


Our Low Carbon Story

2018/19

 **CHANGING**
City Council
www.dundee.gov.uk **FOR THE FUTURE**

 **sustainable**dundee



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Dundee City Council is committed to sustainability with considerable work completed, & more underway, to transform Dundee into a sustainable, low carbon city. Our Low Carbon Story provides key examples of existing work, & future plans, which strive to meet a number of ambitious aims:

- ⇒ increase the city's resilience to climate change impacts,
- ⇒ increase awareness of ways to reduce emissions,
- ⇒ enhance green spaces and biodiversity,
- ⇒ provide sustainable transport options,
- ⇒ attract inward investment,
- ⇒ reduce carbon emissions,
- ⇒ increase renewables,
- ⇒ reduce fuel poverty,
- ⇒ improve air quality,
- ⇒ reduce waste.

These aims form the foundations of a city wide Sustainable Energy & Climate Action Plan (SECAP), committing us to an emissions reduction target of 40% by 2030. Our low carbon projects are presented under the 6 SECAP titles.

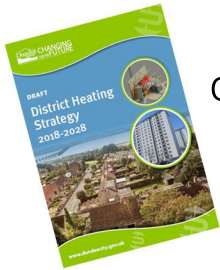


District Heating

Dallfield multi-storey development where district heating has been installed.

District heating, the supply of **heat by hot water** to a number of buildings through a **heat network** of underground pipes, is an effective way of making the most of our heat resources, **reducing the carbon intensity** of heat, **reducing fuel costs** & helping to **tackle fuel poverty**.

- Systems have already been **installed** at Dallfield, Lansdowne, Lochee, Whorterbank & Kirk Street.



Our **District Heating Strategy** sets out our long-term vision to support the city's growth & transition to a low carbon economy using decentralised energy. It identifies potential networks & sets out a network delivery programme.

- We are developing an innovative '**Low Carbon District Energy Hub**' at Caird Park Regional Performance Centre for Sport (RPCS). This multi-technology energy centre design combines heat pumps, gas combined heat & power, PVs, & large thermal stores. By delivering a **low & zero carbon solution**, the fully integrated district energy Hub will significantly lower carbon emissions whilst providing key infrastructure that will act as the catalyst to accelerate our ambitions for the development of a city-wide energy network.

Planned Low Carbon District Energy Hub at the RPCS.

Sustainable Transport

We are working in partnership with the Scottish Government to invest heavily into [Sustainable Transport projects](#); key areas include electric vehicles (EVs), active travel & infrastructure to support behavioural change.

- We have the [largest local authority EV fleet](#), 1 in 4 are electric & are supported by a network of 75 charging points across the city.



[Co-wheels](#) have 15 ultra-low emission vehicles available to members 24/7 from various locations around the city.

- We have a number of [active travel](#) projects, encouraging residents & visitors to walk or cycle, with 2 active travel graduates recruited in 2017 to support & promote initiatives.
- We employ a Sustrans i-Bike officer to engage with schools undergoing a 3 year programme, enabling school pupils to [cycle to school](#) safely & confidently.



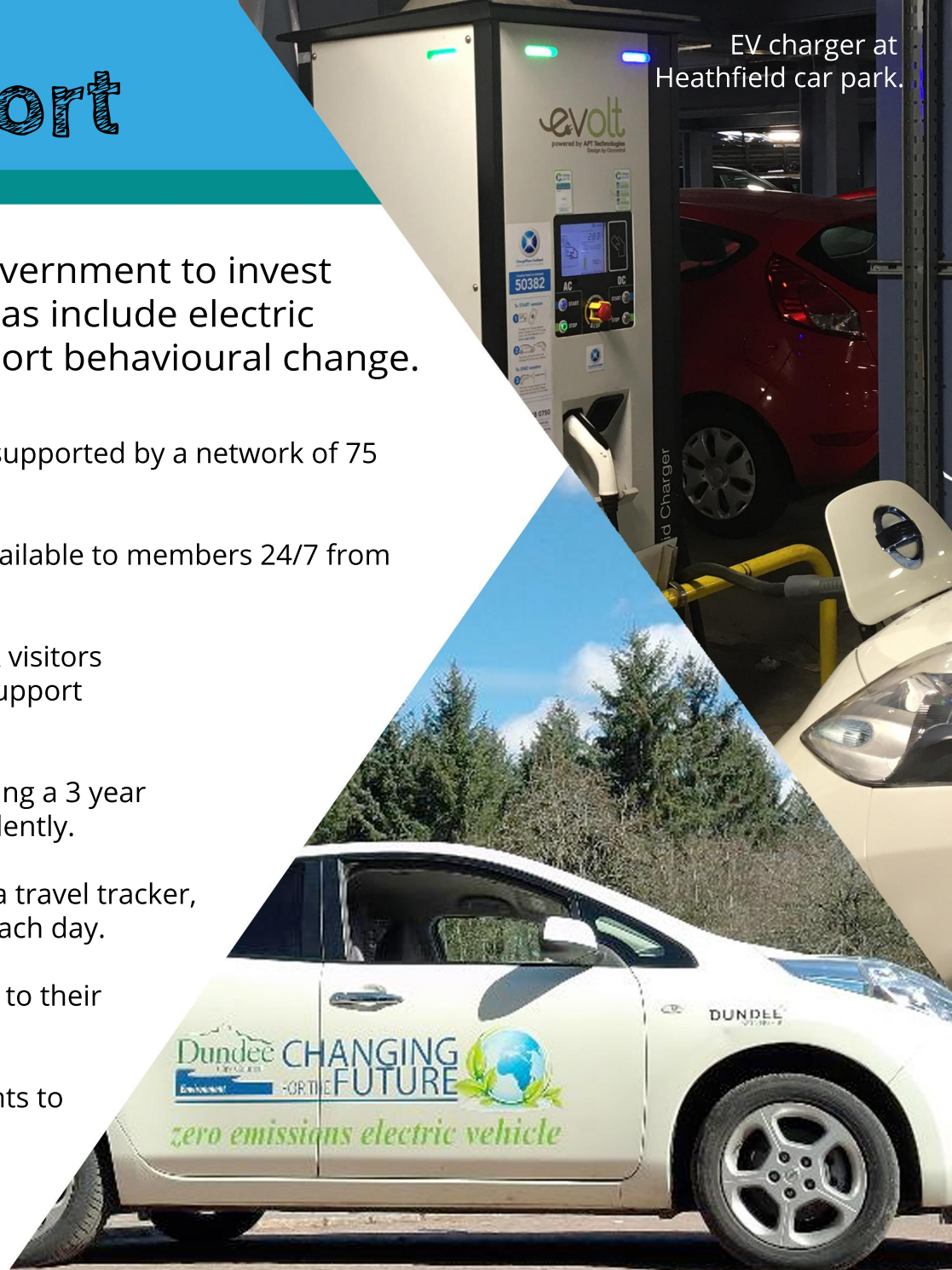
WOW (Walk Once a Week) is a school challenge which uses a travel tracker, encouraging children to record their [active mode of travel](#) each day.

- [Pedal to the Pool](#) offers free swimming for children who have cycled to their local pool.
- By working with Forth Ports we are planning changes & improvements to the current [cycle path](#) running through the docks.



[Drive Dundee Electric](#) encourages & supports EV uptake in Dundee. It hosts events & acts as a point of contact.

EV charger at Heathfield car park.



A Dundee City Council EV.

Sustainable Transport

- Get on the Go was a radio & social media campaign aimed at drivers, promoting [alternative sustainable travel](#) modes including car sharing.



To encourage the use of public transport, incentives such as the 'Kids Travel for 20p' were implemented during the school holidays.

- A new [Waterfront Active Travel Hub](#) is proposed for 2019. The Hub will feature a café & bike repair/rental shop, with operators responsible for providing information & taster sessions on all forms of sustainable transport within the city including EVs, car clubs, walking groups & cycle routes.



Mobility Innovation Living Laboratory project (MILL), a public-private-people partnership, with Urban Foresight at the helm, strives to introduce [mobility solutions](#) that integrate with the transport network.

⇒ AIR QUALITY

- A [Low Emission Zone](#) (LEZ) is a set area for little or no high emission vehicles. Dundee is one of four cities that will introduce a LEZ by 2020.



The ECO Stars Dundee scheme provides [information and support](#) to the city's fleet operators, working together to make vehicles environmentally 'clean' & rewarding them with a star rating.

- Our play parks became [smoke free zones](#) in February 2018.

Bus stopping at the Nethergate.



Cycle path at Magdalen Green.



CYCLE SLOW

Energy Efficiency

The Olympia where energy efficiency measures have been installed.

Energy efficiency is a **national & local infrastructure priority**, where we are aiming for our buildings to be as near to 'zero carbon' as possible by 2035.

⇒ Carbon Management

- Our first Carbon Management Plan was adopted in 2009 to **reduce CO₂ emissions** from our own operations.
- From the baseline year of 2007/08, our **total carbon footprint has reduced by 26.8%**; 23% of this a result of improved energy efficiency in buildings, such as SMART metering, Building Energy Management Systems & behavioural changes.



Recent reports can be viewed via:
www.keepsotlandbeautiful.org

The McManus Gallery where energy efficiency measures have been installed.



Energy Efficiency

LED street lighting, Slessor Gardens, Dundee City Waterfront.

⇒ Non-Domestic

- Efforts are ongoing to **maximise carbon savings** in our estate, including LED lighting upgrades, installation of photovoltaic (PV) panels & combined heat & power solutions, saving 1,000 tonnes of CO₂. The long term plan is to include more than 100 Council properties.
- Since 2012/13, we have installed 5,000 LED street lights, resulting in a **35% reduction in CO₂ emissions**. From 2018/19 further investment will reduce carbon emissions by at least 50%.

⇒ Domestic

- 2,500 hard-to-treat properties have had **additional external insulation** fitted, reducing carbon emissions. A further 800 properties are scheduled for 2017/18, with 540 locations identified for 2018/19.
- By 2015, all Council housing stock **reached required energy ratings**, via replacement of all electric storage heating with gas central heating & ensuring all suitable properties had appropriate insulation. Two multi-storey developments at Whorterbank & Lansdowne have also had PV panels installed.



Dundee Energy Efficiency Advice Project (DEEAP) carries out 4,000 **energy advice** home visits per year & our staff attend 100 events to raise awareness of the service. Further information can be found at:

www.dundee.gov.uk/welfare-reform/connect-service

An example of external insulation on Cleppington Road.

Waste & Resource Use

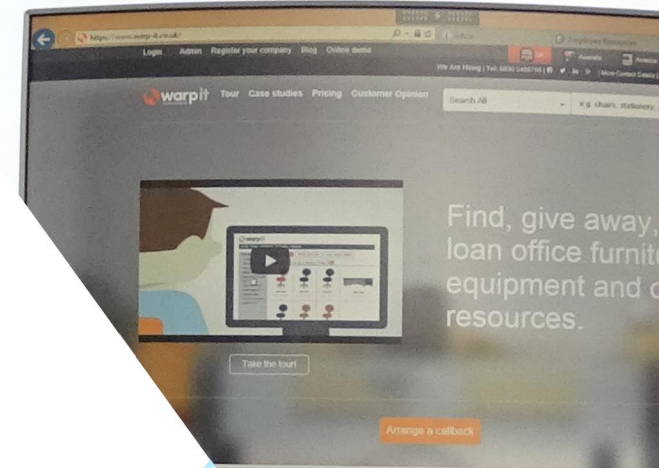
WARPit on a PC.

The Zero Waste Plan involves a **municipal recycling target of 70% by 2025**. We currently recycle 40% of household waste & are working on improving, enhancing & supporting these services further.

- The Waste Strategy, Routing & Operations teams have rolled out improved waste & comprehensive recycling collections across the city since 2012. For more information, visit <https://www.dundee.gov.uk/services/bins-recycling>.
- In a waste **education & awareness programme**, support on how to 'Reduce, Re-Use & Recycle' is provided to schools & community groups. Meaningful opportunities & activities are regularly offered to a variety of people, linking to the 'Take Pride in your City' campaign.



WARPit (Waste Action Re-Use Portal), an online service, allows us to redistribute surplus resources, **reducing carbon emissions by 103,550 kg** & avoiding 36,290 kg of waste being sent to landfill since 2013.



Take Pride in your City
litter pick-up group.

Waste & Resource Use

Sign to Baldovie recycling centre.

- Baldovie Community Reuse Hub is a partnership between the Council, Tayside Re-Users, Transform & Dundee Social Enterprise Network. Items are saved from the skip & repaired, reducing waste. Since September 2015, approximately **135,000 kg of goods have been recovered**.



DUNDEE & ANGUS
CHAMBER OF COMMERCE

Local businesses are being supported to maximise circular economy opportunities through the launch of '**Circular Tayside**', a joint Chamber of Commerce & Zero Waste Scotland initiative to deliver savings across the Food & Drink, Manufacturing, Energy/Oil & Gas & Manufacturing sectors.

- Our **internal waste management** practices are currently being aligned with the Household Recycling Charter.

⇒ Future Ambitions

- The Dundee Smart Waste Trial will install sensor, smart phone & compaction technologies in litter bins, which regulate fullness, allowing a reduction in journeys for emptying & **efficient route planning**, reducing carbon emissions.



Re-Use Hub
information.



Renewables

The V&A museum powered by ground & air sourced energy.

As part of our [ongoing energy efficiency programme](#), we are investing in & installing PV panels and various other renewable technologies in new builds & in major refurbishments.

- Renewable technologies, in particular PVs, have been included in the design of [new build schools](#) Sidlaw View, Tayview, Coldside & NE Campus, alongside three systems at DISC, Unit T Claverhouse & the Crescent.
- As part of the regeneration of Dundee's waterfront, the V&A Museum will run solely on [ground source heat pump energy](#), with air source heat pumps also on the roof.



We are participating in a [hydrogen fuel project](#), including deployment of fuel cell buses. This will allow for integrated energy generation, combining heat, power & transport, with benefits including cleaner air. The project is led by the Scottish Cities Alliance.

⇒ Future Ambitions



The Scottish Government's National Renewables Infrastructure Plan identifies our city as an [important port location for marine renewables](#). Energy Dundee, a partnership between the public, private & academic sectors, unlocks opportunities in the Offshore Wind & low carbon energy sector.

- Further plans include the intention to have a [rolling programme of PV system installation](#), covering all of our Council buildings.

Solar PVs on Morgan Academy.

Resilience & Adaptation


Adaptation concerns how we **adjust our built & natural environments to climate change**; we have been working on a number of projects to lower the severity of climate change associated risks.

⇒ Flood Protection

- We carry out **coastal & watercourse inspections**, schedule required maintenance & repairs & prepare an annual Flood Emergency Plan.
- Construction of a 4km **set back wall & flood gates** from Central Waterfront to Dundee Airport is ongoing, providing protection from a 1 in 200 year flood. Use of **local stone** has minimised the carbon footprint.
- Broughty Ferry will see the construction of a **set back wall & food gates**, along with a 4 metre wide combined cycle walkway. **Soft flood protection measures** will utilise existing sand dunes, whilst installation of a gabion mattress will protect the grassy beach.

⇒ Building Adaptive Capacity

- As part of the SECAP, a '**Climate Change Risk & Vulnerability Assessment**' will be undertaken in 2018 to determine the nature & extent of climate related risks to people, property, livelihoods & the environment of Dundee.



Sustainable Urban
Drainage pond at the
Waterfront.



Set back wall at Riverside,
Central Waterfront.

Resilience & Adaptation

QuArdler Larder
Community Garden.

⇒ Green Spaces

One of our major underpinning aims is to care for the 'green lungs' of Dundee, to the benefit of citizens, visitors & biodiversity alike.

- In 2014, funding was made available to develop growing spaces, with **community gardens** now established in Menzieshill, Douglas, Lochee, Ardler & Maryfield, enabling local people to grow their own food. Further community gardens are planned in Charleston, Whitfield, Linlathen & Maryfield.



More than 20 parks & greenspaces are annually assessed against the **National Green Flag criteria**; a number of which consider the impacts of climate change. 5 green spaces successfully attain a nation-wide Green Flag award.

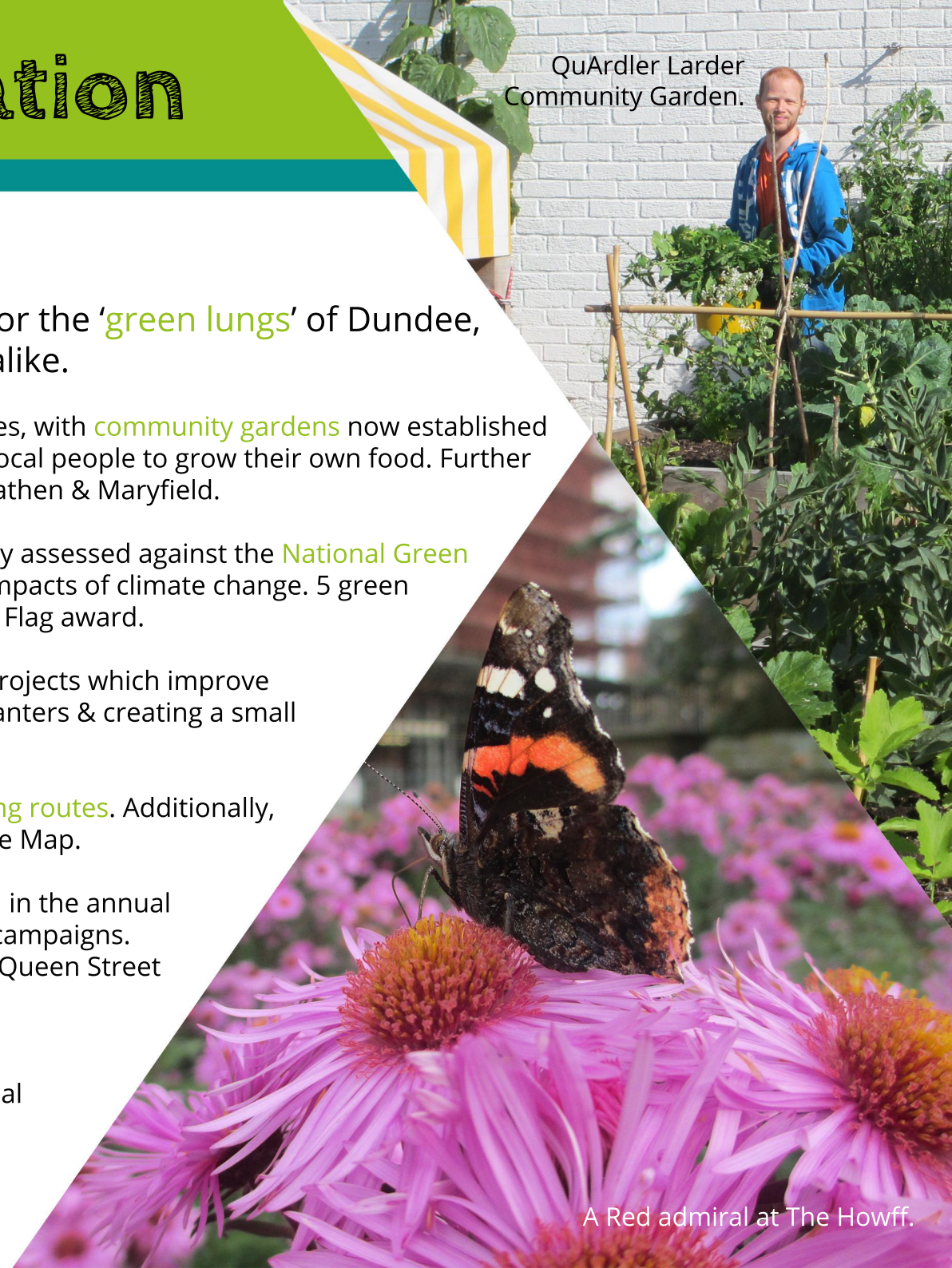
- **Bonnie Dundee & Broughty Ferry in Bloom** run a number of projects which improve environmental quality throughout Dundee, from caring for planters & creating a small Slessor Square garden.
- Active travel is promoted through provision of **walking & cycling routes**. Additionally, we support Dundee Cycling Forum & publish the Dundee Cycle Map.



A number of community groups are supported in the annual **Beautiful Scotland & It's Your Neighbourhood** campaigns. Examples include the Tattie Patch in Lochee & Queen Street Gardeners.

- We have been working with **Zero Waste Scotland** to develop a **Community Litter Prevention Action Plan**, made up of individual plans from each of the Council's services, businesses, schools, community groups & organisations.

A Red admiral at The Howff.



Resilience & Adaptation

- We seek to **conserve & enhance Dundee's wealth of biodiversity** whilst balancing the demands of other greenspace functions. We have a control programme for non-native & invasive plant & animal species.
- Broughty Ferry beach is owned & managed by us, in partnership with the Broughty Ferry Beach Management Group. In 2017, Broughty Ferry beach achieved a **Beach Award** for the 14th consecutive year.
- Greenspace management has recently established **annual flower mixes** along verges adjacent to busy roads, beneficial to biodiversity. In house designers use plants which can withstand lack of water & vehicle emissions. We also manage **Sustainable Urban Drainage Schemes**, reducing the load on the existing water drainage system.
- Over 250 ha of Dundee is woodland, performing an important environmental function **storing carbon**, sheltering the built environment from wind & filtering pollutants. Funding has enabled the improvement & expansion of these wooded areas.
- Our **Green Health Partnership**, developed with NHS Tayside & Scottish Natural Heritage, aims to link health care professionals with local greenspace health initiatives, including Branching Out & the Family Fresh Air Club run by the Dundee Countryside Rangers.
- Dundee has over 630 allotment plots over fourteen sites; privately owned & leased, with four directly run by us. Growing food locally builds **adaptive capacity**, whilst reducing the carbon emissions associated with transport of food.



'Take Pride in Your City' launched in May 2015 & is an **environmental improvement campaign** looking to change public behaviour & attitudes towards litter, dog fouling, fly-tipping, discarded chewing gum & graffiti.

Annual mix of wild flowers.



For enquiries, please contact the
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🐦 @sust_dundee

For further information,
please see our latest Sustainable Dundee Report at:
<https://www.dundeecity.gov.uk/reports/reports/93-2018.pdf>

