

Appendix 1

Annual Summary of Hull City Council's Air Quality Strategy

November 2021

This Appendix is aimed at providing an overview of the work being carried out by the Authority, and also the further measures being proposed.

It is drawn from the information in tables presented to DEFRA in July 2021 as part of the Annual Status Report (ASR).

1. Achievements

The 2020 Cabinet Report was delayed until March 2021, and the progress on measures presented in this report have been limited due to the impact of the Covid-19 virus. During the on-going pandemic, one achievement is that staff have been working hard to assess the impact on air quality of the changes in travel and working patterns in order to be better placed to advise on other schemes in the future. A summary report on the impact of the Covid situation on air quality is provided in Appendix 2.

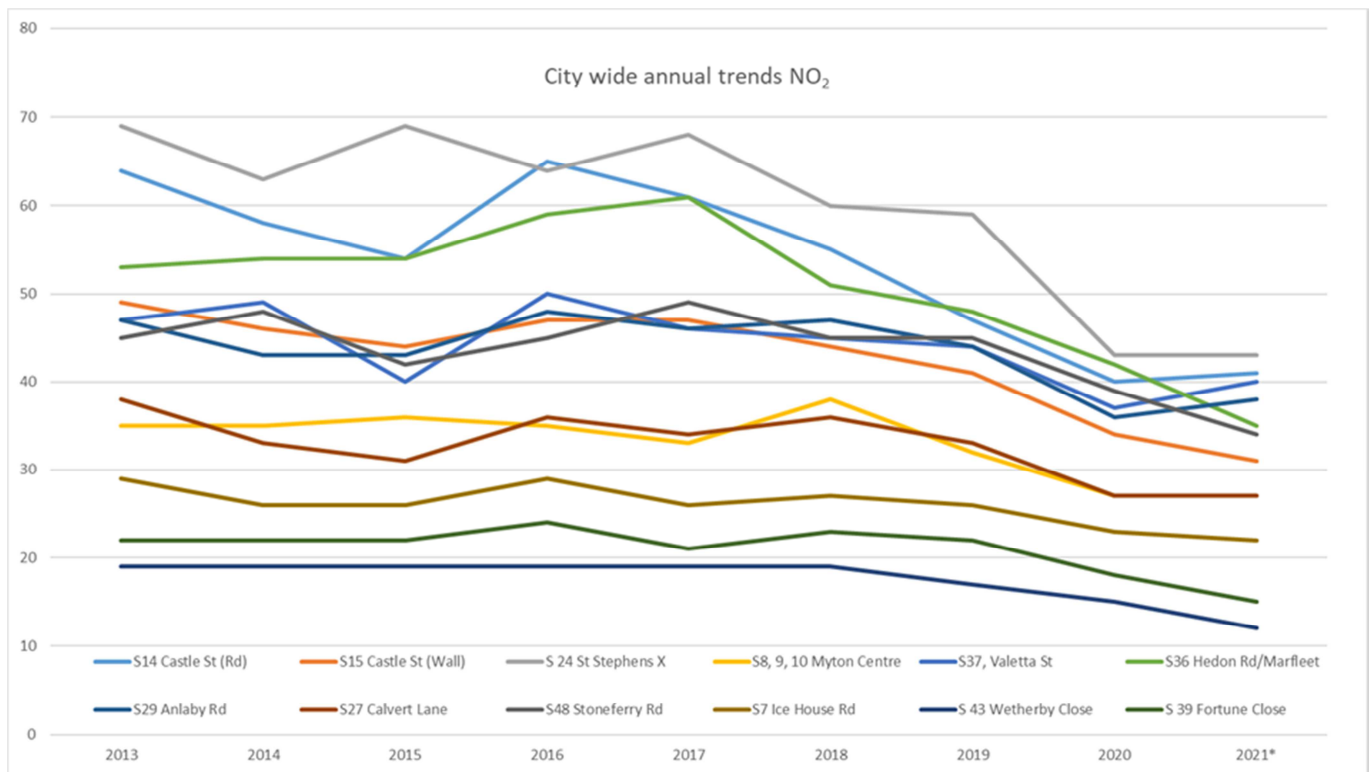
Kingston upon Hull City Council has taken forward a number of direct measures since the last Cabinet report of March 2021 in pursuit of improving local air quality and .in addition to those listed in previous reports, the following measures have been achieved...

- a) The most recent annual status report (ASR) was completed on time and has been submitted for appraisal by independent experts on behalf of DEFRA and we await their findings.
- b) The submitted ASR concludes that air quality in the City is continuing to improve, the one area of exceedance remains near the A63, but it too is improving and is expected to be resolved by the upcoming road improvements. This would leave Hull with no Air Quality Management Areas, which is almost unique for a City of this size. The previous report highlighted potential issues relating to engagement by other Departments with the Air Quality Strategy. A number of meetings have been held, and this is to continue on a regular basis into the future. Agreement has been reached by all concerned on a positive way forward that benefits all parties, and especially members of the public.
- c) The Environmental Regulation Section continue to work with various internal and external partners who are carrying out a feasibility study into the wider use of low-cost analysers to monitor amongst other things Air Quality, including linking them to the various communication systems that operate, such as wifi, LoRaWAN and 4G networks, all linked to the Internet of Things (IoT). These monitors have the potential to highlight air quality issues that may have been missed by the authorities existing monitors and could also have beneficial use for educational purposes. The feasibility study has found

a number of issues / concerns regarding the accuracy of these monitors which are included in the 'issues' section of this summary.

- d) The on-line conference staff attended with colleagues in Antwerp to discuss other opportunities relating to community engagement and the Smart City network is being progressed. This links with other work staff are engaged in with Hull University, where a number of options relating to Citizen Science Projects are being investigated.
- e) Environmental Regulation have submitted a bid for Defra grant funding support an Air Quality Actions Feasibility Study (AQAFS) to be carried out by Ricardo Energy & Environment (Ricardo). More detail is provided in the priorities section of this appendix.
- f) Since the introduction of the Strategy in 2017 concentrations of the primary pollutant nitrogen dioxide (NO₂), in the majority of locations have decreased. This is illustrated by the graph below.

Trends in Annual mean NO₂ concentrations.



*To September, uncorrected.

2. Issues

- a) As per the previous report, the principal challenges and barriers to implementation that officers anticipate facing are that the primary cause of the exceedance is emissions from vehicles using the A63, and this is not within the Control of the Authority. This leaves the Council with potential issues when the major works commence, such as the potential to increase traffic, and therefore emissions, on other roads. Another consequence is that the rest of the areas where people are exposed are below the objectives, which means some future development applications could have the potential to add to a potential creep of background levels, and officers would be limited in their ability to fully minimise that.
- b) Progress on the removal of the exceedance that has resulted in the AQMA has been slower than expected due to it being out of the direct control of the authority, which can only influence and support the measures proposed by National Highways. However, officers anticipate that works to improve the A63 trunk road will result in there no longer being a need for an AQMA.
- c) The increased use of lower cost air quality sensors has the potential for an increase in media interest. In itself this is a positive but there are known issues with the reliability and accuracy of the data produced by these sensors. The use of such technology needs to be balanced against known issues around reliability and accuracy to avoid presenting misleading or inconsistent information.

3. Priorities

- a) To ensure that the existing Action Plan prioritises the most cost-effective actions in the key areas, a bid has been submitted for an Air Quality Actions Feasibility Study (AQAFS). The AQAFS will consider the potential for air quality measures to be introduced in Hull to reduce emissions of nitrogen dioxide (NO₂) and particulate matter (PM₁₀ and PM_{2.5}), with the aim of supporting compliance with the air quality objectives along the A63 Trunk Road, and ongoing improvements in air quality across the city.
- b) The AQAFS will consist of the following steps:
 - Step 1: Creation of a long list of potential measures to target sources of air pollutants in Hull in 2022/2023;
 - Step 2: Screening exercise to identify a short-list of measures for air quality and economic analysis;
 - Step 3: Emissions assessment to assess the impact of the short-listed measures on air quality in Hull in 2022/23;

Step 4: Cost-benefit analysis of short-listed measures; and

Step 5: Preparation of an Air Quality Actions Feasibility Study Report.

- d) A Multi-Criteria Analysis (MCA) will be applied to the long list of measures, considering the likely impact of each measure on:
- Air quality emissions and concentrations;
 - Traffic and congestion;
 - Practicality of implementation and associated timescales; and
 - Political acceptability.
- e) The MCA will be undertaken in close collaboration with key Council stakeholders. The results of the analysis will be presented at a formal meeting to allow full and open discussion and feedback.
- f) We will hold a workshop meeting with key Council stakeholders to present the short list of measures and to agree final assumptions in relation to impacts on traffic and vehicle fleets. We will also discuss opportunities, roles and responsibilities and potential funding routes for the implementation of the shortlisted measures.
- g) The AQAF will qualitatively consider how the options fit with wider local policy, such as Health and Well Being, Climate Change and the Local Transport Plan.
- h) This will aim to provide sufficient, robust evidence to enable the Council to identify and prepare a roadmap for implementing a shortlist of priority air quality actions. The actions will support ongoing air quality improvements across Hull, including reductions in both NO₂ and PM₁₀/PM_{2.5}, and support engagement and awareness raising on air quality issues.
- i) If successful, the AQAFS will commence in March 2022, and is expected to take 16 weeks to complete.