

Report of the Strategic Director

CLIMATE CHANGE AND GREEN FUTURES PROGRAMME APPROACH1. Purpose of report

To provide an update for Councillors on the approach to Green Futures and Climate Change Programme in Broxtowe.

2. Background

Broxtowe Borough Council has undertaken a number of initiatives to support its approach to carbon management and the environment. In 2009 the Council worked with the Carbon Trust to create a Carbon Management Plan that looked to reduce the organisation's CO₂ emissions by 25% by 2015 and a minimum of 34% by 2020. The baseline CO₂ emissions for the Council in 2009/10 was 4242 kilo tonnes (see appendix 1). To determine the current baseline, the Council is working with the Carbon Trust to utilise its Footprint service. A further report will be presented to the next Environment and Climate Change Committee with details of the current position.

The Council has continued to work with its communities in relation to the environment and played its part in the implementation of the Tram extension. Government statistics demonstrate that between 2005 and 2017 the Borough has reduced its CO₂ emission from 5.9 to 4.4 kilo tonnes per capita, a 25.4% reduction. This includes such as industry, agriculture, transport and domestic energy use. It is anticipated that the impact of the tram will be more clearly seen in the 2018 and 2019 statistics once available (see appendix 2).

The Council has declared a Climate Change emergency setting a target of Net Zero by 2027. The intention moving forward is to deliver the emerging strategic actions, a number of which are identified within this report, as part of the Climate Change and Green Futures Programme, details of which are provided in appendix 3.

3. Financial implications

There are no current financial implications. However, as the Climate Change and Green Futures Programme matures any emerging financial implications will be reported to the committee.

Recommendation

The Committee is asked to NOTE the report.

Background papers

Nil

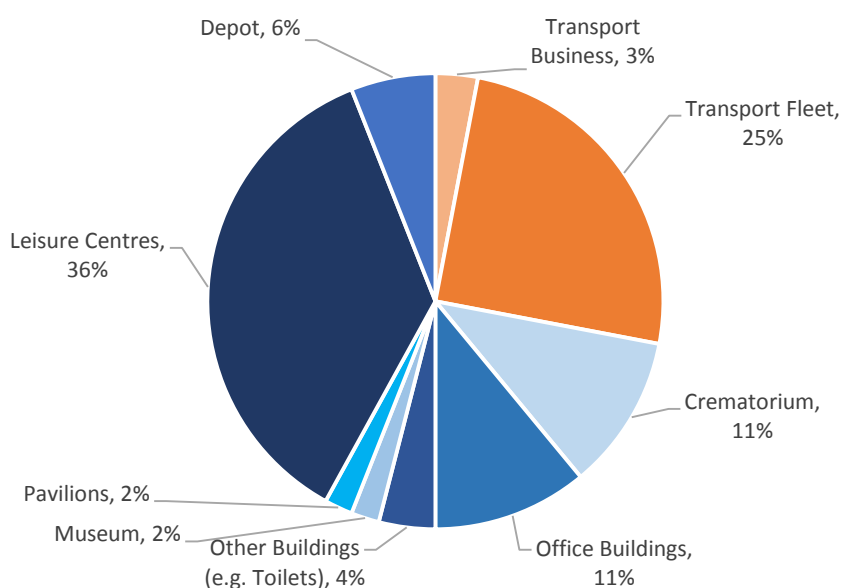
APPENDIX 1

Broxtowe Borough Council – Carbon Footprint

The Carbon Management plan was developed in 2009 as a result of the Council working with the Carbon Trust. The plan provided a baseline and a list of projects to be delivered between 2009/10 and 2014/15. Extracts of the plan are provided below for information.

Baseline Summary CO₂ emissions (tonnes) and costs for 2009/10

	Category	tCO₂e 2009/10	%	£
Buildings	Depot, Kimberley including offices	246	6	50,942
	Pavilions	97	2	20,669
	Museums	73	2	15,543
	Leisure Centres	1524	36	298,727
	Other buildings include toilets and cemetery chapels	170	4%	37,309
	Office Buildings including the Town Hall, Council Offices, Cash Offices, Cavendish Lodge, 14 Devonshire	482	11%	104,187
	Crematorium	474	11%	92,594
Total		3,066	72%	619,971
Transport	Fleet	1049	25%	349,698
	Business	127	3%	44,947
Grand Total		4,242	100%	1,014,616



A total of 37 quantified projects and a further 23 unquantified projects were identified as part of the Carbon Management Plan. Many of these projects and more were successfully delivered including for example:

- Rationalisation of buildings
- Introduction of photo voltaic cells on the Council Offices
- Replacement of bulbs with LED lighting
- More accurate metering
- Virtualisation of much of the core ICT estate
- Reduction in printing devices
- Redesign of the fleet replacement programme resulting in extending the life of vehicles
- Redesign of refuse rounds resulting in reduction of fuel usage
- Installation of combined heat and power units

The Council has engaged the Carbon Trust to perform a new baseline exercise utilising their Footprint service. The results will demonstrate the progress the Council has made and in addition the exercise will provide the necessary tools to enable the Council to generate its own annual baseline moving forward, allowing progress to be measured more accurately.

APPENDIX 2

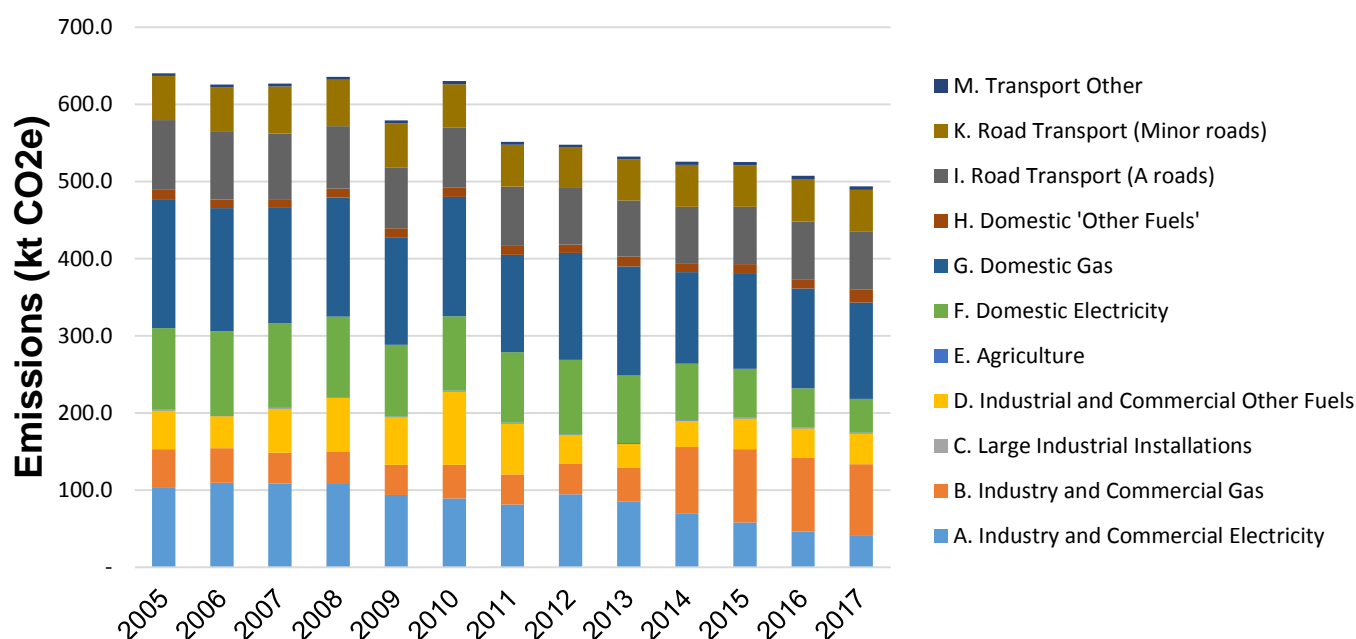
Broxtowe Borough – Carbon Footprint

The Broxtowe Borough is calculated to have emitted 493.6 kt CO₂e in 2017 (source: UK local authority carbon dioxide emissions national statistics). The breakdown of CO₂ from the key sectors is shown in the table below.

Sector	2017	Sector Description
Domestic	185.2 kt CO ₂ e	This is the heat and electricity usage from domestic dwellings in Broxtowe Borough including social housing
Non-domestic	174.5 kt CO ₂ e	The usage from commercial, industrial, retail and public sector properties
Transport	133.9 kt CO ₂ e	Carbon from all vehicles including cars, LGVs, motorcycles, buses and HGVs

The graph below provides a summary of the Borough of Broxtowe’s carbon emissions from 2005 to 2017. The trends show that emission have fallen 25.4% from nearly 640.5 kt CO₂e in 2005 (5.9 kt CO₂e per capita) to 493.6 kt CO₂e in 2017 (4.4 kt CO₂e per capita).

Broxtowe Borough Council CO2 Emissions by Sector and Fuel



The Council has continued to work with its communities in relation to the environment and played its part in the implementation of the Tram extension. It is anticipated that the impact of the tram will be more clearly seen in the 2018 and 2019 statistics once available.

Note: A Committee on Climate Change progress report to parliament notes that the national reductions have mostly been a result of the reduction in carbon from electricity generation for domestic and commercial sectors, due to the increasing level of renewable generation and reduction in the use of coal. Energy efficiency has

also reduced overall demand for electricity and gas over the period by 20% and 30% respectively. However, efficiency in gas use has stalled in the last 5 years. Reductions in other sectors such as transport and heat have been much smaller.

<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-to-2017>

APPENDIX 3

Climate Change and Green Futures Programme

The Council has declared a Climate Change emergency setting a target of Net Zero by 2027. The intention moving forward is to deliver the emerging strategic actions, a number of which are identified within this report, as part of the Climate Change and Green Futures Programme.

The Steering Group for the programme is taken from across the Council to demonstrate a truly authority wide approach to delivery of the programme objectives:

- Strategic Director
- Head of Environment
- Head of Housing
- Head of Public Protection
- Head of Property Services
- Head of Neighbourhood and Prosperity

Highlight reports will be produced quarterly and be used to report overall programme progress. Reports will be generated for the General Management Team as required.

The programme currently contains a number of project strands. These include:

- Climate Change Strategy
- Fuel
- Transport and Fleet Strategy
- Energy and Building Infrastructure
- Employee and Business Mileage
- Water Courses
- Meadow Planting / Wildlife Corridors
- Tree Planting
- Recycling
- Housing Delivery
- Housing Improvements
- Core Strategy / Planning
- Technology
- Air Quality
- Hospitality / Support

A short update is provided below under each of the named project strands.

1. Climate Change Strategy

The strategy and the programme are emerging so it is expected that new actions and new project strands will be added to the programme as time progresses and our understanding matures.

The importance of establishing a sound foundation based on accurate data cannot be under estimated. By working with the Carbon Trust the Council is looking to achieve a solid foundation on which to measure future progress.

In the Corporate Plan 2019- 2023 Broxtowe Borough Council's vision is "A greener, safer, healthier Broxtowe where everyone prospers". The key Environmental objective in achieving this vision is to "protect the environment for the future" with the three priorities being to:

- Develop plans to **reduce our carbon emissions to zero** and start implementing them.
- Invest in our **parks and open spaces**.
- Increase **recycling and composting**.

The strategic vision for the Climate Change Strategy is to:

Act now! to reduce the Council's carbon footprint to net zero by 2027 and influence, encourage and assist households, businesses and schools within the Borough to strive towards the same goal

No.	Strategic actions	Owner
1	Establish a baseline for CO ₂ emissions for 2018/19 focusing on level 1 and level 2 emission sources. Compare with previous baseline and report position	Strategic Director / Head of Environment
2	Ensure methodology followed in strategic action 1 is repeatable for subsequent years moving forward, allowing progress to be measured more accurately.	Strategic Director / Head of Environment
3	Establish a baseline for CO ₂ emissions based on level 3 emission sources (e.g. impact of supply chain, housing stock, employee travel to and from work)	Strategic Director / Head of Environment
4	Deliver the Climate Change and Green Futures Programme including the creation of a full Climate Change Strategy and Carbon Management Plan (CMP)	Strategic Director
5	Develop further strategic actions following the carbon footprint analysis and partnership engagement.	Strategic Director / Head of Environment

Further actions will be added as the strategy emerges.

2. Fuel

The Council has redesigned its residual waste (black bin) rounds resulting in a reduction of fuel used by 32,000 litres. In addition, two electric vehicles have been purchased as part of the vehicle replacement programme in 2019/20, as well as carbon reduction a further advantage will be the reduction in fuel consumed.

No.	Strategic actions	Owner
1	Reschedule the recycling and green waste rounds in order to deliver economies with regards	Operations Manager

No.	Strategic actions	Owner
	to fuel usage and better utilisation of vehicles in the fleet.	
2	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Transport and Fleet Manager
3	Develop further strategic actions as part of the Fuel project strand delivery including the potential for smarter driving courses and educational material for employees, members, businesses and the wider community on how fuel economies can be achieved.	Transport and Fleet Manager

3. Transport and Fleet Strategy

The current Transport and Fleet Strategy is to be refreshed in 2019/20. During the current strategy improvements have been made in reducing the cost of managing the fleet by refurbishing rather than replacing vehicles and rationalising the fleet in order to achieve the delivery of the Council's business requirements with fewer vehicles.

No.	Strategic actions	Owner
1	Create a new Transport and Fleet Strategy with a focus where economically appropriate on electric vehicles.	Transport and Fleet Manager
2	Develop a plan for the further introduction of appropriate infrastructure to support potential growth in the electric fleet and growth in domestic use of electric vehicles.	Transport and Fleet Manager
3	Using available the data, produce a report on vehicle types registered in the Borough along with scenarios indicating the behavioural change necessary to help achieve net zero by 2027.	Transport and Fleet Manager
4	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Transport and Fleet Manager
5	Develop further strategic actions as part of the Transport and Fleet Strategy project strand delivery.	Transport and Fleet Manager

4. Energy and Building Infrastructure

The energy consumed by the Council is purchased from green energy sources. As a result of, for example, the rationalisation of building assets and the greater energy efficiency of electrical devices the energy consumption of the Council has reduced. The carbon footprint exercise currently being undertaken will help to inform exactly how much improvement has been made over time.

Building assets have been rationalised, photo voltaic cells have been installed on the main Council Offices and at some of the Housing Schemes. Work must now

be undertaken as part of the Climate Change and Green futures programme to determine the extent of the positive impact of this activity.

No.	Strategic actions	Owner
1	Capture and analyse the achievements to date in regards to energy consumption / creation to inform the approach moving forward and to inform the overarching communications programme.	Head of Property Services
2	Determine and report on approaches that will assist in reducing the organisations energy consumption further.	Head of Property Services
3	Capture and analyse the achievements to date in regards to building infrastructure to inform the approach moving forward and the overarching communications programme.	Capital Works Manager
4	Determine and report on approaches that will further assist the Council's building infrastructure reduce its carbon emission	Head of Property Services / Capital Works Manager
5	Develop further strategic actions as part of the Energy and Building Infrastructure project strand delivery.	Head of Property Services / Capital Works Manager

5. Employee and Business Mileage

Business mileage has reduced by in excess of 40% over the last 10 years. Employee home to work mileage is not fully understood particularly as new initiatives such as New Ways of Working have introduced more agile working arrangements for some employees where service levels can be maintained or enhanced. A questionnaire is therefore being developed to help capture the current baseline so that future activity can be measured accurately.

No.	Strategic actions	Owner
1	Capture and analyse the achievements to date in regards to the reduction in business mileage to inform the approach moving forward and to inform the overarching communications programme.	Payroll and Job Evaluations Manager
2	Determine and report on approaches that may assist in reducing the Council's carbon emission impact of business mileage.	Payroll and Job Evaluations Manager
3	Create a baseline in regards to employee home to work mileage to inform the approach moving forward and to inform the overarching communications programme.	HR Manager
4	Determine and report on approaches that will further assist the reduction in the carbon emission impact of employee home to work travel (e.g. effect of new ways of working).	HR Manager
5	Develop further strategic actions as part of the Employee and Business Mileage project strand delivery including for example material that	Payroll and Job Evaluations Manager / HR Manager

No.	Strategic actions	Owner
	promotes the benefits of public transport and electric vehicles.	

6. Water Courses

A report on the management of water course appears on the Environment and Climate Change Committee agenda for 25 November 2019. Details of the agencies involved in managing water courses within the Borough and particularly the flood risk is explained in the report. Acknowledgement of the importance of maintaining both the blue and the green infrastructure in order to protect the environment for the future and enhance the wildlife corridors, will be the subject of a future report to the Committee.

No.	Strategic actions	Owner
1	Continue to work in partnership with all relevant organisation to maintain the blue infrastructure in Broxtowe.	Business and Projects Manager
2	Determine and report how the Blue and Green Infrastructure can be enhanced to help protect the environment for our native wildlife corridors.	Business and Projects Manager
3	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Business and Projects Manager
4	Develop further strategic actions as part of the Water Courses project strand delivery.	Business and Projects Manager

7. Meadow Planting / Wildlife Corridors

In 2015 the Council created its Green Infrastructure Strategy 2015 to 2030. The strategy identified the two primary wildlife corridors and the 23 secondary wildlife corridors that exist within the Borough.

A budget bid had been prepared for the 2020/21 budget, for the creation of new meadow planting and enhancement of existing meadow planting. This will further enhance the wildlife corridors within the Borough.

No.	Strategic actions	Owner
1	Continue to deliver the action within the Green Infrastructure Strategy 2015 - 2030.	Business and Projects Manager
2	Determine and report how the green and blue infrastructure can be enhanced to help protect the environment for our native wildlife corridors.	Business and Projects Manager
3	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Business and Projects Manager
4	Develop further strategic actions as part of the Meadow Planting / Wildlife Corridors project strand delivery.	Business and Projects Manager

8. Tree Planting

In 2018 the Council adopted the Tree Planting Strategy this was following an already successful initiative to plant over 100,000 trees within the borough. The Tree Planting Strategy was enhanced in 2019 to allow for 2000 trees to be planted annually. An initiative to provide free fruit trees to residents of the borough to plant in the borough has also recently been delivered. A report detailing this initiative appears on the Environment and Climate Change Committee agenda for 25 November 2019.

No.	Strategic actions	Owner
1	Continue to deliver the actions within the Tree Planting Strategy 2018.	Business and Projects Manager
2	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Business and Projects Manager
3	Determine and report on how the Tree Planting Strategy can be enhanced to help provide greater opportunities to encourage residents, schools and businesses to plant more trees and look at innovative ways to achieve the Council’s tree planting goals including for example pocket orchards, community orchards and further free tree initiatives.	Business and Projects Manager
4	Develop further strategic actions as part of the Tree Planting project strand delivery.	Business and Projects Manager

9. Recycling

In 2018 the Council adopted a Single Use Plastics Policy.

As part of the Clean and Green initiative free bulky household waste collection events have been successfully run throughout the borough. This programme is to be enhanced during December, January and February this financial year to include one free weekly collection per month, three free weeks in total. This activity will help to achieved greater utilisation of refuse vehicles during months where the green waste collection service is reduced to once per month.

Broxtowe has worked in partnership with Nottinghamshire County Council to engage with schools to help educate our younger residents on the topic of recycling.

A budget bid has been made for the 2020/21 budget for additional resources in order to focus on educational activity within the Borough focusing on households. Analysis commissioned by Veolia indicates that if all of the recyclable material was placed in the recycle bin then Broxtowe’s annual recycling rate, currently at 39%, would exceed 50%.

No.	Strategic actions	Owner
1	Continue to embed the intent within the Single	Environment and

No.	Strategic actions	Owner
	Use Plastics Policy 2018	Business Development Manager
2	Develop a programme of activity to ensure that additional resources are immediately effective from appointment	Environment and Business Development Manager
3	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Environment and Business Development Manager
4	Work with the Nottinghamshire Joint Waste Management Group to lobby for additional materials to be recycled.	Environment and Business Development Manager
5	Develop further video and educational material for schools, businesses, households, and employees in order to encourage behavioural change in regards to recycling.	Environment and Business Development Manager
6	Develop further strategic actions as part of the Recycling project strand delivery.	Environment and Business Development Manager

10. Housing Delivery

In 2019 the Council adopted the Housing Delivery Plan 2019 - 2029. An Interim Housing Delivery Manager was appointed to ensure that the appropriate dedicated resource was focus on this important area of work.

No.	Strategic actions	Owner
1	Continue to deliver the actions within the Housing Delivery Plan 2019 – 2029 .	Head of Housing
2	Research eco-friendly methods of construction.	Head of Housing
3	Identification of potential solutions to reduce on-going energy use, including: <ul style="list-style-type: none"> • Air Source Heat Pumps • Ground Source Heat Pumps • PV Panels • Water Conservation • Energy efficient lighting • Small wind turbines. 	Head of Housing
4	Review of existing environmental solutions included in new build developments at Broxtowe Borough Council in last ten years, including survey of tenant experience.	Head of Housing
5	Capture and analyse the achievements to date to inform the approach moving forward and the	Head of Housing

No.	Strategic actions	Owner
	overarching communications programme.	
6	Determine and report on how the Housing Delivery Plan can reduce carbon impact for all new developments.	Head of Housing
7	Develop further strategic actions as part of the Housing Delivery project strand delivery.	Head of Housing

11. Housing Improvements

A stock condition survey has recently been commissioned which will identify opportunities to improve the energy efficiency of the Council's Housing and inform the creation of a new Asset Management Plan for the Housing Stock. Central Governments Decent Homes Standard and the Council's own Broxtowe Standard have been used to inform the quality of the Council's Housing Stock.

No.	Strategic actions	Owner
1	Formulate the appropriate response to the outcome of the stock condition survey.	Capital Works Manager
2	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Capital Works Manager
3	Research alternatives to conventional heating systems and report finding.	Capital Works Manager
4	Develop further strategic actions as part of the Housing Improvements project strand delivery.	Capital Works Manager

12. Core Strategy / Planning

The review of the Aligned Core Strategy (ACS) for Greater Nottingham is underway and will include consideration of issues relating to climate change and flood risk. The first consultation document will be published in early 2020 and adoption is expected in December 2021. The review of the ACS will be in the context of the National Planning Policy Framework (NPPF), which includes an important section on 'Meeting the challenge of climate change, flooding and coastal change'.

No.	Strategic actions	Owner
1	Include proposals relating to energy efficiency and climate change as part of ongoing work on implementing Policy 17 of the Part 2 Local Plan, 'Place-making, design and amenity'.	Head of Planning and Economic Development
2	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Head of Planning and Economic Development
3	Gather evidence, including viability evidence, to inform ACS policies that will enforce / expand on NPPF requirements regarding energy efficiency and climate change.	Head of Planning and Economic Development

No.	Strategic actions	Owner
4	Develop further strategic actions as part of the Core Strategy / Planning project strand delivery.	Head of Planning and Economic Development

13. Technology

The latest ICT Strategy 2017-2021 includes the requirement to procure energy efficient hardware and to dispose of equipment that has reached the end of its life in an environmentally friendly way. Previously the strategy has delivered virtualisation of the core server infrastructure (e.g. reduction in the number of devices required from over 100 servers to 8), energy efficient hardware, rationalisation of the printer estate, and soft phones that exist on the laptop / PC rather than being a physical device.

No.	Strategic actions	Owner
1	Continue to deliver the actions contained within the ICT Strategy 2017-2021	ICT Manager
2	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	ICT Manager
3	Monitor technology development to ensure the Council is able to take advantage of developments that are economically and environmentally advantageous.	Strategic Director / ICT Manager
4	Develop further strategic actions as part of the Technology project strand delivery.	ICT Manager

14. Air Quality

The Council has introduced changes in Taxi Licensing Conditions at Broxtowe Borough Council: from the 13 June 2018, all new petrol vehicles are required to meet Euro 5 standards, all new diesel vehicles are required to meet Euro 6 emissions. Hybrid and Electric Vehicles will be licensed as "Taxis" by quoting minimum 70kW and reducing boot space requirement to allow for battery storage.

Low Emission Fleet Vehicles – Broxtowe Borough Council have purchased three new Euro 6 vehicles to replace three older more polluting vehicles.

Broxtowe Borough Council participates in the United Kingdom Nitrogen Dioxide diffusion tube network and has 43 diffusion tubes sites throughout the Borough. The sites are primarily monitoring the M1 corridor and the A52. Some of the diffusion tubes are sited within and near to the existing Air Quality Management Area (AQMA), which is situated in Trowell. Monitoring is still being undertaken in the three revoked AQMAs to ensure that the concentrations remain below the air quality objective. The Air Quality Annual Status report approved by DEFRA.

No.	Strategic actions	Owner
1	Continue to provide an annual Air Quality Status Report for the Borough which is fit for purpose	Head of Public Protection and HR
2	Capture and analyse the achievements to date to	Head of Public

No.	Strategic actions	Owner
	inform the approach moving forward and the overarching communications programme.	Protection and HR
3	Continue to work with relevant partners in order to bring about improvements in local air quality	Head of Public Protection and HR
4	Review the NO ₂ diffusion tubes network; take proactive action to discontinue sites where the annual air quality levels are comfortably below the objective, and relocate them to new sites within the Borough allowing the identification of "problem" areas to be focussed on.	Head of Public Protection and HR
5	Develop further strategic actions as part of the Air Quality project strand delivery.	Head of Public Protection and HR

15. Hospitality / Support

The implementation of the New Ways of Working environment has enabled a review and refresh of the way in which hospitality is provided for employees, visitors and members. Other than using up remaining stock the Council has removed the single use plastic and paper cups within the main Council Offices.

No.	Strategic actions	Owner
1	Determine and report on approaches that can further reduce the use of single use resources in both the areas of hospitality and support services.	Head of Administration
2	Capture and analyse the achievements to date to inform the approach moving forward and the overarching communications programme.	Head of Administration
3	Develop further strategic actions as part of the Hospitality / Support project strand delivery.	Head of Administration