

10 November 2021

Decision Session – Executive Member for Environment and Climate Change

Report of the Corporate Director, Place

Air Quality – Annual Status Report

Summary

1. The report details the latest air quality monitoring results for York and progress on achieving measures in York's third Air Quality Action Plan (AQAP3) to deliver further improvements.
2. Recent air quality monitoring can be summarised as follows:
 - Widespread improvements in air quality were observed in York in 2020 compared with previous years, primarily due to a reduction in emissions from traffic caused by working from home and non-essential retail being closed during Covid lockdowns.
 - Whilst concentrations of NO₂ monitored in York in 2020 were atypical they continue the general downward trend in York since 2012. Ongoing air quality monitoring in all locations will be key to understanding the longer term environmental impacts of the pandemic and the magnitude of any changes due to increased levels of walking and cycling and decreased use of public transport.
 - Air pollution monitoring indicates that the annual average air quality objective for NO₂ was met at all relevant locations in York during 2020, including all sites within the current Air Quality Management Area (AQMA). The highest concentration of NO₂ recorded at a relevant location was 40µg/m³ on Gillygate (equal to the objective).
 - Maximum concentrations of NO₂ recorded across key areas within the current AQMA were on average 19.2% lower in 2020 than in 2019. Concentrations of particulates (PM₁₀ and PM_{2.5}) in York are currently well below the air quality objectives and PM_{2.5} have generally decreased at roadside monitoring sites.
3. CYC has progressed the delivery of measures within York's Third Air Quality Action Plan (AQAP3) as follows:

- Secured funding to deliver 33 fully electric buses and charging infrastructure at York's Park & Ride (P&R) sites.
 - Introduced a Clean Air Zone (CAZ) for buses and allocated funding to help to replace/retrofit 93 buses to CAZ compliant vehicles.
 - Encouraged 25% of York taxis to change to low emission vehicles and secured further DEFRA funding to encourage more drivers to upgrade.
 - Implemented an extensive public electric vehicle recharging network
 - Been awarded 'Go Ultra Low' city status and is in the process of delivering ultra-rapid charge units (hyper-hubs) at two P&R sites, with plans for a further site.
 - Developed Low Emission Planning Guidance
 - Implemented measures aimed at deterring vehicle idling including the 'Kick the Habit' anti-idling awareness-raising campaign.
 - CYC has also agreed to commence the transition to an all-electric fleet for all vehicles under 3.5 tonnes.
 - Continued to deliver walking, cycling and public transport
4. The Covid-19 pandemic means that the ongoing impact of AQAP3, including major air quality improvement measures in 2020 such as the Clean Air Zone and a new electric bus fleet, have been difficult to quantify. The true impacts of such measures may only be apparent in subsequent years when/if traffic levels and travel behaviour return to 'normal'.
 5. Over the coming year, CYC will update its current Air Quality Action Plan and will consider measures to further reduce nitrogen oxides and particulates from all sources and to support and complement the Council's economic strategy, Local Plan, fourth Local Transport Plan (LTP4) and Climate Change Strategy
 6. The report is provided for information following submission of the 2021 Annual Status Report to DEFRA.

Recommendations

7. The Executive Member is asked to note the contents of the report, including the continuing improvements in air quality in 2020 and proposals to update the current AQAP to complement other key CYC strategies.

Reason: To enable to Executive Member to remain updated on the continuing improvements in air quality.

Background

8. In 2015 DEFRA introduced Annual Status Reports (ASRs) to aid local transparency, increase accessibility of air quality to the wider public and encourage buy-in to delivering air quality improvement measures by those best placed to assist (e.g. Directors of Public Health and Transport).
9. This report provides an update on air quality in York (2020 calendar year), including progress on delivery of the measures within City of York Council's third Air Quality Action Plan (AQAP3), following submission of this year's Annual Status Report (ASR) to DEFRA in June 2021. The ASR and its conclusions were fully accepted by DEFRA on 24 September 2021. The full Annual Status Report (2021) is available to download from <http://jorair.co.uk/data-downloads/reports/>.
10. Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children, the elderly, and those with existing heart and lung conditions. The mortality burden of air pollution within the UK is equivalent to 28,000 to 36,000 deaths at typical ages¹, with a total estimated healthcare cost to the NHS and social care of £157 million in 2017².
11. Some research has suggested a link between coronavirus (Covid-19) deaths and exposure to high levels of pollution. It is well established that long term exposure to particulate matter causes stress to the respiratory and cardiovascular system. Emerging research suggests that pre-exposure to high levels of particulate pollution may make a person more likely to become seriously ill, or even die, after infection with Covid-19. Whilst air pollution exposure appears to be one contributory factor to Covid-19 death rates there will be others including deprivation levels. In many places there is a close link between levels of air pollution and deprivation, the poorest areas often experiencing the highest exposure levels. Other research has suggested that particulate matter (PM) could create a suitable environment for transporting the virus over greater distances than those considered for close contact, thereby increasing the rate of Covid-19 infection³.

¹ Defra. Air quality appraisal: damage cost guidance, July 2020

² Public Health England. Estimation of costs to the NHS and social care due to the health impacts of air pollution: summary report, May 2018

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7345938/>

12. At the start of 2020 York had two Air Quality Management Areas (AQMAs), declared on the basis of breaches of the health based annual mean air quality objective for nitrogen dioxide (NO₂). These AQMAs were located in the city centre and on Fulford Road⁴. Following an Executive Member Decision Session in November 2019⁵, the Fulford AQMA was revoked in February 2020 (due to air quality objectives no longer being exceeded in this area). CYC has a statutory duty to try to reduce NO₂ concentrations within the current AQMA and additional obligations in relation to the protection of public health and reduction of greenhouse gas emissions.
13. The main air pollutants of concern in York are NO₂ and particulate matter (PM). Previous source apportionment work has suggested that traffic is responsible for around 50-70% of the total NO₂ at any particular location in the city (although the exact amount varies according to proximity to roads and other emission sources). This source apportionment work is currently being updated to reflect the current position in the city.

Air Quality Monitoring Update

14. Real-time monitoring of nitrogen dioxide and other pollutants has been undertaken at a total of 14 different locations across York since 1999 (real-time monitoring is currently undertaken at 9 sites). The Council has also historically undertaken long-term nitrogen dioxide diffusion tube monitoring across 340 locations in the city. In 2020, the Council undertook diffusion tube monitoring at 233 sites across the city. In addition to monitoring air pollution across the city, the results determine the impact of air quality, planning and transport measures. There has been no significant change to the Council's overall monitoring strategy in the last 12 months, since the last report to the Executive Member.

City Centre AQMA

15. The latest air pollution monitoring data indicates that the annual average air quality objective for NO₂ (40µg/m³) was met at all monitoring sites (at relevant locations) in York in 2020, including all sites within the current city centre AQMA. The highest concentration of NO₂ recorded at a relevant location was 40µg/m³ on Gillygate (equal to the objective). Only one site, a bus shelter on Rougier Street, recorded an annual mean concentration above the objective at 49µg/m³, but this site is not a relevant location for the

⁴ A third AQMA for NO₂ existed on Salisbury Terrace between 2012 and 2017 (AQMA Order No.3) but was revoked in 2017 due to improvements in air quality in this area.

⁵ <https://democracy.york.gov.uk/ieListDocuments.aspx?CId=870&MId=11519>

purposes of Local Air Quality Management (i.e. it is not at a location that would be representative of long term public exposure).

16. Annual mean NO₂ concentrations monitored at all roadside real-time monitoring stations were significantly lower in 2020 compared with 2019: NO₂ reduced by between 13.9% (Gillygate) and 27.8% (Fishergate) (average reduction 23.4%). NO₂ at Bootham Hospital (City of York Council's urban background monitoring site) between 2019 and 2020 reduced by 13.5%. This lower reduction than at roadside sites is expected and reflects the reduced impact of local traffic emissions on air quality in the vicinity of this background site.

17. The downward trend in NO₂ concentrations has continued since 2012, accelerated by the Coronavirus pandemic and lockdown and the reduction in traffic. Although 2020 was atypical for these reasons, ongoing air quality monitoring in all locations will be key to understanding the longer term environmental impacts of the pandemic and the magnitude of any changes due to increased levels of walking and cycling, and decreased use of public transport.

18. With respect to the city centre AQMA, no exceedances of the health based annual mean NO₂ objective of 40µg/m³ were monitored in any technical breach area (at a relevant location) in 2020. Maximum annual mean concentrations of NO₂ monitored at key locations within the current AQMA 'technical breach' areas were 40µg/m³ (Gillygate), 39µg/m³ (Rougier St), 35µg/m³ (Holgate / Blossom Street), 33µg/m³ (Lawrence St), 29µg/m³ (Fishergate / Paragon St), 27µg/m³ (Prices Lane/Nunnery Lane) and 31µg/m³ (Coppergate). Maximum concentrations of NO₂ recorded in these areas were on average 19.2% lower in 2020 than in 2019 and ranged from 9.2% lower in Gillygate to 27.3% lower in Prices / Nunnery Lane.

19. In December 2018, the boundary of the city centre AQMA was extended to include the full length of Coppergate and the buildings either side of the road. Concentrations of NO₂ monitored along Coppergate in 2020 were significantly lower than those monitored in 2019, with the highest concentration in 2020 observed at site D56 (Three Tuns Pub, 12 Coppergate). This site recorded an annual mean NO₂ concentration of 31.2µg/m³ which is well below the annual mean objective for this pollutant and represents an 18.3% reduction in NO₂ compared with concentrations monitored in 2019. Monitoring data for the last 5 years has indicated that concentrations of nitrogen dioxide along Coppergate are falling, but as 2020 has been atypical in terms of traffic, it will be important to maintain the current monitoring to review concentrations as normal conditions resume. During the daytime,

access to Coppergate is restricted to buses and taxis. Whilst taxi emissions are likely to have fallen significantly during 2020 as a result of the pandemic, further CYC incentives to reduce taxi emissions (as the demand for taxi services returns) will help to maintain air quality on Coppergate into the future. It is also expected that cleaner buses associated with the implementation of the York CAZ are contributing to air quality improvement in this area.

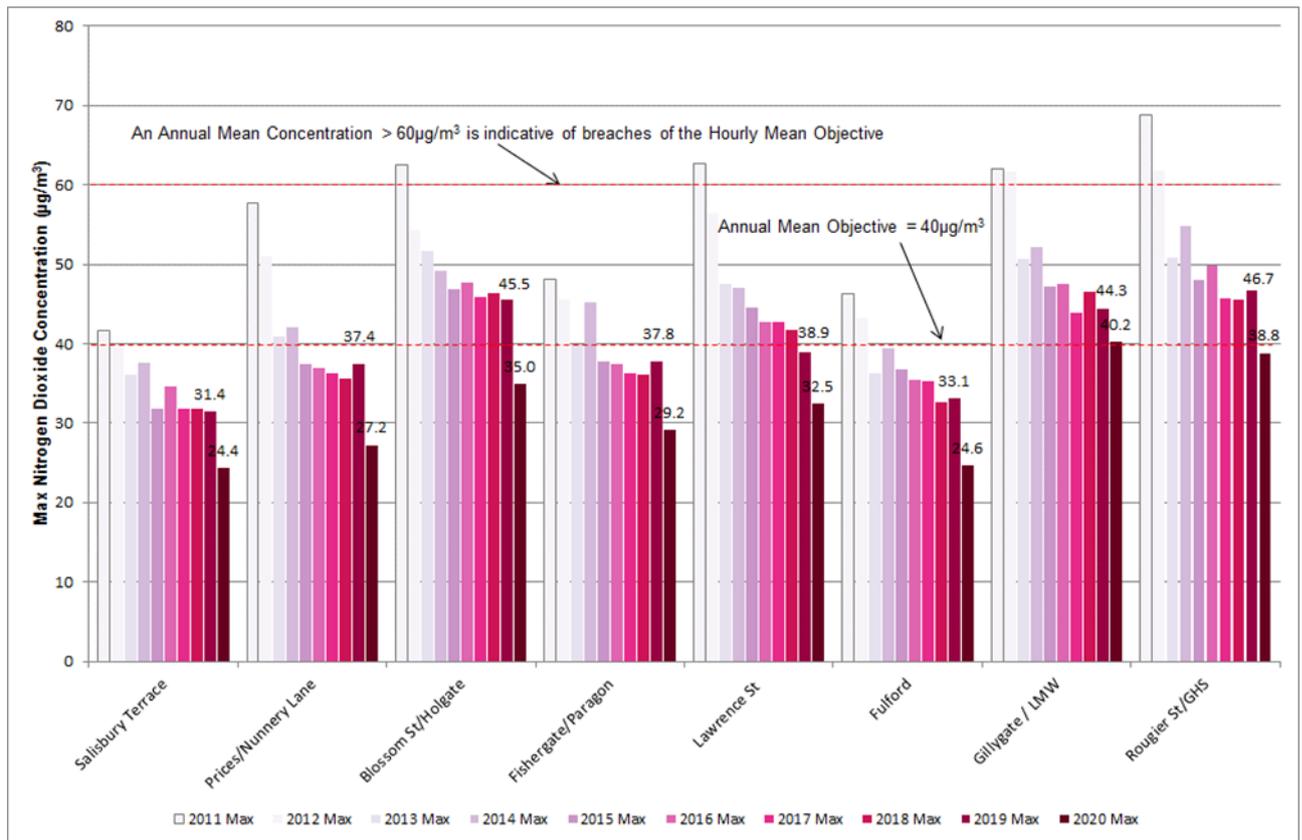
20. As traffic levels and associated emissions in the city were atypical in 2020 as a result of the Covid-19 lockdowns, it is not considered appropriate to reduce the size of the city centre AQMA at this time. In line with DEFRA's LAQM guidance, before revoking an AQMA on the basis of measured pollutant concentrations, a local authority needs to be reasonably certain that any future exceedances of air quality objectives are unlikely. Therefore local authorities have to consider monitoring over several years, national trends in emissions and local factors that may affect the AQMA. This will be reviewed again as part of CYC's next ASR (due June 2022) when the longer term impacts of the pandemic on traffic may be clearer.

Maximum monitored concentrations of nitrogen dioxide in 2020

21. The maximum NO₂ concentrations monitored (at a relevant location⁶) in each area of technical breach over the last 10 years are shown below. Council Plan indicator CAN028 only considers monitoring at relevant locations and is useful when considering the validity of AQMA boundaries.

Figure 1

⁶ A relevant location is an outdoor, non-occupational location (e.g. facade of a residential dwelling) where members of the public may be exposed to poor air quality



22. Figure 1 shows that the maximum annual mean NO₂ concentration monitored at a relevant location in 2020 was 40.2µg/m³ on Gillygate. All other locations were below the annual mean NO₂ objective.

Former Fulford Road and Salisbury Terrace AQMAs

23. Maximum concentrations of NO₂ monitored at relevant locations within the former Salisbury Terrace and Fulford Road AQMAs are well below the health based annual mean objectives so it was appropriate to revoke these AQMAs in 2017 and 2020 respectively. Current monitoring along Fulford Road and Salisbury Terrace will remain in place to monitor future changes in air quality due to development in the vicinity of these areas. Should pollution increase at these locations, the AQMAs could be re-instated.

Monitoring of Particulate Matter (PM₁₀ and PM_{2.5})

24. City of York Council monitors particulate (PM₁₀) at 4 sites in the city (Bootham, Fishergate, Holgate Road and Plantation Drive) and ultra-fine particulate (PM_{2.5}) at 3 sites (Bootham, Fishergate and Gillygate). National air quality objectives for PM₁₀ and PM_{2.5} are currently easily met in York. The highest annual mean levels of PM₁₀ and PM_{2.5} monitored in York during 2020 were 19.2µg/m³ and 8.6µg/m³ respectively. Concentrations

monitored in 2020 compare with maximum levels of $21.9\mu\text{g}/\text{m}^3$ (PM_{10}) and $11.1\mu\text{g}/\text{m}^3$ ($\text{PM}_{2.5}$) monitored in 2019.

25. There is no clear trend in PM_{10} concentrations (see Figure 2 below):

Figure 2



26. The World Health Organisation (WHO) Air Quality Guidelines offer global guidance on thresholds and limits for key air pollutants that pose health risks. Guidelines of 10 and $20\mu\text{g}/\text{m}^3$ (as annual means) existed for $\text{PM}_{2.5}$ and PM_{10} respectively until September 2021; these have now been tightened to $5\mu\text{g}/\text{m}^3$ ($\text{PM}_{2.5}$) and $15\mu\text{g}/\text{m}^3$ (PM_{10}). The new guidelines are significantly more stringent than current UK Air Quality Objectives and do not currently apply to UK law. A similar strengthening of WHO guidelines occurred for NO_2 , with the annual average recommendation falling from 40 to $10\mu\text{g}/\text{m}^3$. The new guidelines reflect the large body of evidence produced in recent years of the harm caused by much lower levels of pollution than previously thought. WHO recognise these are challenging public health recommendations and achieving the guideline levels would be the ultimate goal <https://apps.who.int/iris/handle/10665/345329>

27. Health based objective levels for fine particulates ($\text{PM}_{2.5}$) have not yet been set for local authorities. However, the EU limit value for $\text{PM}_{2.5}$ is $25\mu\text{g}/\text{m}^3$ as an annual average. Monitoring of $\text{PM}_{2.5}$ at Fishergate and

Bootham is part of DEFRA’s Automatic and Rural Monitoring Network (AURN). Monitoring at Gillygate was established by CYC as a result of growing concern over the health impacts of PM_{2.5}. Trends in annual mean PM_{2.5} in York are shown in figure 3 below. Over the last 5 years, concentrations of PM_{2.5} have generally decreased at roadside monitoring sites, although PM_{2.5} monitored at the Bootham background site has been more variable. No exceedances of the annual mean PM_{2.5} objective have been recorded in York.

Figure 3



Meeting the Air Quality Objectives at all locations

28. Previous air quality modelling work undertaken by CYC indicated that with delivery of the third Air Quality Action Plan (AQAP3) (with all measures in place) the health based national air quality objectives for NO₂ could be met in all the current air quality technical breach areas in York by 2021. The Covid-19 pandemic has meant that the ongoing impact of AQAP3, including major air quality improvement measures implemented in 2020 such as the impact of the York Clean Air Zone and a new all electric bus fleet, have been difficult to quantify. Whilst such measures are important parts of the AQAP3 delivery programme and will undoubtedly have reduced emissions in key areas of concern,

the absolute impacts of such measures may only be apparent in subsequent years, when/if traffic levels and behaviour return to 'normal' and the air quality impact of such interventions can be verified via ongoing, longer-term air quality trends.

Impact of Covid-19 Lockdown

29. The Covid-19 lockdown provided a unique opportunity to study York's air quality in the absence of normal traffic levels. Widespread improvements in air quality were monitored in York in 2020 compared with previous years, primarily due to a reduction in emissions from vehicles on the York road network. The initial guidance to exercise outside the home once a day, and reduced numbers of vehicles on the roads, also resulted in an increase in active forms of travel such as walking and cycling.
30. Ricardo Energy and Environment (CYC air quality data management contractors) have produced a detailed technical note that examines the impact of lockdown measures on ambient air quality in York throughout 2020. The full report is available online at [Impact of COVID-19 on Air Quality in York](#). The analysis focuses on CYC air quality monitoring data and uses proven modelling techniques to discount the influence of weather on ambient pollutant concentrations. This analysis suggested that during the early part of the Covid-19 lockdown, nitrogen dioxide concentrations in some areas of York may have improved by up to 43% (average across all continuous monitoring sites was 30%) compared with a 'business as usual' scenario, clearly demonstrating that traffic is a significant source of nitrogen dioxide in the city and supporting the steps the council has taken so far to reduce vehicle emissions. As lockdown has eased and traffic has started to return to more normal levels, council policies to incentivise walking, cycling and public transport (as alternatives to private car) aim to maximise and sustain such air quality improvement. A priority for the coming year is to commence production of a new updated Air Quality Action Plan, to include measures to further reduce nitrogen oxides and particulates from all sources and to support and complement the Council's economic strategy, Local Plan, fourth Local Transport Plan (LTP4) and Climate Change Strategy.
31. Current uncertainties with respect to future travel behaviour, particularly around confidence in the use of public transport (and possible subsequent increases in private car journeys) could offset some of the air pollution gains made in recent years. However, if York can sustain some of the improvements in walking and cycling levels that arose

during lockdown and people continue to work at home, there may be an opportunity to improve air quality further. Members of the public have had a unique opportunity to experience cleaner air and may have given the issue more thought than normal due to the links to Covid-19 death rates. Research indicates that there has been a significant change in attitudes towards walking, cycling and electric vehicle use as a result of the pandemic and the council should aim to maximise opportunities to influence behaviour change.

Actions to Improve Air Quality

32. Whilst air quality has improved significantly in recent decades, and should continue to improve due to national policy decisions and advances in technology, there are some areas where local action is needed to improve air quality further. The government's 2019 Clean Air Strategy⁷ sets out the case for action, with goals even more ambitious than EU requirements to reduce exposure to harmful pollutants. The Road to Zero⁸ sets out the approach to reduce exhaust emissions from road transport through a number of mechanisms; this is extremely important given that the majority of AQMAs are designated due to elevated concentrations heavily influenced by transport emissions.
33. CYC previously produced two AQAPs in 2004 and 2006. These plans were primarily based on modal shift and congestion reduction with an emphasis on reducing vehicle trips across the city. Despite these plans air quality in York continued to deteriorate between 2004 and 2010. To address this, York developed the UK's first overarching Low Emission Strategy (LES) in 2012, based on reducing emissions from all sources, including vehicles and encouraging the uptake of alternative fuels and low emission vehicle technologies (whilst at the same time reducing carbon and greenhouse gas emissions). The LES has been particularly effective at tackling emissions from service vehicles such as buses, taxis and Heavy Goods Vehicles, which fall outside the scope of trip reduction based modal shift measures, but contribute to poor air quality in York.
34. Modal shift and congestion reduction measures remain fundamental to the delivery of air quality improvement and emission reduction in York. The primary local delivery programmes for these measures are the Local Transport Plan and the iTravel York programme. CYC are currently preparing a new Local Transport Plan (LTP4) and Carbon Reduction Strategy. Existing programmes and those such as

⁷ Defra. Clean Air Strategy, 2019

⁸ DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

Government Active Travel Funding encourage walking, cycling and public transport in the city. They are supported by planning policies that ensure that sustainable travel solutions are included in all new developments in York.

35. CYC's third Air Quality Action Plan (AQAP3, 2015) described how York intends to continue to deliver its Low Emission Strategy and to work towards becoming an internationally recognised ultra-low emission city. The LES has already changed the way York delivers public transport and plans for future transport trips. York continues to deliver on walking, cycling and public transport improvements, maintaining its national reputation as a leader in sustainable transport.

36. Since publication of CYC's Low Emission Strategy, York has:

- Delivered a fully electric Park & Ride (P&R) site at Poppleton Bar and introduced electric buses across other P&R sites. CYC was awarded £3.3m from DfT's Low Emission Bus Scheme in 2018 to support delivery of high capacity, fully electric buses and to support charging infrastructure at York's P&R sites. As part of a partnership between bus company First York and CYC, 21 new all-electric double decker buses entered service on the P&R network in 2020/21. The electric fleet on the P&R service has been expanded to 33 buses, and includes one of the largest fleets of electric double decker buses outside London.
- Introduced a Clean Air Zone (CAZ) for buses on 31 January 2020. Buses making 5 or more entrances to the CAZ per day are now required to be Ultra Low Emission Buses (ULEB) (Euro VI diesel or electric). A total of £1.65m has been allocated by City of York Council to 5 bus operators to help replace/retrofit 93 buses to CAZ compliant vehicles.
- Encouraged 25% of York taxis (170 vehicles as of April 2021) to change to low emission alternatives (petrol hybrid or electric); a number of these were converted through our innovative CYC taxi incentive grant scheme. CYC's taxi licensing policy also specifies minimum emission standards for new or replacement taxis. DEFRA awarded a further £105k of air quality grant to CYC in 2020 to assist with further taxi upgrades. The low emission taxi grant scheme was launched in November 2020.
- Implemented an extensive 'pay as you go' fast and rapid charge public electric vehicle recharging network. CYC's Executive have also endorsed the ambition that a minimum of 5% of bays in council owned car parks will be charging bays by 2023. The existing council owned charging estate is currently being updated with the latest EV charging hardware. Once completed, the new network will consist of 350 fast

charging spaces, 19 rapid chargers, and 12 ultra-rapid chargers providing different charging options depending on an EV driver's requirements. At the end of 2020, there were 432,000 Ultra Low Emission Vehicles (ULEVs) in the UK, with 60% more licensed ULEVs in 2020 than in 2019. The majority of ULEVs licensed at the end of 2020 were either Battery Electric Vehicles (50%) or Plug-In Hybrid Electric Vehicles (45%). New registrations of electric cars nearly tripled in Great Britain in 2020 (+184%) compared to 2019, with more electric cars being registered in 2020 than in all years between 2001 and 2019 combined⁹.

- On 19 March 2020, CYC's Executive agreed a four year programme to commence the transition to an electric fleet for all vehicles under 3.5 tonnes. CYC has also bought twelve new refuse trucks, including two fully electric vehicles, which are expected to reduce fuel costs and pollution output by approximately 16%.
- Been awarded £816,000 from the Office of Low Emission Vehicles (OLEV) after becoming the only Yorkshire location out of eight in the country to achieve 'Go Ultra Low' city status. The money is being used to fund a network of charging hubs providing ultra-fast, reliable and convenient electric charging. Since receiving this funding, CYC has secured further European funding to allow the delivery of a full solar canopy/battery storage solution in addition to the 'hyper hub' charging facilities at Monks Cross and Poppleton Bar.
- Developed Low Emission Planning guidance – to accompany policy ENV1 'Air Quality' of the Local Plan: it outlines the Council's design and mitigation expectations for all new developments in the city, including EV charging. The guidance aims to assist developers to improve air quality and lower transport emissions in line with the aims and objectives of the Air Quality Action Plan and Low Emission Strategy. The guidance has also been used as the basis for a 'common principles' document relating to low emission planning, developed by the Yorkshire and Lincolnshire Pollution Advisory Group (YALPAG), to ensure consistency in the approach to low emission planning across the region.
- Launched an ECO-Stars Fleet Recognition Scheme. The scheme attracted fleet membership from 106 organisations and has provided advice on operational best practice.
- Obtained member approval (Joint Decision Session of the Executive Member for Planning and Transport, and Executive Member for Environment, 7 February 2019) to implement a package of measures

⁹ <https://www.gov.uk/government/statistics/vehicle-licensing-statistics-2020>

aimed at deterring stationary vehicles from idling, including the use of discretionary powers under the Road Traffic Regulations 2002 to issue fixed penalty notices to drivers who refuse to switch off their engines. The 'Kick the Habit' anti-idling awareness-raising campaign was launched in mid-2019, aimed at encouraging people to think about the importance of clean air and the impact it has on their health and that of those around them. The campaign is designed to change the way people feel about idling and encourage them to 'kick the habit' by highlighting idling as socially unacceptable.

- CYC has undertaken promotional work in relation to anti-idling as part of Clean Air Day 2018, 2019, 2020 and 2021. Anti-idling signage has also been erected in all council owned car parks across the city, at most city centre bus stops, multiple taxi ranks and at other key locations across the city where vehicle idling has been reported. In December 2020, further promotional material and signage was erected at the Askham Bar Covid vaccination site, with support from CYC Public Health.
- Obtained DEFRA AQ Grant funding and is currently acting as lead authority in developing a new air quality hub, with Lancaster City Council and Mid Devon District Council. The new hub provides a space where air quality experience and knowledge can be shared and where local authority officers can be up-skilled without the need to attend external training courses or meet travel costs. The Air Quality Hub was launched on 26 November 2020 and over 170 individuals from local authorities and organisations across the UK attended the online launch event.

Priorities for the Coming Year

37. City of York Council's priorities for the coming year are:

- **Production of a new, fourth Air Quality Action Plan (AQAP4)** to update the existing AQAP3. The new AQAP will include measures to further reduce nitrogen oxides and particulates from all sources and to support and complement the Council's economic strategy, Local Plan, fourth Local Transport Plan (LTP4) and Climate Change Strategy. Subsequent Air Quality Actions Plans are likely to have a greater focus on pollution from domestic and commercial heating and other sources, and a greater emphasis on reducing particulate emissions. CYC is considering further survey and educational campaign work in relation to this issue in line with the Government's Environment Bill to reduce pollution from domestic heating and other sources. We also plan to look at opportunities for further Smoke Control Areas in the context of the Local Plan process and new sites being brought forward for development. We will investigate complaints of non-compliance with

smoke control area regulations, taking enforcement action where necessary in line with revised government legislation (subject to Environment Bill). We will also investigate sales of non-authorized solid fuels, following the introduction of The Air Quality (Domestic Solid Fuels Standards) (England) Regulations, which took effect from May 2021.

- **Reducing emissions from buses through the Clean Air Zone (CAZ)**
Buses making 5 or more entrances to the CAZ per day are now required to be Ultra Low Emission Buses (ULEB) (Euro VI diesel or electric). The Traffic Regulation Condition implemented for the CAZ also prohibits all local buses from idling their engines anywhere within the CAZ area, irrespective of service frequency. CYC will continue to work with bus operators to ensure that the CAZ requirements are fully adhered to and idling is minimised.
- **Continue promotion of anti-idling measures (including enforcement)** – CYC will continue to investigate complaints of idling in the city and further promote our ‘Kick the Habit’ anti-idling campaign. This will be supported by anti-idling enforcement patrols by staff in Public Protection and Civil Enforcement Officers, subject to any Covid-19 restrictions. Enforcement will only be undertaken as a last resort with the problem of stationary vehicle idling being addressed first and foremost, by raising awareness, particularly in those areas of the city where complaints arise, such as residential areas and outside schools. We will continue to work with bus operators through the Quality Bus Partnership to raise awareness of idling and minimise its occurrence.
- **Continue to reduce emissions from taxis** – Revisions to CYC’s Taxi Licensing Policy are currently under consideration. Policy revisions may affect the types of vehicles that can be licensed as taxis (Hackney carriage and private hire vehicles) in York and could include a vehicle age limit in line with other local authorities. CYC received a further DEFRA air quality grant in 2020 for further taxi upgrades; the remaining grant funds will continue to be rolled out until 31 March 2022.
- **Continued delivery of strategic EV charging network** - on 19 March 2020, CYC’s Executive approved a new EV Charging Strategy which set out the rationale for the number and location of EV charging points, the principles of tariff-setting, and the council’s approach to providing charging for residents in streets without off-road parking. The Executive also endorsed a commitment to continue to explore options for on street charging and facilities for charging electric taxis in the city centre. CYC are delivering HyperHubs (containing rapid and ultra-rapid charge points) at Monks Cross and Poppleton and are working on a third City Centre site. CYC is also planning a significant upgrade of charging

facilities across the rest of the city, starting with increasing the number of Fast charging spaces from 40 to 350.

- **Continuing to reduce emissions from new development** – by continuing to require electric vehicle recharging infrastructure, Construction Environmental Management Plans (CEMPs) and, where appropriate, emissions mitigation plans on new developments.
- **Reducing emissions from the council's fleet** – by switching from diesel to low and zero emission alternatives wherever practical. CYC will continue to reduce 'grey fleet' trips by utilising Enterprise Car Club to provide a pool of low emission cars for exclusive use by CYC staff during office hours. CYC will also begin the transition to an electric fleet for all vehicles under 3.5 tonnes as part of a four year programme. The council's fleet is set to be upgraded as part of a bid to be carbon neutral by 2030. Officers will also continue to explore the options for vehicles over 3.5 tonnes to move away from fossil fuels. CYC aims to replace 153 vehicles from its current fleet during the programme, reducing CO₂ emissions by a third.
- **Continued modal shift and network improvement measures** – via the LTP capital and i-Travel York sustainable travel programmes.
- **Investigate first/last mile delivery options** - CYC was awarded £297,237 by DEFRA in March 2021 to carry out a feasibility study and subsequent pilot scheme to reduce emissions relating to deliveries travelling into and out of York. The project will focus on how to reduce the number of deliveries made to the city centre and around York by LGVs and HGVs (such as small vans or larger heavy goods vehicles). A study will identify suitable sustainable alternatives which may include a delivery 'hub' allowing the last or first mile of the journey to be made by low emission modes, including e-cargo bikes. CYC is engaging with businesses such as delivery companies on the study and pilot scheme.

38. Air quality improvement measures over and above those planned and outlined in the current report may be required to fully deliver the air quality objectives in all areas of technical breach in the city. It may be several years before new 'normal' levels of air pollution can be reliably measured, but York's Air Quality Action Plan will be kept under review to ensure it remains relevant to new ways in which people will choose to travel and any emerging new sources of air pollution, such as potential increases in domestic emissions (due to people working from home).

Consultation

39. Local authorities have to submit an ASR to DEFRA each year. No consultation outside CYC has been undertaken specifically for the purposes of compiling the Annual Status Report. DEFRA has appraised the report and provided written feedback to CYC.

Options

40. The Executive Member is asked to note the contents of the report, including the improvements in air quality observed in 2020, the continuing trend in air quality in York and proposals to update the current AQAP to support and complement other key CYC strategies.

Analysis

41. DEFRA's LAQM Policy Guidance (LAQM.PG16) and Technical Guidance (LAQM.TG16) outline the process that should be followed with respect to the Local Air Quality Management regime (for example amendments to and revocation of existing AQMAs).
42. Pollutant concentrations will vary from year to year due to the influence of meteorological conditions and DEFRA guidance makes it clear that authorities should avoid cycling between declaring, revoking and declaring AQMAs again simply due to these variations. For this reason, it is expected that authorities will need to consider measurements carried out over three to five consecutive years when deliberating the revocation or amendment of an AQMA, as well as national trends in emissions and local factors that may affect the AQMA, including measures introduced as part of the Air Quality Action Plan. DEFRA advise against considering the revocation of an AQMA based solely upon compliance being achieved in 2020, as this year may not be representative of long-term trends in pollutant concentrations and local authorities must be confident that air quality objectives will continue to be met in future years.
43. Public Protection have retained all air quality monitoring in the Fulford and Salisbury Terrace areas (areas previously covered by AQMAs) to ensure that any future changes in air quality are picked up and to ensure that baseline air quality in these areas can be monitored (to assist with the future appraisal of planning applications and the application of suitable mitigation measures, where appropriate).

Council Plan

44. Monitoring and reporting on air quality and measures to improve air quality will contribute to the Council Plan's aim of delivering a prosperous city for all, where local businesses can thrive and residents have good quality jobs, housing and opportunities.
45. Reducing emissions and improving air quality will reduce exposure to harmful air pollutants which can increase the symptoms of chronic and acute illnesses increase the risk of hospital admissions and in some case result in premature death. Good air quality reduces absence from work and education due to air pollution related illnesses.
46. Air pollution damages buildings as well as human health. Improving air quality will help to protect the city's many historic buildings and create a cleaner environment for visitors to York, an ultra-low emission city.

Implications

The various implications of this report are summarised below:

Financial

47. This report has no direct financial implications. However, implementation of air quality improvement measures will require both capital and revenue funding. Ongoing monitoring of air quality in the city, including continuation of monitoring in previous AQMA areas, also requires ongoing revenue funding. Any request for funding will follow the council's budgetary process.

Human Resources (HR)

48. There are no human resources implications

Equalities

49. A community impact assessment was undertaken for AQAP3. Vulnerable people, including older people, children, pregnant women and those with respiratory and other illnesses, are more likely to be adversely affected by poor air quality.

Legal

50. CYC has a statutory duty to periodically review the air quality within its area. There is a duty to designate an AQMA where air quality objectives are not being achieved or are not likely to be achieved. Once

an area has been designated there is a duty to carry out an assessment and prepare an air quality action plan (AQAP) for the area. DEFRA have issued statutory guidance to which the council must have regard in exercising these functions. This includes annual reporting on progress with delivery of AQAPs via Annual Status Reports (ASRs).

Crime and Disorder

51. There are no crime and disorder implications

Information Technology (IT)

52. There are no information technology implications

Property

53. There are no property implications

Risk Management

54. Not applicable

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James Gilchrist, Director of Transport,
Environment and Planning

Report **Date** 27/10/2021
Approved

Wards Affected: List wards or tick box to indicate all

All

For further information please contact the author of the report

Background Papers:

Adoption of York's Third Air Quality Action Plan (AQAP3) - Decision Session
Executive Member for the Environment, 14th December 2014

The full Annual Status Report (2021) is available to view at
<http://jorair.co.uk/data-downloads/reports/>

List of Abbreviations Used in this Report

ASR	Annual Status Report
DEFRA	Department of Environment Food and Rural Affairs
AQAP3	Third Air Quality Action Plan
AQMA	Air Quality Management Area
CAZ	Clean Air Zone
CYC	City of York Council
EV	Electric Vehicle
$\mu\text{g}/\text{m}^3$	Micrograms per cubic metre
NO ₂	Nitrogen dioxide
PM	Particulate Matter
LES	Low Emission Strategy
HGV	Heavy Goods Vehicles
OLEV	Office for Low Emission Vehicles
CEMP	Construction Environmental Management Plan
CCFAP	Climate Change Framework and Action Plan
LTP	Local Transport Plan