



**One
Planet
Cardiff**

**Action Plan
September
2021**



This document is available in Welsh /
Mae'r ddogfen hon ar gael yn Gymraeg



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Introduction to the Plan

The One Planet Action Plan sets out short, medium and longer term actions that have been developed by the Council, in partnership and based on the feedback of the city-wide consultation on One Planet Cardiff. It is the delivery and monitoring arm of the overarching One Planet Cardiff Strategy and addresses the targets, analysis and key action areas identified within the strategy.

At the core of our strategy and planned actions are our seven key themes set out below. We have systematically analysed these and now understand the potential contribution that each makes. The annex to this report shows this analysis, and a continued review of these themes will help to inform and shape the action plan as it progresses towards 2030.



This includes how energy is used, how it's sourced, distributed and generated. Our aim is to use less, to source more from clean renewable sources, and to help build business around this growing sector.



Our integral green spaces and biodiversity need to be protected and enhanced. We need to take bold steps to add to the natural green assets of the city making a healthy, clean, biodiverse, environmentally positive place in which citizens and business can thrive.



We need to look closely at how we move around the city and at the infrastructure required to minimise the impact of vehicle emissions and air quality. Our plans are to replace as many single user, fossil fuelled trips as possible with sustainable low carbon modes of travel, whilst ensuring that they don't simply migrate problems elsewhere.



By reducing waste production, making thoughtful procurement decisions, and by recycling what waste is produced in the right way, we can reduce our carbon footprint. We also recognise that certain waste can be an important low carbon energy source, helping to build new, clean, local and resilient economic activity.



The production, transportation, processing and disposal of food is a major source of emissions and our proposals are aimed at supporting smarter, more localised and more socially equitable food systems, that could also boost the local food economy.



This comprises existing and planned buildings and infrastructure. We need to constantly improve the energy efficiency and resilience of our new and existing buildings and communities, and capture the skills and jobs required to achieve this for the benefit of the local economy.



How we source, use and manage water, and how we protect ourselves against drought and flooding are crucial parts of our aims to build climate resilience and the strategy outlines a series of current and future responses to this challenge.

Introduction to the Plan

Ongoing analysis of actions centred around our themes has given rise to the first tranche of quantified and modelled capital projects to contribute to our climate change action.

One Planet Action Plan will

- Set out annually an update, review and plan for decarbonisation and climate change mitigation projects that are underway, in development and planned.
- Communicate progress towards carbon neutral emission reduction objectives
- Propose and incorporate new project ideas and concepts for stakeholder input
- Review Governance Structures and incorporate updates on any new arrangements

We recognise this must be a 'decade of delivery' and we've started: delivering some major infrastructure projects and bold policy changes to begin the shift to a low carbon economy.



Project Appraisal Methodology

We've developed and used a Carbon Impact Evaluation Tool to review a selection of immediate OPC Strategy projects.

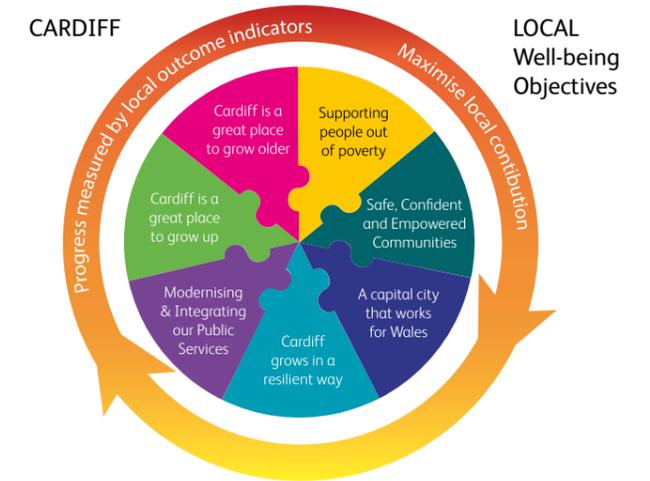
We've appraised the first tranche of short-term projects, some are well underway and some are in earlier stages. These are agreed and funded actions with known carbon outcomes.

The tool helps prioritise projects considering both the Carbon and Social Impact assessment and indicators are aligned to the National Social Value Measurement Framework (National TOMs for short).

We are using the following assessment indicators.

- Carbon benefit of delivering the proposed project (Pre/post carbon emissions impact evaluation)
- Supporting people out of poverty (includes fuel poverty)
- Cardiff grows in a resilient way
- Cardiff is a great place to grow older
- Safe, coherent and empowered communities
- A capital city that works for Wales
- Modernising and integrating our Public Services

The annual carbon savings and lifetime carbon savings of projects can be compared side-by-side in a Summary Dashboard. Using this evaluation tool, projects can then be evaluated and prioritised for the greatest contribution to the OPC Strategy.



IF WE DO NOTHING



IF WE ACT NOW



Annual Monitoring and Evaluation

We will monitor the impact of our actions by calculating annually;

- The Council's Carbon Emissions using Welsh Government methodology for calculating emissions covering Scope 1, 2 and 3
- The City's Carbon Emissions using BEIS data; and
- The Social Impact of proposed projects using our Carbon Impact Evaluation Tool

We will evaluate progress by regularly updating the OPC Action Plan setting out progress against our targeted Carbon Neutral by 2030 targets and engaging with City Wide stakeholders in line with our developing engagement and behaviour change strategy.

Carbon Disclosure Project (CDP)

We also plan to build on our current annual report to the **Carbon Disclosure Project** to report annually the progress our City is making towards both adaptation and mitigation. CDP provides the global platform for cities to measure, manage and disclose their environmental data.

Nearly 1/5th of the global greenhouse emissions are reported via CDP with over 8,000 organisations including 550 cities and 100 US States using the framework to report.

Cardiff Council already report to CDP and we believe we can build on existing work and utilise the framework to demonstrate our progress and activities around climate change **mitigation and adaptation**.

CDP has been adopted by the Cardiff Capital Region as a framework to monitor and evaluate the region's performance against its decarbonization strategy.



We also plan to build on our current annual report to the Carbon Disclosure Project to report annually the progress our City is making towards both adaptation and mitigation.



Action Plan

We've modelled a suite of projects using the methodology to understand their benefits in more detail and to help prioritise those with highest impact for year one of our action plan.

Short-term actions are projects that have been agreed and are underway, medium and longer term are in development. We anticipate that this dynamic plan will evolve rapidly over the coming years as the programme gathers even more momentum with partners and stakeholders across the city.

We have also developed a simple "dashboard" which shows how our actions will impact on the Council's and the City's Carbon baseline calculations which can be seen in detail in the OPC Strategy Document.



We anticipate that this dynamic plan will evolve rapidly over the coming years as the programme gathers even more momentum with partners and stakeholders across the city.

Emissions Dashboard 2021	Cardiff Council Emissions			City Wide Emissions
	Scope 1	Scope 2	Scope 3	Scope 1 and 2
2019/20 Baseline Emissions t CO₂e	14,745	11,373	159,019	1,626,059
Emission reduction of Assessed Short Term Projects t CO₂e	8,809	6,031	tbd	358,972
Residual Emissions (t CO₂e)	5,936	5,342	tbd	1,267,087
percentage removed %	57		tbd	22

Immediate/Short Term Actions

OPC THEME	PROJECT TITLE	PROJECT DETAILS	PROJECT STATUS	NEXT STEPS	CARBON IMPACT			
					Cardiff Council Emissions t CO ₂ e			City Wide Emissions t CO ₂ e
					Scope 1	Scope 2	Scope 3	Scope 1 and 2
Transport	Transport White Paper	Continue to implement the approved Transport White Paper projects with a target to reduce GHG emissions from road travel by 50% across the City.	Approved and in implementation phase	Continue Implementation Programme and subject to further funding bids and collaboration with partners as necessary.				328576
Energy	Energy Efficiency Retrofit in the Council Estate	A new Corporate Property Strategy 2021-26 to be published in November 2021 which will outline how the Council will reduce the carbon output of its operational and schools estate, and off-set with new renewable energy sources, targeting a 60% reduction by 2030	November Cabinet Approval	Will be updated following approval of strategy.	5340	5277		
Energy	Heat Network Delivery of Phase 1	Begin construction of Phase 1 of the Cardiff Heat Network by January 2022	Fully funded and being implemented	3 year construction phase with work to secure additional connections and phase 2 funding in parallel.	732			
Transport	Council Fleet Transition	Develop and Implement Council Vehicle Replacement Strategy in line with the Low Emission Strategy to deliver a Low Carbon Fleet ensuring that as a minimum of 90 Council vehicles are replaced by EVs by 2022.	Initial phase approved and in progress	Future phases subject to additional funding bids, including around innovative hydrogen and other solutions for heavier vehicles. Cabinet Report outlining phases and further assessment work needed.	2737			
Green Infrastructure	Coed Caerdydd	Development of a holistic programme approach to tree planting and land management city wide to increase biodiversity and expand the city's tree canopy by 25%	Fully funded and being implemented	Deeper engagement with partner organisations on shared land initiatives through PSB Climate Emergency Board.				13372
Built Environment	Low Carbon New Build for Council Housing Estate	The Council has implemented a large housing development programme delivering ~2,700 new council homes over the next 6-7 years. Over 2,000 council home new builds (planned over 10 year programme) will meet higher standards. Around 500 built out or in construction to exceed building regs the previous standard (SAP B+).	Fully funded and being implemented	The impact of new build projects on existing baseline GHG emissions for the Council and/or the City are not included within this summary analysis. To assess the impact of new building stock on GHG emissions a detailed lifecycle analysis needs to be undertaken by the Council covering all project phases (including operation).	n/a		n/a	to be calculated
Energy	Energy Efficiency Retrofit for Council Housing Estate	Energy Retrofit Scheme for low rise public housing blocks. The programme will be phased to tackle the worst performing blocks first over a 10-year period which eventually should see over 700+ low rise blocks improved	Final programme for implementation being developed	Final business case to be developed for Cabinet approval.				2455
Energy	LED Street Lighting	Continued implementation of LED replacement and dimming measures	Being implemented	Completion of installation to agreed timescales.		754		
Food	Cardiff Food Strategy	Promote healthy, local and low-carbon food by delivering the Cardiff Food Strategy by 2024. This includes the development of a strategy for a carbon responsive, holistic approach to food in schools across Cardiff, measures to address food deserts in the city and initiatives to increase sustainable local growing	Being implemented	Food coordinator post advertised to accelerate and coordinate work.	Medium			
Behaviour Change	Schools engagement and action plan	Establish a curriculum integrated climate emergency education programme to stimulate the creation and implementation of school specific action plans	Policy level agreed	Communication strategy and engagement plan for targeted actions and delivery.				Large
Behaviour Change	City wide behaviour change programme	Roll out an ongoing programme of engagement with citizens, businesses and workers, targeting high impact areas of behaviour change, and set in place a systematic methodology for measuring and monitoring impacts	Advisory strategy reduced and initial surveys prepared	Implementation of surveys and monitoring structure for longer term engagement.	Large			

Medium/Longer Term Actions

OPC THEME	PROJECT TITLE	PROJECT DETAILS	PROJECT STATUS	NEXT STEPS	CARBON IMPACT			
					Cardiff Council Emissions t CO ₂ e			City Wide Emissions t CO ₂ e
					Scope 1	Scope 2	Scope 3	Scope 1 and 2
Built Environment	New Build in the Council's Corporate and Schools Estate	To ensure delivery of the One Planet Cardiff carbon reduction targets, within both the Education and Corporate estate, it is proposed that by 2024 any Council procured new build development will be Carbon Neutral, exceeding current Building Regulations standards.	Principle published in interim OPC report May 2021	Development of detailed strategy informed by current pilot schemes	Large	Large		
Energy	Major Renewable Energy Projects	Develop a pipeline of potential renewable energy generation projects for subsequent approval and implementation from 2022	Business case developing	Seek cabinet approval of business case 2022/23				2977
Energy	Heat Network	Extension of Phase 1 to other private building and Phase 2 and beyond	GH to confirm					9046
Waste	Single Use Plastic Position Statement & Action Plan	Develop a strategy with a focus on procurement. All council procurement activities need to be considered for sustainable alternatives to single use plastics. Provision of re-useable refuse sacks to reduce single use plastics. Currently at a trial stage with a view towards future implementation.	Initial scoping work commenced.				Medium	
Energy	Low Energy Private Housing Retrofit	Develop a co-ordinated partnership strategy to promote and upscale housing energy efficiency retrofit across all tenures of housing targeting up to 2,000 houses per year by 2024	Scoping study specified and partnership working across the region being actively discussed					2546
Behaviour Change	Business travel initiatives	Develop a strategy to reduce emissions from grey fleet and business travel by facilitating a low carbon pool car/car club approach, reviewing mileage claim policies and considering the introduction of salary Sacrifice schemes for ULEVs.	New initiative to be addressed following carbon audit results	Assess impacts of strategy on reducing emissions Circular economy and low carbon training for specifiers.			Medium	
Behaviour Change	Low Carbon/ Circular Economy Procurement Strategy	Develop and publish a revised procurement strategy to assist in lower carbon specification, to favour low carbon supply activities and to embed circular economy principles where possible	Under consideration as part of Socially Responsible Procurement strategy review procurement strategy				Large	
Behaviour Change	Staff Commute Initiatives	Promote opportunities to reduce the carbon impact of staff commute by progressing hybrid working opportunities. Promoting a shift to sustainable forms of travel and considering a Salary Sacrifice scheme for EV	New initiative to be addressed following carbon audit results				Medium	
Behaviour Change	Public Sector Partnership working	Collate total impact of collective carbon reduction strategies in the city and identify opportunities for acceleration through collaboration	PSB Climate Emergency Board established					Large



One Planet Energy



One Planet Energy

Annexe - OPC Seven Key Themes

We have incorporated the consultation feedback into an analysis of our seven key themes.

Immediate, medium- and longer-term actions identified and the direction the council will take to mitigate the impacts of climate change are aligned to our seven themes.

We've refreshed our commitments incorporating consultation feedback in the following sections.

How we **use** and **generate** energy is fundamental to tackling climate change. By using energy more efficiently we can significantly reduce demand, whilst at the same time powering up renewable energy generation to replace fossil fuels including coal, oil and gas. We need to address how we heat buildings, how we use electricity and how we generate energy, and **we need to do it quickly.**

The technology is already there. As a city we need to continue to participate and lead on innovative solutions for local clean energy generation and look to have a range of sources in place including energy from waste, wind, water, solar and land.

What you've said

Energy was ranked as the number one action and priority by public, young people and business consultees.

The feedback is helping shape and prioritise action. In particular, you want to see;

- All new developments (not built by the Council) use renewable energy and heat.
- The installation of city-wide renewable energy generation schemes as well as solar panels on appropriate roofs and encourage the uptake of rooftop solar PV and household battery storage to electrify energy use.
- Identify and develop potential new energy projects for example; create electricity through the existing barrage; floating solar farms (sea); wind farms and sewage into energy and develop new solar farms.
- The use of green/renewable energy suppliers/tariffs for all Council buildings.
- Use examples of best practice from other organisations and public bodies including working with community energy groups to develop targets and measures for clean renewable energy production.

- Energy efficiency schemes need to be prioritised to drive up the standard of housing starting with fuel poor households and social housing, this strategy should maximise the potential of home retrofit schemes.
- Consider hybrid boilers and other complementary energy sources (for example, ground heat pumps) are at the forefront of any decision made when replacing gas boilers.
- Cardiff will need to decide which way to move on phasing out domestic gas heating much faster than the mid-2020s given that the net zero by 2030 target. More detail is needed in the strategy about how private households will be able to move away from natural gas central heating.

In the same timescale, **the Council has reduced its carbon emissions by 45%** through implementing thousands of energy efficiency measures and installing renewable energy on homes and public buildings across the city.



Since 2005, Cardiff as a city has reduced its carbon emissions in the domestic sector by 38% and in the industrial and commercial sector by 55%





Ambition: The Scale and Pace of the Challenge

Collectively, we need to power down our energy consumption and reduce our reliance on fossil fuels, including the gas we use for heating, and electricity generated from coal and gas power stations. Work is ongoing to decarbonise our grid electricity by generating more renewable energy alongside plans

to phase out gas fossil fuel, and we must support these efforts by reducing demand. We also need to strengthen local energy resilience by developing renewable electricity for use within the region and switching to low carbon heating sources, coupled with improved home insulation.

We've listened to consultation responses and have incorporated your feedback into key goals and actions that will facilitate a city-wide low carbon transition, realising multiple economic and social co-benefits for city residents. The key areas of focus which the

Council anticipates will have a meaningful impact on our emissions and our commitments to achieving this are set out below and are detailed in our dynamic action plan that will be updated annually to reflect progress.

KEY AREAS OF FOCUS	OUR COMMITMENTS	
<p>1 Change Behaviour to use energy more efficiently</p>	<p>Council</p> <p>We are rolling out a comprehensive smart metering, monitoring and controls programme across our working estate and promote the installation of smart meters with council tenants.</p> <p>We are developing a city wide behaviour change strategy and engagement strategy to support delivery of OPC.</p>	<p>City - We'll work with partners to catalyse change in the city including:</p> <p>As part of wider energy efficiency advice packages with Affordable Warmth partners, we promote the uptake of smart meters via Smart Energy GB grants.</p> <p>We will engage with city wide stakeholders, community groups, Public Service Board partners and business to promote behaviour change.</p>
<p>2 Shift Away from Reliance on Fossil Fuels</p>	<p>We will reduce our emissions from our corporate estate including schools by 60% by 2030</p> <p>Renewable or sustainable energy and heat will be prioritised for all council new builds including schools and housing.</p> <p>We are transitioning our own fleet to ultra low emissions vehicles by 2030 and are working with partners to install infrastructure across the city for residents.</p> <p>Implement the transport white paper objectives to enhance active travel and public transport options to facilitate a modal shift away from reliance on car travel across the city.</p>	<p>We will work with city wide stakeholders to plan how to move away from gas as our primary heating source, and utilise more sustainable options such as decarbonised electric heat pumps, ground source heat and hydrogen to reduce demand for residual decarbonised gas.</p> <p>We will work with partners to facilitate the roll out of sustainable heating options, encouraging a reduction in energy consumption to facilitate that shift.</p> <p>Work with partners to install the infrastructure to facilitate the uptake of Ultra Low Emission Vehicles (ULEV) across the city</p> <p>Work with city stakeholders to review staff transport policies and encourage a modal shift in journey's into and around the city.</p>
<p>3 Install City-wide Renewable Energy Generation for Direct Use; Electricity and Heat</p>	<p>Develop up to 20MW of renewable energy generation across the Council's Estate</p> <p>We are developing a pipeline of ambitious and varied major infrastructure renewable energy projects to develop across the city.</p>	<p>Explore a major commercial and domestic roll out of solar PV coupled with battery storage capacity where possible to balance supply and share the benefits.</p> <p>We will work with partners to develop innovative and ambitious projects around new energy and heat generation opportunities.</p>
<p>4 Decarbonise the Gas and Electricity Grid</p>	<p>Work with gas and electricity providers to ensure that much more of the electricity and gas used across the city is derived from renewable sources such as solar, wind, hydro, marine, biogas and hydrogen.</p> <p>We are delivering Phase 1 of a low carbon heat network that will serve major buildings around the city.</p>	<p>Work with city and regional partners to accelerate decarbonisation of the gas grid and electricity grid</p> <p>Roll out the Cardiff Heat Network phases 2 and 3 to connect large buildings to a low carbon heat source.</p>
<p>5 Require All New Developments to use Renewable Electricity and Heat</p>	<p>A low carbon development guidance note for all new developments in the city ahead of the new LDP is in preparation.</p>	<p>Connecting, or utilising suitable lower carbon alternatives where they exist such as the reservoir of heat under the city. We can't allow new development to add to our carbon problems unnecessarily.</p>

What can you do?

- **Get a smart meter to help you understand and manage energy consumption and costs.**
- **Check your loft insulation, doors and windows to prevent heat loss, and to reduce your bills and carbon footprint.**
- **Switch to a green energy tariff. A green tariff means that the bills you pay for your power are passed on by your supplier only to renewable energy generators on your behalf.**
- **Generating your own renewable energy for your heating, hot water and electrical supply saves carbon and can also feed back into the grid. If you're able, consider having solar PV panels or solar hot water on your home .**



One Planet Built Environment

One Planet Cardiff
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One Planet: Built Environment

Over the next 20 years, Cardiff is expected to be the fastest-growing major UK City, growing to a population of around 400,000 people; more than every other local authority in Wales combined.

Development to accommodate that population growth is ongoing with around 14,000 new homes planned, along with associated infrastructure and supportive economic development plans.

We need to deliver sustainable new development, but how we manage and use our existing buildings is one of the biggest areas of impact that can be practically addressed to tackle climate change.

“ Cardiff is expected to be the fastest-growing major UK City, growing to a population of around 400,000 people; more than every other local authority in Wales combined. ”

What you've said

The consultation feedback around 'Built Environment' has helped inform, shape and prioritise actions, including.

- Demand for all new developments to be built to a low carbon standard is strongly supported by all stakeholders.
- Call for a carbon emissions assessment to be undertaken for new build
- Improving buildings' energy efficiency is widely backed by the public and young people;
- Installing more energy efficiency measures/ renewables across Council buildings and estate is backed as a mechanism to achieve that.
- More details around re-using or updating existing buildings, since it is believed too many are torn down too soon.

- Calls for the OPC strategy to align closer with Cardiff Council's LDP with the Environment Scrutiny Committee stating specifically that it would like the LDP to better illustrate the value of green spaces in the city and protect the green infrastructure, especially trees.

We've been working on a series of energy efficiency improvements and retrofits to our operational estate which has helped to reduce our energy consumption and consequent carbon emissions ahead of the targets set in our 2015—2020 Carbon Reduction Strategy of a 5% per year annual carbon reduction.

“ Since 2013, we've installed around 9,500 energy efficiency measures in homes across Cardiff ”



Ambition: The Scale and Pace of the Challenge

We listened to consultation responses and have incorporated your feedback into key goals and actions that will facilitate a city-wide low carbon transition, realising multiple economic and social co-benefits for city residents.

The key areas of focus which the Council anticipates will have a meaningful impact on our emissions and our commitments to achieving this are set out below and are detailed in our dynamic action plan that will be updated annually to reflect progress.

We will build all new schools to a Carbon Neutral standard by 2023



KEY AREAS OF FOCUS	OUR COMMITMENTS	
	Council	City - We'll work with partners to catalyse change across the city including:
1 Retrofit Existing Buildings and upgrade Infrastructure	<p>We are committed to a 60% emission reduction target by 2030 across our corporate estate.</p> <p>We commit to accelerate energy efficiency improvements within our housing over the next 10 years.</p>	<p>We will accelerate partnership programmes to deliver mass retrofit of public, domestic and commercial buildings across the city with measures to reduce energy demand such as insulation, better controls and more efficient and renewable energy appliances.</p> <p>We will work with partners to promote and facilitate access to schemes to deliver property upgrades and retrofit</p>
2 Move away from a reliance on gas fossil fuel for heating in public and domestic buildings	<p>We will ensure existing public buildings are heat network ready to connect to phase 1, 2 and 3 of the Cardiff heat network</p> <p>We are incorporating the opportunity to shift to renewable heat sources in all public asset build and upgrades.</p>	<p>We will work with city wide stakeholders to reduce consumption of fossil fuel based gas, helping utility partners achieve decarbonisation targets by ensuring residual gas use can be decarbonised by maximising the efficiency of buildings and utilising controls.</p> <p>Work with city wide stakeholders to install sustainable heat sources in houses, public and commercial buildings</p>
3 Low Carbon New Buildings	<p>Cardiff's LDP review and due to be completed by 2024 with climate change and sustainable development at its core.</p> <p>All new build council social housing will now achieve a Energy performance rating of A and will meet a full net zero carbon standard by 2030</p> <p>We are aiming for all New Build Schools and extensions to meet a net zero design standard from 2023 onwards</p>	<p>We've scoped out a low carbon design guide for all new developments across the city to be ready by Autumn 2021.</p> <p>We are working with partners and Welsh government to ensure new technology is successful embedded and that there is funding to do so</p>
4 Behaviour Change and Policy	<p>We are working with Cardiff University to develop a city wide behaviour change campaign and engagement strategy to enable city residents support transition to a low carbon economy.</p> <p>We are embedding OPC into the new Curriculum for Wales across Cardiff to support pupils explore the issues of sustainability, climate change and energy choices.</p>	<p>Lobbying Government policy makers to increase the level of ambition in the policies and regulatory powers for new buildings, to meet the challenges of achieving a Carbon Neutral City in a global climate emergency</p> <p>We will work with city wider partners to support behaviour change in our attitudes to energy efficiency.</p>



One Planet Green Infrastructure & Biodiversity

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One Planet: Green Infrastructure & Biodiversity

The role green infrastructure has in protecting nature and mitigating against and adapting to climate change cannot be underestimated and we recognise the significant value of not just maintaining, but enhancing Green Infrastructure across the city.

Cardiff's natural heritage assets are fundamental to the city's character, distinctiveness and sense of place as well as delivering essential services on which we rely.

Green infrastructure is about multi-functional, connected green spaces that make the best use of land - at the same time providing green open space for all, helping wildlife to flourish, and delivering a wide range of economic, health and community benefits. It can range in scale from private gardens and roadside verges to woodlands and wide open spaces.

Green Infrastructure helps to address many of the social and environmental issues linked to urban life and should be valued equally to 'grey' built infrastructure such as roads and buildings.

What you've said

- You voted "Increase tree cover in the city from 19% to 25%" as the number one action for this topic.
- The action ranked second by the public was "review how land is valued to account for biodiversity and carbon capture alongside traditional land price factors" with the benefit of creating new green spaces instead of housing developments considered.
- young people survey also strongly suggested that more trees and rewilding are needed alongside protection of valuable woodlands.
- The strategy requires strengthening around a biodiversity emergency.
- You would like to see more green spaces in Cardiff including 'pocket parks' and green corridors as well as rewilding and a restriction on the impact of developers on green spaces.
- You would like to see Cardiff become a National Park City.
- Young people believe vertical gardens are missing from the strategy plans.
- Review options for the introduction of a Tree Warden programme, managed by local green groups in Cardiff, which allocate trees with TPOs to a named person who will be notified of planning applications related to those trees, providing an opportunity for advocacy during the planning process.
- You want more detail on how, where and when the 'Urban Tree Farm' will be developed.
- You want to see restoration of nature and wildlife, including blue and green areas; this includes ensuring that the water environment provides opportunities for biodiversity delivery.



There are some things in the world we can't change - gravity, entropy, the speed of light, and our biological nature that requires clean air, clean water, clean soil, clean energy and biodiversity for our health and well being. Protecting the biosphere should be our highest priority or else we sicken and die. It makes no sense to elevate economics above the bio-sphere

DR DAVID SUZUKI





Ambition: The Scale and Pace of the Challenge

To get to Carbon Neutral by 2030, we must prioritise the cities green infrastructure, ensuring this is valued appropriately for the impact it brings for biodiversity, water attenuation, carbon sequestration and climate change adaptation. Using a joined up approach, we can create a city with a wealth of useful and productive

green space and biodiversity. The key areas of focus which the Council anticipates will have a meaningful impact on our emissions and our commitments to achieving this are set out below and are detailed in our dynamic action plan that will be updated annually to reflect progress.

We plan to increase urban tree cover from 19% to 25% by 2030



KEY AREAS OF FOCUS		OUR COMMITMENTS	
<p>1 Greening the City</p>	<p>Council</p> <p>We will increase Urban Tree Canopy Cover from 19% to 25% by 2030 through our multi-project Coed Caerdydd Programme.</p> <p>We will establish a small, local provenance tree nursery at Forest Farm.</p> <p>We will develop an Urban Tree Strategy, a Soil Strategy and a Timber usage feasibility study.</p> <p>We will consider the impacts of climate change when implementing new planting.</p> <p>We will support in the implementation of the Greener, Fairer, Stronger Recovery Strategy ensuring that new green spaces and features are well connected, integrated and appropriately managed.</p> <p>We will roll out Green Wall initiatives and vertical gardens, especially in areas with poor air quality and introduce edible playgrounds to schools.</p>	<p>City - We'll work with partners to catalyse change in the city including:</p> <p>We are working with city wide partners, public and private businesses and volunteers to identify land across the city for tree planting and sustainable land management practices and deliver the tree planting programme.</p> <p>We will work with volunteers, schools and community groups to develop and implement our tree propagation plans and look to develop further opportunities in this area.</p> <p>We will continue to explore opportunities for making the best use of our local natural resources.</p> <p>We will review our approach to new planting implementation and planning guidance, to ensure resilience within green infrastructure across the city. This will include the selection of appropriate species, the impact of pests and diseases, climate change and the importance of local provenance.</p> <p>We will work with citizens and local businesses to consider how gardens and private green spaces can be used to support and connect the city's biodiversity and green infrastructure.</p> <p>The Local Nature Partnership will continue to deliver further opportunities for the installation of these features across the Council estate and beyond.</p>	
	<p>2 Review how land is valued</p>	<p>We will consider and implement the most appropriate methodology to value natural capital that aligns to Welsh Government carbon sequestration and wider nature benefits.</p>	
	<p>3 Protection and enhancement of land and nature</p>	<p>We will develop a more holistic and joined up approach to making the best use of our land and natural environment assets in a way that protects the biosphere and underpins the health and wellbeing of everyone.</p> <p>We will ensure that the replacement LDP addresses the protection of biodiversity and the green and blue infrastructure that supports the natural environment.</p> <p>We will look to create both stock and opportunity maps for carbon sequestration, water quality, natural flood management, air quality, urban heat islands, and noise pollution.</p> <p>We recognise and welcome the importance of the Cardiff Local Nature Partnership as a forum for connecting people to nature and supporting action for the protection and enhancement of land and nature.</p>	
	<p>4 Declare a biodiversity emergency</p>	<p>We will work with others through the Cardiff Local Nature Partnership to prepare and deliver the Nature Recovery Action Plan (NRAP) for Cardiff.</p> <p>We will declare a biodiversity emergency and prepare an overarching City Wide Green Infrastructure Masterplan Strategy incorporating the BRED plan and linked to the new LDP.</p> <p>We will build biodiversity into decision making and governance to enhance connectivity between habitats across the city</p> <p>We will work with partners to collect and collate information to create a baseline data set for biodiversity across the city</p>	



One Planet Transport

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One Planet Transport

Radical changes are required to how we move around the city as we head towards a zero carbon Cardiff. Increased walking, cycling, and use of public transport will significantly reduce greenhouse gas emissions and improve air quality, making Cardiff a cleaner place to live and work, helping us to be healthier and more active.

Before COVID-19 around 100,000 people commuted into Cardiff each day – around 80,000 of them by car. We have a chance now to intervene and give people clean, green, sustainable alternatives to car travel.



100,000 or so people commute into Cardiff each day – around 80,000 of them by car.



What you've said

- You strongly support the establishment of 5 segregated cycleways across the city, connected to a cycle loop around the city centre to form a fully segregated cycle network; ranking it as the number one of the proposed actions.
- Transform the city centre to be more cycle and pedestrian friendly and improve air quality was also backed strongly by the public voting including the pedestrianisation of key 'high streets' in areas around the city.
- The '15 minute' city concept is also of interest, which means by spatially orienting and developing communities to live within a 15-minute radius (typically on foot or by bike) of essential urban services.
- Focus on the outer part of the city in terms of improving connections between the out and inner; better cycle paths could be used for commuting and more redesign and improvement of active travel infrastructure for all.
- There were many comments relating to 'improve/cheaper public transport'. One written response calls for a "streamlined ticketing system between bus, train & Next bike". This is one of the 'initiatives elsewhere' identified by the public i.e. France has integrated transport systems recognising that the proposed Metro will be key to CO₂ emission reductions.
- In regards to Cardiff airport and flying in general; the young people want a reduction in low number flights; a stop to business flights and frequent flyers taxed and reference made to the impact of the airport in the strategy.
- Improved electric charging infrastructure and incentivisation for green vehicles.
- Support in improving the EV infrastructure and EV car clubs, respectively. Another calls for a clear plan for buses to become zero emission by 2025 and electrified transport options for 'last mile' freight delivery.
- Support for low traffic neighbourhoods and a car reduction target to be added to be included in the strategy.
- Liaise with Sustrans to raise profile of e-cargo bikes and work with living streets, improve cycle storage and parking facilities city wide and in rental properties.
- Roll out the Streets School Project across all of Cardiff.
- Consider basing the cost of residential parking permits on the size and emissions of the vehicle (London boroughs do this) and having a stricter permitting system was also proposed in the public consultation as a means of negating the fact that it is "too easy for households to have multiple vehicles."

Making a start

Work has already taken place to achieve a modal shift towards more sustainable forms of transport. There are now 1,000 bikes at 130 locations across the city.

We've improved cycling and walking networks through completion of the city's first Cycleway along Senghennydd Road to St Andrew's Crescent and are working with all schools on active travel plans.

20mph speed limits have been implemented and 18 publicly-available electric vehicle charge points for residents have been installed.

In response to COVID-19 we've provided more pedestrianised space and much of this will be retained.



Ambition: The Scale and Pace of the Challenge

Within Cardiff's Transport White Paper, there are ambitious modal shift targets for travel to work. If these targets are achieved, coupled with more sustainable commuting solutions into and around the city, We will be making a huge positive impact on carbon emissions from transport. But to take this

even further the key areas of focus which the Council anticipates will have a meaningful impact on our emissions and our commitments to achieving this are set out below and are detailed in our dynamic action plan that will be updated annually to reflect progress.

“ We want to double the number of people cycling and using public transport by 2030 ”



KEY AREAS OF FOCUS		OUR COMMITMENTS
<p>1 Implementing Cardiff's Transport Vision for 2030</p> <p>2 We will replace all council small fleet vehicles with ULEV by 2025 and where feasible all remaining fleet by 2030</p> <p>3 Protection and enhancement of land and nature</p> <p>4 Move to 100% low emission taxis and buses by 2027</p> <p>5 Working with partners to help reduce the carbon impact of freight</p> <p>6 Facilitating an EV Car Clubs</p>	<p>Council</p> <p>We are working towards the ambitious targets set out in the Transport white paper to prioritise active and sustainable transport as preferred modes of travel across the city to help meet our Carbon reduction targets from transport.</p> <p>We are preparing a Bus Strategy that will build on the partnership working through the Bus Emergency Scheme to invest in buses and reform the bus network to widen access to attractive and reliable bus services.</p> <p>We are preparing an Integrated Transport Strategy that will provide a platform to directly incentivise and promote changes in travel behaviour, make the network run more efficiently and better inform transport investment decisions.</p> <p>We are building integrated cycle routes across and around the city to facilitate safe bike travel for residents city wide.</p> <p>We are undertaking an initial study to assess whether a congestion management scheme which may include some form of road user charging should be implemented to address current and future congestion issues in the City and further support sustainable transportation measures.</p>	<p>City - We'll work with partners to catalyse change in the city including:</p> <p>We are building and planning more sustainable modes of transport, focusing on increasing walking, cycling and use of public transport and reducing reliance on car journeys as set out in the Transport Vision.</p> <p>We will work with key partners to deliver the infrastructure that gives citizens and commuters the confidence to move away from cars to other sustainable modes of transport.</p> <p>We will work with the city to promote the opportunity for modal shift and incentives and support to facilitate this shift.</p> <p>We are working with key partners, including schools, and charitable organisations to promote active travel across the City.</p>
	<p>We are accelerating the roll out of Ultra Low Emission Vehicles (ULEVs) to replace council fleet and work with staff to identify measures to minimise future business mileage.</p> <p>Following at £300k grant from Welsh Gov we are now installing EV infrastructure across key locations at our estate to facilitate the transition to Ultra Low Emission Vehicles (ULEV).</p> <p>A complete post COVID-19 review of working practices to facilitate flexible working and seek ways to reduce staff commuting and business travel, utilising technology to replace travel where possible.</p>	<p>Working with PSB partners through the Climate Emergency Board and the Capital City Region develop a single procurement strategy for ULEV vehicles that will support the increased transition in vehicles.</p>
	<p>We are supporting the roll out and implementation of charging infrastructure across the city and we will develop an EV Strategy, which will assess future demands for EV infrastructure across the City.</p>	<p>We will work with the city to identify opportunities for charging infrastructure and policy incentives to move to ultra low emission vehicles.</p>
	<p>We will continue to work with all bus companies operating in Cardiff to identify and signpost external grant funding opportunities to support a shift to a ULEV bus fleet and will assess the role that Hydrogen is likely to play in this transition.</p> <p>As part of our Clean Air Plan, we are offering grants to taxi drivers/ operators who commit to licensing EVs in order to transition the Cardiff Taxi Fleet. We are also directly leasing 100% Wheelchair Accessible EV Taxis to drivers to support the transition of accessible taxis to EVs.</p> <p>In partnership with the City Region, we are installing charging infrastructure across the city to ensure Taxis drivers have the confidence to make the shift to ULEVs.</p>	<p>We will work with private and public sector partners across the city to review incentives for the taxi and bus sector to make the switch to ultra low emission vehicles as developed in the clean air plan.</p> <p>Welsh Government has a national ambition to have zero (tailpipe) emission bus and taxi fleet by 2028. Further strengthened in the new Clean Air Plan for Wales launched by the WG on 6th August 2020</p>
	<p>We will work with partners to assess the development of a multi-vector low-carbon fuelling station adjacent to the rail freight terminal to support the decarbonisation of the freight industry in Cardiff.</p>	<p>We will work with key city wide stakeholders including business, public and transport sectors to develop a last mile delivery strategy with a focus on Zero Carbon Emissions.</p>
	<p>We are going procuring a new delivery operator to relaunch the Car Club scheme across the city to with the aim of reducing the dependency on the need to own private cars in the City. The ambition is that the Car Club will be fully EV by 2025.</p>	<p>We are securing a partner to deliver a car club which city wide stakeholders will be able to join and receive the benefits.</p>



One Planet Waste

A strategy for a **Carbon Neutral City By 2030**



One Planet: Waste

Climate change has accelerated the need to find measures to reduce and manage the waste we create. By reducing waste production and by recycling what waste is produced in the right way, we can reduce our carbon footprint. This means cutting down the waste we produce and recycling in a 'closed loop' way, where items are used again for their original purpose or in a way that adds value, known as 'up-cycling.'

Cardiff is Britain's leading major core city for recycling with household recycling having increased from 4% to 58% since 2001. As Cardiff grows however, more people will live in the city, more businesses will locate here and more people will visit.

This will mean more waste. It's therefore vital that we continue the improvements in recycling rates and make sure that waste is managed in a sustainable way.

What you've said

- You want a reduction of street waste, the installation of proper bins and stricter littering fines.
- More detail on reducing consumption to minimise waste.
- You want to see a Council target of zero municipal waste by 2030 and support for the Zero Waste School Wales project.
- Introduction of a deposit return scheme (bottles/cans) as a means to reduce street litter and a greener policy concerning plastic cups.
- A reduction/ban in single use plastics is something that the young people consultation has called for with the removal of single use plastics from Council venues ranked as number one action from the proposed list.
- Awareness raising around single use drink containers and a need to work with hot drink vendors to increase reusable container use.
- Eradicating plastics must be caveated since they are vital to some people with disabilities.
- The young people want to see more recycling and the public ranked the Council's proposed action to increase communications around residents recycling/waste rules as second from the list of actions.
- The Council needs to commit to making recycling easier for residents, including the establishment of recycling banks for items such as Tetrapack and a commitment to delivering at least 70% recycling of household waste by 2030.
- Organisations want the approval of incinerators to end and one stated that they want the current plant phased out.

Making a start

As part of our ongoing shift from disposing of waste in landfill to waste treatment and recycling, we've delivered, in partnership with surrounding authorities, an Energy from Waste plant and an Organic Waste Treatment facility which treats segregated food and green waste.

The innovative facility also generates renewable energy, with sustainable fertilisers recycled to local agriculture.

We have continued to work with residents through supporting new 'Keep Tidy' volunteer groups, increasing litter picking hours, rolling-out community planters and establishing a partnership with Keep Wales Tidy. Our associated 'Love Where you Live' campaign helped drive success, with targeted engagement to encourage recycling across the city.

We have also worked with other partners to improve recycling. For example, our reuse partnership with British Heart Foundation has seen shipping containers placed at both Lamby Way and Bessemer Household Waste Recycling Centres, making it easy for residents to donate good quality household items such as sofas, armchairs and bedroom furniture.



We want to recycle 70% of the city's waste by 2025, becoming a zero waste city by 2050





Ambition: The Scale and Pace of the Challenge

Wales aspires to be a Zero Waste nation by 2050 and Cardiff is at the forefront of this journey. However, we need to accelerate our efforts to meet statutory targets:

- **70% recycling by 2025**
- **Zero waste to landfill by 2025 (Landfill disposal accounts for the majority of waste emissions)**
- **Zero waste by 2050**

Our ambition is to boost recycling rates by placing a focus on: Education in schools, Community engagement and Behavioural change and we need to challenge the way that services are currently provided, how individuals and business generate and manage waste and work on plans to improve recycling rates. The key areas of focus which the Council anticipates will have a meaningful impact on our emissions and our commitments to achieving this are set out below and are detailed in our dynamic action plan that will be updated annually to reflect progress.



Our ambition is to boost recycling rates by placing a focus on: Education in schools, Community engagement and Behavioural change

KEY AREAS OF FOCUS		OUR COMMITMENTS
<p>1 Change waste management behaviour and how we manage waste</p>	<p>Council</p> <p>We will produce a Strategy to achieve 70% recycling of municipal waste by 2025</p> <p>We will engage with residents and communities to promote waste reduction and increase recycling across the city.</p> <p>We will work with all departments across the council to embed waste minimisation and circular economy principles</p> <p>We will work with communities through the Love Where You Live (LWYL) scheme to help tackle littering issues and coordinate community litter picks</p> <p>We have increased the type of materials we can collect and recycle at our Household Waste Recycling Centres (HWRC's)</p>	<p>City - We'll work with partners to catalyse change in the city including:</p> <p>We will continue to work with partners to feed into consultations and help implement emerging legislation, such as the Business Waste Regulations, which will incentivise the segregation of business waste for recycling.</p> <p>We will work with partners and the community to promote reuse and repair.</p> <p>We will continue to support national campaigns to increase recycling and reduce waste, such as love food, hate waste.</p> <p>We will work with partners to facilitate circular economy principles through procurement, reducing waste and specifying raw materials made from recycling content, to drive demand and the market for recycling materials.</p> <p>We will provide additional bin facilities in parks and look at ways to segregate litter for recycling (vehicles to collect litter pick waste separately - split body transit).</p> <p>We will introduce community recycling facilities at hubs across the city to make it easier to recycle materials that are not currently collected at the kerbside.</p>
	<p>2 Decarbonise the waste fleet by 2030</p> <p>Replace all waste fleet with Ultra Low Emission Vehicles 2030</p>	
	<p>3 Consider waste innovation systems</p> <p>We will review waste innovation systems such as food waste compactors or digestors for all new council developments</p> <p>We are trialling bin sensors in communal bins to monitor fill rates and recycling rates and increase efficiency of collections.</p>	<p>Encourage waste innovation systems for new developments as part of the planning process through revision of the Strategic Planning Guidance (SPG)</p>
	<p>4 Work to eradicate single use plastics</p> <p>We will eradicate unnecessary single use plastic and facilitate the move to a more circular economy</p> <p>We will ensure council procurement practices comply with emerging legislation around single use plastics.</p>	<p>We will support roll out of emerging legislation around single use plastics: In complying with the forthcoming deposit return scheme and producer responsibility legislation businesses will be incentivised to find alternatives to plastic cups.</p>



One Planet Food

One Planet Cardiff
Action Plan
September 2021



One Planet: Food

Producing food, processing and transporting it, alongside disposing of wasted food in landfills, produces greenhouse gas emissions that contribute to climate change. Environmental benefits can be reaped from seasonal, local and fresh food, which has a lower carbon footprint than processed food and food transported longer distances. Changing the mix of foods that we eat, reducing emission and land-intensive foods, such as meat and dairy, and replacing them with plant-based foods, can also benefit the sustainability of our agricultural systems.

Whilst it is unattainable for a city the size of Cardiff to be completely self-sufficient in its production, there is a clear opportunity, and an emerging ambition, for us to increase the volumes of food produced locally.

We all need food and it is therefore possible for us all to engage through making small choices for healthier, more sustainable food options

What you've said

- You've called for more allotments and food growing provision across the city and the potential for produce from the allotments to be made available to the public.
- Council should provide funds and advice to support community food growing projects.
- More local markets selling local produce would help residents live a more low carbon lifestyle.
- Any city food plan needs to take a regional approach and work beyond the boundaries of Cardiff and work with other local governments, Welsh Government, businesses, community groups and other relevant agencies (NUF etc).
- A clear food growing plan would help businesses reduce their carbon impact.
- The Council should engage schools to grow some of their own food.

The Council's influence on food in the city is wide ranging, from providing catering services to hosting major events and ensuring food hygiene.

We also have close relationships with other key players across the city, meaning positive steps are already being taken to improve our environmental impact in relation to food.

For example, Cardiff has a local food partnership, Food Cardiff, through which Cardiff has already achieved status as a Silver Sustainable Food Place. We also belong to the 'Edible Cardiff' network, which supports individuals and groups of people to grow their own food and flowers.

We have achieved Silver Sustainable Food Places Status by 2021 and beyond that





Ambition: The Scale and Pace of the Challenge

Whilst Cardiff will never be able to become fully self-sufficient in terms of food production, we can do more to minimise the impact our food choices make on the environment and become a more sustainable food city.

A recent report by the Centre for Alternative Technology, Zero Carbon Britain: Rising to the Climate Emergency, models how, through dietary change, food waste reduction and improved agricultural practices, we could provide a healthy, sustainable diet for the whole UK population.

The modelled dietary change contains significantly less protein from meat and dairy and more from plant-based sources like beans, nuts, cereals and vegetables. This means considering the source of food and switching to less, but better quality, locally produced meat and dairy products.

The key areas of focus, which the Council anticipates, will have a meaningful impact on our emissions and our commitments to achieving this are set out below and are detailed in our dynamic action plan that will be updated annually to reflect progress



Processing, storage and transportation of food all produce carbon emission, but these can be cut down by buying locally produced fresh produce

KEY AREAS OF FOCUS		OUR COMMITMENTS
1 Deliver a Food Growing Plan	<p>Council</p> <p>We are preparing a food growing plan and a pilot of mapping land in Ely, Caerau, Splott and Riverside for community food growing has begun.</p> <p>We've developed draft licence and lease agreements to enable community groups and more commercial ventures to utilise council owned land including an agreement for community groups to use allotments</p>	<p>City - We'll work with partners to catalyse change in the city including:</p> <p>We will be working with community groups across the city to develop local community food growing plans.</p> <p>Interim process in place for community groups to access sites on an ad hoc basis whilst Growing Plan in development.</p>
2 Develop Restrictions on Fast Food Culture	<p>In June 2021 the mapping of fresh food outlets across the city was completed. Maps showing areas outside 10 minute walking distance of a fresh food outlet have been produced to show areas of deficiency within the city. The next step in the mapping work will be to complete the qualitative assessment of the range of fresh food products available in each of the outlets (resource pending).</p> <p>We will be researching best practice across the UK on planning policy and wider approaches to fresh food deserts in order to determine approaches to take forward in the Replacement LDP.</p>	<p>The mapping evidence will feed into the next stage of the project which will include working with local communities to establish projects to increase access to fresh food (e.g. community pantries, growing projects) in areas that have been identified as deficient in terms of access to fresh food.</p>
3 Change the Council's Own Procurement Practices	<p>Will ensure all food served is locally sourced, seasonal and sustainable</p>	<p>We have drafted a bid for the City Region Challenge Fund (in conjunction with Monmouthshire Council) around how we can accelerate the development of a sustainable local food supply chains in the Cardiff Capital Region and the potential for a food hub to achieve this.</p>
4 Improve Food Culture in Schools	<p>We will support schools to adopt a whole school approach to food through curriculum, procurement, school meals, holiday hunger programmes and food growing etc.</p> <p>School Holiday Enrichment Programme underway in 2021 and being rolled out to record numbers of children in the city – 29 schools to participate with 42 cohorts enabling 1,680 children to benefit from the scheme. This is the largest scheme to date in Cardiff and also in Wales.</p>	<p>We will work with children and city stakeholders to promote the benefits of healthy food choices</p>
5 Develop a Sustainable Food Framework	<p>We will define and integrate sustainable food goals, thresholds and targets against all Council Operations.</p>	<p>We are currently drafting a Sustainable Food Standards in partnership with NHS dieticians.</p>



One Planet Water

One Planet Cardiff
Action Plan
September 2021



One Planet: Water



As a result of climate change, the water cycle is expected to undergo significant change. Changing global patterns of water availability, with shrinking glaciers and changing patterns of precipitation, increase the likelihood of both drought and flood. Coastal and river basin cities, like Cardiff, must respond to the threat, particularly the prospect of flash flooding and rising sea levels.

An integrated approach on water, the biosphere and environmental flows is required to devise sustainable systems that allow us to decelerate climate change, protect us from extremes and adapt to the unavoidable at the same time.

Whilst a challenge, opportunities present to collectively develop new ways of supplying water, treating water, making energy from water and ensuring water security.

What you've said

- You support the action to "Increase the amount of green infrastructure across the city to reduce flood risk".
- You strongly backs the proposed action of "New developments to include sustainable drainage systems".
- The Council should work more closely with NRW and Dwr Cymru on more sustainable urban drainage schemes like Greener Grangetown as part of a 'Blue Green Strategy'.
- You would like to see benchmarking of average water consumption per head/household for Cardiff and a future consumption target with actions needed to reduce consumption to this level for residents.
- More actions around working towards being more efficient with water use and that smart meters could help.
- You want to see a stronger link between climate change and flooding, drought and sea level rise, as well as personal water use and the concept of sustainable urban drainage needs to be made real for residents so that they understand the link between natural environments and good drainage.
- The Water actions could build on projects like Greener Grangetown and expand into behaviour change, better use of technology and improved retrofitting.
- Cardiff should become a Refill City where access to free drinking water is a commonplace across out city.

Making a start

A number of projects are already underway on flood risk management and sustainable drainage schemes.

Our award-winning Greener Grangetown project uses the latest sustainable drainage (SuDS) techniques to catch, clean and divert rainwater directly into the River Taff, replicating natural drainage.

This is the first time that these techniques have been retrofitted into an urban environment at this scale and has resulted in 42,480m² of surface water being removed from the combined waste water network- the equivalent of 10 football pitches!

As well as providing water resili- ence this also removes substantial energy requirements that would otherwise be needed to pump water through to sewage treatment works.

We've also established a Flood Defence Project in Rhiwbina, greatly improving local resilience to flooding in the area, protecting more than 200 homes and businesses.



Coastal and river basin cities, like Cardiff, must respond to the threat, particularly the prospect of flash flooding and rising sea levels.





Ambition: The Scale and Pace of the Challenge

Within Cardiff's Transport White Paper, there are ambitious modal shift targets for travel to work. Recent weather patterns have significantly highlighted the impacts of climate change and the high importance of mitigating against extreme events, such as flooding, along with ensuring we have adapted to be resilient against the impacts. As a planning authority, we need

to ensure all new developments are meeting Welsh Government Sustainable Drainage (SuDs) legislation through our SuDs approval body. Scenario planning is crucial, particularly given the risk of rising sea levels and increased river flow from the three rivers cutting through the city. The following actions are our key areas of focus incorporating feedback from the consultation.

Recent weather patterns have significantly highlighted the impacts of climate change and the high importance of mitigating against extreme events, such as flooding, along with ensuring we have adapted to be resilient against the impacts.

KEY AREAS OF FOCUS		OUR COMMITMENTS
<p>1 Developing Ambitious Sustainable Water / Drainage Strategy for Cardiff</p> <p>2 Identifying Priority Flood Mitigation Locations Programme</p> <p>3 An increase in Urban Green Infrastructure</p> <p>4 Supporting Cardiff River's Groups and community groups to ensure rivers, streams and gullies are kept clear of debris</p> <p>5 Work with stakeholders across the City on Water</p>	<p>Council</p> <p>We want to be the lead City in Europe for Sustainable Urban Drainage</p> <p>We will develop a City Wide Sustainable Water Management Strategy to position Cardiff as a Water Capital. Covering the management, retrofit and roll out of SuDs, water attenuation, Blue-Green Corridors and flood management and mitigation .</p> <p>We will develop a cross-functional internal team to manage delivery of multiple benefits of pollution control, flood prevention and wellbeing associated with green infrastructure, ensuring City engineers are carbon literate.</p> <p>We are reviewing land management practices across the Council's estate; increasing organic matter in soil can significantly increase water retention</p>	<p>City - We'll work with partners to catalyse change in the city including:</p> <p>We will work with city wide stakeholders to prioritise sustainable drainage in new developments including urban multi benefit projects</p> <p>We will work and coordinate with all sports bodies to develop a programme to renew and improve existing council playing surfaces ; installing drainage to reduce maintenance and increase operational hours.</p>
	<p>We are working to develop flood defences across the city to reduce community flood risk and renew both our flood risk strategy and flood risk management plan as required by our statutory duties.</p>	<p>Engage further and faster with existing business and the community to see what they could do with their buildings, gardens and local areas to mitigate flood risk and support water retention and reduced flow</p>
	<p>Support an accelerated roll-out of green infrastructure across the city centre and residential areas to support water management, with the co-benefit of enhancing air quality and supporting the enhancement of biodiversity</p> <p>We will be active in making best use of the statutory SuDs legislation to continually increase green infrastructure within existing and new developments including rain gardens, green roofs and water attenuation tree planting schemes.</p> <p>We are creating new urban green/blue corridors to deliver multi benefits in a city centre environment</p>	<p>Work with partners to emphasise the benefits of green infrastructure to employees, residents and business</p>
	<p>We will help coordinate voluntary organisations to regularly manage our blue corridors (water course and rivers)</p>	<p>Encourage all organisations to support and sponsor voluntary environmental groups</p>
	<p>We will work with local communities during the review and development of our Flood Risk Strategy and Management Plan.</p>	<p>We will work with local communities to help set up and maintain local flood risk groups where localised flood risk will be managed bit the communities themselves.</p> <p>We will work with academia in the development of local projects and tools to manage flood risk across the city.</p>