

# North Yorkshire County Council

## Transport, Economy and Environment Overview and Scrutiny Committee

21 October 2021

### Report of the Chief Executive

#### North Yorkshire County Council's carbon reduction plan – update on progress

#### **1.0 Purpose of report**

- 1.1 The purpose of the report is to update the Transport, Economy and Environment Overview and Scrutiny Committee on progress in achieving the objectives in the County Council's carbon reduction plan.

#### **2.0 Background**

- 2.1 On 24 July 2019 North Yorkshire County Council passed a motion with an aspiration to achieve net carbon neutrality by 2030, or as near to that date as possible. It also committed to producing a carbon reduction plan. The plan was approved at Executive on 13 July 2021.
- 2.2 The carbon reduction plan details actions for the council for the next three years and will be refreshed annually. It is intended that the carbon reduction plan will be integrated with the council plan next year.

#### **3.0 Governance**

- 3.1 A Beyond Carbon programme within the Council's change management governance structure has been established to oversee the main strands of the plan and a one-off £1m fund for pump-priming and development of business cases has been committed in the Council's 2021-22 budget.
- 3.2 A bid to the pump-priming fund to employ a Climate Change Officer on a two-year fixed term contract is being progressed.

#### **4.0 Carbon reduction plan**

- 4.1 The Council's carbon reduction plan sets out our aims in relation to carbon reduction and defines the scope of our carbon footprint. It details what we have done so far and what actions we need to take next. It also describes wider actions the Council and its trading arm, Brierley Group, are undertaking to improve the environment.
- 4.2 The carbon reduction plan is attached below at Appendix 1.

4.3 Updates on specific actions listed in the plan for 2021/22 are included below:

	2021/22	Progress to date
<b>Corporate property</b>		
Develop a business case for decarbonising heating and ventilation in corporate buildings	<ul style="list-style-type: none"> <li>Linked to the successful application to the Public Sector Heat Decarbonisation Scheme, produce a Heat Decarbonisation Plan for county council properties.</li> <li>Feasibility studies for heat decarbonisation and renewable generation options.</li> </ul>	<ul style="list-style-type: none"> <li>Heat Decarbonisation Plan to be approved and submitted to funding authority by 29<sup>th</sup> October 2021.</li> <li>Feasibilities have been undertaken for one school, three corporate properties and two highways depots to examine low carbon technology opportunities.</li> <li>External consultants have concluded their report on the SmartCampus proposals for County Hall to integrate energy generation and storage and low/zero carbon heat options. These are now being worked into the County Hall master plan.</li> </ul>
Develop a business case for use of 'green' electricity for corporate property and street lighting	<ul style="list-style-type: none"> <li>Develop business case for use of 'green' electricity</li> </ul>	<ul style="list-style-type: none"> <li>Business case under preparation for submission to Beyond Carbon Programme Board in advance of the next purchasing decision (April 2022).</li> </ul>
Carry out a programme of structural improvements to schools and corporate buildings using funding obtained from the Salix Public Sector Decarbonisation Fund	<ul style="list-style-type: none"> <li>Implement the changes to properties using the £1.9m funding granted by BEIS following a successful application to the Public Sector Heat Decarbonisation Scheme</li> </ul>	<ul style="list-style-type: none"> <li>Window replacement works funded by PSHDS1 are nearly completed. £1.3m being spent on works in schools and £600,000 in corporate properties.</li> <li>The carbon saving as a result of this work in corporate properties is approximately 61 t/CO<sub>2</sub>e per annum.</li> </ul>
Continue our property rationalisation programme	<ul style="list-style-type: none"> <li>Develop reporting format showing baseline emissions per property and property type</li> <li>Further develop property rationalisation schedule</li> </ul>	<ul style="list-style-type: none"> <li>This has been completed and the property list categories via use for ease of prioritisation.</li> <li>Further property rationalisation is being undertaken informed by the change in working practices as a result of the Covid pandemic as well as the New Ways of Working review (see below).</li> </ul>
Invest in energy efficiency measures within remaining estate	<ul style="list-style-type: none"> <li>Phase 4 of lighting upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>Properties are being identified for lighting upgrades with particular focus on highway depots and Harrogate Library with design and implementation planned for this financial year.</li> </ul>
Carry out a programme of behavioural change with staff to reduce energy use	<ul style="list-style-type: none"> <li>Annual programme of campaigns developed</li> <li>Road show of campaigns being planned for main corporate offices – end Sept-mid Nov 2021</li> <li>Linking of communications to Co26 event</li> </ul>	<ul style="list-style-type: none"> <li>Communications plan in place with monthly activity.</li> <li>Road shows have been deferred until more staff are back working in the offices.</li> <li>A school pupil online event for COP26 is planned for 18<sup>th</sup> November 2021 with clear links to corporate activities.</li> </ul>
Take opportunities to work in partnership with other organisations to share property	<ul style="list-style-type: none"> <li>Assess on case by case basis as opportunities arise</li> </ul>	<ul style="list-style-type: none"> <li>A number of co-location projects funded by One Public Estate is in progress across North Yorkshire and York.</li> </ul>

	2021/22	Progress to date
		<ul style="list-style-type: none"> <li>Co-location/integration opportunities with the CCG have been completed in Scarborough and Northallerton.</li> </ul>
Develop smarter working practices in relation to property use, including those accelerated or begun during the coronavirus pandemic.	<ul style="list-style-type: none"> <li>Develop future working models for office based staff</li> </ul>	<ul style="list-style-type: none"> <li>New Ways of Working - Summer Engagements underway. New Ways of Working Toolkit and AD conversations to help consider how we work and where in progress.</li> <li>Directorate leadership moderation planned October /November.</li> </ul>
Explore and take advantage of external funding opportunities as they arise	<ul style="list-style-type: none"> <li>Explore and take advantage of external funding opportunities as they arise</li> </ul>	<ul style="list-style-type: none"> <li>Application was submitted to PSHDS3 on 6<sup>th</sup> October 2021 for £403,000 for the installation of air source heat pumps into three corporate properties to replace gas boilers at the end of useful life. The outcomes from the feasibilities and the Heat Decarbonisation Plan mentioned above have been used to inform this application.</li> </ul>
<b>Business travel</b>		
Develop a business case for a move to battery Electric vehicles (BEV) for corporate fleet including provision of charge points on corporate sites	<ul style="list-style-type: none"> <li>Energy Saving Trust and telematics review of fleet</li> <li>Review of keyworker lease scheme</li> <li>Develop an approach to home charging</li> </ul>	<ul style="list-style-type: none"> <li>Review to commence February 2022</li> <li>Keyworker scheme changes accepted in principle by Pay and Reward Group. Task and Finish group established to define new scheme rules.</li> <li>Task and Finish group formed to review approach to home charging.</li> <li>Work underway to establish the number and type of charging points at corporate sites.</li> <li>Internal bid for funding to convert some pool cars to BEV.</li> </ul>
Review the locations of pool vehicles and booking system	<ul style="list-style-type: none"> <li>Review locations and define booking process for pool vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Pool-car booking system to be renewed for November 2021.</li> <li>Pool car locations widened for November 2021</li> </ul>
Carry out a programme of behavioural change with staff to reduce travel and energy use	<ul style="list-style-type: none"> <li>Develop Driving at Work strategy to utilise telematics to reduce fuel use</li> </ul>	<ul style="list-style-type: none"> <li>Work planned for Q4 2021-2022</li> </ul>
Explore and take advantage of external funding opportunities as they arise.	<ul style="list-style-type: none"> <li>Explore and take advantage of external funding opportunities as they arise.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing</li> </ul>
Other progress in reduction of business travel carbon emissions.		<ul style="list-style-type: none"> <li>Review of Leeds City Council home charging policy and practice for fleet vehicles to inform future practice at NYCC.</li> </ul>
<b>Sequestration (offsetting)</b>		
Develop a business case for forestry planting and explore other opportunities to sequester carbon	<ul style="list-style-type: none"> <li>Undertake detailed options appraisal for using NYCC land / other land for woodland creation – with support from White Rose Forest</li> </ul>	<ul style="list-style-type: none"> <li>Work is ongoing to finalise brief for consultants to undertake options appraisal on NYCC land. Aim to complete work by spring 2022.</li> <li>Discussions initiated on potential scope for NYCC Tree Strategy – involving</li> </ul>

	2021/22	Progress to date
	<p>(WRF) revenue funding. Develop a tree strategy for management of NYCC tree and woodland resource.</p> <ul style="list-style-type: none"> <li>• Scope options for peat restoration.</li> </ul>	<p>NYCC arboricultural and ecology teams. Also links to Highways and property.</p> <ul style="list-style-type: none"> <li>• Discussions ongoing with North Yorkshire and York Local Nature Partnership on potential input to peat restoration activity in the county.</li> </ul>
Explore and take advantage of external funding opportunities as they arise.	<ul style="list-style-type: none"> <li>• Application to White Rose Forest Govt. grant funding</li> </ul>	<ul style="list-style-type: none"> <li>• WRF revenue grant application being finalised – likely to be submitted in October 2021.</li> </ul>
Work in partnership with other local authorities, landowners, businesses and communities to increase tree cover across the region through the White Rose Forest (WRF) project, the community forest for North and West Yorkshire.	<ul style="list-style-type: none"> <li>• Establish North Yorkshire WRF delivery group to support establishment of new woodland creation and local tree planting projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Three of current districts / boroughs in North Yorkshire (Craven, Harrogate and Selby) are already full members of the WRF partnership and thus have established local delivery groups.</li> <li>• Work is ongoing to coordinate their work with WRF activity that now covers the rest of the County. Regular WRF meetings at county scale now initiated. Following establishment of unitary council, delivery group structures will be reviewed.</li> <li>• NYCC represented on WRF Management Group, Steering Group and key working groups.</li> </ul>
Other progress in sequestration of carbon emissions.		<ul style="list-style-type: none"> <li>• Y&amp;NY LEP organised Local Authority Tree planting knowledge sharing session, with support from NYCC Environment Policy officer and Ecologist. This included review of economic potential for tree planting and supply chain constraints.</li> <li>• Discussions initiated on potential opportunities for marine carbon sequestration along North Yorkshire coast – working with the newly established Yorkshire Marine Nature Partnership.</li> </ul>
<b>Training</b>		
Work with the York and North Yorkshire Local Enterprise Partnership and the District Councils in North Yorkshire and City of York Council to develop a carbon literacy training programme for staff and Councillors.	<ul style="list-style-type: none"> <li>• Training module development completed – July 2021</li> <li>• Local authority rollout – from October 2021</li> </ul>	<ul style="list-style-type: none"> <li>• First draft of training module reviewed August 2021. Revisions and simplifications required. Additional funding from YNYERH Directors of Development Group secured to subsidise roll out to LAs, so cost per user is equalised where possible.</li> </ul>

#### 4.4 Other areas of work to reduce wider carbon emissions and negative impacts on the environment

Area of work	Progress to date
Solar energy	<ul style="list-style-type: none"> <li>• Large Scale Solar Farm feasibility study progressing, led by YNY LEP. Three potential sites in NY identified to progress to further detailed review.</li> </ul>
Procurement	<ul style="list-style-type: none"> <li>• West, York and North Yorkshire Sustainable Procurement Toolkits completed and distributed to LAs, including NYCC. This provides a review of Procurements Strategy and templates and guidance for Commissioners and Procurement Officers to utilise low carbon and circular economy procurement techniques. Further training requested from the Y&amp;H Strategic Procurement Group to build a community of practice and confidence in utilising the toolkit in everyday procurement activities. Supply chain engagement also required to ensure local suppliers are able to meet and evidence low carbon requirements.</li> </ul>
Green homes	<ul style="list-style-type: none"> <li>• NYCC is leading a consortium with Hambleton, Richmondshire, Scarborough and Ryedale councils to support householders to make their homes more energy efficient. The consortium has secured over £3million for households living in fuel poverty and a further bid has been submitted for over £7million.</li> <li>• The consortium won an award for best large scale project at the Yorkshire and Humber Energy Efficiency awards last month. A total of 127 households have been supported, helping to save the residents money on their energy bills and keep them warm all year round. The scheme has saved over £1.6 million on the lifetime fuel bills of the residents.</li> </ul>
Electric vehicles and charging infrastructure	<ul style="list-style-type: none"> <li>• To date an EV Deployment Study has been completed which identifies the number of publicly available charge points required by 2030. It also identifies barriers to delivery and ways to mitigate them.</li> <li>• The next step is to identify specific locations and look for innovative ways to overcome some of the barriers we have. We will also carry out a policy review. Funding is required to begin this work, we are waiting for an announcement regarding the Community Renewals Fund (CRF) but internally we are seeking some funding to commence work sooner than the announcement.</li> </ul>
Cycling and walking	<ul style="list-style-type: none"> <li>• An expression of interest has been submitted to the Department of Transport for a Prescribing Active Travel Pilot with the support of North Yorkshire Clinical Commissioning Group and Vale of York Clinical Commissioning Group. The focus would be within the districts of Scarborough and Selby. DfT have confirmed that we will progress through to the second stage of the process, and will submit additional detailed information to help inform DfT's final decision.</li> </ul>
Highway verges	<ul style="list-style-type: none"> <li>• Investigation of opportunities for carbon sequestration and other savings through reduced fuel use – involving NYCC Highways and Heritage Services teams and the North Yorkshire and York Local Nature Partnership. Potential expansion of existing programme of verge management trials and exploring opportunities for using verge cutting as feed-stock for anaerobic digestion.</li> </ul>
Schools	<ul style="list-style-type: none"> <li>• The Energy &amp; Sustainability Traded service who have been delivering environmental, energy reduction &amp; climate change education into schools since 2012 have won the 2021 APSE Service Award for Best Climate Action Initiative. Schools that use the energy traded service primary or secondary packages use 8% less energy than those schools that just use the energy supply contracts provided by the service.</li> <li>• 20 schools have received window replacements funded by the PSHDS1 (£1.3m being spent on works in schools and £600,000 in corporate properties) resulting in an estimated 400 t/CO<sub>2</sub>e saved per annum.</li> </ul>
Single use plastics	<ul style="list-style-type: none"> <li>• Work in progress in Property and Procurement to implement recommendations from Transport, Economy and Environment Overview and Scrutiny Committee report on single use plastics</li> <li>• Council's Waste Management team have undertaken a traditional media and social media campaign highlighting where single use plastics occur and their impact on the environment. A webpage has been created on the Council's</li> </ul>

	<p>website to educate staff and members of the public on how best to recycle plastic <a href="https://www.northyorks.gov.uk/plastic-recycling">https://www.northyorks.gov.uk/plastic-recycling</a></p>
Circular economy ambition	<ul style="list-style-type: none"> <li>• Y&amp;H Chief Executives Low Carbon Workstream Group held first of two Circular Economy Workshops (lead by YNY LEP) in September to build a community of practice across the region, with a view to developing a Y&amp;H Circular Economy Strategy. Second workshop is in October 2021 and 'Circular Economy Week' which will showcase various initiatives (including the PlantMark COP 26 Battle Bus) planned for w/c October 15<sup>th</sup>.</li> </ul>
Communications campaigns	<ul style="list-style-type: none"> <li>• A Y&amp;NY LA Climate Communications meeting was held to explore opportunities for collaboration on community based climate messaging aimed at behaviour change as opposed to specific LA announcements. It was agreed as a useful way forward and further discussions will be held.</li> </ul>
Waste management strategy	<ul style="list-style-type: none"> <li>• Work with district and borough partners to determine how to meet Government proposals to collect and treat a core set of dry recycling materials and food waste.</li> <li>• Work with community groups such as North Yorkshire Rotters to encourage sustainable behaviour</li> </ul>
Other collaborative actions	<ul style="list-style-type: none"> <li>• <b>Regional Climate Strategy</b> – The York and North Yorkshire Carbon Abatement Pathway study has been shared by the YNY LEP with all LAs and other stakeholders. Roundtables were held between May and August with stakeholders to review and validate the recommendations across transport (with a deep dive into rail travel), land use, place, business and energy, the outcomes of which will be utilised to develop the high level targets for the 'York and North Yorkshire Routemap to Carbon Negative'. This will set the strategic direction to achieve the 'carbon negative by 2040' devolution target. Progress will be presented to Directors of Development in October.</li> <li>• <b>Energy</b> – The YNY LEP is leading on progressing the Local Area Energy Planning (LAEP) process. The resulting plan can potentially underpin specific proposals and investment to upgrade local energy networks to enable decarbonisation in line with local objectives and anticipated future demand as the reliance on fossil fuels decreases. Transport, planning for green hydrogen growth, renewable energy generation and distribution are all reliant on sound evidence-based information. The first step, a Local Energy Asset Representation, was completed in July and presented to Directors of Development. The next step, the LAEP is subject of a CRF bid - result awaited at time of writing.</li> <li>• <b>Transport</b> – The YNY LEP, City of York and NYCC Transport Planners collaborated on the response to Transport for the North's Decarbonisation Strategy, submitted in August. Key points were: <ul style="list-style-type: none"> <li>• raising ambitions,</li> <li>• ensuring freight transport and other policies interface with the decarbonisation agenda</li> <li>• promoting the inclusion of rural transport requirements.</li> </ul> </li> </ul>

## 5.0 Council's carbon footprint

5.1 We have defined our carbon footprint as those emissions which we can directly measure and over which we have direct control. In practical terms this means emissions produced through heating, cooling and lighting our buildings, water use, powering IT and other equipment, and business travel using council fleet and staff's own vehicles.

5.2 We have been reducing our carbon footprint for a number of years. The table below shows the decline in emissions since 2015/16. Our 2020/21 carbon footprint measures 9882 tonnes CO<sub>2</sub>e which represents a 49% reduction since 2015. CO<sub>2</sub>e or carbon dioxide equivalent is a term for describing different greenhouse gases in a common unit. For any

quantity and type of greenhouse gas, CO2e signifies the amount of CO2 which would have the equivalent global warming impact.

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Scope 1	5,330	5,096	4,850	4,477	4,211	4,218
Scope 2	11,174	9,133	7,400	6,268	4,789	4,274
Scope 3	3,069	3,006	2,913	2,747	2,473	1,390
Total	19,573	17,235	15,163	13,492	11,473	9,882

The above table shows emissions in tCO2e (tonnes of carbon dioxide equivalent).

- **Scope 1** covers direct emissions released straight into the atmosphere through activities owned or controlled by the council, for example gas boilers in council buildings and use of council owned vehicles
- **Scope 2** covers indirect energy emissions through the consumption of purchased electricity, for example
- **Scope 3** covers other indirect emissions as a consequence of our activities, for example business travel using staff's own cars and water consumption in our properties (water consumption included from 2020/21)

### 5.3 The figures for 2020/21 reflect the impact of the Covid-19 pandemic in a number of ways.

Scope 1 – Gas consumption in corporate properties decreased due to staff working from home, although the need for increased ventilation during the winter months and the Brierley Building coming back into use will have diminished this reduction. In addition, there were greater demands on fleet due to the County Council's response to Covid and increased highway repair activities which have increased emissions from fleet.

Scope 2 – This decrease is due to reduced consumption of electricity in properties due to staff working from home. The end of the street lighting LED conversion project means the decrease in emissions is smaller than in previous years.

Scope 3 – This shows a reduction as a result of much reduced staff mileage due to Covid. Water consumption also decreased but emissions from water usage have not previously been included in the calculation so without the addition of water emission data Scope 3 would have been even lower.

New ways of working aim to retain some of the behaviours employed during the pandemic in relation to virtual working with the consequent savings in carbon emissions from business travel.

**6.0 Recommendation(s)**

- i) That the Committee note progress in implementing the carbon reduction plan and make suggestions for future actions to reduce the Council's carbon emissions.

Richard Flinton  
Chief Executive  
North Yorkshire County Council  
**11 October 2021**

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**Appendices**

Appendix 1 – Carbon reduction plan

# Carbon reduction plan

## 2021 - 2024

### 1.0 Our vision and ambitions

1.1 We want North Yorkshire to be a thriving county which adapts to a changing world and remains a special place for everyone to live, work and visit. Our ambitions are:

- Leading for North Yorkshire
- Every child and young person has the best possible start in life
- Every adult has a longer, healthier and independent life
- North Yorkshire is a place with a strong economy and a commitment to sustainable growth
- Innovative and forward thinking Council

1.2 As part of delivering our vision and ambitions, we are seeking to work in a more sustainable way and reduce our costs. This includes:

- reducing our CO<sub>2</sub>e emissions, energy and water consumption;
- minimising waste - reduce, re-use and recycle;
- rationalising our property and managing our land sustainably;
- procuring in a way which balances economic, social and environmental factors, and seeks to increase social value;
- ceasing unnecessary travel and reducing the impact and cost of necessary travel; and
- supporting and encouraging our staff, schools and residents to take similar actions.

1.3 North Yorkshire County Council supports the Government's aim for the UK to be net carbon neutral by 2050 and the York and North Yorkshire Local Enterprise Partnership's ambition to be the UK's first carbon negative region – carbon neutral by 2034 and carbon negative by 2040. These ambitions were endorsed by the Leaders of the Councils of York and North Yorkshire through the submission of devolution asks in December 2020 aimed at achieving a carbon negative region.

1.4 In terms of our own carbon footprint, we have an aspiration to achieve net carbon neutrality by 2030 or as close to that date as is possible. In this plan we set out our progress to date and our plans for the next three years.

1.5 From April 2022 this plan will be integrated into our Council Plan and reviewed annually. Progress will be regularly monitored as part of our corporate performance management framework including quarterly performance reports to our Management Board and Executive.

1.6 We are also part of a wider leadership team, including District Councils and the Local Enterprise Partnership, working to encourage and support our residents, businesses and communities to be part of the county and country achieving net carbon neutrality. A

comprehensive joint work programme is still to be developed by the partners, although some initial elements are highlighted in this plan.

- 1.7 Whilst the actions identified in the plan focus on the County Council, we and other local authorities will not be able to tackle every aspect of carbon reduction nor achieve net carbon neutrality without government support and action through legislation and fiscal measures. Significant changes in national infrastructure will also be required, for example increases in generation, distribution and/or storage of electricity.

## 2.0 Terminology

- 2.1 A number of terms are used when describing the emissions which contribute to climate change and global warming. We explain some of these below:

### 2.2 Greenhouse gases (GHGs)

A greenhouse gas is any gas in the atmosphere which absorbs and re-emits heat, and thereby keeps the Earth's atmosphere warmer than it otherwise would be. The main GHGs in the Earth's atmosphere are water vapour, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and ozone (O<sub>3</sub>). GHGs occur naturally in the Earth's atmosphere, but human activities, such as the burning of fossil fuels, are increasing the levels of GHGs in the atmosphere, causing global warming and climate change.

- 2.3 **Carbon dioxide** Carbon dioxide (CO<sub>2</sub>) is the most common GHG emitted by human activities, in terms of the quantity released and the total impact on global warming.

### 2.4 Carbon dioxide equivalent

The term carbon dioxide equivalent (CO<sub>2</sub>e) is used to describe different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent global warming impact.

### 2.5 Carbon footprint

The amount of carbon dioxide equivalent released into the atmosphere as a result of the activities of a particular individual, organization, or community.

### 2.6 Net carbon neutrality

Because we will not be able to eliminate emissions entirely by 2030, net carbon neutrality refers to the reduction of emissions to the lowest levels possible and removing the remainder from the atmosphere through carbon sequestration programmes (or offsetting) such as tree planting.

Energy use is one of the main contributors to our carbon emissions and the route to net carbon neutrality in terms of energy is a three-step process:

- 1) Reducing energy use as much as possible
- 2) The use of energy from renewable sources
- 3) Sequestration. Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide, for example through tree planting.

### 2.7 Scope 1 2 and 3 emissions

Scope 1 – All direct emissions from the activities of an organisation or under their control. This includes fuel combustion on site such as gas boilers, fleet vehicles and air-conditioning leaks.

Scope 2 – Indirect emissions from electricity purchased and used by the organisation. Emissions are created during the production of the energy and eventually used by the organisation.

Scope 3 – All other indirect emissions from activities of the organisation occurring from sources that they do not own or control. These are usually the greatest share of the carbon footprint, covering emissions associated with business travel, procurement, waste and water.

### 3.0 Our carbon footprint

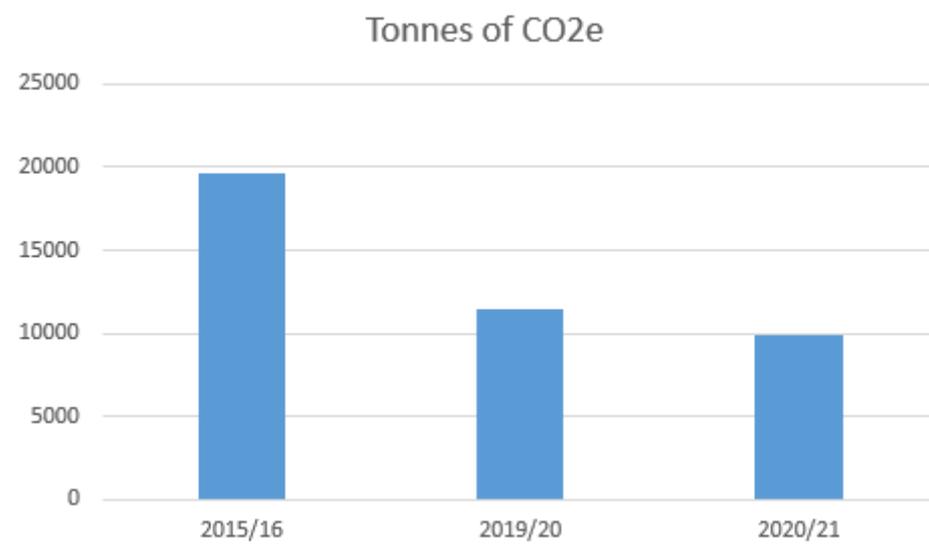
3.1 Our carbon footprint consists of:

- Scope 1 emissions – heating and ventilation of our corporate buildings and use of fleet vehicles. (This does not include school buildings).
- Scope 2 emissions – electricity use for power and lighting (including street lighting)
- Scope 3 emissions – including business travel using staff's own vehicles, procurement of goods and services, schools, companies owned by the County Council, waste and water use.

3.2 We have direct control over and direct ways of measuring emissions from Scope 1 and 2 emissions. This is also true of business travel in Scope 3.

3.3 We do not have such direct control over, nor currently, direct ways of measuring, many of the emissions in Scope 3. However, as set out below, we are seeking to address this.

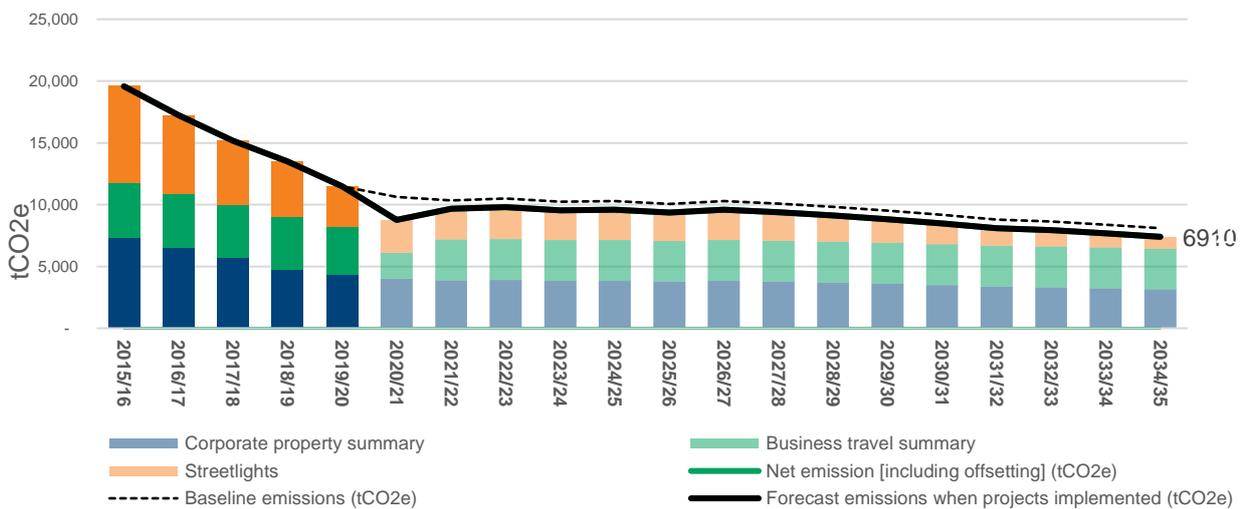
3.4 The emissions we have direct control over have reduced considerably over recent years.



3.5 About 40% of the reduction in emissions in 2020/21 is due to changes in working practices throughout the coronavirus pandemic. Clearly this was an unprecedented year; however, we aim to ensure that a number of these working practices which reduce our emissions are retained in the future.

3.6 Taking into account measures already agreed and funded, the electricity supply becoming greener because of government and market pressures, and continuing to reduce travel and office use begun during the pandemic - but without any further action - we estimate our carbon footprint in 2030/31 will be around 8400 tCO<sub>2</sub>e.

The chart below show our predicted emissions to 2035 if we were to take no further action.



- 3.7 It may not be possible, using current technology, to reduce our direct carbon equivalent emissions to zero. To reach net carbon neutrality we will therefore need to consider a mix of reduction and sequestration.
- 3.8 Over time there will be changes that will aid the achievement of net carbon neutrality including legislation, fiscal incentives, new technological developments and market changes. But these will not, by themselves, enable us to achieve net carbon neutrality. We must take additional actions to achieve net carbon neutrality.
- 3.9 With regard to the emissions we have direct control over, we are not starting from scratch. We regularly explore opportunities to reduce emissions and we have a track record of taking appropriate opportunities within existing budgets and additional investments where there is a business case, for example our programme of installing LED street lighting. However, it is likely that future work will be more complex and expensive.
- 3.10 We recognise that actions that reduce carbon emissions in one area can result in increased emissions in other areas, for example having more staff working at home may reduce our direct carbon footprint, but the net impact will depend on individual circumstances including additional energy consumption at home and reduced travel. Similarly, property rationalisation should reduce our direct carbon footprint, but won't necessarily reduce the county's carbon footprint. These can be complex issues and the net impact of a decision should be explored in the relevant climate change impact assessments.

#### 4.0 What we have achieved so far

##### 4.1 Use of property (Scopes 1 and 2 - emissions under our direct control)

- 4.1.1 Since May 2019, our Property Service has had an energy consumption reduction target of 15% reduction in energy consumption by 2023/24 on a baseline of 2017/18. This is based on a property list of corporate properties managed directly by Property Service, both operational and those in redeployment.
- 4.1.2 As the table of consumption data below shows, the target has already been exceeded and is currently under review by the Property Service carbon reduction group.

Year	Total kWhs	Variance on previous year	Cumulative reduction from baseline
17/18 (baseline)	26,953,612.70	Baseline	Baseline
18/19	23,275,487.85	-13.65%	-13.65%
19/20*	22,132,617.98	-4.91%	-17.89%

4.1.3 The table below provides carbon emissions associated with the above consumption target.

Year	Tonnes CO2e	% reduction on previous year	Cumulative reduction from baseline
17/18 (baseline)	6,264.92	Baseline	Baseline
18/19	4,979.06	-20.52%	-20.52%
19/20*	4,547.66	-8.66%	-27.41%

\*Covid-19 lockdown started 24th March 2020 with reducing amounts of staff in NYCC property leading up to this date from early March.

4.1.4 The activities of Property Service to reduce carbon emissions have been concentrated on rationalisation of property (Scopes 1 and 2, emissions under our direct control). They are working closely with services across the council to make more efficient use of space and release surplus accommodation that can be re-purposed or sold.

4.1.5 The impact on carbon emissions as a result of these activities is shown in the table below.

Year	Tonnes CO2e saved as result of property rationalisation
2018/19	109.92
2019/20	54.76

4.1.6 The ongoing activities of this work forecast to make the following carbon emission savings, although there are likely to be considerable further changes as a result of the Covid pandemic.

Year	Tonnes CO2e estimated to be saved as result of property rationalisation
2020/21	11.50
2021/22	69.86
2022/23	
2023/24	81.04
2024/25	
2025/26	31.06

4.1.7 The County Council has, for some years, been reviewing its use of property with the objective of rationalising its estate and reducing its overall expenditure in respect of property.

- 4.1.8 Examples of this include rationalisation projects in Scarborough and Northallerton which will lead to annual revenue savings of £230k being achieved by 2023.
- 4.1.9 The Beyond 2020 Modern Council Programme will be considering the further development of the workstyles of the County Council's staff, including those arising from the experience of the Covid-19 Pandemic. It is expected that this will result in further opportunities to rationalise property and, thus, further reduce carbon emissions.

## 4.2 **Energy (Scopes 1 and 2 - emissions under our direct control)**

- 4.2.1 We spend £1.8million each year on energy across our offices, libraries and elderly person homes, which results in 4,547 tonnes of carbon equivalent emissions (2019/20). Property Service is working on a range of programmes to reduce both costs, consumption and the associated carbon emissions from energy usage and these have contributed to a 25% reduction in consumption since 2017/18.
- 4.2.2 The programmes, co-ordinated by the Property Carbon Reduction Group, include:
- monitoring energy consumption data and bills to spot errors and ensure accuracy
  - monitoring heating and hot water systems remotely in many of our buildings to ensure they are running efficiently
  - undertaking changes to building systems to improve efficiency e.g. boiler replacements for more efficient models, lighting upgrades, insulation;
  - feasibility studies exploring the heat decarbonisation, power generation and energy storage options available for different sites;
  - production of a Heat Decarbonisation Plan for the county council; and
  - reviewing funding opportunities to assist with the capital costs of such proposals.
- 4.2.3 In addition, we also carry out work to assist schools to reduce emissions, including
- dedicated staff who work with schools to help teachers and students understand and reduce energy use;
  - supporting the popular environmental scheme 'eco schools', which more than two-thirds of our county's schools are working on

## 4.3 **Street lighting**

- 4.3.1 The council has just completed a project to replace its 50,400 street lights with new LED technology. This was completed two years earlier than originally estimated, saving capital costs of over £4m. Energy and maintenance savings of £1.285m are projected from 2021/22 with an associated CO<sub>2</sub>e reduction exceeding 3,000 tonnes.
- 4.3.2 This follows a four-year programme, completed in 2016, which saw almost 27,000 of our streetlights converted to part-night operation. These streetlights switch off between midnight and 5am reducing energy consumption by £400k and CO<sub>2</sub>e by 2,000 tonnes.

## 4.4 **Business travel**

- 4.4.1 We actively encourage sustainable travel amongst our staff, Councillors, service-users, contractors, residents and visitors and use available technologies (for example, video conferencing) to reduce or remove the need for travel. We are working to improve air quality for people living in the county, reduce CO<sub>2</sub> emissions and reduce the cost of the miles that we drive. We operate two electric cars within our fleet for staff to use because of their low running costs, outstanding range and low emissions. We are continually seeking

opportunities to increase this number and are procuring a further electric vehicle for the Highways service. We are also looking at the feasibility of using electric vehicles for domiciliary care visits.

4.4.2 We have also worked with staff and Councillors to reduce business mileage. Schemes such as Liftshare help our staff to travel more sustainably, whether this be commuting to and from work or attending a meeting. The impact of the Covid-19 pandemic has meant that far fewer staff have been commuting to work and that the majority of meetings have been carried out virtually. We will ensure that we retain a number of these working practices which help us reduce our CO<sub>2</sub>e emissions.

#### 4.5 **Procurement**

4.5.1 We are committed to supporting North Yorkshire's residents and the local economy through the work we do.

4.5.2 Achieving value for money through our procurement and contract management activity will remain focused on the best mix of quality and effectiveness to deliver the requirements of the contract. We will take a broader view of value which includes social value. Where appropriate we will include award criteria which goes beyond the subject matter of the contract to encourage suppliers to operate in a way that contributes to economic, ethical, social and environmental outcomes.

#### 4.6 **Waste management**

4.6.1 As a council we are working hard to ensure that we improve rates of reduction, reuse, recycling and compost of waste. Ten years ago we sent 94% of household waste to landfill. In 2019 approximately 47% of household waste was reused, recycled or composted, 9% sent to landfill and the rest sent for treatment.

4.6.2 We support district and borough councils with recycling and composting through the payment of a recycling credit which, together with excellent performance at our household waste and recycling centres, is ensuring we continue to exceed national average performance. Together with City of York Council we have contracted to provide our remaining household waste to Allerton Waste Recovery Park which will separate out any remaining recyclables, and treat what is left to generate renewable energy. AWRP became fully operational in March 2018 and is generating enough energy from our residual waste to meet the needs of 40,000 homes – 166,000Mwh of electricity. The carbon benefit of AWRP is equivalent to taking 12,000 cars permanently off the road.

4.6.3 In addition to environmental benefits, AWRP provides 70 permanent jobs and will contributing £220m GVA to the local economy over its 25-year life. The ash from the energy from waste part of AWRP will be recycled into aggregate, reducing our reliance on landfill further. A local landscape and cultural heritage scheme is also investing over £800k in the immediate area of the plant.

#### 4.7 **Brierley Group**

4.7.1 The Brierley Group is the trading arm of North Yorkshire County Council and brings together council owned companies with the aim of improving customer experience and increasing overall shareholder value. All companies are moving towards more environmentally sustainable operating models, including:

- Brierley Homes has used air source heat pumps and timber frame construction in some housing schemes
- Yorwaste has installed solar panels at its head office
- Align Property Partners are registered as Low Carbon Consultants with architects accredited in low carbon technologies.

#### 4.8 **Schools**

4.8.1 Our [energy and sustainability traded service](#) provides support to schools to educate pupils on climate change and environmental issues.

4.8.2 Our school meals follow a healthy eating policy and are produced freshly every day in school kitchens from only:

- fresh meat and poultry sourced from the region;
- fruit and vegetables sourced regionally where possible using local suppliers;
- products free from additives associated with health problems in young children;
- fats free from hydrogenated oils; with
- menus that are nutritionally balanced.

#### 4.9 **Buy Local**

4.9.1 We developed our [Buy Local website](#) in 2020 at the start of the first Covid lockdown specifically to bring together local customers with county businesses. About 850 North Yorkshire businesses have already signed up to the site. Customers can search for a wide range of goods and services, encouraging residents to purchase from local suppliers, supporting the local economy, with the added benefit of reducing distance travelled and carbon emissions.

### 5.0 **Future actions**

5.1 Since agreeing our aspiration for net carbon neutrality, our main focus to date has been on:

- Understanding our carbon footprint and developing a pathway tool which helps us plot our route to net zero
- Identifying realistic potential options to significantly reduce our carbon footprint
- Establishing a measure of cost-effectiveness (£ per ktCO<sub>2</sub>e removed) to help us prioritise our actions
- Establishing programme management to ensure that work to reduce our carbon emissions is effectively supported and is integrated into our corporate change management processes
- Developing a climate change impact assessment tool and incorporating it into the council's decision making process, so that carbon emissions and other environmental considerations are taken into account when decisions are made

5.2 All of these actions have helped inform our carbon reduction plan. In addition we are also:

- Engaging with partners, including district councils and the York and North Yorkshire Local Enterprise Partnership and learning lessons from others. This includes participation in the commissioning of a Carbon Abatement Pathways study with the LEP and other partners and developing the resulting required actions, and contribution to the Yorkshire and Humber Climate Commission.
- Encouraging our staff to take steps in the everyday ways they work to reduce our carbon footprint and save money

- Developing, implementing and supporting projects that will assist others to significantly reduce their carbon footprints and/or have other positive environmental impacts

## 6.0 What we need to do next to reduce our carbon footprint

6.1 Achieving carbon neutrality will require further action in addition to that which we are already undertaking. We will take the following actions over the next three years (all of which will require approval through normal decision-making processes):

	2021/22	2022/23	2023/24
<b>Corporate property</b>			
Develop a business case for decarbonising heating and ventilation in corporate buildings	<ul style="list-style-type: none"> <li>• Linked to the successful application to the Public Sector Heat Decarbonisation Scheme, produce a Heat Decarbonisation Plan for county council properties.</li> <li>• Feasibility studies for heat decarbonisation and renewable generation options.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor and refine the implementation of the Decarbonisation Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor and refine the implementation of the Decarbonisation Plan</li> </ul>
Develop a business case for use of 'green' electricity for corporate property and street lighting	<ul style="list-style-type: none"> <li>• Develop business case for use of 'green' electricity</li> </ul>		
Carry out a programme of structural improvements to schools and corporate buildings using funding obtained from the Salix Public Sector Decarbonisation Fund	<ul style="list-style-type: none"> <li>• Implement the changes to properties using the £1.9m funding granted by BEIS following a successful application to the Public Sector Heat Decarbonisation Scheme</li> </ul>		
Continue our property rationalisation programme	<ul style="list-style-type: none"> <li>• Develop reporting format showing baseline emissions per property and property type</li> <li>• Further develop property rationalisation schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to implement and refine rationalisation programme</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to implement and refine rationalisation programme</li> </ul>
Invest in energy efficiency measures within remaining estate	<ul style="list-style-type: none"> <li>• Phase 4 of lighting upgrade.</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake further work arising from the initial feasibility studies</li> <li>• Undertake further feasibility studies</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake further work arising from the initial feasibility studies</li> <li>• Undertake further feasibility studies</li> </ul>
Carry out a programme of behavioural change with staff to reduce energy use	<ul style="list-style-type: none"> <li>• Annual programme of campaigns developed</li> <li>• Road show of campaigns being</li> </ul>	<ul style="list-style-type: none"> <li>• Annual programme of campaigns developed</li> </ul>	<ul style="list-style-type: none"> <li>• Annual programme of campaigns developed</li> </ul>

	<p>planned for main corporate offices – end Sept-mid Nov 2021</p> <ul style="list-style-type: none"> <li>• Linking of communications to Co26 event</li> </ul>		
Take opportunities to work in partnership with other organisations to share property	<ul style="list-style-type: none"> <li>• Assess on case by case basis as opportunities arise</li> </ul>	<ul style="list-style-type: none"> <li>• Assess on case by case basis as opportunities arise</li> </ul>	<ul style="list-style-type: none"> <li>• Assess on case by case basis as opportunities arise</li> </ul>
Develop smarter working practices in relation to property use, including those accelerated or begun during the coronavirus pandemic.	<ul style="list-style-type: none"> <li>• Develop future working models for office based staff</li> </ul>	<ul style="list-style-type: none"> <li>• Implement and monitor energy utilisation</li> </ul>	<ul style="list-style-type: none"> <li>• Implement and monitor energy utilisation</li> </ul>
Explore and take advantage of external funding opportunities as they arise	<ul style="list-style-type: none"> <li>• Ongoing.</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing.</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing.</li> </ul>
<b>Business travel</b>			
Develop a business case for a move to battery Electric vehicles (BEV) for corporate fleet including provision of charge points on corporate sites	<ul style="list-style-type: none"> <li>• Energy Saving Trust and telematics review of fleet</li> <li>• Review of keyworker lease scheme</li> <li>• Develop an approach to home charging</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver BEV fleet as infrastructure allows</li> <li>• Develop business case for the use of EV minibuses in the IPT fleet as the market develops</li> </ul>	<ul style="list-style-type: none"> <li>• Deliver BEV fleet as infrastructure allows</li> </ul>
Review the locations of pool vehicles and booking system	<ul style="list-style-type: none"> <li>• Review locations and define booking process for pool vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Replace pool vehicles with BEV</li> </ul>	
Carry out a programme of behavioural change with staff to reduce travel and energy use	<ul style="list-style-type: none"> <li>• Develop Driving at Work strategy to utilise telematics to reduce fuel use</li> </ul>		
Explore and take advantage of external funding opportunities as they arise.	<ul style="list-style-type: none"> <li>• Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing</li> </ul>
<b>Sequestration (offsetting)</b>			
Develop a business case for forestry planting and explore other opportunities to sequester carbon	<ul style="list-style-type: none"> <li>• Undertake detailed options appraisal for using NYCC land / other land for woodland creation – with support from White Rose Forest (WRF) revenue funding. Develop a tree strategy for management of NYCC tree and woodland resource.</li> <li>• Scope options for peat restoration.</li> </ul>	<ul style="list-style-type: none"> <li>• Begin implementation of tree planting schemes scoped in 21/22</li> </ul>	
Explore and take advantage of external funding opportunities as they arise.	<ul style="list-style-type: none"> <li>• Application to White Rose Forest Govt. grant funding</li> </ul>		

Work in partnership with other local authorities, landowners, businesses and communities to increase tree cover across the region through the White Rose Forest (WRF) project, the community forest for North and West Yorkshire.	<ul style="list-style-type: none"> <li>Establish North Yorkshire WRF delivery group to support establishment of new woodland creation and local tree planting projects.</li> </ul>		
<b>Training</b>			
Work with the York and North Yorkshire Local Enterprise Partnership and the District Councils in North Yorkshire and City of York Council to develop a carbon literacy training programme for staff and Councillors.	<ul style="list-style-type: none"> <li>Training module development completed – July 2021</li> <li>Local authority rollout – from October 2021</li> </ul>	Review training programme and revise if required.	

## 7.0 Other areas of work to reduce wider carbon emissions and negative impacts on the environment

### 7.1 Solar energy

7.1.1 We are undertaking a feasibility study in relation to investment opportunities in solar energy. These would not directly reduce our carbon footprint, unless there was a physical direct wire between a solar farm and our direct use of electricity. However, it would increase the availability of solar energy in the market.

### 7.2 Procurement

7.2.1 As part of our Procurement Strategy, we will analyse our supply chains to identify carbon reduction opportunities and develop an action plan to address carbon reduction. We will engage and encourage suppliers to reduce their carbon footprints through procurement and contract management activity. We have jointly commissioned the development of a sustainable procurement toolkit to support consolidated purchasing power and reduce the carbon footprint of externally procured goods, works and services. We are also further developing our social value requirements of providers, including contributions to carbon reduction.

### 7.3 Brierley Group companies

7.3.1 We will require Brierley Group companies to adopt and implement a carbon reduction ambition no less than that of the council itself. All companies are reviewing their working arrangements to reduce emissions from commuting and future activities also include:

- Install electric vehicle charging points on all forthcoming housing schemes (Brierley Homes).
- Install solar panels on roofs of appropriate housing schemes (Brierley Homes).
- Explore further solar panel provision at main sites (Yorwaste).
- Change engineer vans to hybrid electric vehicles (NYnet)
- Publish a carbon management plan, and develop and implement a carbon accounting management tool (NY Highways).
- Appoint a low carbon champion (Align Property Partners).

## 7.4 **Green homes**

7.4.1 We have been successful, on behalf of a consortium with a number of the District and Borough Councils in North Yorkshire, in securing £2.4m to upgrade energy inefficient homes and reduce fuel poverty and seasonal ill health. This will include insulation to improve their energy efficiency and installing air source heat pumps. Selby District Council, Harrogate Borough Council and Craven District Council has also separately secured over £900k as part of a consortium with York and West Yorkshire.

7.4.2 We are also hoping to bid for further funding to extend this work in the future.

## 7.5 **Electric vehicles and charging infrastructure**

7.5.1 We will support and encourage the use of Electric Vehicles (EVs) by installing and maintaining a network of charging points across North Yorkshire. To do this, we will develop an Electric Vehicle Infrastructure Rollout Strategy for the county, considering the recommendations from the Electric Vehicle Charge Point Deployment Study, carried out by WSP in 2020, which recommended that NYCC should deliver 615 publicly available electric vehicle charge points by 2030 to accommodate the uptake and use of EVs in North Yorkshire.

7.5.2 A bid submission has been made to the Community Renewals Fund to pay for strategy development, a monitoring and evaluation plan, an innovative on-street charge point selection tool, an innovation competition designed to pump prime the market and £10,000 worth of capital to deliver a pilot/trial of the innovation competition. An announcement on this funding is expected late July/early August 2021 but projects must be delivered in the 21/22 financial year. Alternative funding will sought if we are unsuccessful in our bid.

7.5.3 We will also support and encourage greater use of electric vehicles for public transport.

## 7.6 **Cycling and walking**

7.6.1 We are developing a series of Local Cycling and Walking Infrastructure Plans (LCWIPs) for the principal towns in the county. The aim of these is to identify the main cycle and walking improvements in a town to enable the Council to bid for government funding and/or to secure funding contributions from developers.

7.6.2 We are also looking at opportunities to fund feasibility work to provide cycling and walking interventions as part of a social prescribing offer.

## 7.7 **Highway verges**

7.7.1 We recognise the importance of highway verges as an important natural habitat and the need to enhance biodiversity. We are commencing trials of different verge management regimes on our rural road network to understand the impacts they have on the ecology of the verges, costs of verge management and any impact on road safety.

## 7.8 **Schools**

7.8.1 We will be launching a new sustainability/ carbon reduction badge linked to the North Yorkshire Healthy Schools award. This will focus on key public health priority actions such as school grounds development (for example, food growing and tree planting) and sustainable travel (encouraging walking and cycling to school). Schools will then be able to choose other carbon reduction actions depending on their own priorities.

## 7.9 **Single use plastics**

7.10.1 We are undertaking work as a council to reduce our use of single-use plastics. This includes a review of the centrally managed contracts for plastic use in county council properties, a review of how single use plastics are considered during procurements and developing a communications plan for the wider area.

## 7.10 **Circular economy ambition**

7.10.1 We are working with the York and North Yorkshire Local Enterprise Partnership (LEP) on their Circular Yorkshire campaign. This aims to accelerate the transition to a circular economy across York and North Yorkshire, promoting a way of working for businesses and organisations that reduces waste, lowers carbon footprint and makes the most of our resources through collaboration. The Circular Yorkshire Strategy and Action Plan, along with case studies, guides and toolkits can be found at the Circular Yorkshire website [here](#) or via the Twitter [@CircularYorks](#).

## 7.11 **Communication campaigns**

7.11.1 We are developing coordinated communications and engagement campaigns, with the District Councils and the LEP, to encourage and support residents to take action to reduce their carbon footprints.

## 7.12 **Waste management strategy**

7.12.1 We will continue to work with partners to implement waste reduction strategies and increase recycling rates across the county.

## 8.0 **How will we know, and review, how we are doing?**

8.1 Our actions to reduce our carbon footprint will be integrated with our Council Plan and progress regularly monitored as part of our corporate performance management framework. This includes quarterly performance reports to our Management Board and Executive.

8.2 Progress will also be reviewed through our overview and scrutiny arrangements.