
**Decision Session – Executive Member for
Environment and Climate Change**

8 June 2022

Report of the Corporate Director, Place

Air Quality – Annual Status Report 2021 and Monitoring Review

Summary

1. The report details the latest air quality monitoring results for York and progress on achieving measures in York’s current Air Quality Action Plan (AQAP3) to deliver further improvements in air quality. The report also seeks approval to refurbish our air quality monitoring stations using existing grant funding to ensure compliance with the Environment Act (2021) and DEFRA’s Local Air Quality Management (LAQM) requirements.
2. Recent air quality monitoring can be summarised as follows:
 - Actions taken by City of York Council including the voluntary Clean Air Zone (CAZ) and electrification of buses and taxis have helped to reduce overall concentrations of Nitrogen Dioxide (NO₂) in 2021 to continue the long-term general downward trend of the past 10 years; concentrations were generally lower in 2021 than pre-pandemic levels in 2019.
 - The majority of York has good air quality and met the health-based annual average air quality objective for NO₂ (40µg/m³); it was exceeded in only three technical breach areas within the city centre Air Quality Management Area (AQMA): Gillygate / Bootham / St Leonards Place / Museum Street, Holgate Road / Blossom Street, and Rougier Street / Bridge Street. The highest concentration of NO₂ recorded at a ‘relevant location¹’ was 47.5µg/m³ on Gillygate.
 - Concentrations of particulates (PM₁₀ and PM_{2.5}) are well below the current health-based air quality objectives.

¹ 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

3. CYC has continued to progress 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 then, in March 2022, CYC was awarded £8.4m through DfT's ZEBRA fund to fund an additional 44 new electric buses. This will be matched by a further £10 million from First Group who operate busses in the City. An additional £17m was awarded to CYC in April 2022 to support the development of key schemes and initiatives in line with York's Bus Service Improvement Plan, including wider electrification of the urban bus fleet to further reduce emissions.
- Introduced the first and only voluntary Clean Air Zone (CAZ) for buses and allocated funding to help to replace/retrofit 93 buses to CAZ compliant vehicles.
- The Council's innovative taxi incentive scheme has encouraged 30% of York's taxis to switch to low emission vehicles.
- Awarded 'Go Ultra Low' city status by the Office for Low Emission Vehicles (OLEV) and implemented an extensive 'pay as you go' fast, rapid and ultra-rapid (hyper-hubs) public electric vehicle recharging network.
- Agreed the transition to an electric fleet for all council vehicles under 3.5 tonnes as part of a four-year programme and implemented a telematics system for existing fleet vehicles to reduce emissions and improve vehicle and driver efficiency.
- Developed Low Emission Planning Guidance to improve air quality, reduce exposure and lower transport emissions associated with new developments.
- Implemented measures aimed at deterring vehicle idling including the 'Kick the Habit' anti-idling awareness-raising campaign.
- Obtained DEFRA funding to carry out a feasibility study and subsequent pilot scheme to reduce emissions from deliveries.
- Promoted the government's national 'Burn Better' campaign and commenced a programme of compliance checks across solid fuel distribution outlets to ensure correct certification of fuels.
- An expanding programme of walking, cycling and public transport initiatives.

4. The Covid-19 pandemic has made it difficult to quantify the impact of AQAP3 measures including the Clean Air Zone and new electric buses; this may only be possible as traffic levels and travel behaviour are tracked over the next few years and air quality impacts can be reviewed in the context of longer-term air quality trends.
5. The Environment Act 2021 introduced a requirement for new national air quality targets including a target for PM_{2.5} by 31 October 2022. Local authorities will continue to have a role in implementing measures locally to deliver these targets. Refurbishments to CYC's monitoring stations are proposed to ensure that monitoring equipment remains fit for purpose, meets current DEFRA standards and can continue to be used for measuring key pollutants in real-time for comparison with health-based standards. All equipment, including refurbished equipment, could be relocated elsewhere for monitoring if necessary (although there would be a charge for relocation). The refurbishments are subject to Executive Member approval.

Recommendations

6. The Executive Member is asked to:
 - a) Note the contents of the report (and approve submission of the Annual Status Report to DEFRA), including the generally improving trend in air pollution in recent years, progress made with AQAP3 and plans to commence the work to update the current plan in line with the Environment Act 2021, to complement other key CYC strategies.

Reason: to ensure that the Executive Member is aware of current air quality position in the city including exceedances of objectives in some areas, progress made with air quality improvement measures, and revised national air quality targets expected through the Environment Act 2021.

- b) Approve refurbishment to three air quality monitoring stations using existing DEFRA grant funding as outlined in this report.

Reason: to ensure air quality monitoring equipment remains compliant with DEFRA guidance and suitable for ongoing monitoring in relation to current standards and new targets being introduced through the Environment Act 2021.

Background

7. Annual Status Reports (ASRs) were introduced to aid 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).
8. This report provides an update on air quality in York (2021 calendar year), including progress on delivery of measures within CYC's third Air Quality Action Plan (AQAP3), prior to submission of this year's ASR to DEFRA (due end June 2022). The full 2022 ASR is available for review: <http://jorair.co.uk/wordpress/wp-content/uploads/2022/05/CYCASR2022DRAFT.pdf>
9. It is widely recognised that air pollution is associated with a number of adverse health impacts. The theme for Clean Air Day 2022 (16 June) is 'air pollution dirties every organ in the body', no matter who you are or where you live, and strives to encourage individuals and organisations to make changes to their everyday lives to improve public health by reducing air pollution.
10. Historic monitoring of air quality across the city identified some areas of the city centre, around the inner ring road, where long term annual average nitrogen dioxide (NO₂) levels were above health-based objectives. This became the city centre Air Quality Management Area (AQMA). Other AQMAs declared in Fulford and on Salisbury Terrace were revoked in 2020 and 2017 respectively due to air quality improvements.
11. CYC has a statutory duty to try to reduce NO₂ concentrations within the remaining city centre AQMA and additional obligations in relation to the protection of public health and reduction of greenhouse gas emissions. 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.

Air Quality Monitoring Update

12. Real-time monitoring of NO₂ 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). CYC also undertakes 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 improvement, planning and transport measures.

City Centre AQMA

13. The annual average air quality objective for NO₂ (40µg/m³) was met at all monitored relevant locations in York during 2020. The latest air pollution monitoring data for 2021 shows the continued improvements in air quality in York since 2012 and that NO₂ concentrations across the AQMA are generally lower than the pre-pandemic levels of 2019, but higher than the atypical concentrations monitored during the pandemic in 2020.
14. The highest concentration of NO₂ recorded at a 'relevant location' in 2021 was 47µg/m³ on Gillygate, up from 40µg/m³ in 2020. Exceedances of the health based annual mean NO₂ objective of 40µg/m³ were monitored at three other technical breach areas in the city centre AQMA: Gillygate / Bootham / St Leonards Place / Museum Street; Holgate Road / Blossom Street and Rougier Street / George Hudson Street / Bridge Street. Monitoring at background sites indicates that most of the pollution is due to an increase in traffic post lockdown. Air quality action plan measures including the further electrification of buses and taxis in York should lead to significant further pollution reduction.
15. 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, due to monitored concentrations of NO₂ above the annual mean objective. Coppergate now meets the air quality objective with concentrations of NO₂ in 2021 significantly lower than those monitored pre-pandemic in 2019 and only 2% higher than those monitored during the pandemic in 2020.
16. Ongoing air quality monitoring in all locations will be fundamental to understanding the longer-term environmental impacts of the pandemic and the magnitude of any changes due to increased sustained levels of walking and cycling and changes in use of public transport.
17. The maximum NO₂ concentrations monitored (at relevant locations²) in keys areas across the city centre AQMA are captured by Council Plan Indicator CAN028. Trends in air quality between 2011 and 2021 are shown below in Figure 1a. An additional graph is shown at Figure 1b to illustrate changes between 2019 - 2021 during the pandemic period, with

² 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

the greatest increase seen in the Blossom Street / Holgate Road area. However, with the exception of Gillygate, maximum concentrations of NO₂ monitored in all other areas were lower than those recorded in the 9 years between 2011 and 2019. This suggests a steady downward trend in nitrogen dioxide concentrations over the last 10+ years for most areas of York. It should be noted that pollutant concentrations may still be affected by traffic volumes / patterns during the pandemic recovery and it remains to be seen if this will continue in the longer term.

Figure 1a: Maximum concentrations of NO₂ monitored within key areas of the AQMA (and former areas covered by historical AQMAs) between 2011 and 2021 (longer term trends).

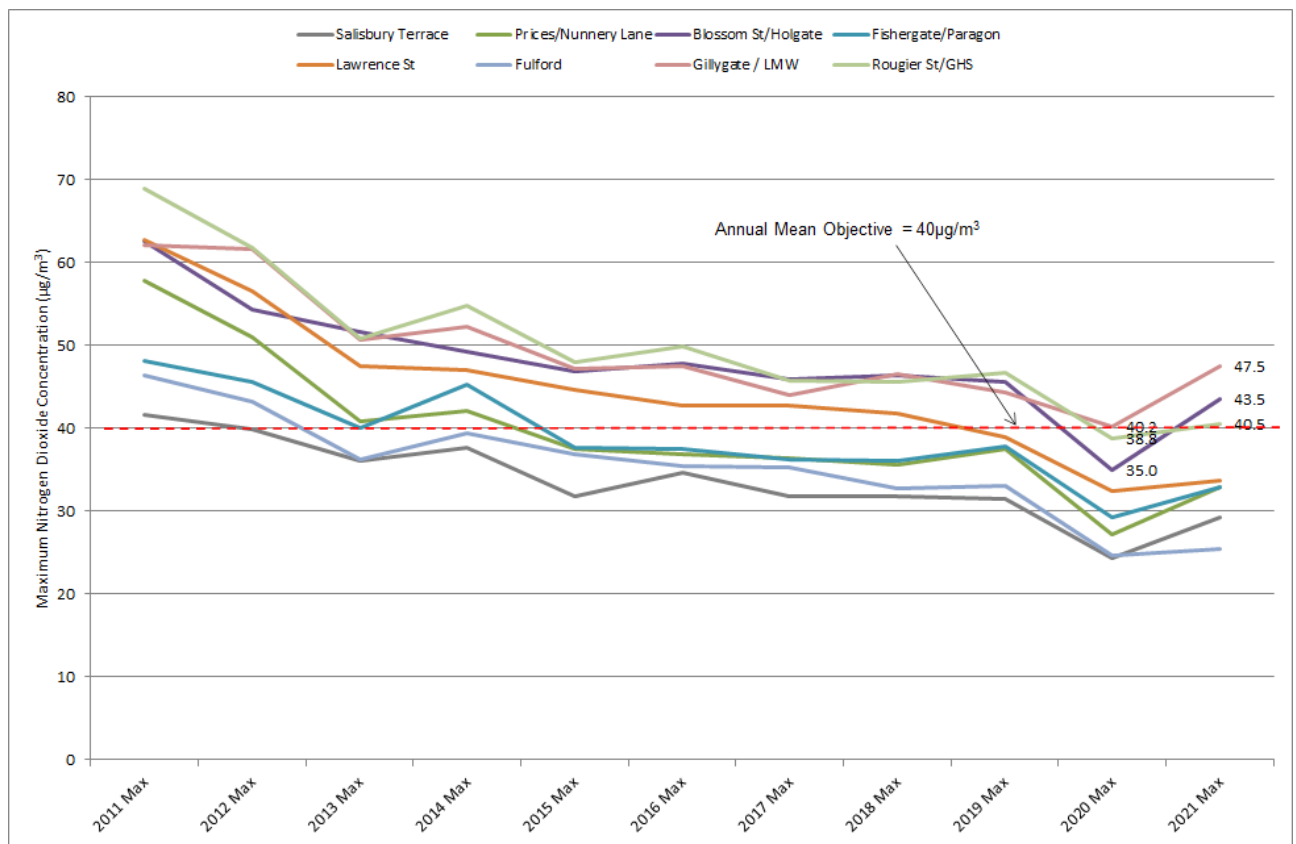
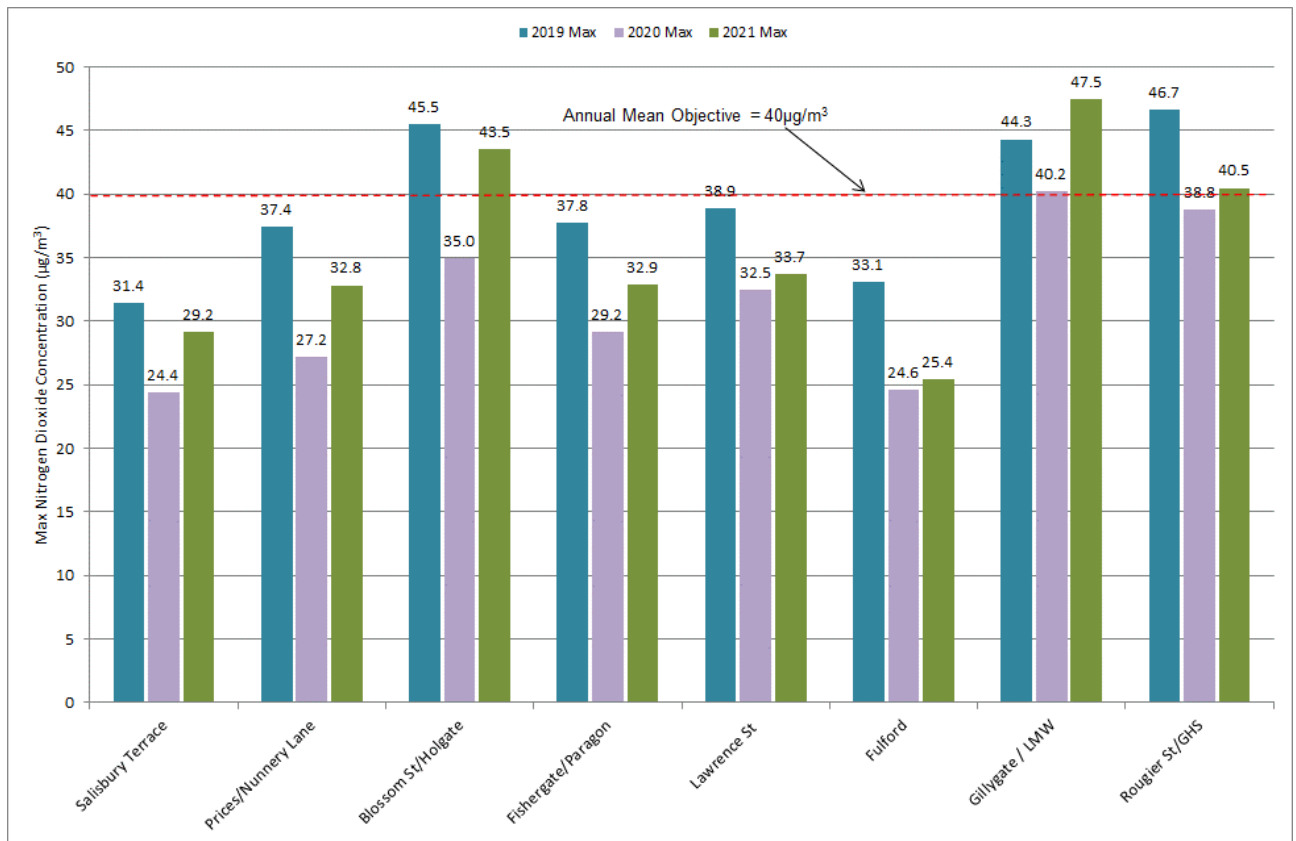


Figure 1b: Maximum concentrations of NO₂ monitored within key areas of the AQMA (and former areas covered by historical AQMAs) during the pandemic period, 2019 - 2021



Former Fulford Road and Salisbury Terrace AQMAs

- Maximum concentrations of NO₂ monitored at relevant locations within the former Salisbury Terrace and Fulford Road AQMAs remain well below the health-based objectives, confirming the decision to revoke these AQMAs in 2017 and 2020. Current monitoring will remain for now to monitor future changes in air quality due to development in the vicinity of these areas.

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

- CYC 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 met in York. The highest annual mean levels of PM₁₀ and PM_{2.5} monitored in York during 2021 were 17.2µg/m³ and 8.4µg/m³ respectively. Concentrations monitored in 2021 are below maximum levels of 19.2µg/m³ (PM₁₀) and 8.6µg/m³ (PM_{2.5}) monitored in 2020. Trends in PM₁₀ and PM_{2.5} in recent years are shown in figures 2 and 3 below.

Figure 2: Annual Mean PM₁₀

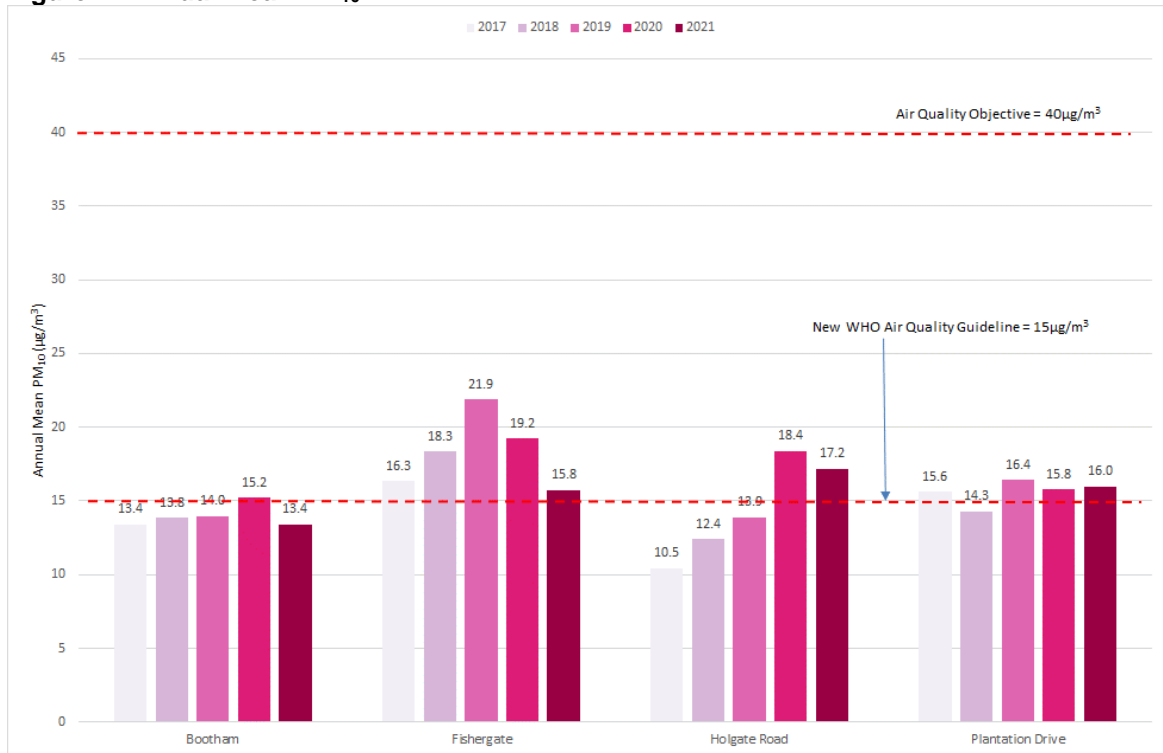


Figure 3: Annual Mean PM_{2.5}



20. Over the last 5 years, concentrations of fine particulate PM_{2.5} at York monitoring sites have generally decreased. No exceedances of the current annual mean PM_{2.5} objective³ have been recorded in York. There does not appear to be any emerging clear trend in PM₁₀ concentrations. Short term trends and annual variation in particulates do not necessarily reflect those seen with nitrogen dioxide, especially during the pandemic. This is because while transport in York produces between 50-70% of total NO_x emissions, it is only responsible for around 15% and 17% of PM₁₀ and PM_{2.5} emissions respectively, with the remainder from other sources such as domestic and commercial heating, nature, waste and agriculture.
21. Whilst domestic and commercial combustion make up around a quarter of NO_x emissions across York, they are estimated to be responsible for 44% of PM₁₀ emissions and 68% of PM_{2.5} emissions. Domestic combustion is estimated to be responsible for around 37% of PM_{2.5} emissions, with the majority (about 31%) from wood burning. National emissions mapping estimates that domestic combustion of wood accounts for two and a half times the PM_{2.5} emissions of that produced by road traffic across York. New legislation around the types of fuels that can now be legally sold will, in part, help to reduce levels of fine particulate, but there are further opportunities for CYC to raise awareness of the impacts of burning solid fuels and ensure that suppliers/retailers are complying with legal requirements. Measures to address this issue will also help to reduce NO_x emissions, though to a lesser extent.
22. For York, like most of the UK, particulate concentrations are above (but, in York's case, not much above) the new aspirational World Health Organisation (WHO) guidelines, which have recently been tightened to 15µg/m³ (PM₁₀) and 10µg/m³ (PM_{2.5}). The new guidelines are significantly more stringent than current UK Air Quality Objectives and do not currently apply in UK law. 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. Further actions to reduce particulate concentrations will include the phasing out of diesel buses, other diesel vehicles and machinery and reducing particulate emissions from domestic and commercial heating.

³ Subject to revision by 31/10/2022 in line with the Environment Act (2021)

Air quality monitoring station review and proposed refurbishments

23. All CYC's monitoring sites were reviewed in December 2021, in terms of age and condition of the continuous air quality monitors and future suitability of equipment for ongoing monitoring of air quality, including fine particulate matter, in line with statutory Local Air Quality Management (LAQM) requirements and the Environment Act 2021.
24. Many of CYC's existing roadside monitoring stations are now over 15 years old and in need of refurbishment due to the age of the analysers, lack of availability of spare parts and the condition of roadside cabinets. In addition, the old technology used to monitor particulate matter at the sites is no longer considered suitable for comparison with health-based standards (based on DEFRA guidance). Monitoring fine particulate matter (PM_{2.5}, the pollutant of most concern to human health) is becoming of increasing importance as a result of the Environment Act 2021, which will set new standards for this pollutant from October 2022.
25. A competitive tender exercise was undertaken in early 2022 and quotes were obtained from 3 suppliers for providing replacement equipment at 3 key sites prioritised for refurbishment, namely Gillygate, Holgate Road and Lawrence Street. Submissions were evaluated in terms of price and various quality considerations and a preferred supplier was identified for the supply and installation of the equipment. The award of this contract is pending and subject to a decision by the Executive Member.
26. The following works are proposed, with a total expenditure of £61,300:
 - Gillygate – replacement MCERTS⁴ approved NO_x analyser and DEFRA compliant PM_{2.5} monitor £21,600
 - Holgate Road – replacement roadside enclosure, new MCERTS approved NO_x analyser and DEFRA compliant PM_{2.5} monitor £26,700
 - Lawrence Street - replacement roadside enclosure and MCERTS approved NO_x analyser £13,000
27. The above works will be entirely funded through existing DEFRA grants previously allocated for work to support air quality management activities so there are no direct capital budget implications for CYC. As part of the wider monitoring review Public Protection has also identified opportunities for longer term cost savings to CYC via possible closure of some other sites when existing support contracts expire. Any new equipment could

⁴ MCERTS is the Environment Agency's Monitoring Certification Scheme and compliance ensures that equipment meets certain standards for monitoring.

be moved if necessary, although there would be a charge for this service. This would be subject to further consultation with the Executive Member.

Actions to Improve Air Quality

28. Although air quality has improved significantly in recent decades and should continue to improve due to national policy decisions and advances in technology, the Council still has a role and plan to further improve air quality. The government's 2019 Clean Air Strategy⁵ sets out the case for action, with goals even more ambitious than EU requirements to reduce exposure to harmful pollutants. The Road to Zero⁶ 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.
29. As well as the UK's first voluntary Clean Air Zone, 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 buses and taxis which fall outside the scope of trip reduction based modal shift measures but contribute to air pollution.
30. 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 iTravel York programme. CYC are currently preparing a new Local Transport Plan (LTP4) and Climate Change Strategy. Existing programmes and those such as 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.
31. CYC's third Air Quality Action Plan (AQAP3) 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 has influenced strategies for future transport trips. York continues to deliver

⁵ Defra. Clean Air Strategy, 2019

⁶ DfT. The Road to Zero: Next steps towards cleaner road transport and delivering our Industrial Strategy, July 2018

on walking, cycling and public transport improvements, maintaining its national reputation as a leader in sustainable transport.

32. 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. In March 2022, CYC was awarded £8.4m through DfT's ZEBRA fund to buy an additional 44 new electric buses. This will be matched by a further £10 million investment by First. Once in operation, this will expand the York bus fleet to 77 all-electric buses, which will run more than half the bus-miles operated in the city. The new buses will be used on First's routes 1, 4, 5 and 6, for the York Hospital shuttle bus and on P&R route 2, reducing carbon emissions in York by 2,300 tonnes per year as well as reducing NO_x and particulate emissions across the city. In April 2022, CYC was awarded an additional £17m to support the development of key schemes and initiatives in line with York's Bus Service Improvement Plan, including wider electrification of the urban bus fleet.
- Launched a Clean Air Zone (CAZ) for buses (January 2020). Buses making 5 or more entrances to the city centre CAZ per day are now required to be Ultra Low Emission Buses (ULEB) (Euro VI diesel or electric). CYC gave £1.65m to 5 bus operators to help replace/retrofit 93 buses to CAZ compliant standards. The CAZ became fully operational from the end of January 2021.
- Promoted our '[Kick the Habit](#)' anti-idling campaign and worked with partners to reduce idling across the city. Signage has been erected in CYC car parks, city centre bus stops, taxi ranks and other key locations across the city. CYC has also undertaken promotional work in relation to anti-idling as part of Clean Air Day activities.
- Encouraged 30% of York taxis to switch to low emission alternatives (petrol hybrid or electric) through our innovative [Low Emission Taxi Grant](#) scheme. CYC's taxi licensing policy also specifies minimum emission standards for new or replacement taxis. CYC continued rollout of the DEFRA funded Low Emission Taxi Grant scheme throughout 2021 and welcomed York's first fully electric taxi. An additional wheelchair accessible electric taxi joined the fleet in November 2021 and has been followed by other fully electric taxis.

- 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. Further upgrades to CYC’s charging estate were progressed throughout 2021. Once complete, CYC’s new charging 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. CYC has previously been awarded £816k 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.
- Reduced ‘grey fleet’ trips and worked with Enterprise Car Club to provide a range of pool vehicles at various locations across the city which can be booked online and accessed via a smart membership card. Diesel pool cars have been replaced with the latest petrol-hybrid technology as part of the car club initiative and are now regularly used across various CYC services. In mid-2021, CYC implemented a Masternaut telematics system for fleet vehicles to improve safety, reduce emissions and improve vehicle and driver efficiency. Officers are currently working on the transition to an electric fleet for all vehicles under 3.5 tonnes as part of a four-year programme and exploring options for vehicles over 3.5 tonnes to move away from diesel.
- Developed Low Emission Planning guidance to accompany the Local Plan. This guidance outlines CYC’s design and mitigation expectations for all new developments in the city, including EV charging to assist developers to improve air quality, reduce exposure and lower transport emissions associated with new developments.
- Obtained DEFRA AQ Grant funding (March 2021) to carry out a feasibility study and subsequent pilot scheme (due 2022) to reduce emissions relating to freight deliveries travelling in to and out of York. The initial feasibility work aims to more accurately quantify the emission / air quality impact of freight deliveries in the city and identify suitable sustainable alternatives, utilising low emission modes, including EVs and e-cargo bikes. CYC has engaged with businesses, including delivery companies, on the initial feasibility work and options for a pilot.
- Led a DEFRA funded project to develop an air quality hub, along with Bradford, Lancaster and Mid-Devon councils. The Hub features a range of content areas related to air quality improvement measures that local authorities can adopt, as well as more specific advice notes that focus on various aspects of local air quality management, planning,

monitoring and enforcement. Following the launch at the end of 2020, the membership now covers local authorities across the UK.

- Undertaken promotion of the rules around smoke control areas and issued advice and guidance to residents on the use of appropriate fuels and maintenance of appliances in line with the Government's national Burn Better campaign. In December 2021, Public Protection began a programme of compliance checks across petrol filling stations within CYC's area to ensure that all solid fuels being sold were certified as 'Ready to Burn' in line with the Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020.

Priorities for the Coming Year

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

- **Develop an evidence base in relation to revision of CYC's AQAP** – CYC's next AQAP update will include measures to further reduce nitrogen oxides and particulates from all sources and will support and complement CYC's economic strategy, Local Plan, fourth Local Transport Plan (LTP4) and Climate Change Strategy. We will continue to develop the evidence base for this update throughout 2022/23, taking into account updated DEFRA LAQM policy guidance expected as a result of the Environment Act (2021).
- **Clean Air Zone (CAZ) and Zero Emission Buses** - CYC will continue to work with bus operators to ensure CAZ requirements are met and idling is minimised. We aim for York to become the UK's first city to run all-electric buses. CYC has recently been awarded funding from DfT of £8.4m (ZEBRA scheme) and £17m (Bus Service Improvement Plan) for wider electrification of the urban bus fleet over the next few years.
- **Anti-idling Measures** – CYC will continue to investigate complaints of vehicle idling and promote our 'Kick the Habit' anti-idling campaign.
- **Continue to reduce emissions from taxis** – We will undertake further consultation with the trade regarding updates to our Taxi Licensing Policy. Anticipated changes to the policy will see a gradual change in the operational taxi fleet, as vehicle licenses are renewed. We will continue to roll out our DEFRA funded Low Emission Taxi Grant Scheme to support CYC licensed taxi drivers with vehicle upgrades.
- **Continued delivery of strategic EV charging network** – we will continue to upgrade our existing charging estate in accordance with our

current programme (as outlined in our [EV Charging Strategy](#)). CYC are moving to a new EV charge point management system in 2022 which will provide further information about charging episodes for publicly owned EVs and electric buses. We will also continue to explore options for on-street charging and facilities for charging electric taxis. We will progress the development of a third Hyper Hub site in the city centre.

- **Reduce emissions from new development** – we will ensure development related emissions are appropriately assessed and mitigated in line with CYC and national Low Emission Planning guidance and regulation.
- **Reducing emissions from CYC’s fleet** – by switching from diesel to low and zero emission alternatives wherever practical. CYC aims to replace 153 vehicles from its current fleet during the next three years, reducing CO₂ emissions by a third. To facilitate these changes, CYC will progress electrical infrastructure upgrades at key sites in 2022.
- **Continued modal shift and network improvement measures** – via both the LTP capital programme and i-Travel York sustainable travel programme. This will include delivering initiatives to promote walking, cycling and the use of public transport.
- **Further controls to address fine particulate emissions** – we will consider further opportunities to tackle fine particulate emissions, building on survey work around domestic solid fuel burning undertaken in 2021/22. We will continue compliance checks across key distribution outlets within CYC’s area to ensure that solid fuels being sold are certified as ‘[Ready to Burn](#)’ in line with the [Air Quality \(Domestic Solid Fuels Standards\) \(England\) Regulations 2020](#).
- **Reducing emissions associated with deliveries of light goods** – we will continue to work with partners to evaluate low emission delivery modes that could replace journeys by diesel HGVs/LGVs and progress a pilot ‘micro-consolidation’ scheme using DEFRA air quality grant.

Consultation

34. 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 ASR. However, by considering the report in public at decision session before submission allows public consideration of the report. Upon submission DEFRA will appraise the report and provide written feedback to CYC.

Options

35. The Executive Member is asked to note the contents of this report, including the trends in air pollution in recent years (and the intention to submit the full Annual Status Report to DEFRA), and to approve the proposed works to CYC's monitoring stations outlined in this report
- **Option A** – Note the report (and intention to submit the ASR to DEFRA) and approve the proposed refurbishments to monitoring stations outlined in this report to allow officers to progress works following the competitive tender exercise undertaken in January/February 2022.
 - **Option B** – Note the report (and intention to submit the ASR to DEFRA) and reject the proposed refurbishments to monitoring stations outlined in this report.

Analysis

36. **Option A** (*Note report / ASR submission and approve proposed refurbishments*):
- would allow officers to progress refurbishments to ageing monitoring sites in key locations, utilising existing grant allocated for air quality work;
 - would ensure that monitoring equipment remains fit for purpose, meets current DEFRA standards and can continue to be used for measuring NO_x/NO₂ and PM_{2.5} in real-time at key locations of York for comparison with health-based objectives;
 - would provide greater resilience to the York monitoring network by ensuring future availability of spare parts in the event of equipment malfunction. A comprehensive unlimited parts and labour warranty on all new analysers and enclosures would be provided for the duration of the contract to ensure air quality data is readily available for public dissemination via the [Air Quality England](https://www.airqualityengland.co.uk/local-authority/?la_id=76) https://www.airqualityengland.co.uk/local-authority/?la_id=76 website and for monitoring the impacts of future traffic management measures.
37. **Option B** (*Note report / ASR submission and reject proposed refurbishments*):

- would mean ageing monitoring stations in key areas would not be refurbished and ongoing future maintenance and support of CYC's monitoring equipment would be subject to availability of spare parts (which is not guaranteed and cannot be planned for as existing limited stocks of (mostly second-hand) parts held by suppliers are not used exclusively for CYC equipment and may run out at any time). An increased number of call-outs to attend to faults with old equipment has been apparent in recent years and has taken up considerable additional staff time.
- would mean the stations would not provide data that meets current DEFRA standards for particulate matter. Meeting these standards is important so that data can be reliably compared with new health-based standards introduced through the Environment Act 2021.

Council Plan

38. 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.
39. 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. The Council Plan recognises the importance of a healthy population in achieving the economic aspirations of the city.
40. 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. York's built and natural environment underpins people's quality of life and attracts millions of visitors to the city each year. Protecting and enhancing these environments for existing and future generations is a key priority for the council and our residents. The council has a key role in creating an environment where people make sustainable choices about the way they live and work. CYC has a responsibility to minimise carbon emissions from our activities.

Implications

The various implications of this report are summarised below:

Financial

41. Monitoring station refurbishments will be funded through existing air quality DEFRA grant so there are no direct CYC budget implications. Implementation of existing and future 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, although proposed works would ensure that staff time required for future maintenance visits is minimised. Any request for funding will follow the council's budgetary process.

Human Resources (HR)

42. There are no HR implications

Equalities

43. 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

44. CYC has a statutory duty to periodically review the air quality within its area and to designate an AQMA where air quality objectives are not being achieved or are not likely to be achieved. Once an AQMA has been designated there is a duty to carry out an assessment and prepare an air quality action plan (AQAP). DEFRA have issued statutory guidance to which councils must have regard in exercising these functions. This includes annual reporting on progress with delivery of AQAPs via ASRs.

Crime and Disorder

45. There are no crime and disorder implications

Information Technology (IT)

46. There are no IT implications

Property

47. There are no property implications

Risk Management

48. Reliable air quality monitoring equipment that meets current DEFRA requirements will ensure CYC can monitor air quality against health-based standards and fulfil statutory obligations. It will also ensure CYC's future approach to improving air quality is evidence based, proportionate and targeted, thereby minimising the risk to health.

49. Subject to approval from the Executive Member, refurbishments to air quality monitoring stations outlined in this report will be progressed in line with a management plan agreed with the successful equipment supplier. This plan will consider risk management and address such issues as electrical installation procedures, safe working by the roadside and safe loading / unloading practices for equipment. The agreed plan will also outline proposed arrangements for the safe and lawful disposal of equipment including existing analysers, enclosures and air conditioning units, where applicable.

Contact Details

Author:

Mike Southcombe
Public Protection Manager
Public Protection
Tel No. (01904) 551514

Chief Officer Responsible for the report:

James Gilchrist
James Gilchrist, Director of Transport,
Environment and Planning

Report Date 26/05/2022
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

All CYC's previous Local Air Quality Management Reports are available to
view at <http://jorair.co.uk/data-downloads/reports/>

The full 2022 ASR is available for review at <http://jorair.co.uk/wordpress/wp-content/uploads/2022/05/CYCASR2022DRAFT.pdf>

Annexes - none

List of Abbreviations Used in this Report:

ASR	Annual Status Report
DEFRA	Department of Environment Food and Rural Affairs
DfT	Department for Transport
AQAP3	Third Air Quality Action Plan
AQMA	Air Quality Management Area
CAZ	Clean Air Zone
CYC	City of York Council
$\mu\text{g}/\text{m}^3$	Micrograms per cubic metre
NO_2	Nitrogen dioxide
$\text{PM}_{10}/\text{PM}_{2.5}$	Particulate Matter up to 10 microns / 2.5 microns in size
LES	Low Emission Strategy
LTP	Local Transport Plan
EV	Electric Vehicle