

## ITEM No ...4.....

**REPORT TO:** POLICY & RESOURCES COMMITTEE – 12 MARCH 2018

**REPORT ON:** SUSTAINABLE DUNDEE

**REPORT BY:** JOINT REPORT BY EXECUTIVE DIRECTOR OF CITY DEVELOPMENT  
AND EXECUTIVE DIRECTOR OF NEIGHBOURHOOD SERVICES

**REPORT NO:** 93-2018

### **1 PURPOSE OF REPORT**

- 1.1 To update Committee on the range of activities undertaken by the Council in support of its commitment to sustainable development, environmental management and the city's transition to a low-carbon economy by utilising new technology, investing in sustainable solutions and improving working practices.

### **2 RECOMMENDATION**

- 2.1 It is recommended that the Committee note the contents of the report and agrees the following
- a Remit Executive Director of City Development and Executive Director of Neighbourhood Services to bring forward current and future actions listed in the report and promote through a corporate 'Sustainable Dundee' brand.
  - b Remit Executive Director of City Development and Executive Director of Neighbourhood Services to explore new opportunities for continued investment in sustainable development activities.

### **3 FINANCIAL IMPLICATIONS**

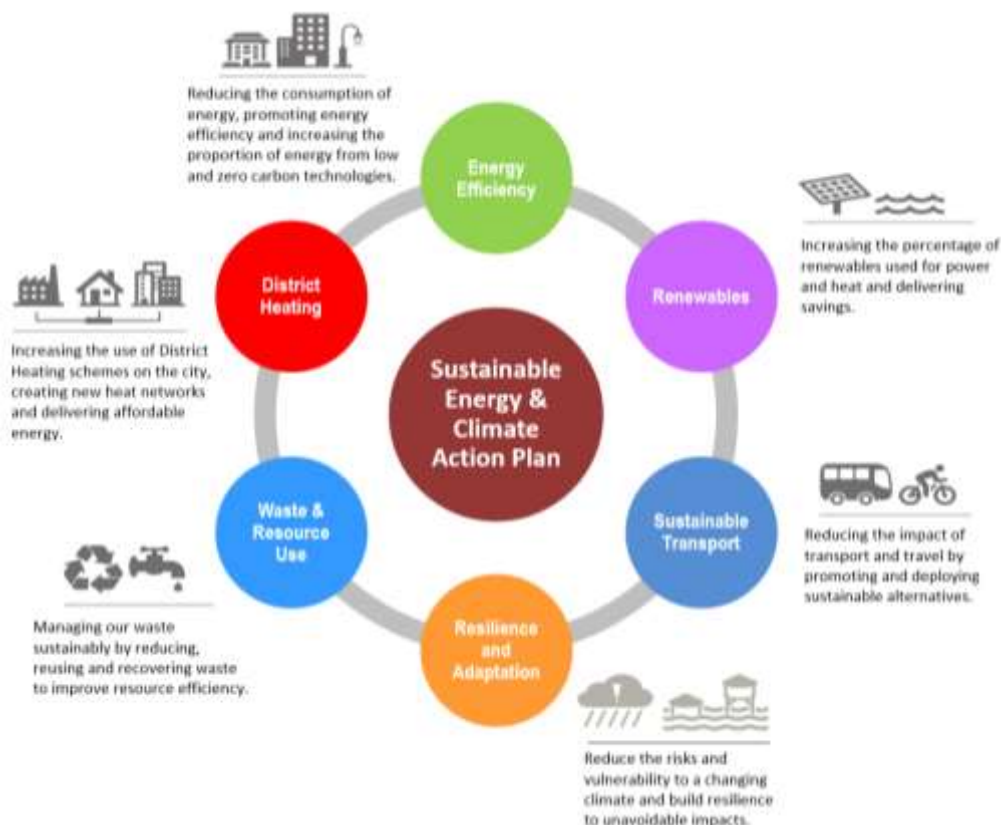
- 3.1 Costs associated with the implementation of current actions listed in the report are contained within existing capital and revenue budgets. Funding for future actions has been secured or will be sought through future departmental budgets and external funding sources.

### **4 BACKGROUND**

- 4.1 Dundee City Council has a long standing commitment to sustainable development as reflected in both the Council Plan and the Dundee Partnership City Plan where sustainability has been recognised as a cross-cutting theme.
- 4.2 Considerable work has already been carried out by Council departments to transition Dundee to a sustainable, low carbon city. This paper outlines key examples of existing work, as well as future plans to:
- reduce fuel poverty;
  - improve air quality;
  - reduce carbon emissions;
  - increase renewables;
  - enhance green spaces and biodiversity;
  - reduce waste;
  - provide sustainable transport options;
  - increase awareness of ways to reduce emissions;
  - increase the city's' resilience to climate change impacts;
  - attract inward investment.

## 5 TOWARDS A SUSTAINABLE DUNDEE

- 5.1 The Dundee Partnership seeks to develop an overarching 'Sustainable Energy and Climate Action Plan' (SECAP) for the city as part of the global Covenant of Mayors movement which will provide the leadership, commitment and planning necessary for the transition to a low carbon Dundee.
- 5.2 The city-wide strategy will align with the Scottish Government's new Climate Change Plan, Scottish Energy Strategy and Cleaner Air for Scotland Strategy. It will also have a shared vision and objectives with the Council's City Plan and Tay Cities Deal of supporting sustainable economic growth, reducing social inequality, and enabling entrepreneurship and innovation.
- 5.3 Six Strategic Programme Areas have been identified which will combine to form a single integrated plan for Dundee. These work programmes reflect the priorities of the SECAP to tackle climate change and deliver an emissions reduction of 40% by 2030. This programme will be coupled with developing a 'Sustainable Dundee' brand to promote the efforts of Council and Dundee Partnership activities further afield and encourage inward investment.
- 5.4 The Council's current and future sustainable and low carbon projects are therefore presented under the six strategic headings of the SECAP:



## 6 ENERGY EFFICIENCY

- 6.1 The Scottish Government has designated energy efficiency as a National Infrastructure Priority, the cornerstone of which will be Scotland's Energy Efficiency Programme (SEEP) – which will be a 15 to 20 year programme. The Programme for Government commits to investing more than £500m in SEEP over the next four years, setting out a clear commitment to develop this programme with substantial annual funding. The Scottish Government's aim is, through SEEP, to transform the energy efficiency and heating of Scotland's buildings so that, wherever technically feasible, and practical, buildings are near zero carbon by 2035.

## 6.2 Non-Domestic Energy Efficiency

- Efforts are ongoing to increase savings in the Council estate including utilising an **Energy Performance Contracting** model that is investing £1.7 million in the installation of energy efficiency measures in eight properties. The range of proposed measures include LED lighting upgrades, solar photovoltaic roof panels and combined heat and power solutions. This is guaranteed to achieve savings of at least £222,000 per annum and a further 1,000 tonnes of CO<sub>2</sub>. The next contract covering nineteen properties is under development and the longer term plan is to continue with a roll out to include over one hundred of the Council's operational properties. Article V of the minute of meeting of the City Development Committee of 30 October, 2017, Report No 343-2017 refers.
- Since 2012/13 the Council has installed 5,000 **LED street lights** that have so far resulted in a 35% reduction in CO<sub>2</sub> emissions. From 2018/19 a further £4.8 million is being invested for another 18,000 lights which will reduce carbon emissions relating to street lighting by at least 50% as well as annual savings on energy bills, Carbon Reduction Commitment and maintenance costs. The Council owns a total of 25,000 street lights including 2,500 illuminated signs and bollards. Article VI of the minute of meeting of the City Development Committee of 11 December, 2017, Report 435-2017 refers.

## 6.3 Domestic Energy Efficiency

Increasing energy efficiency and reducing carbon emissions of the domestic stock has been driven by the Scottish Housing Quality Standard (SHQS) and its successor, the Energy Efficiency Standard for Social Housing (ESSH).

- Dundee City Council was 100% compliant with SHQS by the Scottish Government's defined completion date of April 2015.
- 2,500 hard-to-treat properties have had **external wall insulation (EWI)** installed, reducing carbon emissions and residents fuel bills. This was funded by the Council's capital budget and from Scottish Government Home Energy Efficiency Scotland: Area based Schemes (HEEPS:ABS). Overall spend to date from all funding sources is in excess of £40m. A further 800 properties will have EWI installed in 2017/18 and an estimated £7.5m will be invested over the next year across 540 properties.
- By the end of 2015, all Council housing stock reached the **energy ratings** required. This was largely achieved through the replacement of all electric storage heating with the new gas central heating; and also by ensuring all suitable properties had cavity-wall insulation and adequate levels of loft insulation.
- Two multi-storey developments at Whorterbank and Lansdowne, comprising two blocks each, have had **Photovoltaic (PV) arrays** installed on their roofs. The combination of free electricity generated and Feed-in Tariff (FiT) payments received pays for a substantial proportion of the cost of the 24-hour lighting within the developments.
- **Dundee Energy Efficiency Advice project (DEEAP)**, which forms part of Council Advice Services, carries out 4,000 energy advice home visits per year and staff attend 100 community and public events to raise awareness of the energy advice service. Further information on DEEAP can be found on the Council's website.

## 6.4 Carbon Management

- The Council's first **Carbon Management Plan** was adopted in 2009 to reduce CO<sub>2</sub> emissions from its own operations and has continued to be refined in line with Government direction and best practice.

- From the baseline year of 2007/08, the total **carbon footprint** has reduced by 26.8%. A significant proportion of emissions are from using energy in Council properties which has reduced by 23% as a result of improved energy efficiency in buildings, such as SMART metering, Building Energy Management Systems (which allow centralised control of heating systems in buildings across the city) and behavioural changes.
- The Council's systems and processes relating to carbon emissions data were overhauled on 2016 to better define the carbon footprint; establish a data system to store and manage consumption data and create a project register to better measure and manage and forecast progress of the Council's carbon reduction projects. The Carbon Management Plan will be updated in 2018.
- The Scottish Government required the Council to report its carbon management performance annually and recent reports can be viewed on the Sustainable Scotland Network website ([www.keepsotlandbeautiful.org](http://www.keepsotlandbeautiful.org)).

## 7 RENEWABLE ENERGY

- 7.1 The Council is **installing photovoltaic (PV) panels** on new buildings and major refurbishments where feasible as part of an energy efficiency programme. The Council has included PV systems in the design of the new build schools Sidlaw View, Tayview, Coldside and NE Campus and is about to install another three PV systems as part of a wider energy efficiency project at DISC, Unit T Claverhouse and The Crescent. These have been or will be installed using the Council's own capital funding and plans are under development for future energy efficiency projects which would include PV within their scope. The intention is to have a rolling programme that will cover all the Council's stock of buildings.
- 7.2 As part of the regeneration of Dundee's waterfront, the V&A Museum of Design aims to achieve the **BREEAM Excellent category** as a recognised measure of sustainability. The building itself will run solely on geothermal energy. Design includes thirty, 200-metre deep bore holes for heating and cooling of the building along with air source heat pumps on the roof. This form of renewable energy will provide the building with 800,000 kWh/annum of heating and 500,000 kWh/annum of cooling.
- 7.3 Dundee is participating in the most ambitious **hydrogen fuel deployment** to-date, with over 30 European cities involved to build hydrogen refuelling infrastructure across Europe including large scale deployment of fuel cell buses over the next few years. The ambition is to commercialise both by 2020. This will allow for integrated energy generation, combining heat, power and transport solutions; utilising Hydrogen Fuel for grid balancing, energy storage and decarbonisation of the gas grid. The benefits include cleaner air, reduced carbon emissions, attracting inward investment, job creation and skill diversification. The project is led by the **Scottish Cities Alliance**, a partnership of the seven Scottish cities and the Scottish Government, established to develop collaborative solutions that will attract investment and maximise economic potential
- 7.4 The Scottish Government's National Renewables Infrastructure Plan has identified Dundee as one of the most strategically important and suitable port locations for marine renewables. **Energy Dundee** was created to provide a strategic partnership between the public, private and academic sectors, to unlock opportunities in the Offshore Wind and low carbon energy sector. One example of this collaborative approach is **Energy Training East**, an alliance of the Universities and Colleges of Tayside and supported by Skills Development Scotland to create a unique combination of training and research & development expertise to support the energy industry. This covers apprenticeship level and nationally accredited technician skills programmes, bespoke technical courses and graduate and post-graduate level teaching and research, as well as opportunities for knowledge transfer partnerships.

## 8 DISTRICT HEATING

8.1 Developing district heating is an alternative way in which the Council can tackle fuel poverty, reduce CO<sub>2</sub> emissions and decentralise energy. A District Heating System is a method for distributing heat generated in a centralised location for residential and commercial heating requirements such as space heating and water heating. They are more efficient, cheaper and cleaner than the systems they replace and can be easily integrated with renewable technologies.

- The Council has four **domestic district heating schemes** with a combined load of 7,500kW serving ten blocks at Dallfield, Lansdowne/Pitalpin, Lochee and Whorterbank and some 240 low-rise flats at Kirk Street. Through these schemes, 1,150 residents have had their low efficiency, high carbon, high cost electric storage heating replaced by high-efficiency, lower carbon, low cost gas-fired district heating. This was funded by the Community Energy Saving Project (CESP).
- The Council secured £3 million funding from the Scottish Government's Low Carbon Investment Transition Programme together with capital investment to develop an innovative **Low Carbon District Energy Hub** at Caird Park Regional Performance Centre for Sport. This multi-technology energy centre design combines heat pumps, gas CHP, solar thermal, PV'S, and large thermal stores for low grade and higher grade heat combined with gas boilers for peak demand and backup. By delivering a low and zero carbon solution that incorporates a teaching space, the fully integrated district energy Hub will significantly lower carbon emissions whilst providing key infrastructure that will act as the catalyst to accelerate the city's ambitions for the development of a city-wide energy network.
- The Council is developing a **District Heating Strategy** to identify potential district heating networks, including the short, medium and long-term strategic opportunities and the development of a long term vision to support the City's growth and low carbon transition using decentralised energy. The Strategy is being prepared with assistance from Resource Efficient Scotland and Ramboll and is informed by a range of stakeholders.
- The Council is working with the Scottish Cities Alliance and Resource Efficient Scotland and other partners to pilot a '**Local Heat and Energy Efficiency Strategies**' (LHEES) approach in the Lochee Community Planning Partnership (LCPP) area. The Scottish Government are currently consulting on making LHEES a statutory duty in order to support the delivery of heat decarbonisation and energy efficiency objectives of the SEEP. The study focuses the step-by-step practicalities of developing a LHEES, the data and other requirements necessary to develop meaningful implementation plans, the technology solutions that are likely to be applicable in the area as well as an understanding of the challenges and lessons on how the wider development of LHEES can best be delivered if the Council is mandated to do so in the future.
- Dundee City Council, MVV Environment Baldovie (MEB), Michelin and Scottish Enterprise, MEB and Michelin are currently undertaking a feasibility study to explore the potential for a district heating network that would connect from the soon to be constructed Energy from Waste Combined Heating and Power (EFW CHP) facility.

## 9 WASTE AND RESOURCE USE

9.1 The Zero Waste Plan sets the strategic direction for waste policy in Scotland to help achieve an ambitious municipal recycling target of 70% by 2025 which will ultimately help achieve the aims of the Climate Change (Scotland) Act 2009.

The Council currently recycles 40% of household waste and is working on improving and enhancing recycling services and waste awareness to increase this rate and reduce waste generally. The Council is actively involved with Zero Waste Scotland and will continue to contribute to the development of national waste policy through engagement and consultation with this organisation.

- **Improved Waste and Recycling collections:** The Waste Strategy, Routing & Operations teams have been working collectively on a project to introduce comprehensive recycling collections across the city since 2012. The recently revised model, the Government's 2016 Charter for Household Recycling, has been implemented to two thirds of the City to date and will have its final phase rolled out on 16 April 2018. The new service model comprises:

- Fortnightly collections of general waste;
- Three-weekly collection of Metals, plastics & Cartons;
- Four-weekly collection of Paper & Card
- Weekly collection of food waste;
- Seasonally adjusted frequencies of garden waste collections;
- Enhanced network of local bring sites for glass collection.

Council investment in the project to date has been the £1.56m capital budget agreed at committee in 2016. Article II of the minute of meeting of the Neighbourhood Services Committee of 27 June 2016, Report 202-2016 refers. This has been supplemented by significant funding awards from Zero Waste Scotland over the life of the project, beginning with the 2012 fully-funded Options Appraisal to the current, most recent funding award of £515k.

- As part of Environment's **waste education and awareness programme**, support to schools and community groups has been offered since 2009, delivered through effective communication and education strategies on how to 'Reduce, Reuse and Recycle' waste at school, work and at home. Officers also work with Education and other Environment colleagues to identify opportunities to generate meaningful activities for young people, tying in with the 'Take Pride in your City' campaign. The Waste Education and Awareness Programme was relaunched into all Dundee Schools in November 2015 offering a menu of activities and visits commenced in January 2016. There was an encouraging uptake, particularly for school assemblies to reinforce the 'Reduce, reuse, recycle' message.
- **Baldovie Community Reuse Hub** is a joint partnership venture between the Council, Tayside Re-users, Transform and Dundee Social Enterprise Network. Tayside Re-users and Transform repair items that could be saved from the skip including unwanted furniture and other household items, thus reducing waste to thermal treatment or landfill. The Hub also offers opportunities for the unemployed to learn skills needed to repair, reuse and extend the life of products via training and employment programmes. Since September 2015, approximately 135,000 kg of goods have been recovered for re-use by the Hub. Furthermore, during this period 4 people have been employed and 4 training places have been taken up in partner organisations.
- **WARPit** (Waste Action Reuse Portal) is a simple online portal which provides a platform for the Council to redistribute resources. The tool makes it easy for staff to locate and procure spare or unwanted resources from across our organisation, reducing procurement spend and waste disposal costs, as well as minimising waste and reducing associated carbon emissions. Since 2013, WARPit has reduced carbon emissions by 103,550 Kg, helped to avoid 36,290kg of waste being sent to landfill and saved the council a total of £175,760. The portal continues to be promoted and members increase on a weekly basis.
- The **Dundee Smart Waste trial** will seek to install range of sensor technologies in litter bin routes along with compactor bins in trial areas. Smart litter bins monitor fullness and have demonstrated reductions in journeys to empty litter bins reducing carbon emission and vehicle costs and ensuring full bins are emptied on demand. Solar powered bins also

compact waste extending the duration between emptying. Smart phone, and vehicle tablet technologies will enable the most efficient route planning in response to the data analysis. Electric pedestrian cleaners shall also form part of the project trials. Smart Cities are defined areas that uses different types of electronic data collection sensors to supply information which is used to manage assets and resources efficiently. Article VI of the minute of meeting of the Neighbourhood Services Committee of 12 June, 2017, Report No 187-2017 refers.

## 10 SUSTAINABLE TRANSPORT

### 10.1 Electric Vehicles

The initial impetus for electric vehicles (EV's) came from a commitment in the previous Councils Plan (2012) which stated that the Council would "secure a vehicle fleet that is fit for purpose and reduces carbon emissions and air pollutants". All infrastructure has been fully funded by Scottish Government and the Office for Low Emission Vehicles, with some vehicles funded by Transport Scotland and the remaining purchased/leased as part of the ongoing vehicle replacement plan.

- Dundee City Council now has the **largest EV fleet** of any local authority in the UK (87 to date) and is a past winner of Green Fleet magazine's public sector fleet of the year and low carbon vehicle operator of the year.
- The city has one of the most **extensive charging infrastructures** in the UK (with 75 posts), with one of the Rapid Chargers in Queen Street, Broughty Ferry being the most used in Scotland, averaging 18 charges per day. The charger at Dundee Ice Arena is the second most used in Scotland. Of the 75 posts, 56 have been installed by the Council with Scottish Government funding and provide free charging. Tesla have installed 8 superchargers. From the council owned chargers alone there have been over 111,300 charging sessions, providing over 2.5 million electric miles. That is a total reduction of an estimated 475 tonnes CO<sub>2</sub>.
- **Drive Dundee Electric** was launched by the Council in June 2017 to encourage and support the uptake of EV's in the area. It is now the face of all the charging infrastructure, regulation, events and acts as a point of information and contact to ensure all response is accurate and quick, providing the best experience to EV owners.
- Since the campaign launched, the numbers of EVs registering for **free parking** compared to the first half of 2017 has doubled. There are currently over 360 pure electric (not hybrids) signed up.
- From Q3 2016 to Q3 in 2017 there was a **34% increase in EVs** (that's all plug-in vehicles) in Dundee City alone. The total number of EVs in the surrounding local authorities has doubled at 51% increase.
- There was an 18% increase in **electric taxis** between September and November 2017. The council offers a reduced price for taxi testing as there is less for the mechanics to check. There is an EV only taxi rank, company plates must now be an EV and all new private hire must be an EV.
- Work is ongoing to install three **new charging hubs** across the city that will increase rapid charging infrastructure. Funded by OLEV, this will provide essential access for EVs as Dundee has some of the UKs most used chargers. The campaign will be working with local car franchises to promote EVs there and run a mini experience centre to help familiarise the public with the vehicles and charging technology.

## 10.2 Active Travel

In recognition of the multiple benefits of active travel, (improving local air quality, addressing physical inactivity and tackling congestion) the Council has been working hard to deliver on its commitments to cycling and walking - with a particular focus on school-aged pupils and their journey to school. The Council approved its Cycling Strategy in June 2016 and committed to direct 5% of its transport spend towards cycling and walking project. The Council will also look to take full advantage of the increased funding being made available by the Scottish Government for active travel infrastructure and behaviour change projects.

The Council has a number of projects designed to encourage residents and visitors to walk or cycle more, with two Active Travel graduates recruited in 2017 to support and promote these initiatives.

- WOW is the promotion and financial support of Living Streets' **'Walk Once a Week'** school challenge and 'travel tracker' classroom resource. This inclusive initiative encourages children to record their mode of travel every day of the week with the opportunity to earn a limited edition badge designed by other school pupils participating in the UK.
- The Council has employed a Sustrans based **i-Bike officer** to engage with selected schools throughout Dundee undergoing a three year programme which helps to promote and enable school pupils to cycle to school safely and confidently. This includes Cycling Scotland certified bikeability skills and fun activities to engage with teachers and parents as well as pupils.
- **Pedal to the Pool**, endorsed by the Council, is a family approach to active travel, offering free swimming for children who have cycled to their local swimming pool. Participants take a photograph next to their bike to show they have cycled and they can swim for free.
- The **'Get on the Go'** campaign was a joint radio and social media campaign between Dundee City, Perth and Kinross, and Angus Councils. The campaign was aimed at people driving in their cars, specifically single occupancy cars. The campaign promoted walking, cycling and park and stride, as well as car sharing schemes, with the aim of reducing the number of unnecessary cars on the road.
- **'Safer Routes'** leaflets have been designed and distributed to every primary school within Dundee. These school specific maps highlight the recommended safe routes for walking to school, as well as highlighting designated 'park and stride' zones; where parents can park up and pupils can walk the rest of the way (typically a ten minute walk is acceptable). These maps are intended to make it easy for families to choose active travel methods, providing information on safe crossing zones and less congested routes in their area.
- The Council, in conjunction with Forth Ports Ltd, is planning to make changes and **improve the current cycle path** running through the dock area. As well as opening up the area to pedestrians through the removal of existing security features, the path will be widened and resurfaced. Resurfacing will include the use of porous materials to create a soakaway targeted at tackling current flooding problems. This will encourage cycling in the area linking up to the National Cycle Network Route 1.
- Following on from the success in our schools, and as part of the Healthy Working Lives Initiative, employees will be encouraged to take part in the Daily Mile initiative : we will be among the first local authority workforces to do so. We will be encouraging more employees to not only walk to work, but park further away, get off the bus a few stops early, go for a lunchtime walk, take the stairs not the lift and have walking meetings - anything that helps make The Daily Mile part of their daily routine.



### 10.3 Public Transport

- The Council, with support from the Scottish Government and local bus operators, continues to promote bus travel through initiatives like '**Kids travel for 20p**' which offered discounted travel for families during the main school holidays of 2017. By reducing the fare for children on buses, families are encouraged to use the bus for day trips and everyday journeys. Our approach to delivering school transport also supports the local bus network and gets more children and young people accustomed to travelling by public transport. Bus travel is extremely important to sustainable transport; where 50 people can share a single vehicle instead of 50 single occupancy cars taking to the road.
- A **Waterfront Active Travel Hub** is proposed for 2019. The hub will feature a café and bike repair/rental shop, with the hub operators responsible for providing information and taster sessions on all forms of sustainable transport within Dundee including electric vehicles, car clubs, walking groups and cycle routes.
- Hydrogen is one of very few options for zero carbon transportation. **JIVE2** is a European collaborative project set to deploy 142 hydrogen fuel cell buses and large hydrogen refuelling stations across Europe. Buses will be deployed in fourteen European cities, including Dundee. JIVE2 follows on from the initial JIVE project, currently deploying 142 buses and fuelling stations across nine European cities. This creates a great opportunity for increasing activity in decarbonising transportation, eradicating air quality issues from our cities and encouraging a modal shift to using public transport (rather than private cars), cycling and walking.
- A **Mobility Integration Living Laboratory project (MILL)** is being developed; a public-private-people partnership which will see Dundee become a real life test and experimentation environment for mobility solutions that integrate with the transport network. This will be critical in addressing social vulnerability to climate change, ensuring that transport is not an isolating barrier for those wishing to reach healthcare, employment opportunities and social activities whilst reducing road transport emissions and the city's carbon footprint.

## 11 AIR QUALITY

11.1 The Scottish Government acknowledges that local authorities are meeting their statutory responsibilities in actively working towards achieving air quality standards. However, across many areas of Scotland including Dundee, the rate of progress must increase if the Scottish Government's stated aim of meeting air quality standards by 2020 is to be met. The Scottish Government intend to achieve this through a range of policy actions including the Cleaner Air for Scotland 2015 – The Road to a Healthier Future (CAFS) which sets out proposals to reduce air pollution further and fulfil Scotland's legal responsibilities. One of the key objectives of this is that Scottish local authorities must consider air quality when developing their Sustainable Energy and Climate Action Plan.

- A **Low Emission Zone (LEZ)** is a defined geographical area where access for some polluting or high emission vehicles is completely restricted or absolutely deterred. An LEZ is designed to promote low emission vehicles, which are permitted to enter the zone without charge. The Scottish Government aims to introduce LEZ's within the four biggest Scottish cities by 2020. Dundee City Council have been active partners in taking this initiative forward and have engaged in the cities LEZ Leadership Group meetings.
- In Dundee, of the seven **National Air Quality Standard (NAQS)** pollutants, there is no anticipated risk of exceeding the statutory objectives for benzene, carbon monoxide, 1, 3-butadiene, sulphur dioxide and lead. Neighbourhood Services continues to monitor levels of nitrogen dioxide (NO<sub>2</sub>) and particulates (PM<sub>10</sub>) at specific areas within the city.

- A review and update of the Council's **Staff Travel Plan** will be carried out in 2018 to bring it line with CAFS.
- The **ECO Stars Dundee scheme** was launched in 2013 to provide free support to the city's fleet operators in reducing their fuel consumption and emissions and as a result improving local air quality and achieving cost savings. Each member receives a star rating based on an assessment of how 'clean' their vehicle fleet is and the best practice they demonstrate in key areas of fuel management; developing driver skills; vehicle specification and maintenance; use of IT support systems and fleet performance monitoring. Membership has grown year on year with over 120 members now signed up to the Eco Stars Dundee scheme with over 5550 vehicles being registered. The scheme will continue in 2018 with a focus in supporting Taxis and Commercial Vehicles.
- In February 2018, the Council agreed to the implementation of a voluntary code to make play areas in **Dundee parks smoke-free**. The creation of smoke-free play areas will have a positive impact in relation to improving health as it will reduce the level of exposure to smoking amongst young children, as well as offering further protection from the harmful effects of second hand smoke. This also protects the environment and saves the Council money by reducing tobacco-related litter.

## 12 CLIMATE CHANGE RESILIENCE AND ADAPTATION

12.1 The Climate Change Scotland Act established Public Bodies Climate Change Duties, which requires the Council to exercise their functions:

- in a way best calculated to contribute to deliver the Act's emissions reduction targets;
- in a way best calculated to **deliver any statutory adaptation programme**; and
- in a way that it considers most sustainable.

Adaptation is concerned with how we adjust our environment, both the built and natural, to climate change. The Council has been working on a number of projects in the built and natural environment to lower the severity of the risks associated with climate change.

### 12.2 Flood Protection

- The Council carries out a number of activities every year in line with the **Flood Risk Management (Scotland) Act 2009**. These include coastal and watercourse inspections, scheduling required maintenance and repair actions and preparing the annual Flood Emergency Plan.
- **Central Waterfront to Dundee Airport Flood Protection Scheme**: Commencing in March 2017, construction works are ongoing to create a 4km set back wall and flood gates, providing protection from a 1 in 200 year flood. The use of local stone has minimised the carbon footprint, with the project receiving successful match funding from Sustrans to improve lighting and create a small section of combined cycle footway at Bridgeview Café.
- **Broughty Ferry Flood Protection Scheme**: This project, currently at the design stage, will see the construction of a new setback wall and gates along with a 4 metre wide combined cycle walkway running from Douglas Terrace to Broughty Castle. It is anticipated that these works will commence in autumn 2018. This scheme will also include soft flood protection measures utilising the existing sand dunes along Broughty Ferry Esplanade from the car park to the Glass Pavilion, the installation of a gabion mattress or equivalent to protect the Grassy Beach area and rock armour coastal protection from Bridge Street to the Angus boundary at Balmossie.

### 12.3 Building Adaptive Capacity

- To assist in SECAP preparation, a '**Climate Change Risk and Vulnerability Assessment**' will be undertaken in 2018 to determine the nature and extent of climate-related risks by analysing potential hazards and assessing the vulnerability that could pose a potential threat or harm to people, property, livelihoods and the environment of Dundee.

### 12.4 Green Spaces

One of the major underpinning aims of the Council's Environment Service is to care for the 'green lungs' of Dundee, for the benefit of citizens and visitors alike, as well as the biodiversity that we share the City with. Providing quality opportunities to exercise, enjoy, play, take part in sport, appreciate nature, commute, attend events, walk the dog is core to the Service, making green and open spaces multi-functional. These spaces also contribute to the wider environmental agenda, storing carbon, filtering pollutants, enabling water penetration, benefitting soil health and contributing to flood prevention, contributing to urban cooling, as well as providing green corridors.

- **Community Growing Projects:** In 2014 a Community Allotment Officer was appointed and capital funding made available to develop Growing Spaces in areas of Community Regeneration. Community gardens have been established in Menzieshill, Douglas, Lochee (3), Ardler and Maryfield (see images in Appendix 1) enabling local people to grow their own fruit and vegetables, positively impacting on their mental and physical health, the local environment and community. Further community gardens are planned in Charleston, Whitfield, Linlathen and a further space in Maryfield. In addition to those funded by the Council, there are a number of community growing spaces funded and managed by external organisations throughout Dundee, supported by the Community Allotment Officer.
- **Outdoor Access/Active Travel:** Active travel and recreation is promoted through the use of our open spaces by providing and promoting walking and cycling routes, monitored through the Outdoor Access Strategy. The Council meets its requirement under the Land Reform (Scotland) Act maintaining the adopted Core Path Plan and supporting Dundee Local Access Forum. In partnership with City Development we support Dundee Cycling Forum and publish the Dundee Cycle Map.
- Over twenty parks and greenspaces are assessed annually for quality by staff and members of the community against the national **Green Flag** criteria. A number of criteria directly or indirectly consider the impact of climate change. Each assessment results in an individual park action plan. In addition to these, five parks successfully attain a Green Flag award, by submitting a Management Plan and hosting a site visit by an external assessor.
- Approximately twenty community groups are supported in their work towards the annual **Beautiful Scotland** and **It's Your Neighbourhood** campaigns, run by Keep Scotland Beautiful. Examples include Tattie Patch in Lochee – the children's Laughter Club grow vegetables at the foot of a multi storey, the Attic in Kirkton who have a community garden at the rear of their shop unit, Queen Street Gardeners, a wildlife garden sandwiched between the railway and a car park, cared for by Grove Academy students and The Miley, local Scottish Wildlife Trust volunteers who look after a section of disused railway for biodiversity. Friends groups also support the work of Environment Service through physical tasks and fundraising
- **Bonnie Dundee** and **Broughty Ferry in Bloom** run a number of projects which improve environmental quality throughout Dundee, from caring for planters and creating a small Slessor Square garden in the City Centre, to running innovative fund raising events and encouraging local people to participate in initiatives such a window box scheme in King Street, Broughty Ferry.

- The Council has been working with Zero Waste Scotland to develop a 'Community' **Litter Prevention Action Plan** (LPAP) for the city which is made up of individual plans from each of the Council Services, businesses, schools, community groups and organisations. In September 2017, the Council became the first Local Authority to have a Community LPAP which has been developed under the Take Pride in Your City banner. This project aims to create a shared responsibility for litter prevention and a collective approach to tackling this issue.
- **Biodiversity:** Dundee is home to a wealth of wildlife within the City's open spaces, which the Council seeks to conserve and enhance whilst balancing this with the demands of other greenspace uses and functions. A population of Red Squirrels is concentrated in Templeton Woods, over 150 bird species have been spotted at Riverside Nature Park, Dolphins and Seals can be seen in the Tay at Broughty Ferry, while Otters and Kingfishers call the Dighty home. The Nature Conservation (Scotland) Act (2004) placed a 'biodiversity' duty on Local Authorities. Enhancing Dundee's Green Network is encouraged by Local Development Plan (LDP) guidance and a network of Locally Important Nature Conservation Sites and Green Corridors are protected by LDP policies.
- Working in partnership with land owners and voluntary organisations, the Council have a **control programme** for Giant Hogweed, focussed along the Dighty. This invasive plant impacts on local ecology and communities. Other non-native plant and animal species are also present in the City which the Council seeks to control.
- **Beach Management:** Broughty Ferry beach is owned and managed by the Council. This management is carried out in partnership with the Broughty Ferry Beach Management Group, which includes Broughty Ferry Community Council, SEPA, the Port Authority, Scottish Water and SNH, in addition to representatives from the Council. In 2017, Broughty Ferry beach achieved a Beach Award for the 14th year running.
- **Greenspace Management:** In response to environmental and efficiency challenges, the Council's Environment Service is developing new management techniques for greenspaces. The most eye-catching has been the establishment of annual flower mixes along verges adjacent to busy roads. These mixes are bold, attractive and beneficial to biodiversity and have been extremely well received by the public. In house Landscape Designers take into account the challenges of the urban area and use a palette of plants which can withstand changes to the local environment, such as lack of water and vehicle emissions etc. The Environment Service is also responsible for the management of Sustainable Urban Drainage Schemes, reducing the load on the existing water drainage system.
- Over 250 ha of Dundee is **woodland**, which performs an important environmental function storing carbon, sheltering the built environment from wind and filtering pollutants, as well as being appreciated by visitors and wildlife. In recent years, Dundee has benefitted from grant funding awarded by Forestry Commission Scotland, enabling the improvement and expansion of Dundee's wooded areas.
- In partnership with NHS Tayside and Scottish Natural Heritage, the Environment Service will be developing a **Green Health Partnership** (GHP) over the next three years as part of the national Natural Health Service. The GHP aims to encourage an increase in social prescribing by linking health care professionals with local greenspace health initiatives, such as Branching Out and the Family Fresh Air Club run by the Dundee Countryside Rangers and Dundee Association for Mental Health's Greenbuds, as well as community growing spaces.
- Dundee has over 630 **allotment** plots spread over fourteen sites. Sites are privately owned, leased from the Council by Allotment associations and four are directly run by the Council. The recent Community Empowerment Act requires the Council to develop a Local Food Growing Strategy which will cover both allotments and community growing initiatives.

Dundee is working with Greenspace Scotland on the scope of this document in advance of guidance being issued by the Scottish Government. Once this is published Local Authorities have two years to complete the strategy.

- **Take Pride in Your City:** launched in May 2015, is an environmental improvement campaign looking to change public behaviour and attitudes towards litter, dog fouling, fly-tipping, discarded chewing gum and graffiti. It aims to encourage citizens to take personal and shared responsibility for their local environment and encourage positive behavioural change. This four year campaign will unite a number of initiatives under the Take Pride banner to encourage this behavioural change, increase public involvement and ultimately aims to make Dundee a cleaner place to live, work and visit.

### 13 POLICY IMPLICATIONS

- 13.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management. A copy of the Impact Assessment is available on the Council's website at [www.dundee.gov.uk/iia](http://www.dundee.gov.uk/iia)

### 14 CONSULTATIONS

- 14.1 All members of the Council Management Team have been consulted and are in agreement with the contents of this report.

### 15 BACKGROUND PAPERS

- 15.1 None

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FW/BH/MS

1 March 2018

Dundee City Council  
Dundee House  
Dundee



APPENDIX 1: COMMUNITY GARDENS

DOUGLAS COMMUNITY GARDEN



TAYVIEW COMMUNITY GARDEN



WHORTERBANK TATTIE PATCH



ARDLER COMMUNITY GARDEN



