of challenges the Council, our area and the UK faces, such as the COVID-19 pandemic, economic recession and Brexit, capacity will need to be built and decisions, particularly concerning investments, will **always** need to be well thought out and based on a sound business case and whole-life costing.

Coverage

The opportunities identified in the Sustainability Plan span the key environmental systems: energy, transport, materials and waste, and the natural environment. They also deliver tangible socio-economic benefits that will help build more resilient, healthier communities as well as support the transition to a low-carbon economy. This version of the Plan captures interventions and projects that will support sustainability, carbon neutrality and water resilience in the area. The Plan will evolve through time and is part of a wider trajectory towards delivering multiple sustainable benefits to the area.

1 Section 1: Council's Processes

- Enhancing Capacity
- Embedding Sustainability
- Leveraging Strategic Planning

3 Section 3: Invest

- Renewable Energy Infrastructure
- EV Charging Infrastructure
- Active Travel and Public Transport
- Natural Environment and Water Resilience
- Innovation-Led Infrastructure

2 Section 2: Lead

- Existing Buildings
- New Buildings

4 Section 4: Influence

- Support Sustainable Communities
- Support Sustainable Businesses
- Support Youth Climate Leadership

Section 1:

Council's Processes

Enhancing the Council's
capacity

1.1 Enhancing Capacity

Overall Objective

Enhance our capacity to deliver sustainable actions through training and appointing a Sustainability Lead. Create an organisational shift within the Council where sustainable approaches are fully embedded in our culture.

Milestone 1.1.1: Appoint additional sustainability posts

Target Outcome: The Council appoints a Sustainability Lead and SDGs Representatives to lead on climate actions, provide expertise on key sustainability matters, and ensure SDGs are embedded in the Council's processes and projects.

Services Responsible: Corporate Management Team/ Sustainability Lead.

Actions:

1. Develop a role profile and appoint the Sustainability Lead to coordinate work across the Council, and provide specialist advice.
2. Appoint SDGs Representatives across services at officer-level to report on the Council's performance against the 17 SDGs.
3. Develop joined-up approach across the Council to deliver climate actions and avoid duplication of work between SDGs representatives.
4. Add sustainability scope within cabinet members' portfolios.
5. Consider creating dedicated sustainability apprenticeships (6-12 months) for key data collection tasks including carbon footprint reporting.

Milestone 1.1.2: Deliver sustainability training for staff and members

Target Outcome: Training is delivered across the Council that improves understanding, fosters action and new ideas, and engages everyone to deliver the Sustainability Plan.

Services Responsible: HR to coordinate/Sustainability Lead to design training content.

Actions:

1. Determine best options for Council-wide training (e-learning, in-house face-to-face training, online courses, external learning, CPD, etc.). Ensure scope of training aligns with Sustainability Plan's objectives.
2. Deliver training to staff and members, including staff at the Council's companies.
3. Provide officers with tools and authority to enhance sustainability within their remit.

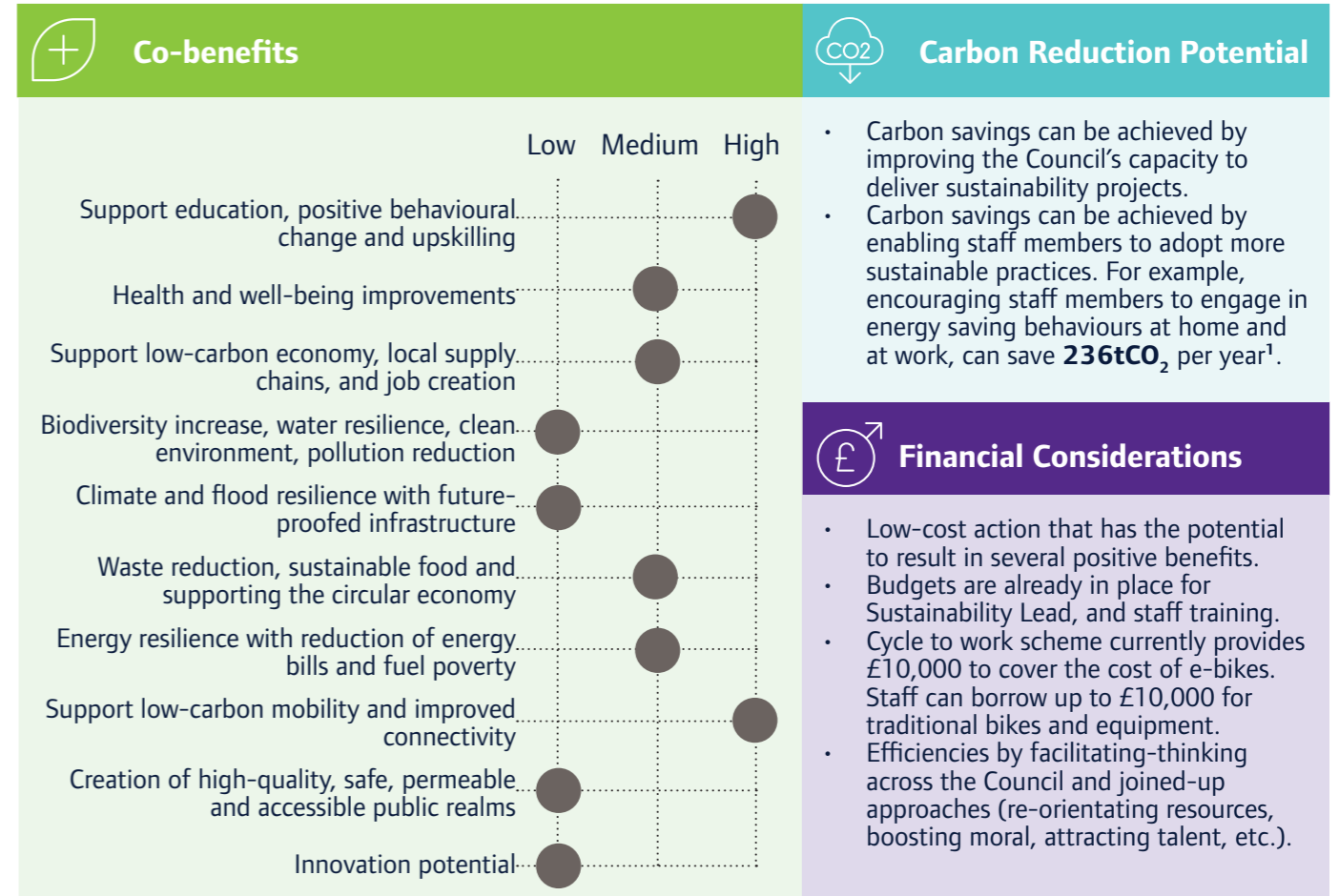
Milestone 1.1.3: Facilitate a cultural shift within the Council towards sustainable living and work practices.

Target Outcome: Council provides staff and members with support to lead by example.

Services Responsible: Corporate Management Team/ HR/Sustainability Lead/FM & IT.

Actions:

1. Facilitate staff to live more sustainably through provision of advice and guidance, and through salary sacrifice schemes to enable purchase of bikes, e-bikes and electric vehicles (EVs). Investigate and implement ways to encourage EV uptake as an employer.
2. Continue to support working from home. Determine potential to secure better broadband or discounted contracts for staff through negotiating with providers. Explore potential of conducting Work From Home Audits to compare CO₂ emissions, energy and water usage with business as usual.
3. Continue to improve the use of software like Teams and invest in additional software and equipment to facilitate home-working as well as reduce the need to print documents.
4. Encourage staff and members to commute by cycling with 'cycling to work' schemes.
5. Embed opportunities for virtual meetings and virtual participation in both officer and Council committee meetings.
6. Investigate allowing volunteering days for staff and members to spend on environmental and/or community projects.
7. Embed sustainability in officers' role profiles and job families to develop a joined-up approach to delivering sustainable action across the Council.



Programme and Aspirational Targets



Alignment with SDGs



1.2 Embedding Sustainability

Overall Objective

Embed CO₂ emissions reduction and sustainability within all our operations and decision-making processes. Work towards being carbon neutral in our own operations by 2030.

Milestone 1.2.1: Map pathways to carbon neutrality and establish monitoring and evaluation processes

Target Outcome: The Council produces a route map to carbon neutrality and publishes an annual Sustainability Plan Progress Report.

Services Responsible: Sustainability Lead.

Actions:

1. Map out the possible route and options for the Council and Central Bedfordshire area to move towards carbon neutrality to steer what is achievable and by when.
2. Determine key metrics to monitor and on which Council performance will be monitored: CO₂ and additional sustainability metrics.
3. Produce an annual Sustainability Plan Progress Report in April/May to inform the Medium Term Financial Plan (MTFP) process. Report to include latest carbon footprint data, performance against the SDGs, overview of progress so far, and detailed actions for the following year.
4. Research opportunities and develop projects to be included in later stages of the Sustainability Plan.

Milestone 1.2.2: Strengthen sustainability in project development and reporting

Target Outcome: The Council ensures sustainability outcomes are optimised for all projects.

Services Responsible: Portfolio Office/Sustainability Lead.

Actions:

1. Develop a simple Sustainability Policy that sets out clearly and concisely the Council's commitment and ambitions with regards to sustainability, the environment and climate change.
2. Add prompts and questions for sustainability on the Council's enterprise project management system for project initiation and delivery gateways.
3. Improve monitoring and reporting of sustainability benefits realisation for all projects.

Milestone 1.2.3: Include sustainability considerations within key governance documents

Target Outcome: Sustainability considerations are embedded within Council governance.

Services Responsible: Committee Services/Sustainability Lead.

Actions:

1. Add a sustainability section on committee agendas, reports and other key governance documents.
2. Produce guidance for officers on inclusion of sustainability in committee reports.
3. Consider sustainability and July 2019 climate change motion goals into the Council's next five year plan.

Milestone 1.2.4: Adopt Whole Life Costing (WLC)

Target Outcome: The Council uses whole life cost and benefit analysis to support decision making on investment and operational decisions.

Services Responsible: Finance/Sustainability Lead.

Actions:

1. Develop WLC toolkit with a simple scoring system to quantify CO₂ reduction potential, cost and co-benefits of Council projects.
2. Start using WLC and cost-benefit analysis for business case development and MTFP decision making processes, site selection and initial project briefs.
3. Provide guidance and training on WLC toolkit.

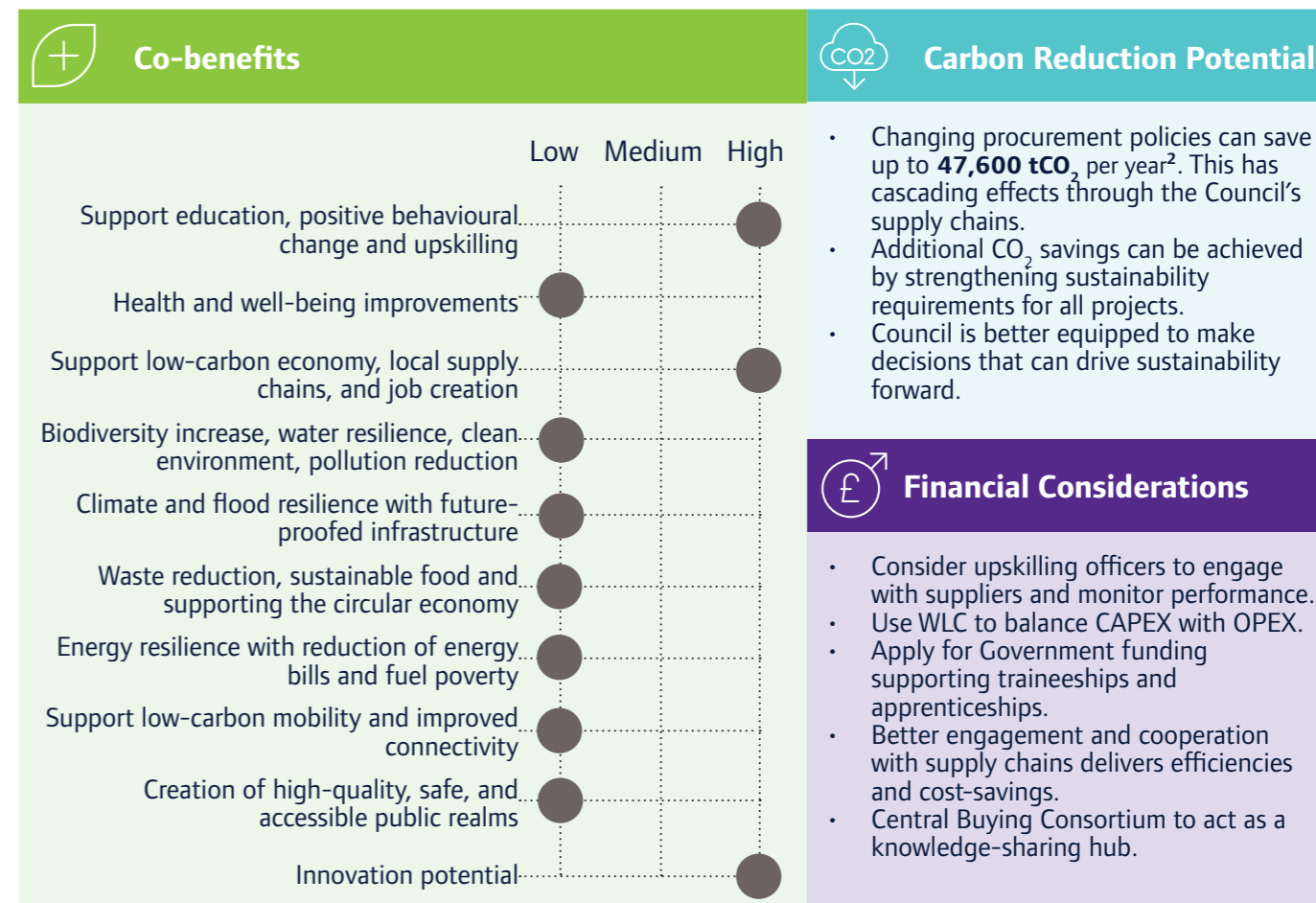
Milestone 1.2.5: Embed sustainability and social value in procurement processes

Target Outcome: Reduce CO₂ and maximise sustainability and social value from the Council's supply chain.

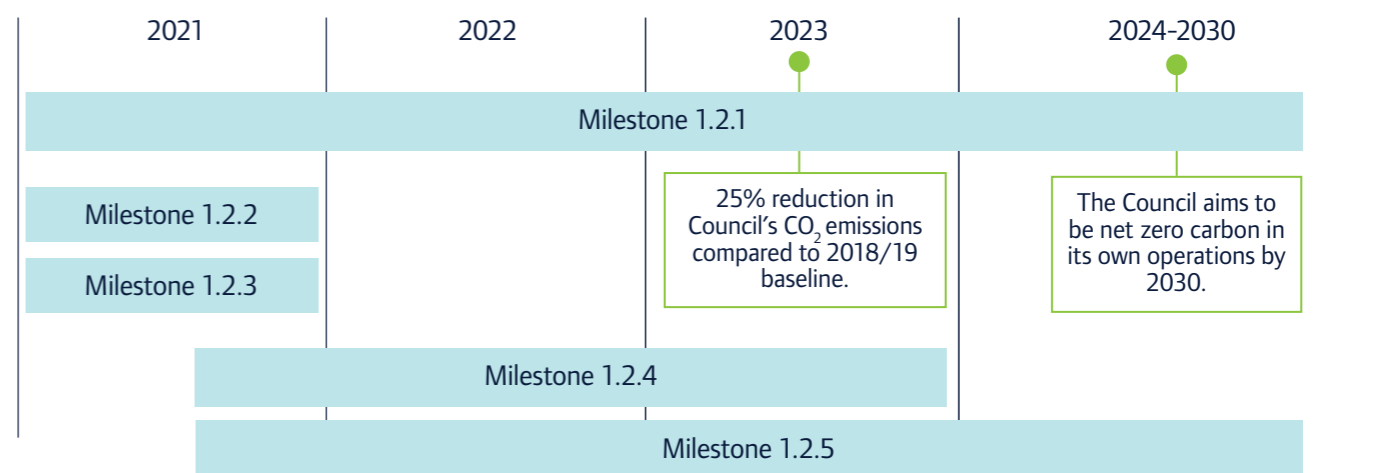
Services Responsible: Procurement/Equalities Lead.

Actions:

1. Embed sustainable procurement policies into the Procurement Strategy update and strengthen social value requirements.
2. Conduct hotspot analysis of procurement pipeline and existing Council spend to identify 'high-carbon' items.
3. Produce a sustainable procurement toolkit that provides guidance on specifications and tender weightings and questions for 'high-carbon' items.
4. Embed sustainability into supplier relationship and contract management.
5. Procurement Team completes sustainable procurement training.



Programme and Aspirational Targets



Alignment with SDGs



1.3 Leveraging Strategic Planning

Overall Objective

Use strategic planning and the Local Plan to optimise sustainability and ensure resilient, sustainable communities are established across the area. Aim to be the Green Heart within the Oxford-Cambridge Arc.

to lobby for higher building standards and regulations.

Milestone 1.3.2: Design Guide SPD

Target Outcome: When developing its Design Guide SPD, the Council ensures sustainability is fully embedded.

Services Responsible: Strategic Growth (Planning).

Actions:

- Ensure the Design Guide SPD includes:
 - Energy performance guidance and prioritisation of low-carbon and/or passive designs with sustainability taken into account in early design phases (dependent on Future Home Standards).
 - Circular economy design guidance including using building in layers method, and focusing on flexibility, adaptability, longevity and disassembly.
 - Guidance on home designs that are conducive to good waste and water management practices.
 - Guidance on using low-embodied carbon materials (low-carbon concrete, steel and cement, etc.) and lightweight structures (timber, etc.).
 - Prioritisation of secondary and recycled materials, and of materials with low environmental impact.
 - Prioritisation of active travel within transport and investment hierarchies aiming for low-carbon mobility developments. Embedding active travel and public transport in future masterplans and place plans for all Central Bedfordshire towns.
 - Design guidance for EV charging points to ensure consistent approach between different providers. Ensures new developments provide EV charging points to encourage a wider switch to EVs.
 - Guidance on how to achieve Biodiversity Net Gain with a 20% target on brownfield sites, in line with the recommendations of Arc Environment Group, and UGF target of 0.3-0.4 on greenfield sites.
 - Emphasis on water sensitive design and on adopting a joined-up approach to tackling flooding and water stress, and ensuring water resilience.
 - Emphasis on local food production with community gardens and through garden community models.
 - Guidance on investing in digital infrastructure upgrades recognising a potential increase in home-working and to create an enabling environment for new business start-ups. Consideration of reviewing space standards to accommodate home-working.
- Support co-creation of a low-carbon home charter and route map with developers and housebuilders to encourage a voluntarily push and establish a collaborative approach to building low-carbon homes.

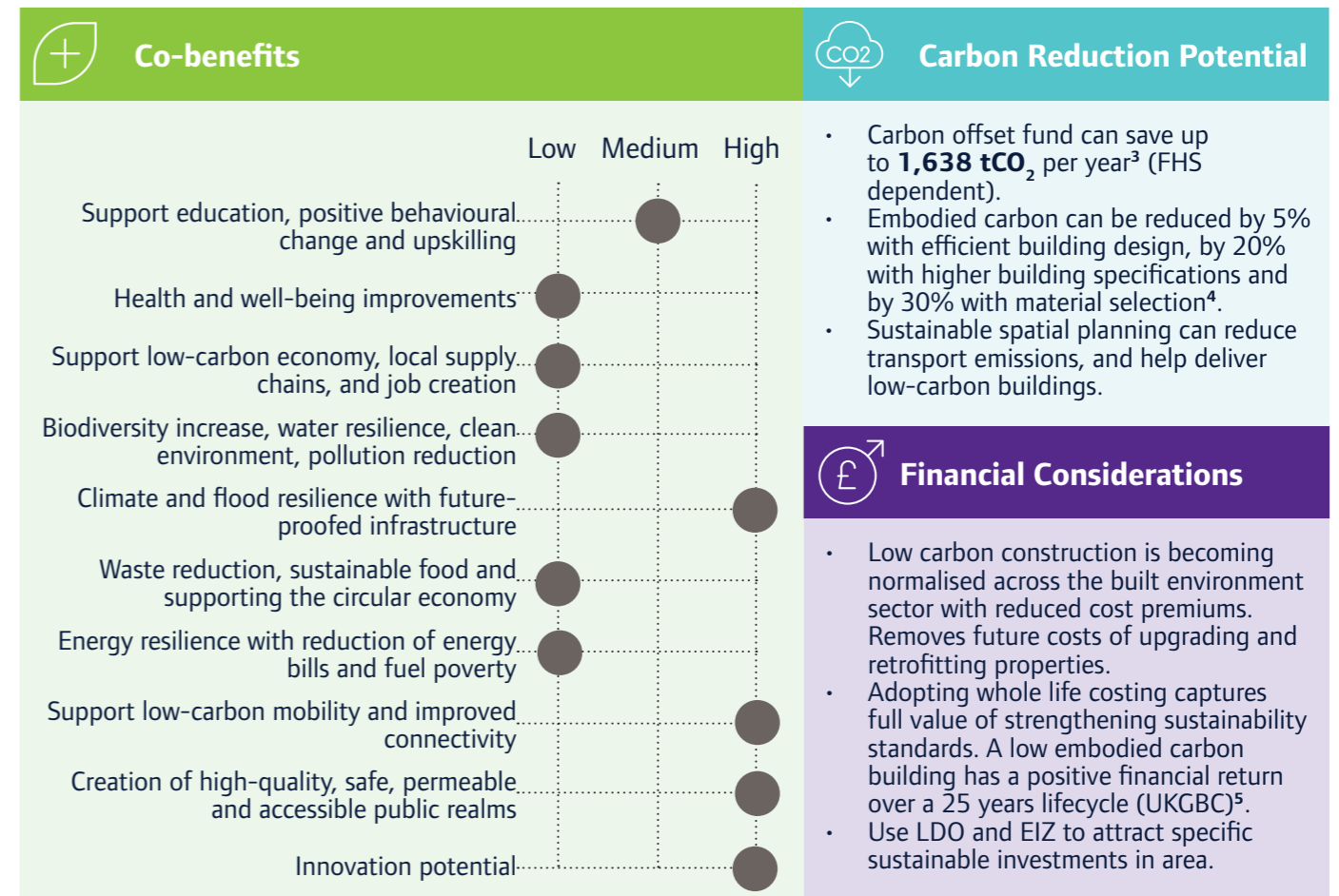
Milestone 1.3.1: Strengthen sustainability standards within Local Plan, policies and processes

Target Outcome: The Council strengthens sustainability requirements within relevant policies and processes. Actions will be influenced by upcoming planning reforms.

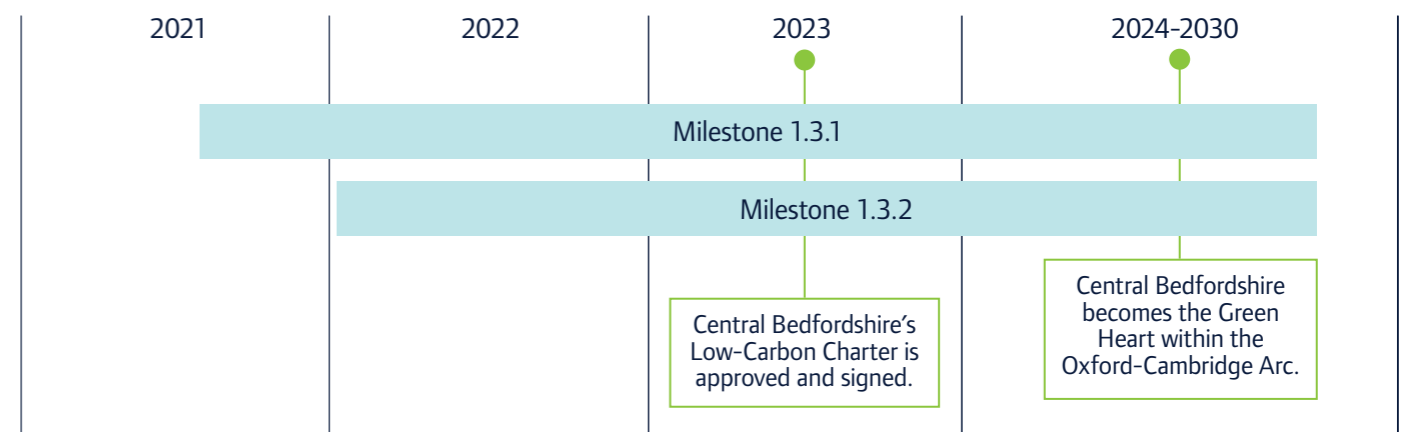
Services Responsible: Strategic Growth (Planning).

Actions:

- Ensure calls for sites are assessed with a detailed understanding of infrastructure and investment necessary to ensure sites can deliver sustainable development, with an emphasis on car-free mobility.
- Ensure site allocations are linked to a spatial strategy that promotes transit oriented development.
- Ensure that the Green Infrastructure Strategy and nature recovery network are embedded in plan making to ensure growth areas do not undermine ecological, climate and water resilience.
- Produce/commission an evidence base and identify sites suitable for Local Development Orders (LDO) and Energy Innovation Zones (EIZ).
- Produce/commission an evidence base to re-issue planning guidance for renewables to better inform large-scale renewables deployment.
- Produce/commission an evidence base on viability of sustainability projects on a site-by-site basis to build the Council's resources and competences in relation to negotiating viability.
- Develop the Council's approach to CO₂ offsetting, working with existing partners and determining the feasibility of a Central Bedfordshire CO₂ offset fund.
- Capitalise on the next Local Plan review to further strengthen sustainability requirements and standards. Consider benchmarking current sustainability standards, analyse emerging policies, and use best practice from other planning authorities.
- Use the next Local Plan review to update the Development Management policies including requiring circular statements and carbon neutrality assessments into developers' sustainability strategies.
- Update other Council policies where appropriate and relevant, including the Minerals and Waste Plan.
- Work with neighbouring local authorities and the LGA



Programme and Aspirational Targets



Alignment with SDGs



Section 2:

Lead

Reducing the carbon footprint of Council buildings

2.1 Existing Buildings

Overall Objective

Ensure the Council's existing building stock (including buildings we occupy, own, manage and rent) are as energy-efficient, water-efficient, low carbon and sustainable as possible.

Milestone 2.1.1: Sustainable operations of Council Corporate Estate

Target Outcome The Council improves the sustainable operations of its Corporate Estate, maximising opportunities offered by digital connectivity and the internet of things.

Services Responsible: Assets.

Actions:

- Invest in automatic meter reading technologies (with 100% coverage for energy and water), in an energy management system and in a building management system (BMS). BMS to be Council-wide covering assets, housing, highways etc. Use energy audits to prioritise investments in building and system upgrades.
- Ensure programming of heating systems at all sites reflects current building usage patterns. Avoid 'like for like' replacements to ensure buildings are retrofitted to higher standards.
- Invest in and deliver building manager energy efficiency training.
- Launch an internal awareness campaign for officers and members to reduce energy use, waste production, and support a move to zero single-use plastics.

Milestone 2.1.2: Built Assets Improvement Programme (BAIP) and Housing Revenue Account (HRA) Programme

Target Outcome: The Council's BAIP ensures the buildings we own occupy and manage are safe sustainable and fit for purpose. The HRA programme is completed and opportunities for our commercial assets are identified.

Services Responsible: Assets/HRA.

Actions:

- BAIP:
 - Review and enhance the Quadrant Accommodation Plan to manage and upgrade the Council's Estate in order to improve utilisation efficiency and effectiveness of the Council's land and buildings.
 - Ensure each building has an up-to-date condition report within a five-year period.
 - Invest in energy efficiency reports for the Corporate

- Estate.
 - Commission report on which asset is suitable for renewable energy technologies.
 - Create a sustainability guide for the BAIP.
 - Ensure renewable technologies are used where appropriate, suitable and based on sound business cases. Consider heat pumps, PVs and/or other low-carbon technologies, avoid like for like replacements.
 - Invest in water efficiency and recycling measures where appropriate. Optimise site water management with greywater harvesting/reuse, low-flow toilets, dual flush operations etc., where appropriate.
 - Invest in low-carbon mobility interventions where appropriate such as cycle parking, e-scooter parking, showers etc.
- Use the budget allocated in the capital maintenance programme to retrofit the remaining 288 HRA properties to SAP rating of 65/EPC C, where supported by whole-life costing.
 - Review and identify retrofit opportunities for commercial assets. Following the review, take forward a retrofit programme for these assets.
 - Ensure provision of adequate training to Council staff for installation and maintenance of low-carbon technologies as well as water recycling systems.

Milestone 2.1.3: School Capital Maintenance Programme

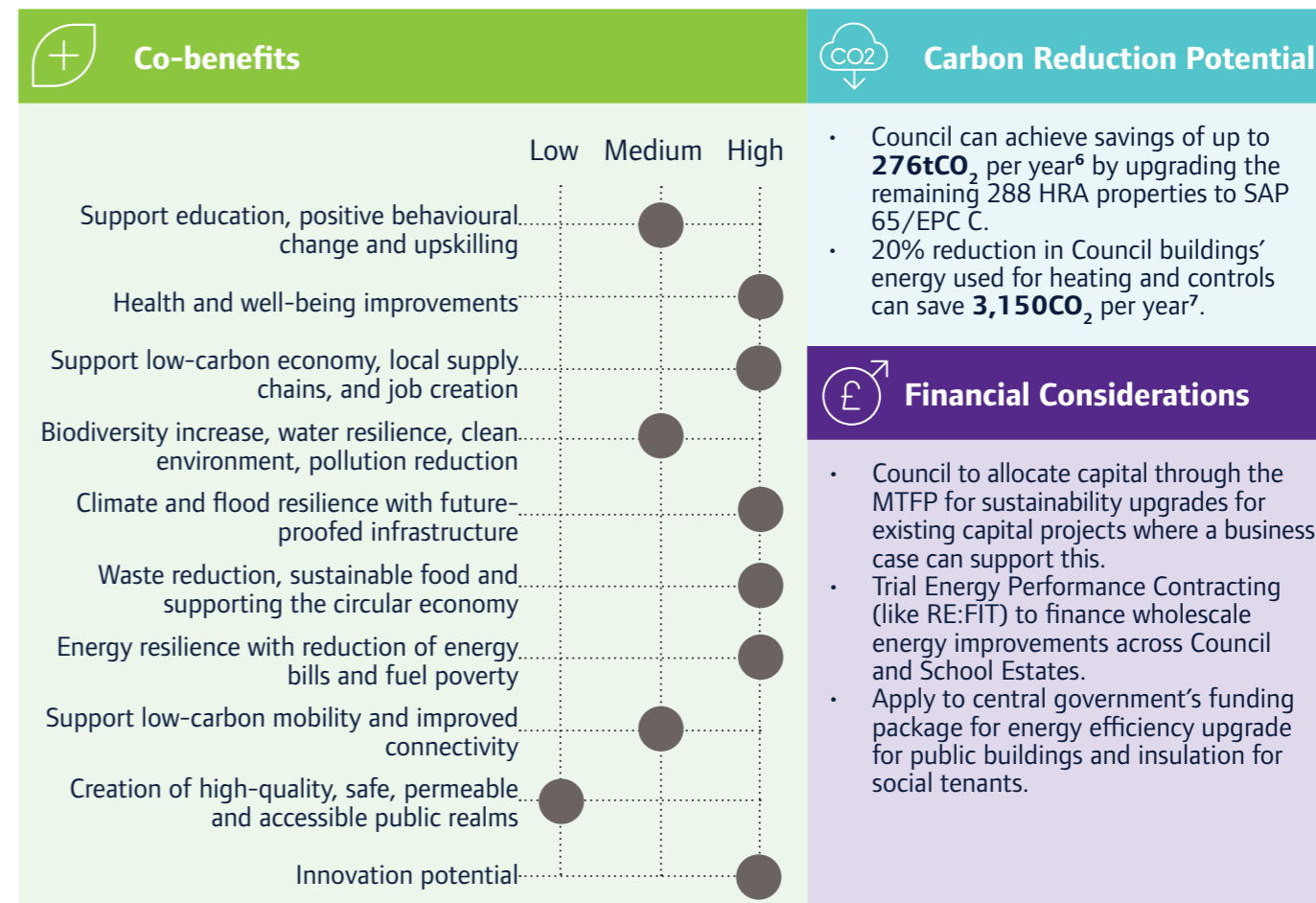
Target Outcome: The Council assists schools in reducing their carbon footprints through a structured Schools Asset Management Programme.

Services Responsible: Sustainability Lead/Assets.

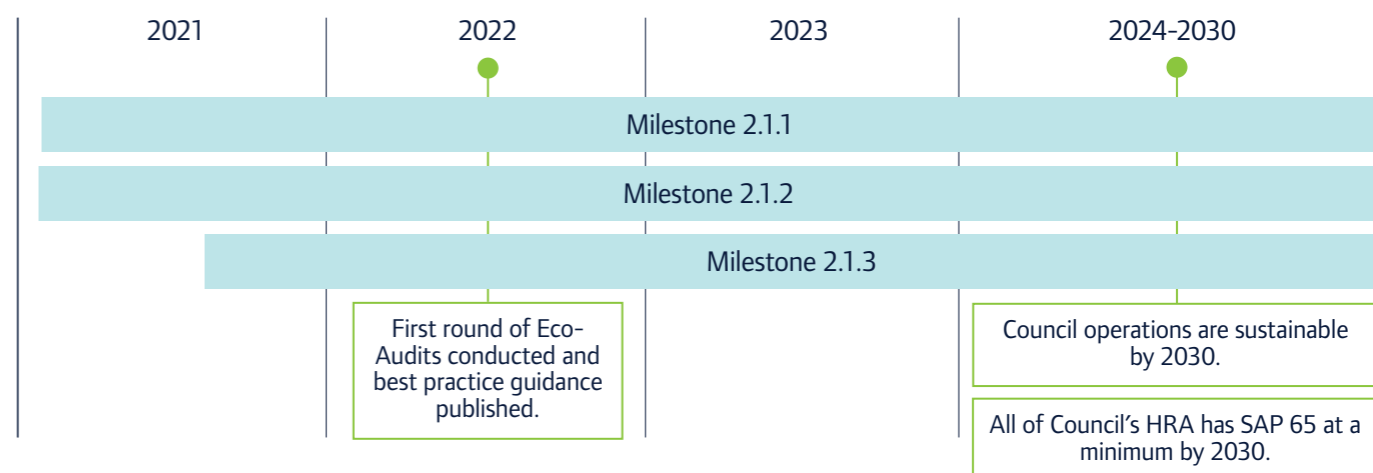
Actions:

- Invest in Eco-Audits to determine what schools are currently doing to reduce their carbon footprints, identify gaps and what barriers they are facing. Ensure each school has an up-to-date condition report within a five year period.
- Produce best practice guidance for schools to reduce their carbon footprints (including travel advice, reducing water footprints and energy usage).
- Develop a Schools Asset Management Strategy to manage and upgrade Council-maintained schools and embed sustainability within their operations. This includes launching a buy-back programme.
- Ensure that, where improvement works are identified, renewable and sustainable technologies are used where appropriate.

Engagement with schools is covered in Section 4.3.



Programme and Aspirational Targets



Alignment with SDGs



2.2 New Buildings

Overall Objective

Ensure Council-led and commissioned capital building projects embrace sustainability, are energy efficient, water-efficient, low carbon, and economically viable, based on a sound business case and robust WLC. In doing so, the Council will lead by example for developers in the area.

- Produce best practice case studies with lessons learnt to inform future developments and nudge developers. Embed this as an annual process for continual lessons learnt.
- Create awards for sustainable Council-led projects to celebrate and share best practice..

Milestone 2.2.2: Strengthen sustainability standards on Council-led construction projects

Target Outcome: The Council develops a Sustainable Design Guide for construction projects we deliver and commission.

Service Responsible: Assets/Strategic Growth (Planning) to be consulted/Commissioning service area.

Actions:

- Develop a Sustainable Design Guide for the Council's projects. Consider opportunities for the Council to lead by example by going beyond the requirements set in the Design Guide SPD (See Milestone 2 1.3.2).
- Introduce a sustainability summary requirement detailing how the new building has embedded or will support delivery of sustainability goals. Sustainability and CO₂ savings must be taken into account at the start of a project.
- Embed the Sustainable Design Guide into procurement of all Council-led and commissioned construction projects.

Milestone 2.2.3: Schools for the Future Programme

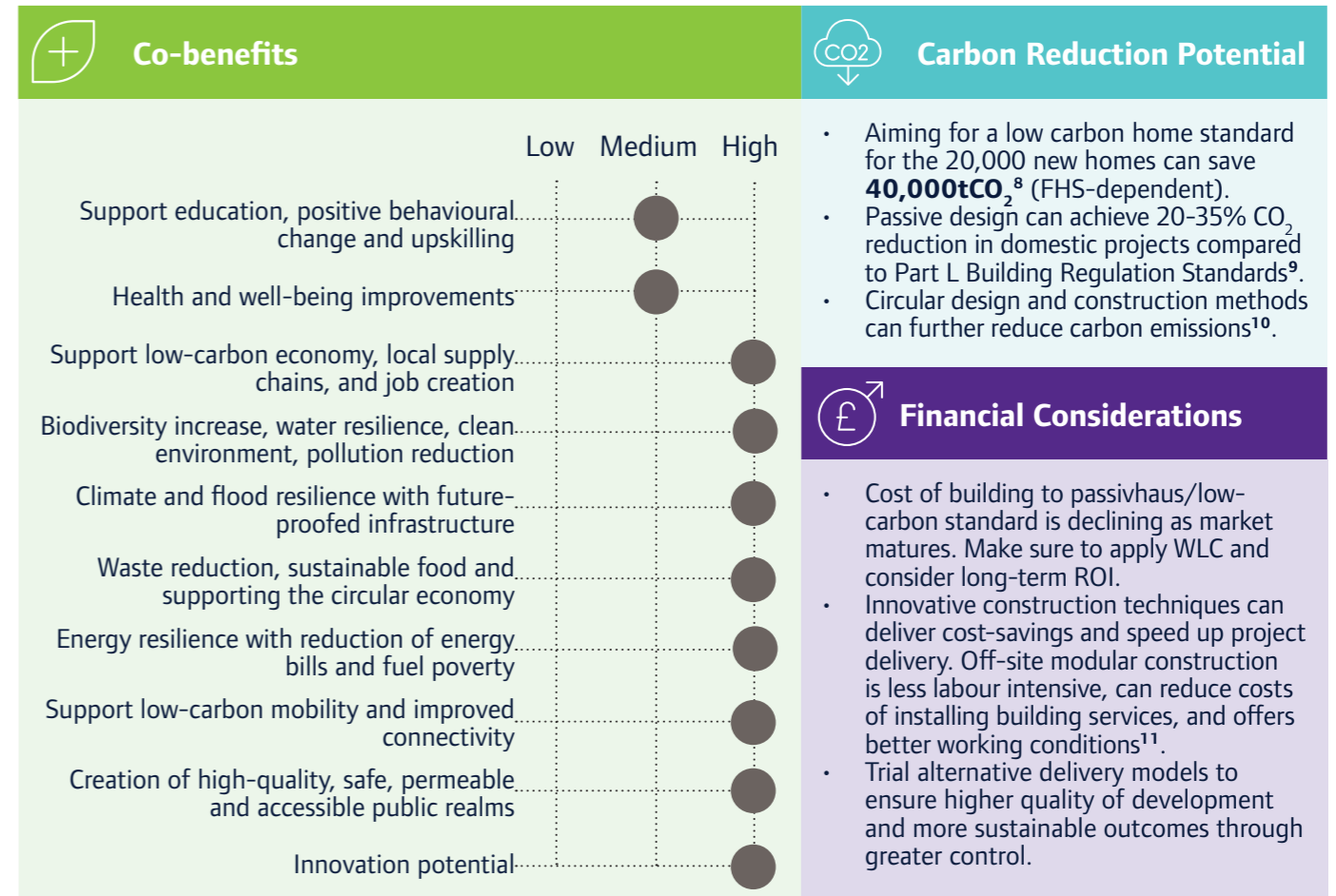
Target Outcome: As part of the Schools for the Future Programme and other school improvements, sustainability is embedded in all new schools and extensions delivered.

Services Responsible: Schools for the Future/Assets.

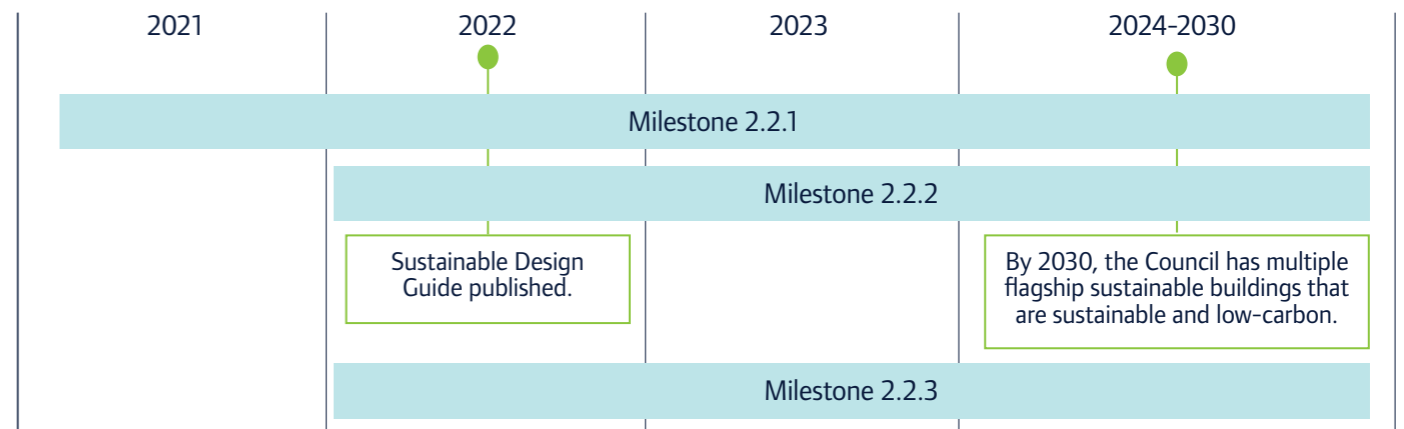
Actions:

- Trial passive and low-carbon design for new schools and extensions.
- Produce low-carbon and sustainable design guidance to inform future school projects and ensure new schools are as sustainable as possible.
- Ensure design embeds circular economy principles and water sensitivity, maximises energy efficiency, considers on-site renewable energy generation, minimises waste generation, and maximises green and blue infrastructure including maintenance of green and blue assets. Briefs need to include specific requirements and specifications for CO₂ savings and sustainabilities.

Engagement with schools is covered in Section 4.3.



Programme and Aspirational Targets



Alignment with SDGs



Section 3:

Invest

Facilitating investments
in infrastructure-led
projects that enhance
sustainability

3.1 Renewable Energy Infrastructure

Overall Objective

Facilitate investments in renewable energy infrastructure and enable the creation of a smart energy grid in Central Bedfordshire.

Milestone 3.1.1: Invest in building-mounted PVs

Target Outcome: The Council invests in PVs on its Estate.

Services Responsible: Sustainability Lead working with Assets/Highways.

Actions:

1. Determine suitable locations for PVs on Council's Estate including on large commercial assets. All investments to be based on robust business cases.
2. Capitalise on linkages between PVs and EV charging infrastructure to enable vehicle to grid (V2G) charging.
3. Explore potential of bio-solar roofs, and of Storage and Grid Back Up (STOR), including reviewing business models, ensuring revenue streams and cost-savings are assessed, and identifying delivery partners.

Milestone 3.1.2: Invest in battery storage

Target Outcome: The Council invests in battery storage on its Estate.

Services Responsible: Sustainability Lead working with Assets/Highways.

Actions:

1. Work with partners to identify suitable locations for investments in battery storage on Council's Estate (car parks, Council buildings etc.).
2. Determine appropriate revenue model with all investments based on robust business cases.
3. Work with Farm Estate tenants to install battery storage, where supported by business cases.

Milestone 3.1.3: Prepare an area-wide Energy Strategy

Target Outcome: The Council prepares an Energy Strategy detailing key energy infrastructure opportunities to facilitate renewable energy investments in the area.

Services Responsible: Sustainability Lead/Technical and Specialist Team/Corporate Finance Team.

Actions:

1. Produce a study to inform the new Energy Strategy. Assess grid capacity, propose solutions to overcome grid connection issues, and explore the potential

of other emerging technologies and/or alternative renewable energy sources.

2. Develop an area-wide Energy Strategy, identifying key opportunities for the Council to facilitate investments in renewable energy infrastructure.
3. Identify partnership opportunities and facilitate a joined-up approach to delivering energy projects.

Milestone 3.1.4: Facilitate investments in and the delivery of renewable energy infrastructure

Target Outcome: The Council facilitates investments in renewable energy infrastructure across the area.

Services Responsible: Sustainability Lead to coordinate.

Actions:

1. Facilitate investments in ground-mounted PVs and solar farms by examining feasibility, viability and determining suitable areas. Work with Farm Estate tenants to create a decentralised network of solar farms whilst minimising impacts on existing habitats.
2. Facilitate investments in wind farms by examining feasibility, viability and determining suitable areas.
3. Facilitate investments in anaerobic digestion infrastructure by examining feasibility, viability and determining suitable areas.
4. Encourage and support Town and Parish Council in using energy from waste and/or landfill gas (waste heat from industrial processes for a CHP scheme or composting arisings for biogas). Identify delivery partners and funding sources that can be leveraged.
5. Examine feasibility and viability of supporting Council and/or community-owned energy companies.

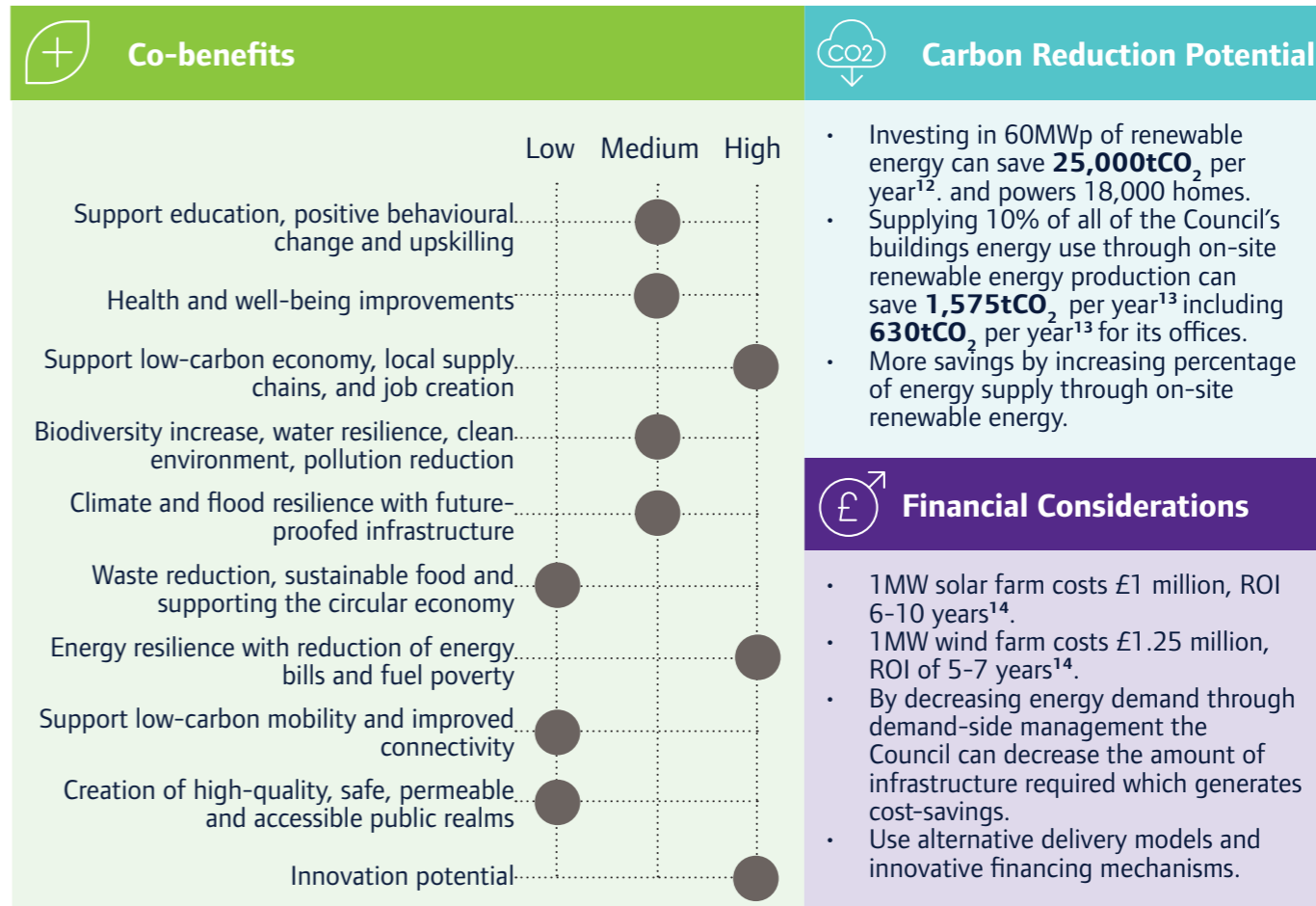
Milestone 3.1.5: Facilitate and support the creation of a Smart Energy Grid in Central Bedfordshire

Target Outcome: The Council integrates PVs and battery storage with smart controls to support a decentralised low-carbon energy grid within Central Bedfordshire.

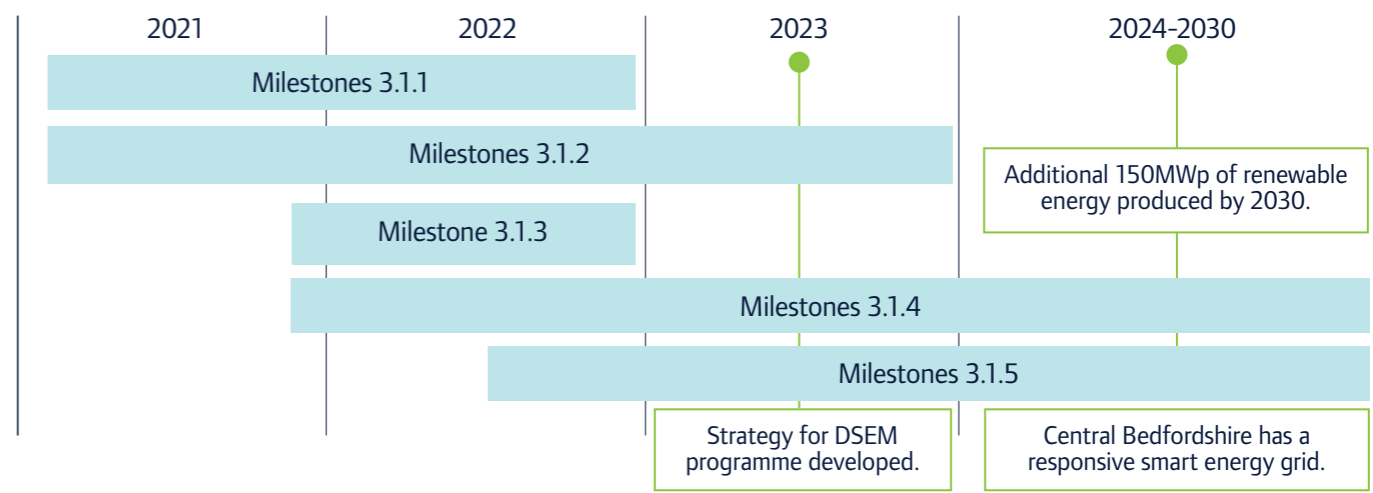
Services Responsible: Sustainability Lead.

Actions:

1. Develop a joined-up approach by engaging with energy providers and identifying delivery partners.
2. Determine suitable areas for pilot projects (areas off the gas grid, with grid capacity issues or significant growth planned).
3. Develop a strategy for a demand-side energy management (DSEM) programme to achieve reduction in energy use, especially during peak load.



Programme and Aspirational Targets



Alignment with SDGs



3.2 Electric Vehicle Charging Infrastructure

Overall Objective

Enable a network of electric vehicle charging points working with partners and energy providers, as well as investing in charging points across its own assets and highways.

Milestone 3.2.1: Prepare the Council's EV Strategy

Target Outcome: The Council develops an EV Strategy with updated design and procurement specifications for EV charging points.

Services Responsible: Sustainability Lead.

Actions:

1. Develop the Council's EV Strategy. The strategy will provide a baseline of existing charging infrastructure and EV uptake across the area, and identifies key demographics who are most likely to accelerate EV uptake. It will address current requirements for EV charging points, potential risks, maintenance requirements, potential innovative financing and delivery models, integration with future technological advances and funding options.
2. Update specifications using OLEV guidance and the Council's Sustainable Design Guide, and embedded in procurement processes. Use Local Plan (Policy T5) on EV charging points requirements.

Milestone 3.2.2: Invest and facilitate delivery of EV charging network

Target Outcome: The Council invests in EV charging points on our Estate. Commercial approaches are pursued to create an area-wide EV charging network.

Services Responsible: Sustainability Lead/Assets to coordinate installation and maintenance on Council owned property/Transport Strategy to assist.

Actions:

1. Map charging point locations based on EV Strategy findings and identify deficits.
2. Explore opportunities to integrate EV within street lighting network, Council car parks, and to trial V2G scheme opportunities.
3. Determine best delivery models and financing mechanisms such as user charging fees and/or subscriptions.
4. Apply to relevant funding and commission providers.

Milestone 3.2.3: Support a wider switch to EVs

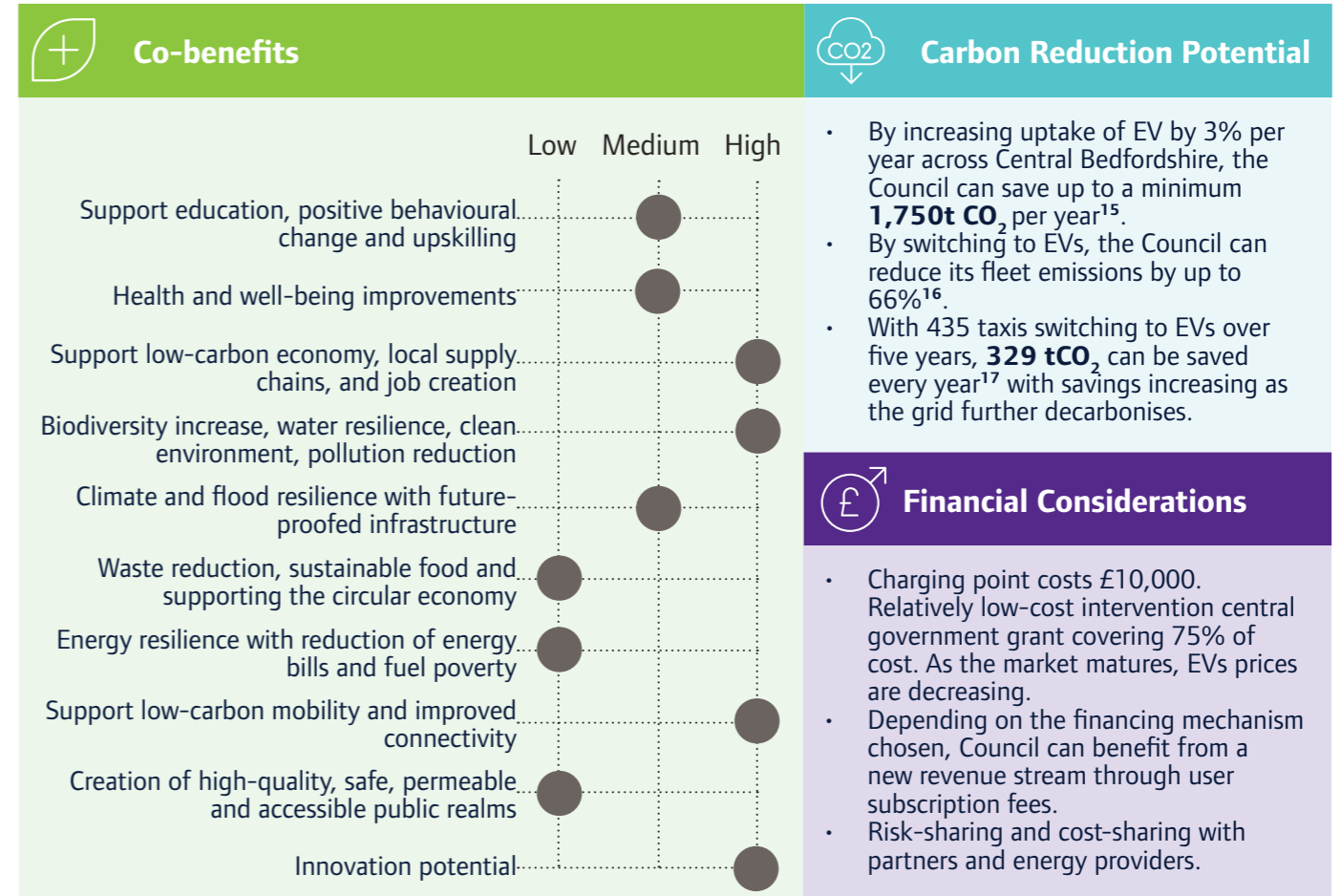
Target Outcome: The Council switches our own fleet to EVs and enables the uptake of EVs by Council staff and taxis.

Services Responsible: Fleet Management/Licensing/HR.

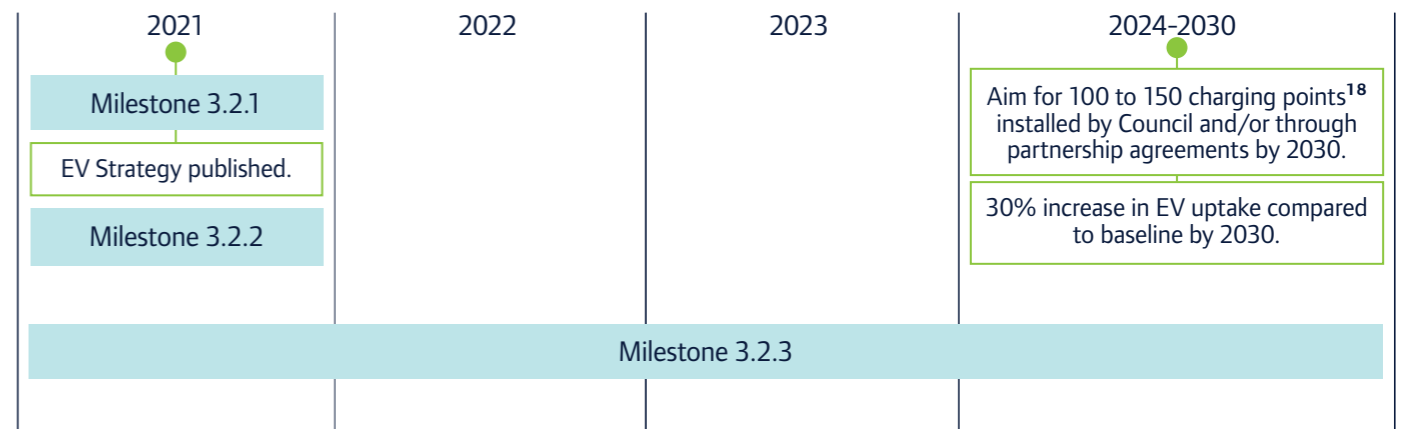
Actions:

1. Switch all Council fleet to EVs when leases are up for renewal and when it is commercially viable.
2. Reduce Council's grey fleet by providing pooled EVs.
3. Create incentives to encourage staff members to switch to EVs and/or to use e-bikes for short commutes/journeys.
4. Lobby for low-emissions and/or electric buses when commercially viable.
5. Determine financial feasibility and viability of trialing a green taxi incentive scheme.

Engagement with residents is covered in Section 4.1 and engagement with businesses is covered in Section 4.2.



Programme and Aspirational Targets



Alignment with SDGs



3.3 Active Travel and Public Transport

Overall Objective

Facilitate investments and invest in a strategic active travel and public transport network, improving countryside access and connectivity between towns. Create compact walkable networks within town centres to maximise pedestrian comfort, and encourage micro-mobility and healthier modes of transport.

such as drainage ditches under cycle tracks to improve water management.

8. Explore opportunities to trial innovative active travel interventions such as dockless bikes, smart traffic lights and the green wave concept, solar-panelled cycle tracks, and bicycle escalators.

Milestone 3.3.2: Invest and facilitate delivery of a compact walkable street network in town centres

Target Outcome: Investments in infrastructure upgrades create compact, walkable and safe networks within Central Bedfordshire's town centres.

Service Responsible: Transport Strategy/Highways.

Actions:

1. Determine town centres where investments in active travel infrastructure are required.
2. Learn from pedestrianisation efforts in Leighton and Dunstable High Street. The closure of Leighton High Street serves as a successful case study.
3. Engage with local businesses and communities to co-develop infrastructure plans to create compact, safe walkable street networks. Plans should adopt a systems-based approach looking at:
 - Pedestrianisation measures and using the liveable/healthy street concepts.
 - EVs charging points.
 - Improving cycling facilities and paths including park and cycle areas and investing in cycle counters.
 - Using emergency traffic orders and parking/delivery amnesty hours.
 - Improving interfaces for changing between transport modes, including exploring the potential of Mobility as a Service.
 - Provision of accessible parking and removal of on-street parking where appropriate.
 - Promotion of car-sharing and bike rental schemes.
 - Last mile deliveries and consolidation hubs.
 - Flexible and adaptable design with circularity and disassembly in mind.
 - Integration and provision of SuDS.
4. Support the logistics sector in reducing its carbon footprint by facilitating the use of EV or ULEV and by enabling novel approaches to 'last-mile' deliveries and the creation of consolidation centres. This links with the Council's Freight Strategy.

Engagement with local communities and businesses is covered in Section 4.

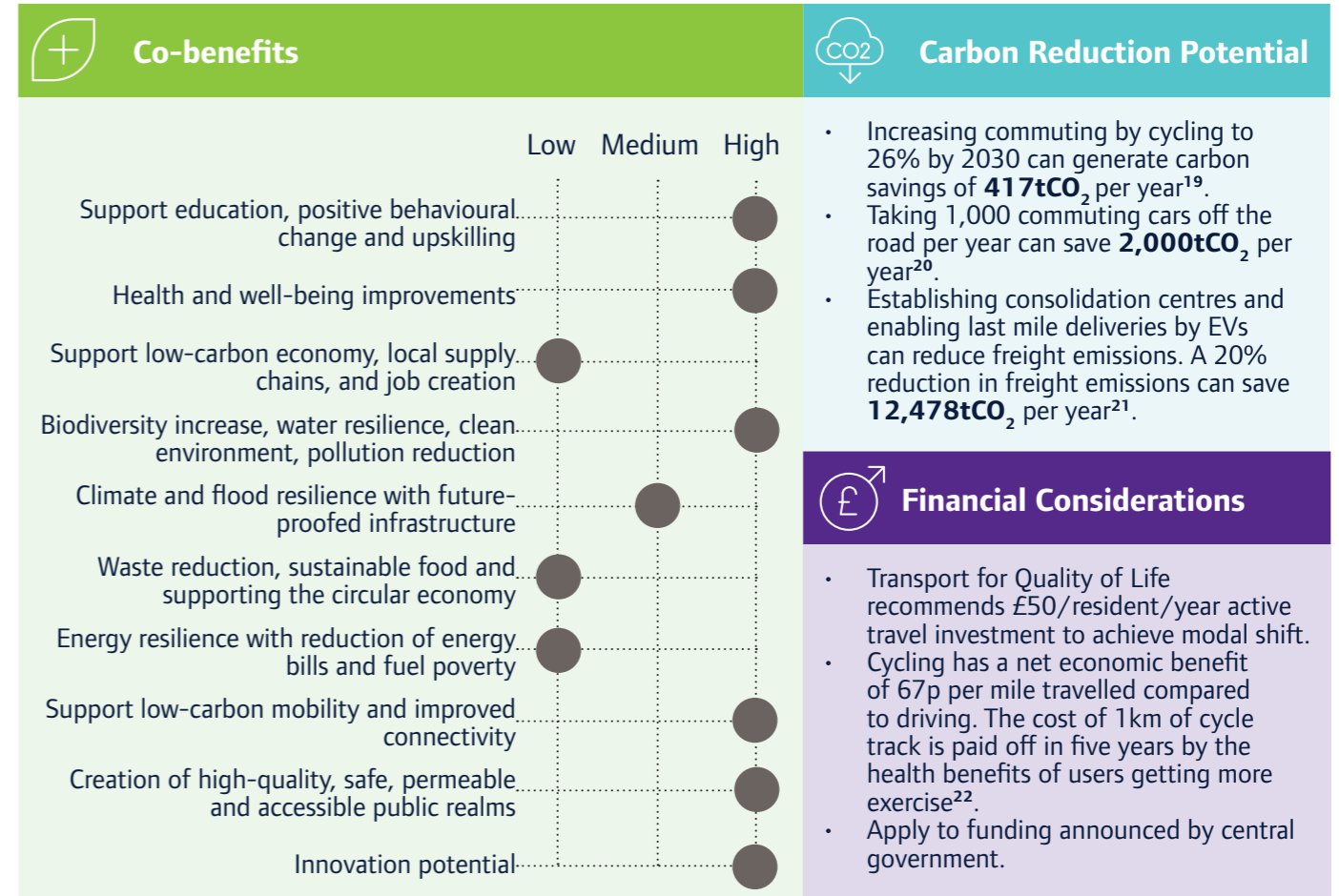
Milestone 3.3.1: Facilitate investments in a permeable active travel and public transport network to enhance strategic connectivity

Target Outcome: Investments in active travel and public transport infrastructure create a permeable, connected safe transport network between Central Bedfordshire's main towns and along main transport routes.

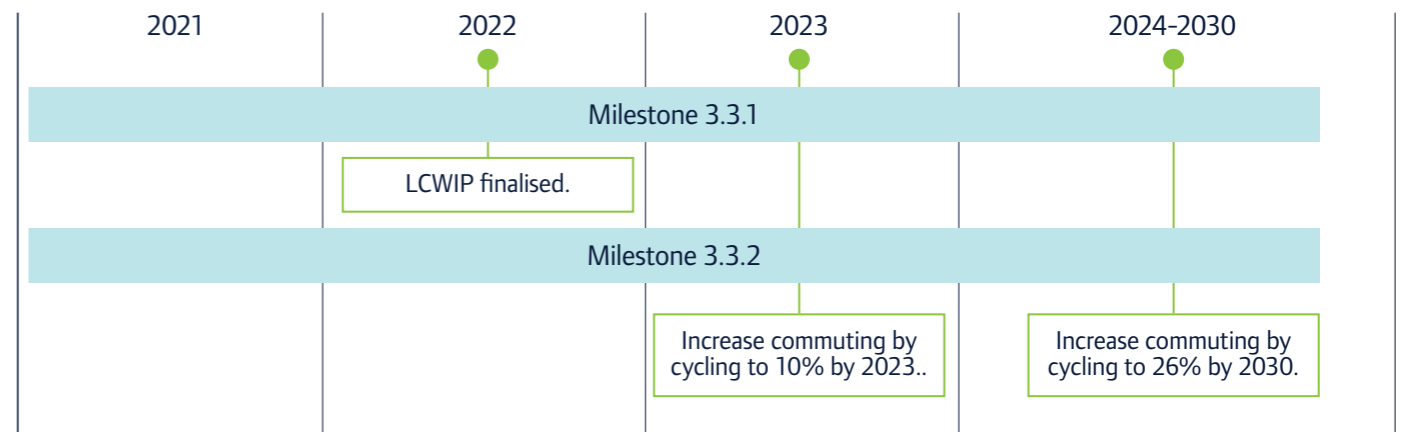
Services Responsible: Transport Strategy/Highways.

Actions:

1. Finalise and submit the Local Cycling and Walking Infrastructure Plan (LCWIP) to inform spatial maps and prioritise interventions. LCWIP to map areas where cycling infrastructure is lacking and where connectivity between towns and employment centres is hindered.
2. Develop a 10-year active travel investment plan that includes prioritised projects identified in LCWIP. Ensure active travel is systematically prioritised within transport and investment hierarchies. Build on the Council's road safety work to improve cyclists and pedestrians confidence.
3. Develop a long-term approach to public transport investments, in light of COVID-19 implications.
4. Invest and facilitate investments in off-road cycle lanes and, where possible, public transport, to improve countryside access and strategic connectivity between towns. Engage landowners and work with Town and Parish Councils to create safe cycling routes between villages. This will promote micro-mobility and increase access to key social services such as healthcare.
5. Invest and facilitate investments in on-road segregated lanes and, where possible, public transport, for main transport routes. An initial priority is to provide access to employment sites to support a post COVID-19 economic recovery.
6. Invest and facilitate investments in cycling and public transport facilities improvements including cycle parking, maintenance/repair stations and bus shelters.
7. Adopt a joined-up approach to active travel infrastructure delivery with investments in green infrastructure and active flood resilience infrastructure



Programme and Aspirational Targets



Alignment with SDGs



3.4 Natural Environment and Water Resilience

Overall Objective

Support the delivery of joined-up green and blue infrastructure that support water resilience, radically increase biodiversity and integrate nature into urban environments. Water stress and flooding are addressed and the natural environment is protected.

- opportunities for flood water storage.
- Work with landowners, farmers and agencies (Environmental Agency, Anglian Water etc.) to co-design nature-based solutions, to address water stress, and improve water quality and water resilience.
- Work with contractors to improve management of trees, shrubs, SuDS, flood infrastructure and other green and blue assets based on a good practice code. Increase inspection and supervision of contractors and update contracts where appropriate.
- Work with utility providers to develop their plans.

Milestone 3.4.1: Improve protection and maintenance of the Council's green and blue assets

Target Outcome: The Council strengthens protection and maintenance of green and blue assets it owns and manages.

Services Responsible: Environment Services and Policy/Highways/Leisure/Assets/Flood Risk.

Actions:

- Review the Council's ground maintenance function to improve management and strengthen protection of green and blue infrastructure on the land the Council owns and manages.
- Produce guidance on green and blue infrastructure management. Include integrated graded spatial and temporal shrub management, right tree right place approach, water bodies as well as SuDS and flood infrastructure delivery and maintenance.
- Seek additional funding for dedicated management of trees, shrubs, hedges, nature recovery networks as well as rivers, ponds, and water bodies to ensure water resilience and protection of the natural environment.

Milestone 3.4.2: Facilitate a multi-functional, multi-agency approach to deliver green and blue infrastructure, and to combat water stress

Target Outcome: The Council develops a multi-functional, multi-agency joined-up approach to protect, maintain, deliver green and blue infrastructure and to combat the causes and impacts of water stress.

Services Responsible: Sustainability Lead to coordinate.

Actions:

- Develop a multi-agency joined-up approach to:
 - Protect, maintain and deliver green and blue infrastructure across the area.
 - Adopt a natural capital and/or biodiversity offset approach to manage, monitor and enhance the area's natural environment.
 - Deliver flood resilience infrastructure, address water stress and ensure water resilience, and collaborate to produce a flood risk opportunity map to identify

Milestone 3.4.3: Combat biodiversity loss

Target Outcome: The Council combats biodiversity loss by investing and facilitating investments in ecological assets.

Services Responsible: Sustainability Lead to coordinate.

Actions:

- Review and update the Council's Green Infrastructure Strategy and identify strategic deficits in the network.
- Facilitate investments in a strategic green infrastructure network and in interventions that maximise biodiversity gain.
- Invest in tree planting on the Council's Estate and on planned capital projects, whilst encouraging community-led tree planting (See Section 4.1).
- Adopt a complementary planting approach that recognises the roles different habitats provide.
- Facilitate the creation of a tree holding facility to prevent the spread of diseases.

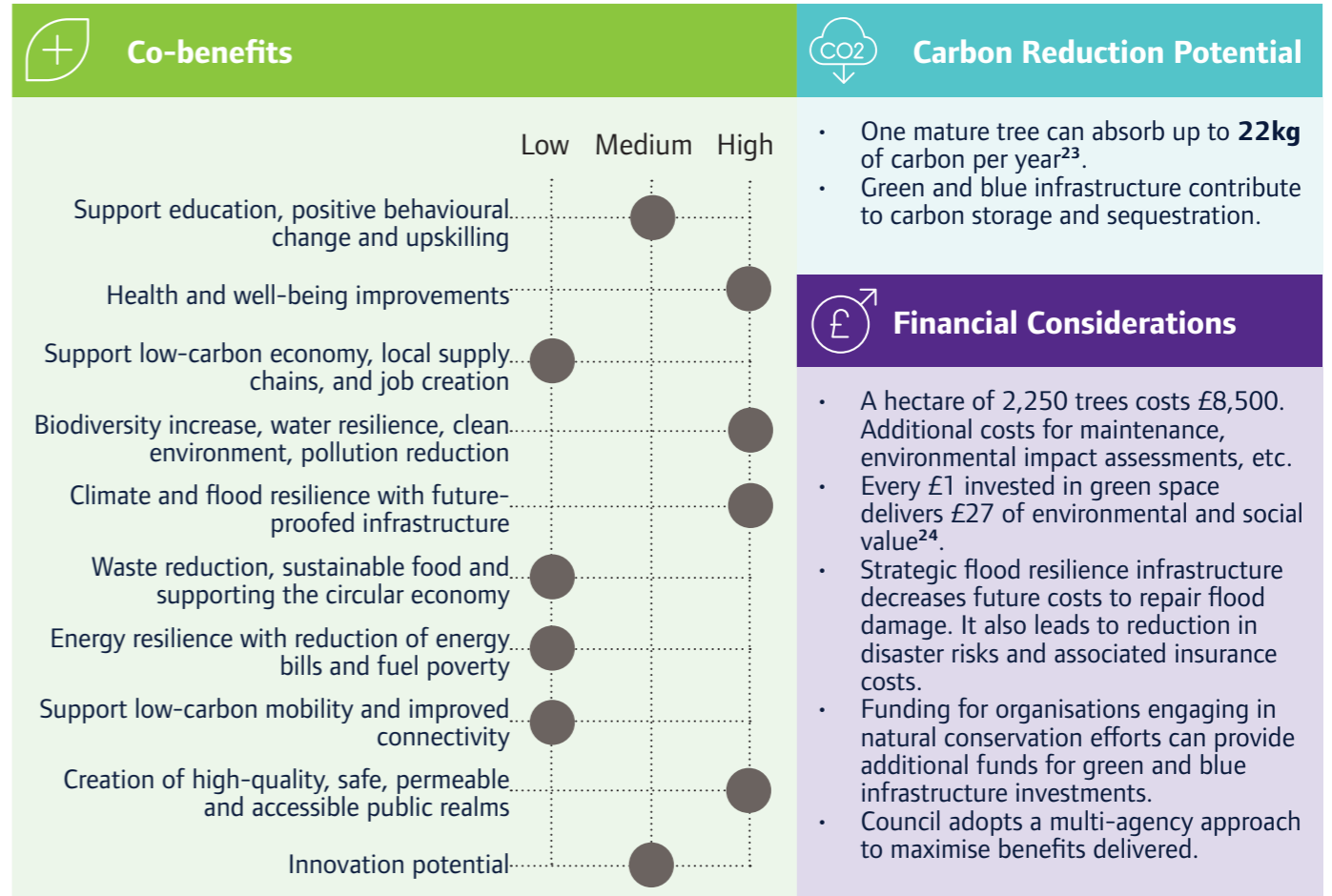
Milestone 3.4.4: Combat flooding and water stress

Target Outcome: The Council reduces its impact on water, combats flooding and water stress and ensures water resilience, through supporting and working with partners.

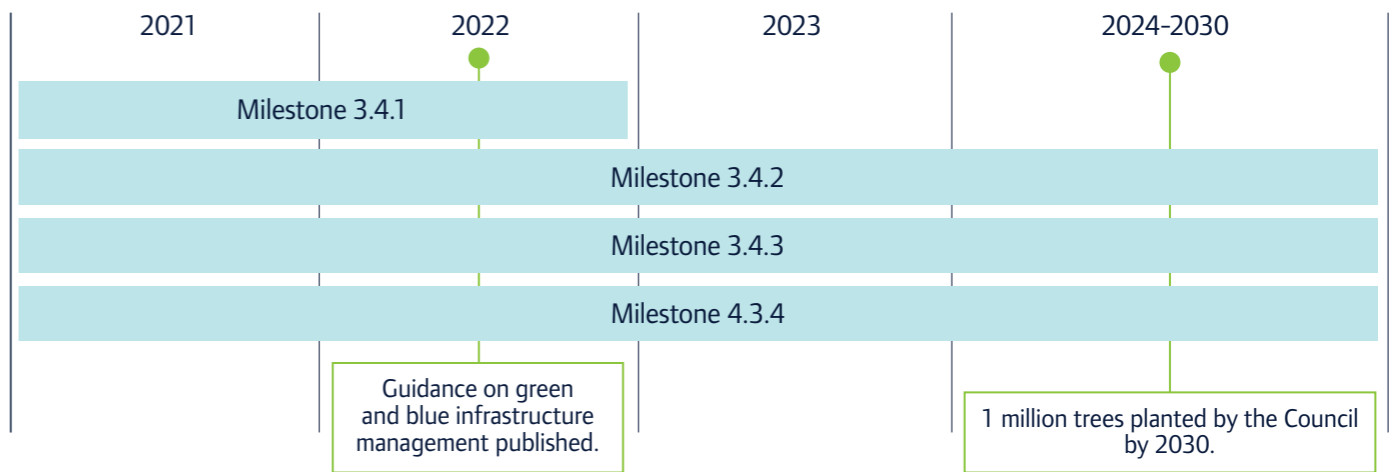
Services Responsible: Flood Risk/Environment Team.

Actions:

- Identify strategic deficits in the area's flood infrastructure network, assessing flood risks from all sources. Encourage using flood water as a resource to restore a supply-demand surplus across catchments thereby increasing water resilience.
- Facilitate investments in strategic flood infrastructure and high-quality water infrastructure that supports resilience and combats water stress, including SuDs, rain gardens, and flood storage.
- Encourage the use of Natural Flood Management approach and of integrated water management interventions across the entire catchment.



Programme and Aspirational Targets



Alignment with SDGs



3.5 Innovation-Led Infrastructure

Overall Objective

Enable low-carbon innovations starting with decarbonising Highways' infrastructure, building a responsive street lighting network, investing in a Central Bedfordshire Innovation Hub, as well as the Council's own innovation programme, and maximising opportunities provided by the internet of things and digital connectivity.

- Embed identification of innovation opportunities into the Sustainability Plan's annual progress reports in order to inform strategic investments into Council-led innovation programmes.

Milestone 3.5.1: Innovate across the street lighting network

Target Outcome: The Council works with partners to create the Central Bedfordshire Innovation Hub which enables low-carbon business incubation, drives local innovation and business growth, and supports a transition to a resilient low-carbon economy.

Services Responsible: Sustainability Lead to develop concept.

Actions:

- Develop the Innovation Hub's concept including determining location, delivery partners, and innovation programme.
- Engage with suppliers, delivery partners and educational institutions, and build on the work of Cranfield University and the Millbrook R&D cluster.
- Develop an innovation programme which includes an annual innovation challenge competition.

Milestone 3.5.2: Invest in a Council-led innovation programme

Target Outcome: The Council creates Energy Innovation Zones (EIZs) to stimulate clean technology innovations.

Services Responsible: Sustainability Lead to develop concept.

Actions:

- Determine location for EIZs starting with areas where grid capacity issues have been identified (Leighton and Biggleswade) and where innovation in clean energy technologies would be extremely beneficial.
- Select low-carbon technologies across energy systems to trial and choose delivery partner.
- Develop business models and market arrangements to support new approaches to clean energy.
- Facilitate investments in digital infrastructure to expand broadband, 5G connectivity and opportunities offered by the internet of things throughout Central Bedfordshire.

Renewable energy infrastructure is covered in Section 3.1.

Milestone 3.5.3: Facilitate and support the creation of the Central Bedfordshire Innovation Hub

Target Outcome: The Council updates street lighting specifications to include LED, integration with EV charging points and digital upgrades in order to build a more responsive street lighting network.

Services Responsible: Highways.

Actions:

- Update specifications to include Central Management System (CMS) and smart sensors. Systems should at a minimum allow for dimming and trimming.
- Update specifications to include EV charging points in street lighting and lamp posts where appropriate.
- Trial smart digital totems in key locations across the area. Smart totem technologies provide opportunities to innovate how people interact with the public realm. It also provides a way to collect data which can be used for the annual progress report.
- Facilitate investments in digital infrastructure to expand broadband, 5G connectivity and opportunities offered by the internet of things throughout area.

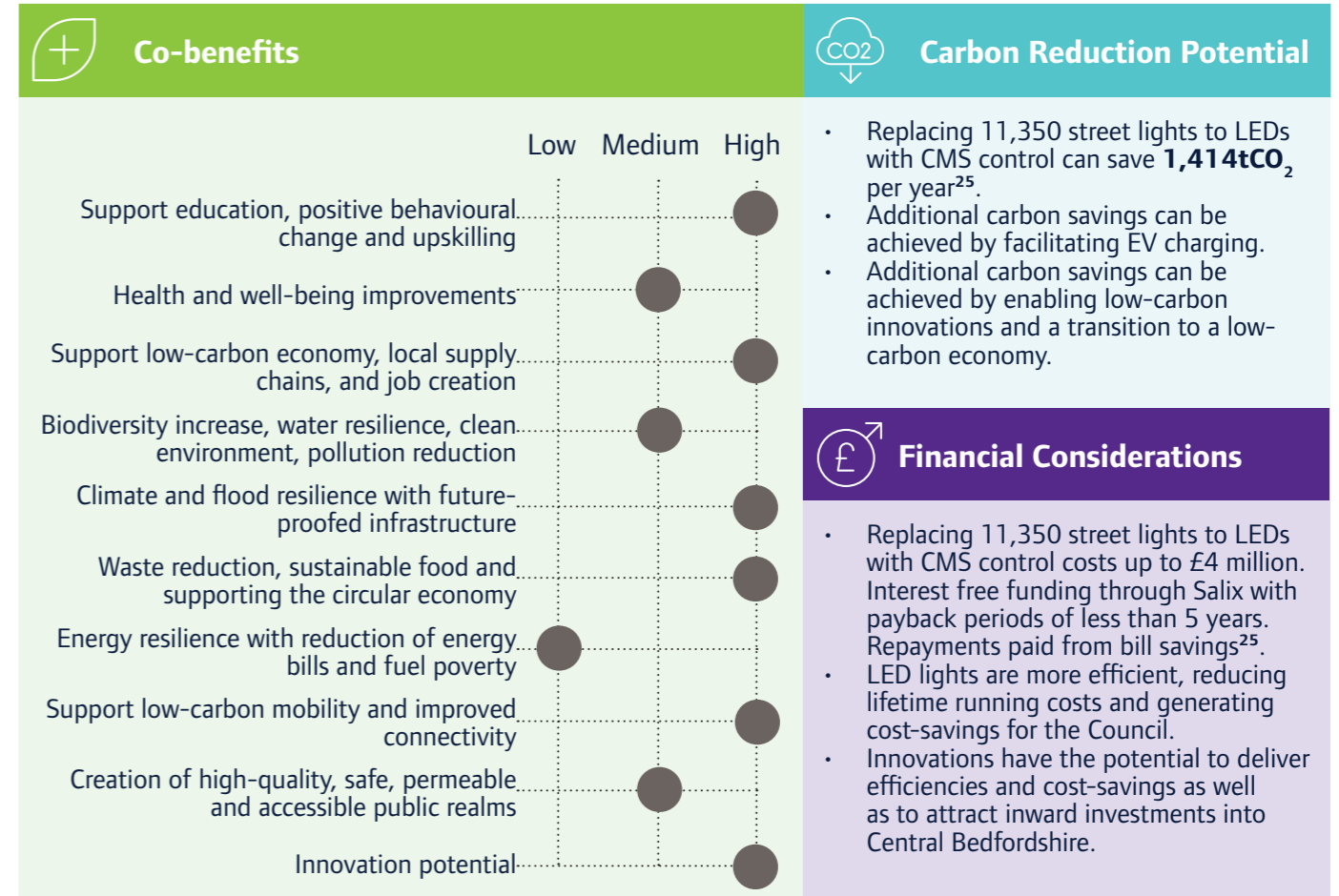
Milestone 3.5.4: Facilitate and support the creation of Energy Innovation Zones

Target Outcome: The Council strategically supports innovation-led investments, transforming the Highway Depots into Innovations Labs.

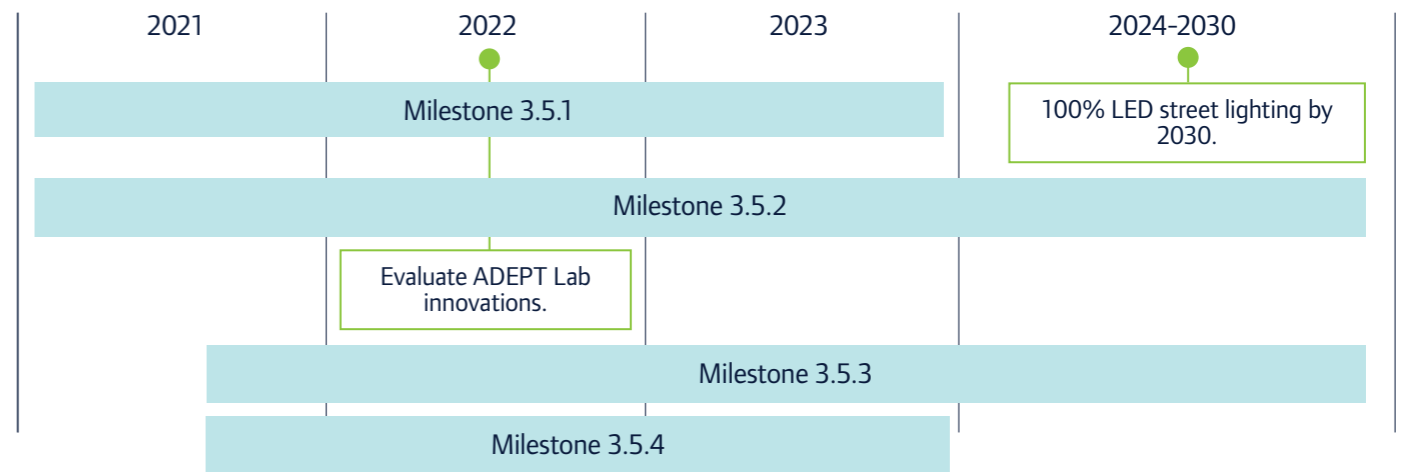
Services Responsible: Highways/Assets.

Actions:

- Determine capacity to transform Sandy and Thorn Turn Depots into Innovation Labs to trial innovations.
- Select and sequence innovation opportunities already identified by Highways Team.
- Evaluate current ADEPT LAB innovations and determine potential to scale up across the area.



Programme and Aspirational Targets



Alignment with SDGs



Section 4:

Influence

Supporting sustainability
within our communities

4.1 Support Sustainable Communities

Overall Objective

Establish mechanisms to support and enable residents to live more sustainable lifestyles and reduce their carbon footprints.

Milestone 4.1.1: Provide a virtual 'Advice Centre'

Target Outcome: The Council supports a virtual Advice Centre which signposts local information to support sustainable living and has a pop-up hub for targeted sustainability engagement with local communities.

Services Responsible: Sustainability Lead to coordinate.

Actions:

1. Allocate resources for managing the Advice Centre and coordinate resident engagement on sustainability issues across the Council's services.
2. Join up existing engagement on sustainability and create a streamlined process across the Council.
3. Create a new dedicated page on the Council's website for the Advice Centre. Key areas of focus should include retrofitting, sustainable mobility, waste reduction and the circular economy.
4. Support creation of an engaging pop-up hub for more targeted engagement with communities. Work with Town and Parish Councils, existing local groups, and organisations such as Sustrans, Wildlife Trust, etc.

Themes for the Advice Centre

- **Buildings and Energy:** Advice on improving energy efficiency and reducing energy usage, retrofitting tips, signposting list of trusted suppliers and funding for retrofitting, low-carbon technology information.
- **Nature and Food:** Advice and tips on maintaining a biodiversity-friendly garden, tips to grow your own food, signposting local markets, information about biodiversity.
- **Transport:** Cycling and walking maps, bikeability training, provide free bike repair vouchers, and travel advice. Build on work done with Travel Choice with programmes to encourage active travel and educate residents on benefits of cycling and walking.
- **Waste:** Advice on reducing waste, information about existing repair shops, second-hand shops and other circular economy initiatives.
- **Water:** Advice on reducing water usage, information on floods and droughts, signposting suppliers for low-water usages appliances and devices in order to promote long-term water resilience

Milestone 4.1.2: Encourage local communities to live more sustainably

Target Outcome: The Council creates a support programme for local communities that encourages residents to reduce their carbon footprints and to engage in sustainable practices.

Services Responsible: Communications/Community Engagement/Sustainability Lead.

Actions:

1. Create a support programme that encourages residents to adopt sustainable practices. The Council will work with Town and Parish Councils, and with existing local groups.
2. Set up 'Technology Engagement Days' at the pop-up hub to teach residents how to effectively use low-carbon technologies.
3. Build on existing relationships with other organisations including Town and Parish Councils to deliver the Plan's sustainability ambitions.

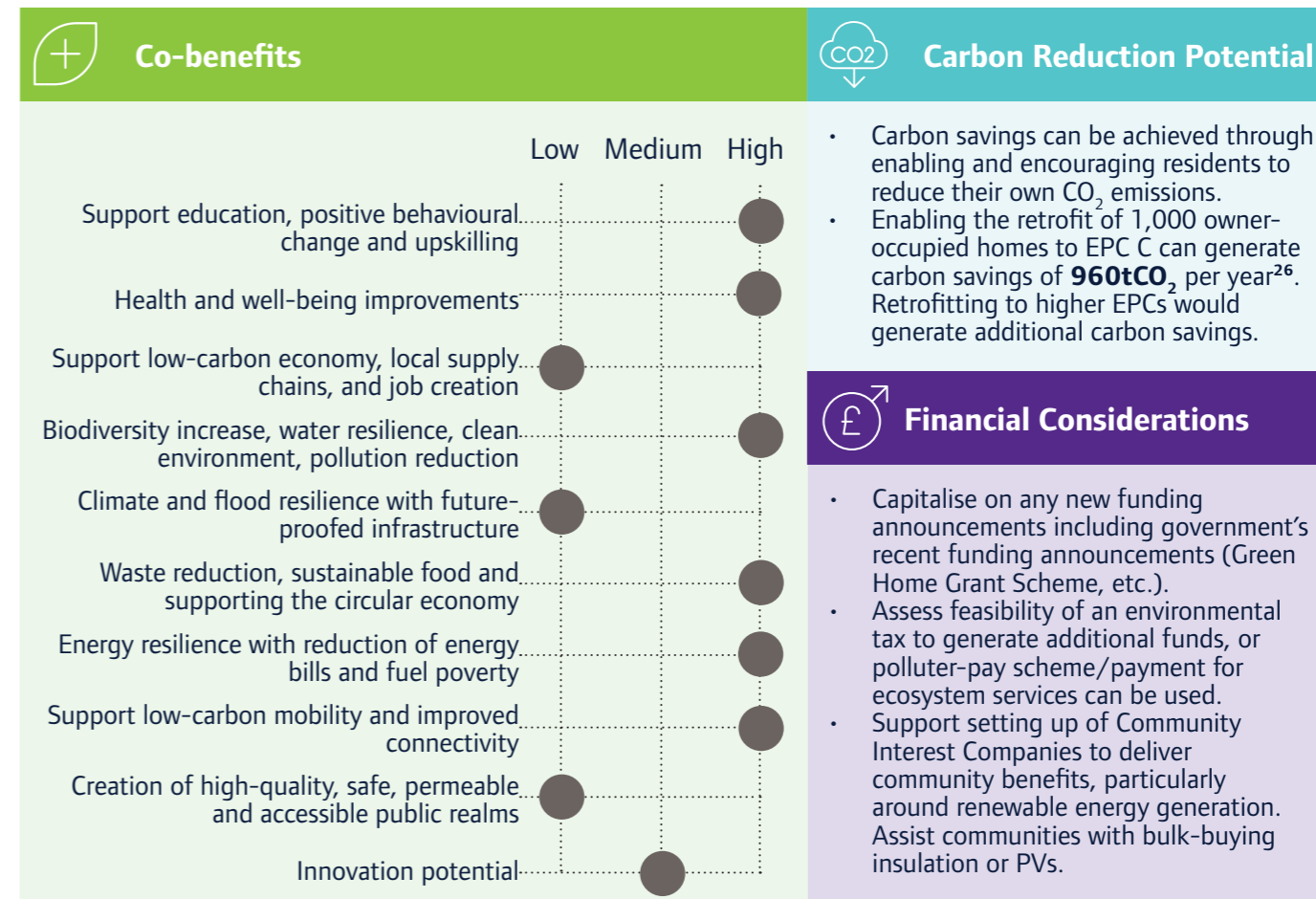
Milestone 4.1.3: Support community-led sustainable projects

Target Outcome: The Council assists local communities with their sustainability projects building on existing ward Councillor grant schemes and specific project support.

Services Responsible: Sustainability Lead/Community Engagement/Waste Team.

Actions:

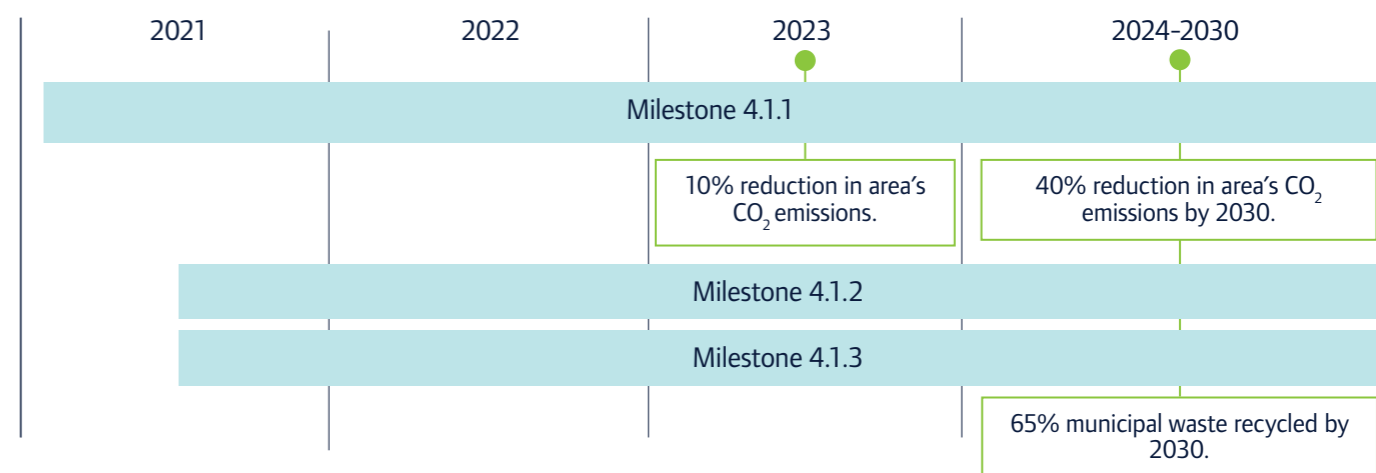
1. Add sustainability criteria to grant scheme application forms and provide grants for communities e.g. tree planting and other sustainability focused projects..
2. Work with local communities, Town and Parish Councils and local groups to increase and improve recycling rates, reduce litter and fly-tipping and promote repair, reuse and waste reduction.
3. Purchase new litter pick kits for volunteers.
4. Support an annual 'Spring Clean' initiative linked to Keep Britain Tidy's annual campaign.
5. Enable the sharing economy including supporting community-led redistribution markets, skills-sharing and 'helpful peeps' schemes.
6. Signpost government funding and provide information on benefits of retrofitting to encourage private landlords and residents to retrofit.
7. Work with Town and Parish Councils to ensure provision of allotments and community gardens.



Financial Considerations

- Capitalise on any new funding announcements including government's recent funding announcements (Green Home Grant Scheme, etc.).
- Assess feasibility of an environmental tax to generate additional funds, or polluter-pay scheme/payment for ecosystem services can be used.
- Support setting up of Community Interest Companies to deliver community benefits, particularly around renewable energy generation. Assist communities with bulk-buying insulation or PVs.

Programme and Aspirational Targets



Alignment with SDGs



4.2 Support Sustainable Businesses

Overall Objective

Support local businesses, landowners and farmers to transition to the low-carbon economy. Support the creation of circular economy in Central Bedfordshire.

Milestone 4.2.1: Support local businesses in reducing their carbon footprints and transitioning to a low-carbon economy

Target Outcome: The Council supports local businesses to dramatically reduce their carbon footprint.

Services Responsible: Sustainability Lead/Business Support.

Actions:

1. Use existing communication channels and work with partners to understand businesses' needs and current sustainability practices.
2. Commission research on the low-carbon economy in Central Bedfordshire to obtain baseline data and map existing low-carbon businesses. This is an opportunity to invite businesses to help meet the area's sustainable targets.
3. Create a support programme that acknowledges businesses that are reducing their carbon footprints and/or providing low-carbon products/services.
4. Provide travel advice and work with businesses to develop business travel plans. Provide active travel advices.
5. Support businesses in securing high-speed broadband connectivity.
6. Launch a Business Innovation Forum. Work with leading anchor organisations, like SEMLEP and Cranfield University, to facilitate knowledge-sharing and connect thinking including supporting knowledge-exchange programmes between sectors. Initial focus of forum should be on housebuilding standard. This helps the private sector to realise and recognise the benefits of better building standards.

Milestone 4.2.2: Support the circular economy

Outcome: The Council continues the support and growth of a circular economy within Central Bedfordshire.

Services Responsible: Sustainability Lead to coordinate/ Business Support/Waste/Community Engagement.

Actions:

1. Encourage and support Town and Parish Council in creating local 'Library of Things', repair/fix it shops, makers and co-working spaces.
2. Encourage "shop local" initiatives and businesses.
3. Engage with relevant sectors, LEPs and large businesses to value waste as a resource that can be traded and to develop 'product as a service' initiatives.
4. Broker relationships between symbiotic businesses.
5. Encourage local suppliers to design out packaging or use sustainable packaging, reduce single-use plastic use, and mitigate waste creation.
6. Support and facilitate the trial of Low-Plastic Zones working with local businesses to reduce single-use plastic.
7. Support and facilitate the trial of a take-back scheme aligned with national plans to start trading waste as a resource.

Milestone 4.2.3: Engage with landowners and farmers to identify sustainability opportunities

Target Outcome: The Council works with landowners, Council tenants, including Farm Estate tenants, and farmers to support them in reducing their environmental impacts.

Services Responsible: Sustainability Lead/Assets.

Actions:

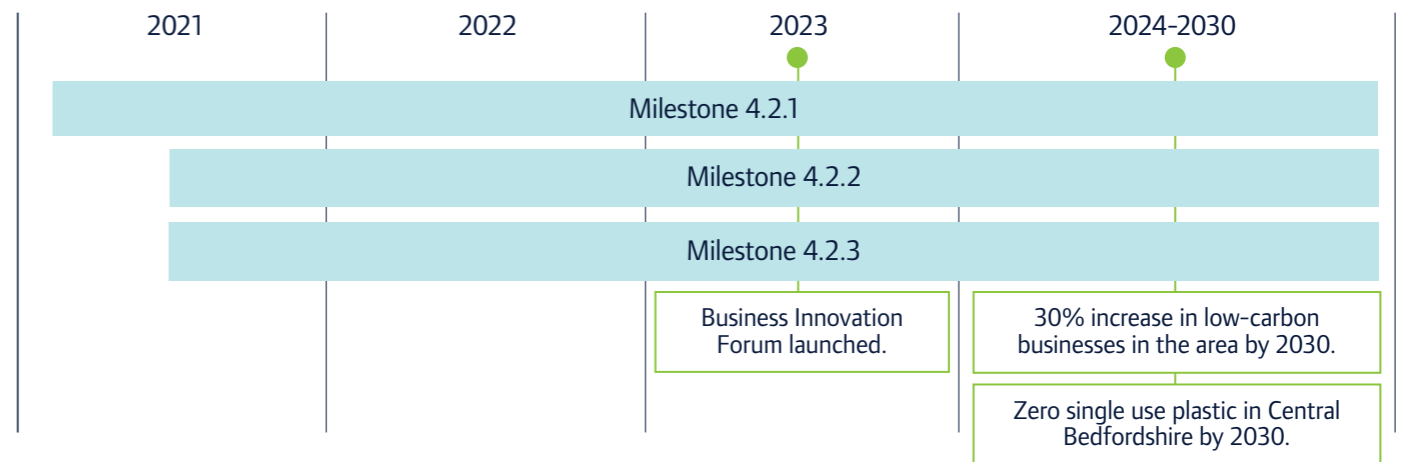
1. Work with our appointed agents to engage with Council tenants, landowners and farmers to identify sustainability opportunities and to communicate benefits. Encourage sustainable farming practices and promote water resilience.
2. Conduct a survey to determine farmers' willingness to invest in renewable energy schemes and adopt eco-friendly farming practices.
3. Assess feasibility of adding sustainability requirements within Council's tenancy agreements.
4. Relaunch 'Tastes of Bedfordshire' and support farmers' markets and local food production.

Co-benefits	Low	Medium	High	Carbon Reduction Potential
Support education, positive behavioural change and upskilling			●	<ul style="list-style-type: none"> Supporting 20 SMEs to access funds to help them reduce their carbon footprints can save 420tCO₂ per year²⁷. Carbon savings can also be achieved through businesses innovating and creating low-carbon products and services. Carbon savings can be achieved by reducing food miles and supporting local food production and consumption.
Health and well-being improvements		●		
Support low-carbon economy, local supply chains, and job creation			●	
Biodiversity increase, water resilience, clean environment, pollution reduction		●		
Climate and flood resilience with future-proofed infrastructure	●			
Waste reduction, sustainable food and supporting the circular economy			●	
Energy resilience with reduction of energy bills and fuel poverty		●		
Support low-carbon mobility and improved connectivity			●	
Creation of high-quality, safe, permeable and accessible public realms	●			
Innovation potential			●	

Financial Considerations

- Apply to Green Jobs Challenge Fund, funding to scale up employment support schemes, and funding to unlock thousands of green jobs.
- Ensure the Council is in a position to capitalise on any funding announcements including the Shared Prosperity Fund.
- Assess feasibility of increasing business rates for non-sustainable businesses.
- Maximise socio-economic benefits from circular economy²⁸.

Programme and Aspirational Targets



Alignment with SDGs



4.3 Support Youth Climate Leadership

Overall Objective

Cultivate youth climate leadership in Central Bedfordshire. Work with schools and existing youth groups to ensure young people are prepared for the future and that their voice and ideas are embedded in sustainability initiatives.

Milestone 4.3.1: Strengthen engagement with schools

Target Outcome: The Council strengthens its engagement with schools as a result of recruiting to the post of Eco-School Officer. The latter helps schools reduce their CO₂ emissions and obtain an eco-school status.

Services Responsible: Sustainability Lead, Eco-School Officer

Actions:

1. Consider allocating dedicated resources to focus on schools engagement.
2. Develop an engagement programme with schools and Youth Centres. Assist schools in signing up to the Eco-School programme and aiming for a Green Flag status and work with Youth Centres to achieve an equivalent certification.
3. Support schools' eco-projects such as litter picking, planting trees, hedges and wildflowers, and investing in renewable energy, reducing water usage.
4. Assist schools in attaining a good score on the transport section of their eco-school accreditation by providing travel advice and helping them develop sustainable school travel plans (voluntary plans and/or planning condition-related plans).

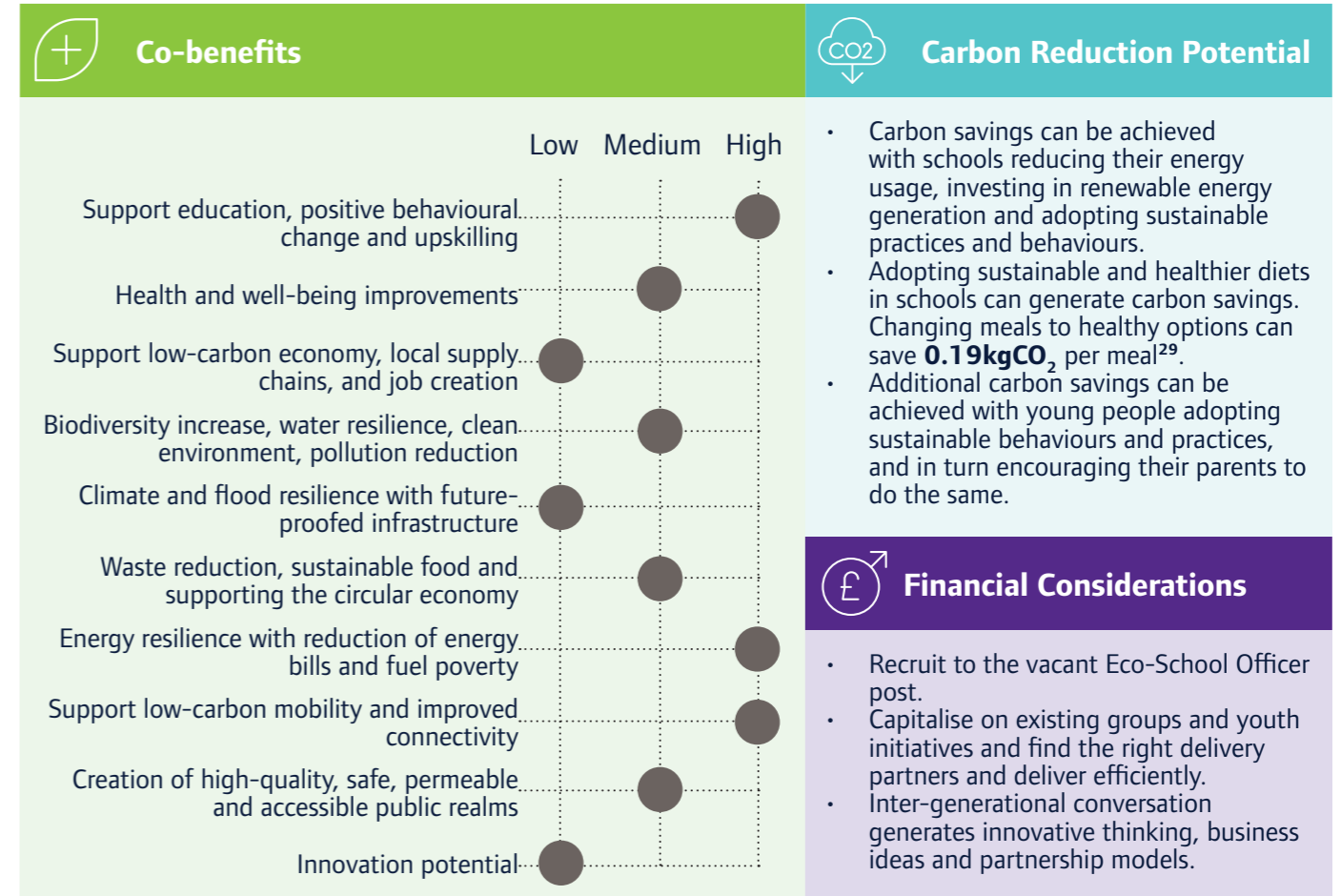
Milestone 4.3.2: Harness youth climate leadership

Target Outcome: The Council builds on previous sustainability engagement with young people and supports their involvement in the delivery of the Sustainability Plan.

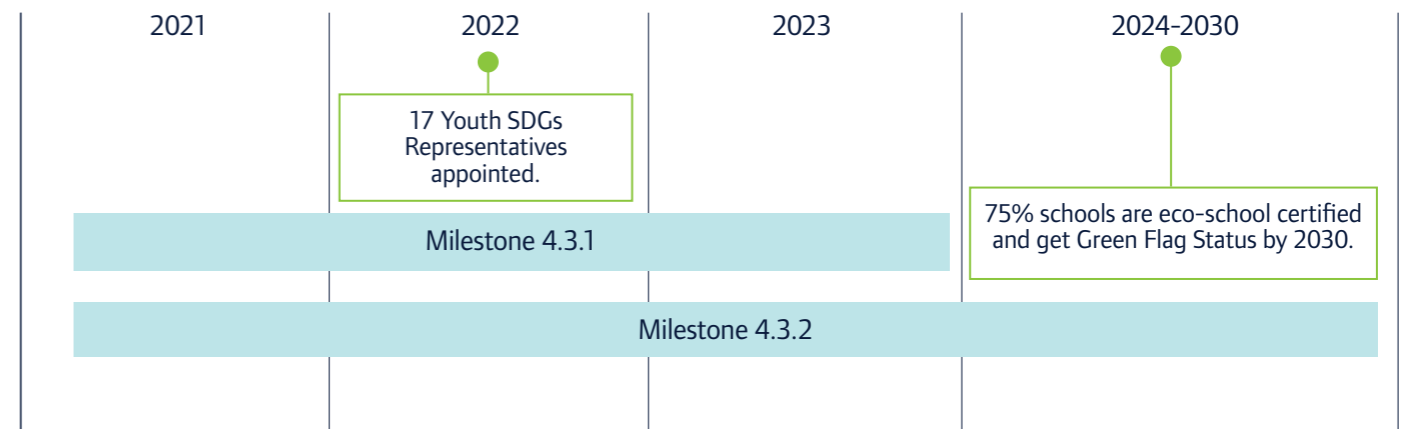
Services Responsible: Sustainability Lead.

Actions:

1. Work with Youth Voice, Youth Parliament, Youth Forum and Youth Assembly and other existing youth groups to engage youth in the delivery of the Sustainability Plan.
2. Nominate Youth SDGs Representatives. Explore option for Youth Voice to manage the Representatives and build on existing youth forums to create a focus on sustainability.
3. Trial reverse mentoring to provide scrutiny on the Sustainability Plan.
4. Encourage youth-led projects that align with the Sustainability Plan through the members' grant scheme and by working with Town and Parish Councils.



Programme and Aspirational Targets



Alignment with SDGs



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Section 5:

Implementation

Prioritising Action

Prioritising Action for 2020/21

This Plan includes numerous actions to begin supporting the Council and Central Bedfordshire in embracing sustainability and carbon neutrality. All proposed actions and resulting projects will have to be properly evaluated and costed, based on clear criteria (such as ROI, WLC etc.) and robust business cases with all tangible co-benefits understood and weighted.

The Council will need to prioritise these actions, especially given the range of challenges the Council, the area and the UK faces in the coming years (COVID-19, economic recession, Brexit).

The early implementation of the Plan will see a focus in 2020/2021 on actions that build and enhance capacity, and embed sustainability into Council processes. In particular, actions within Sections 1.1 and 1.2 require prioritisation:

- Appointing a Sustainability Lead (Milestone 1.1.1) is essential to build the Council's capacity to deliver projects identified within this Plan. Once the Sustainability Lead is appointed, the individual can work with relevant services to develop a Council-wide sustainability training (Milestone 1.1.2). Appointing SDGs Representatives and conducting training will complement other efforts to achieve a cultural shift and embed sustainability within the Council's identity and everyday work (Milestone 1.1.3).
- Additionally, the Council will prioritise actions aimed at mapping our pathway to carbon neutrality (Milestone 1.2.1), to updating and reporting on this Plan (Milestones 1.2.1 and 1.2.2), and on ensuring sustainability is optimised within project development (Milestone 1.2.2) key documents (Milestone 1.2.3) and wider processes (Milestones 1.2.4 and 1.2.5).

Beyond these initial capacity-building actions, priority will be given to actions that:

- **Support a green economic recovery from COVID-19 and its associated economic recession, and contribute to a transition to a low-carbon circular economy.**
- **Represent low-cost quick wins that can be easily realised**
- **Have a significant potential to directly reduce CO₂ emissions, or at least facilitate such reduction.**

Prioritising Action for 2021/22

Using these considerations, the following actions should be immediate priorities for the Council for 2021/22:

- **Enable the sustainable operations of the Council's Corporate Estate** (Milestone 2.1.1) as these actions provide a clear ROI and cost-savings for the Council whilst reducing its own carbon footprint.
- **Deliver the HRA programme** (Milestone 2.1.2). Funds has been allocated and these retrofitting interventions will deliver several co-benefits to the Council's tenants (reduction in energy bills, improved health and well-being) as well as achieve carbon savings. Once the Sustainability Lead has been appointed, the Council will also prioritise conducting eco-audits to reduce its schools' carbon footprints.
- **Deliver flagship sustainable new developments across Central Bedfordshire** (Milestone 2.2.1). In doing so, the Council can lead by example and nudge developers to do the same. Additionally, these projects will inform the Council's review of its Local Plan, policies and processes (Milestone 1.3.1) and the creation of a Sustainability Design Guide for construction projects the Council delivers and commissions (Milestone 2.2.2). This will ensure new developments are not adversely contributing to the Council's and the area's carbon footprints.
- **Facilitate a joined-up approach to catalyse investments in renewable energy** within the area (Milestone 3.1.3). The Council will lead the way by investing in renewable technologies on its own assets and land (Milestones 3.1.1 and 3.1.2).
- **Prepare the Council's EV Strategy** (Milestone 3.2.1), a low-cost quick-win action that will inform future strategic investments in the area's EV charging network (Milestone 3.2.2) and refine incentivisation efforts (Milestone 3.2.3). Since on-road transport is the area's largest source of CO₂ emissions, an accelerated transition to EVs would reduce Central Bedfordshire's carbon footprints.
- **Prioritise active travel infrastructure investments** (Milestones 3.4.1 and 3.4.2), capitalising on recent funding announcements. The first steps should be to use the LCWIP to develop a ten-year investment plan for the area, focusing on increasing strategic connectivity across Central Bedfordshire (Milestone 3.4.1). This will contribute to the post-COVID-19 economic recovery by

allowing residents and workers to safely travel across the area, whilst contributing to health and well-being improvements. The Council recognises that COVID-19 has had short and long-term implications on public transport but is committed to facilitate the creation of an accessible network in Central Bedfordshire.

- Enhance the Council's capacity to **protect and maintain Central Bedfordshire's natural assets** (Milestone 3.4.1) and promote a joined-up approach (Milestone 3.4.2) to deliver strategic upgrades to the Council's natural infrastructure networks (Milestones 3.4.3 and 3.4.4). In doing so, the Council will ensure water resilience and deliver significant co-benefits to local communities, whilst reducing future costs involved with poor health, biodiversity loss, flooding and water stress.
- **Invest in the LED street lighting programme** (Milestone 3.5.1). The Council has already embarked on a LED project and with additional funds can deliver its programme on a shorter time frame. This action delivers significant carbon savings, generates ROI and cost-savings, and promotes innovation within the Council's processes and operations.
- Transform the Highway Depots into Innovation Labs (Milestone 3.5.2) to trial the **Council's innovation-led projects**. These innovations can generate significant carbon savings, create efficiencies that reduce costs, and can deliver several co-benefits including stimulating the growth of a green economy within Central Bedfordshire. Once the Sustainability Lead is appointed, the Council will focus on supporting

the creation of a Central Bedfordshire Innovation Hub (Milestone 3.5.3). By doing so, the Council can attract investments to the area and support a green recovery as well as a wider transition to a competitive, resilient, low-carbon economy. This also **supports the growth of a circular economy in Central Bedfordshire** (Milestone 4.2.2).

- Create an **online Advice Centre** (Milestone 4.1.1) to support residents (and businesses) in reducing their carbon footprints. Signposting relevant information can empower local communities to live and work more sustainably, whilst capitalising on trends observed during COVID-19 (recognition of green area's benefits, support of local businesses, strong community ties, etc.). This low-cost quick win intervention can support other engagement with local communities and businesses and can inform other actions such as developing incentive programme and supporting community-led projects (Milestones 4.1.2 and 4.1.3).
- **Support local businesses in reducing their carbon footprints and supporting the growth of a low-carbon circular local economy** (Milestones 4.2.1 and 4.2.2). This low-cost intervention builds on existing engagement with local businesses, contributes to a green recovery post COVID-19 and can generate significant direct and indirect carbon savings.

Sequencing Action

The Council is in the process of developing a Sustainability Plan Programme which will take the format of an excel workbook with an editable programme tracker (See example below).

	Milestones and Actions	Q3		Q4		
		A	S	O	N	D
1.1.1	Appoint additional sustainability posts					
Action 1	Develop role profile and appoint the Sustainability Lead to coordinate work across the Council, and provide specialist advice.					
Action 2	Appoint SDGs Representatives across services at officer-level to report on the Council's performance against the 17 SDGs.					
Action 3	Develop joined-up approach across the Council to deliver climate actions and avoid duplication of work between SDGs representatives.					
Action 4	Add sustainability scope within cabinet members' portfolios.					
Action 5	Consider creating dedicated sustainability apprenticeships (6-12 months) for key data collection tasks including carbon footprint reporting.					
1.1.2	Deliver sustainability training for staff and members					
Action 1	Determine best options for Council-wide training (e-learning, in-house face-to-face training, online courses, external learning, CPD etc.). Ensure scope of training aligns with Sustainability Plan's objectives, pathways to carbon neutrality and establish monitoring and evaluation processes					
Action 2	Deliver training to staff and members, including staff at the Council's					
Action 3	Provide officers with tools and authority to enhance sustainability with					

Financing the Plan

Internal Funding

The Council's Medium Term Financial Plan (20/21 to 23/24) and agreed budget for 20/21 includes provision for revenue budget to focus on environmental and sustainability initiatives. This will be used to move the implementation of the Plan forward. There are also a number of funded projects in both the Council and HRA capital programme that will deliver against milestones and actions identified within the Plan.

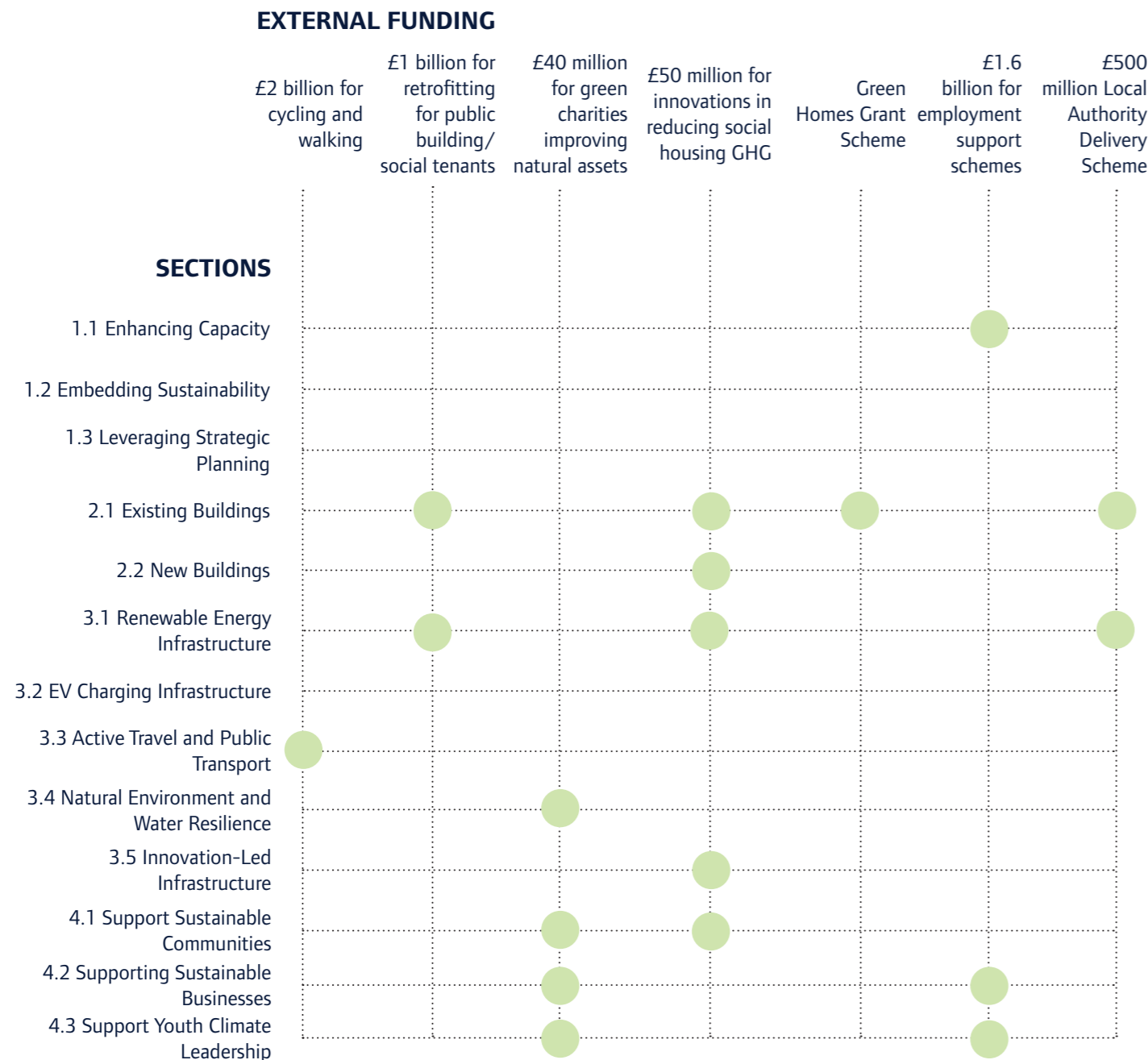
Where specific projects are identified for future delivery and require an additional capital funding investment by the Council, an assessment through the normal budget setting process will be conducted. This will include a

number of fully costed actions for consideration as part of the 21/22 budget setting process.

In addition to this, it is recognised that there are opportunities to bring forward actions and projects that are in the Sustainability Plan through alternative financing mechanisms and innovative delivery models. This includes fully exploring central government grant funding, commercial opportunities, and other financing mechanisms, such as energy performance contracting.

External Funding

To capitalise on recent funding announcements, a matrix has been prepared to identify potential external funding available³⁰.



Governance and Reporting

Governance

The Sustainability Plan is a Council-wide document, owned by the Director of Place & Communities. Nevertheless, all CBC staff and members have some responsibility in supporting the Council and the area in embracing sustainability and carbon neutrality. The Council will implement a robust governance framework as part of building its capacity.

Updating the Plan

The Sustainability Plan is a live document that will require updating over its lifetime. It is proposed that a six-month progress update will be produced. A review of the Sustainability Plan will take place annually, alongside the annual GHG report. This will report on:

- The progress made in achieving the milestones and actions identified in the Plan, what is 'on' or 'off' track and will detail the next steps for the coming year.
- Highlight opportunities linked to emerging projects led by the Council, and, where possible the scope to further enhance the sustainability co-benefits delivered.
- Summarise the findings of any supporting research, project evaluations, etc. that will inform and shape future project delivery.
- Provide an overview of significant external factors that will influence next steps, such as new legislation, policy, or grant funding, as well

as changes to technology or other best practice approaches. Additionally, the Plan will need to be updated against other emerging Council documents, policies or priorities.

- Give an overview of the Council's performance in relation to the UN SDGs and highlight new areas for focus and action.
- Use the above information to provide a series of recommendations on what new milestones and actions will be introduced to move the Plan forward.
- This will align with the Council's budget setting process, allowing for options to be considered based upon robust business cases.

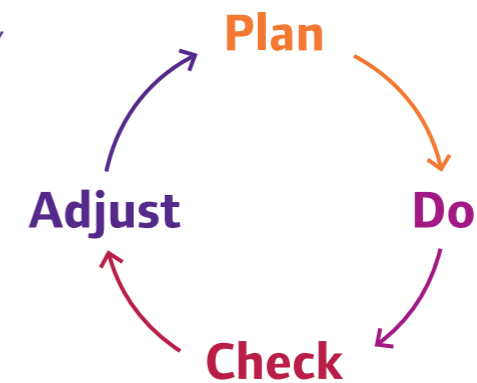
Reporting and Monitoring

The Sustainability Plan Programme Excel workbook will include a framework to report and monitor progress. The Council will identify key sets of KPIs and metrics to evaluate progress over the Plan's lifetime. The metrics will go beyond CO₂ emission reduction to capture sustainability co-benefits and economic recovery indicators.

This Sustainability Plan has been deliberately designed to ensure that there is ongoing scope to allow the Council to modify and adapt as appropriate in order to ensure that momentum is maintained and that the Plan remains relevant and continues to deliver positive outcomes and benefits.

Identify what needs to continue, be amended or stopped.

Factor in new opportunities.



Use baseline, latest data and other evidence to shape the annual progress report.

Map out actions to identify what will be done and what it will achieve.

Deliver actions and projects.

Analyse annual carbon footprint report and latest area carbon emission data.

Review progress and the impact of what has been delivered to date.

Identify changes in emerging technologies, funding, and other opportunities and/or challenges.

References

1.1 Enhancing Capacity

¹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹**Assumption for staff CO₂**: Based on the Ashden spreadsheet in which the case study of Islington Council and the Carbon Trust is used. The latter ran an energy efficiency campaign aimed at council staff and schools which saved £43,000 and 196 tCO₂ per year. Islington population is 235,000. In the baseline report, Central Bedfordshire's population was estimated at 283,606. Pro-rata, this saving would equate to 236tCO₂ per year. As per the Baseline Report produced, energy use in the Council's offices accounted for 630tCO₂ in 2018/19.

1.2 Embedding Sustainability

²Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²**Assumption for procurement CO₂**: In 2010, Central Bedfordshire Council's procurement expenditure was £280 million (latest data provided during baseline exercise) and based on the hot spot analysis conducted then the carbon footprint was 296.87tCO₂ per £million of expenditure. Ashden found that councils could save up to 170tCO₂ per £1 million spent. For Central Bedfordshire, this equates to 47,600tCO₂ per year. Sustainable procurement can help reduce scope 3 emission. Based on the Baseline report findings, scope 3 emissions for Central Bedfordshire totalled 1.9 million tCO₂ in 2018/19.

1.3 Leveraging Strategic Planning

³Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

³**Assumption for CO₂ for offset fund**: Based on the Ashden spreadsheet and figures are based on the Milton Keynes carbon offset fund which has generated more than £1 million for carbon-saving projects. They achieved carbon savings of 9,300tCO₂ over 7 years and generated more than £1 million for carbon saving projects. Milton Keynes population is 230,000 compared to Central Bedfordshire's population of 283,606. Pro rata, Central Bedfordshire could save 1,638tCO₂ per year.

Embodied Carbon:

⁴Connaughton, L., Weight, D., & Jones, C. (2019). *Cutting Embodied Carbon in Construction Projects*. [pdf] Wrap. Available at: <http://www.wrap.org.uk/sites/files/wrap/FINAL%20PRO095-009%20Embodied%20Carbon%20Annex.pdf>

⁴LETI (2020). *Embodied Carbon Primer: Supplementary Guidance to Climate Emergency Design Guide*. [pdf] LETI. Available at: https://b80d7a04-1c28-45e2-b904-e0715cface93.filesusr.com/ugd/252d09_8ceffcbcafdb43cf8a19ab9af5073b92.pdf

⁴UKGBC. (2017). *Embodied Carbon: Developing a Client Brief*. [pdf] UKGBC. Available at: <https://www.ukgbc.org/wp-content/uploads/2017/09/UK-GBC-EC-Developing-Client-Brief.pdf>

Low Carbon Building Statistics:

⁵Canada Green Building Council, (2020). *Making the Case for Building to Zero Carbon*. [online] Available at: [https://www.cagbc.org/CAGBC/Zero Carbon/Report Making The Case For Building To Zero Carbon/CAGBC/Advocacy/making-the-case-for-building-to-zero-carbon.aspx?hkey=3efa945b-07a4-465a-ad05-1fd0a14e57bb](https://www.cagbc.org/CAGBC/Zero%20Carbon/Report%20Making%20The%20Case%20For%20Building%20To%20Zero%20Carbon/CAGBC/Advocacy/making-the-case-for-building-to-zero-carbon.aspx?hkey=3efa945b-07a4-465a-ad05-1fd0a14e57bb)

2.1 Existing Buildings

⁶Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

⁶**Assumption for EPC C retrofitting**: Based on the Ashden spreadsheet, the government has set a target of all homes being improved to Energy Performance Certificate C by 2035. It's estimated that improving a home to EPC C (SAP 65) would save 30% of carbon. It is estimated each household emits 3.2 tonnes CO₂ from heating and electricity. Based on the baseline report, Council has 288 properties within its HRA to retrofit. Total saving = 30% x 288x3.2 = 276tCO₂.

⁷Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

⁷**Assumption for Council's energy use**: For 2018-19, Central Bedfordshire Council's buildings total carbon footprint associated with heating and controls was 15,751.51tCO₂ including 630tCO₂ for its offices. Interest free loans are available to upgrade heating and controls which can cut the energy used for heating by about 20%. A 20% reduction would reduce CO₂ emissions by 3,150tCO₂ and 126tCO₂ respectively.

2.2 New Buildings

⁸Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

⁸**Assumption for higher energy standards**: According to Zero Carbon Hub, annual CO₂ emissions from a new typical semi-detached house with a gas heating system (excluding emissions due to appliances and cooking) will be around 2.0 tonnes. Substantial growth is planned for Central Bedfordshire with a 20,000 new homes delivery target. Requiring these homes to be zero carbon homes would save 40,000tCO₂.

Passive Design Statistics:

⁹LETI (2020). *Climate Emergency Design Guide: How New Buildings Can Meet UK Climate Change Targets*. [pdf] LETI. Available at: https://b80d7a04-1c28-45e2-b904-e0715cface93.filesusr.com/ugd/252d09_3b0f2acf2bb24c019f5ed9173fc5d9f4.pdf

⁹Passivhaus Trust (2019). *Passivhaus Construction Cost*. [pdf] Passivhaus Trust. Available at: https://www.passivhaustrust.org.uk/UserFiles/File/research%20papers/Costs/2019.10_Passivhaus%20Construction%20Costs.pdf

⁹Passivhaus Trust (2019). *Passivhaus Social Housing: Maximising Benefits, Minimising Costs*. [pdf] Issuu. Available at: https://issuu.com/passivhaus_trust/docs/ph_social_finalwebv3/8

Circular Statistics:

¹⁰Circular Design Guide. (2018). *Material Selection*. [online] Circular Design Guide. Available at: <https://www.circulardesignguide.com/post/material-selection>

Offsite Construction Statistics:

¹¹Miles, D. (2019). *Offsite Construction: Advantages in Cost and Efficiencies*. [online] Atamate Website. Available at: <https://www.atamate.com/atamate-blog/offsite-construction-advantages-in-costs-and-efficiency>

3.1 Renewable Energy Infrastructure

¹²Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹²**Assumption on renewables**: Figures based on those given in the Warrington example and checked by Ashden UK programme manager. Warrington scheme provides energy for 18,000 homes at 3.5MWh/year saving up to 25,000 tCO₂ per year. Built in partnership with Gridserve across two sites at York and Hull, the £62.34m project will produce enough green electricity to power around 18,000 homes. The York site – where work will begin shortly – will consist of a 34.7MWp hybrid solar farm plus a 27MW battery storage system, the largest at any UK solar facility. A 25.7MWp solar farm at Hull will follow in a later phase. Approximately, 60MWp can contribute to 25,000tCO₂ savings per year.

¹³Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹³**Assumption for 10% Council energy use**: Based on Ashden spreadsheet and on supplying 10% of the Council's energy use through on or near-site renewables. For 2018-19, Central Bedfordshire Council's buildings total carbon footprint associated with heating and controls was 15,751.51tCO₂ including 630tCO₂ for its offices. If 10% is supplied with on-near-site renewable energy, savings of 1,575tCO₂ and 63tCO₂ respectively.

Cost Section:

¹⁴The Engineer. (2016) *Warrington Solar Project Hailed as UK's Most Advanced*. [online] The Engineer. Available at: <https://www.theengineer.co.uk/warrington-solar-project/>

¹⁴The Renewable Energy Hub UK. (2020). *How much Do Solar Panel Systems Cost*. [online] The Renewable Energy Hub UK. Available at: <https://www.renewableenergyhub.co.uk/main/solar-panels/the-cost-of-solar-panels/>

References

¹⁴IRENA (2020) *Renewable Power Generation Costs in 2019*. [online] IRENA Website. Available at: <https://www.irena.org/publications/2020/Jun/Renewable-Power-Costs-in-2019>

3.2 EV Charging Infrastructure

¹⁵Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹⁵**Assumption EV uptake:** Based on 3% annual increase passenger cars, vans and LGVs being EV to achieve 30% EV uptake increase by 2030; figure will increase year or year as proportion of vehicles becoming EV increases. Assumptions made: 25% of emissions come from HGVs, buses and coaches, leaving 75% for vans and cars. 50,000 cars in Central Bedfordshire (0.15% of 32.5million) with average emissions 135g/km (8-year-old car - average age of car in the UK) and average mileage of 11,200km = 75,600 tCO₂. Vans & LGVs drive 78,000m km a year. For our town 0.15% of this is 118m km. Emissions of 158g/km, = 18,580tCO₂. Total emissions for passenger cars, vans and LGVs = 87,200tCO₂. Assume 30% switch to EV and they save 66% (= typical saving for a car, reduced from 135 to 45g/km), saving = (87200*.3*.66) = 17,300tCO₂ saved over ten years. Suggested that Central Bedfordshire aims to achieve 30% by 2030 so this is 1,750tCO₂ savings per year (3% increase per year). Based on the Baseline Report findings, transport emissions accounted for 646,699tCO₂ in Central Bedfordshire in 2018/19.

¹⁶**Assumption Council fleet:** Average reduction in CO₂ emissions from switch to EV is 66%. Based on the Baseline Report findings, the Council's transport emissions (staff business mileage, waste collection vehicle, highways, other CBC fleet and school transport) accounted for 4,098tCO₂ in Central Bedfordshire in 2018/19.

¹⁷**Assumption taxis:** Figures are based on 435 taxis (roughly the number of taxis for a Council area), with a 60% reduction in CO₂ through switching to EVs. Average taxi mileage 25,000 miles or 42,000 km. CO₂ emission for petrol car - 135g/km, = 2,466tCO₂, EV = 45g/km = 822tCO₂. Saving = 1644tCO₂. Replaced over 5 years 329tCO₂ per year.

¹⁸**Calculations for EV targets:** Based on Ashden spreadsheet: Around 29,000 charging points are needed across Great Britain by 2030 to meet future EV charging needs (30% EVs). Proportionally, Central Bedfordshire would need at a minimum 132 chargers. Therefore, aim for 100-150 EV charging points required to support a 30% increase in EVs by 2030.

3.3 Active Travel and Public Transport

¹⁹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

¹⁹**Assumption on commuting by cycling:** Based on a Redditch case study. Redditch has a population of just over 100,000. For this town, the Propensity to Cycle tool suggests the average current cycling rate for commuting is 2.2% with e-bikes able to take that to 26% and reduce CO₂ by 1,472 tonnes per year. Assume this happens over 5 years, so CO₂ saving 295T per year. Central Bedfordshire has a higher population than Redditch so a 26% increase in cycle commuting would result in higher carbon savings. Pro rata this would equate to reducing carbon emissions by 4,175tCO₂. Assuming the increase to 26% cycle takes 10 years (2030 target) this equates to 417tCO₂ per year. Based on the Baseline Report findings, transport emissions accounted for 646,699tCO₂ in Central Bedfordshire in 2018/19.

²⁰Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁰**Assumption on taking commuting cars off roads:** Encouraging people to share rides cuts carbon and congestion whilst also improving air quality. Data is based on a Liftshare case study and on taking 1,000 commuting cars off the roads each year. In a town with 100,000 residents: 25,000 will commute and 21,000 will commute by car in 20,000 cars, emitting 40,000 tonnes of CO₂. Take 1000 cars off road to achieve savings of 2,000 tonnes CO₂ per annum. Based on the Baseline Report findings, transport emissions accounted for 646,699tCO₂ in Central Bedfordshire in 2018/19.

²¹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²¹**Assumption for consolidation centres:** Urban Consolidation Centres (UCC) can enable last mile deliveries to be made using electric freight vehicles (including e-bikes) rather than diesel-powered HGVs. Based on a 20% reduction on freight emissions; ultimately, up to 80% reduction could be achieved if there was full coverage and uptake of UCCs linked to restrictions imposed by the council on freight traffic. Studies have suggested that urban freight vehicles account for over 20% of transport emissions in cities. In Worcester (city of just over 100,000); road emissions are 110,000tCO₂. 20% - 22,000 tCO₂ from freight equates to 4,400tCO₂ saved per year. Pro-rata for Central Bedfordshire this equates to 12,478tCO₂.

Financial Considerations:

²²Evans, A. (2017). *The 8 Best Cycling Innovations from Dockless Bikes to Solid Tyres*. [online] The Guardian. Available at: <https://www.theguardian.com/cities/2017/jun/17/10-best-cycling-innovations-dockless-bikes-solid-tyres>

²²PHE (2016) *Working together to Promote Active Travel: A briefing for Local Authorities*. [online] PHE. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/523460/Working_Together_to_Promote_Active_Travel_A_briefing_for_local_authorities.pdf

²²Taylor, I. & Hiblin, B. (2017) *Typical Costs of Cycling Interventions*. [online] *Transport for Quality of Life*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742451/typical-costings-for-ambitious-cycling-schemes.pdf

²²Cedar. (2017) *Results from the Department of Transport-funded Propensity to Cycle Tool Project*. [online] University of Cambridge. Available at: <https://www.cedar.iph.cam.ac.uk/resources/evidence/eb-14-englands-cycling-potential/>

3.4 Natural Environment and Water Resilience

²³Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²³**Assumption on trees:** £348k to cover 100 street trees (at an average of £3k per tree), and a hectare of 2,250 trees costing £8,500. Each tree can absorb around 22kg CO₂ per annum.

Benefits:

²⁴Coleman, J. (2017). *Making a Sound Economic Case for Investment in Green Infrastructure*. [online] Environment Journal. Available at: <https://environmentjournal.online/articles/making-sound-economic-case-investment-green-infrastructure/>

²⁴GLA. (2017). *Natural Capital Accounts for Public Green Space in London*. [pdf] GLA. Available at: https://www.london.gov.uk/sites/default/files/11015viv_natural_capital_account_for_london_v7_full_vis.pdf

²⁴Green Infrastructure Task Force. (2020). *Natural Capital: Investing in a Green Infrastructure for a Future London*. [pdf] GLA. Available at: <https://www.london.gov.uk/sites/default/files/gitaskforcereport.hyperlink.pdf>

²⁴NHS Forest. (2020). *Evidence of Benefits*. [online] NHS Forest. Available at: <https://nhsforest.org/evidence-benefits>

²⁴IUCN. (2019). *Nature-based Solutions and Protected Areas to Improve Urban Biodiversity and Health*. [online] IUCN. Available at: <https://www.iucn.org/news/europe/201907/nature-based-solutions-and-protected-areas-improve-urban-biodiversity-and-health>

3.5 Innovation-Led Infrastructure

²⁵Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁵**Assumption on street lighting:** Current statistics based on Islington Case Study from the Ashden spreadsheet. Islington plan to replace 11,350 street lights to LEDs with CMS (Central Management System) control. This will save 1,414 tonnes of CO₂ each year. Costs to Islington for replacing 11,350 street lights to LEDs with CMS (Central Management System) control equals £4million.

4.1 Support Sustainable Communities

²⁶Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

References

²⁶**Assumption on enabling retrofit:** Increasing the energy efficiency rating of all owner-occupied housing to EPC C (SAP 65) or higher would cut carbon whilst also slashing energy costs. Each household emits 3.2 tonnes CO₂ from heating and electricity. It's estimated that improving a home to EPC C would save 30% of carbon. Providing a baseline for 1000 homes Total saving per 1,000 homes = 30% x 1000x3.2 = 960tCO₂. Based on the Baseline Report findings, residential buildings' energy use accounted for 444,536tCO₂ in Central Bedfordshire in 2018/19.

4.2 Support Sustainable Businesses

²⁷Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁷**Assumption on supporting SMEs:** Most small and medium sized businesses could reduce their carbon pollution through fairly simple, inexpensive measures; councils can support them to access funds and resources to help with this. Since 2016, the Green Business Fund has supported hundreds of small businesses to identify an average potential saving of £8,230 on their energy spend. Assuming half electricity (14p/kWh) and half gas (4p/kWh), this equates to average cost of 9p/kWh; meaning the savings equate to 91 MWh saved. 1MWh electricity = 277kgCO₂, 1MWh gas = 184kgCO₂. Assuming savings split between gas and electricity; 45.5MWh electricity = 13tCO₂, 45.5MWh gas = 8tCO₂, total = 21 tonnes CO₂ per SME accessing the fund. Setting a target of getting 20 organisations per annum to access the fund would equate to savings of 420 tCO₂ in total. Based on the Baseline Report findings, commercial buildings' energy use accounted for 71,164tCO₂ and industrial facilities accounted for 145,769tCO₂ in Central Bedfordshire in 2018/19.

Circular Economy Statistics:

²⁸Castle, L. (2018). *10 Advantages of Buying Local*. [online] Well. Available at: <https://www.well.org/conscious-consumers/10-advantages-of-buying-local/>

²⁸Bové, A., & Swartz, S. (2016). *Mapping the Benefits of a Circular Economy*. [online] McKinsey Company. Available at: <https://www.mckinsey.com/business-functions/sustainability/our-insights/mapping-the-benefits-of-a-circular-economy>

²⁸Green Alliance. (2015). *The Social Benefits of a Circular Economy: Lessons from the UK*. [pdf] Green Alliance Available at: <https://www.green-alliance.org.uk/resources/The%20social%20benefits%20of%20a%20circular%20economy.pdf>

4.3 Support Youth Climate Leadership

²⁹Ashden (February 2020) *31 Actions for Councils*. [spreadsheet] Available at: <https://www.ashden.org/programmes/top-31-climate-actions-for-councils>

²⁹**Assumption on healthier diets:** Switch to more plant-based menus will cut carbon pollution whilst also encouraging healthy eating. Mean greenhouse gas emission (GHGE) value/school lunch = 0.72kgCO₂. The total GHGs due to primary school meals in England per year is 578.1 million kgCO₂. When healthy meals are defined by salt, saturated fat and sugar levels, the mean GHGE of healthy school lunches was 0.54 (0.47–1.46)kgCO₂ and the mean GHGE of unhealthy school lunches was 0.81 (0.57–1.44)kgCO₂. So changing all meals to healthy options would reduce carbon emissions by (0.72–0.53)kgCO₂ per meal, i.e. 0.19kgCO₂. Based on the Baseline Report findings, primary and secondary schools account for 65.42% of the Council's carbon footprint in 2018/19.

Financing the Plan

³⁰HM Government (May 2020) *£2 Billion Package to Create a New Era for Cycling and Walking*. [online] Available at: <https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking>

³⁰HM Government (August 2020) *Quality Assurance at the Heart of New £2 Billion Green Homes Grants*. [online] Available at: <https://www.gov.uk/government/news/quality-assurance-at-heart-of-new-2-billion-green-homes-grants>

³⁰HM Government (July 2020) *Chancellor's Plan for Jobs to Help the UK's recovery*. [online] Available at: <https://www.gov.uk/government/news/rishis-plan-for-jobs-will-help-britain-bounce-back>

³⁰HM Government (June 2020) *Government Announces £40 million Green Jobs Challenge Fund*. [online] Available at: <https://www.gov.uk/government/news/government-announces-40-million-green-jobs-challenge-fund>



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