

## ITEM No ...6.....

**REPORT TO:** COMMUNITY SAFETY & PUBLIC PROTECTION COMMITTEE – 7 JUNE 2021

**REPORT ON:** AIR QUALITY UPDATE

**REPORT BY:** EXECUTIVE DIRECTOR OF NEIGHBOURHOOD SERVICES

**REPORT NO:** 165-2021

### **1.0 PURPOSE OF REPORT**

1.1 To provide a summary of the results of the most recent full years (2020) air quality monitoring data and provide an update on the measures linked to the Councils Air Quality Action Plan.

### **2.0 RECOMMENDATIONS**

2.1 It is recommended that Committee note the contents of this report and to:

1. Remit the Executive Director of Neighbourhood Services to continue to take forward the Council's Air Quality Action Plan (AQAP) measures during 2021, and commence a review of these actions for an updated AQAP; and
2. Submit the 2021 Air Quality Annual Progress Report to the Scottish Government and the Scottish Environmental Protection Agency.

### **3.0 FINANCIAL IMPLICATIONS**

3.1 Costs associated with the progression of AQAP measures and LAQM duties are contained within the grant funding allocated to the Council from the Scottish Government, as outline in Section 4.8.

### **4.0 AIR QUALITY UPDATE**

4.1 Reference is made to Article V of the Environmental Services and Sustainability Committee of 20<sup>th</sup> February 2006, which approved the establishment of an Air Quality Management Area (AQMA) in the city and the basis of the necessary air quality monitoring and measures the Council requires to implement to work towards meeting the required air quality standards. As well as meeting the EU/UK National Air Quality Standards (NAQS), for the purposes of Local Air Quality Management (LAQM), local authorities in Scotland are also required to meet the more stringent statutory Scottish Objectives.

4.2 Of the seven NAQS pollutants, there continues to be no anticipated risk of exceeding the statutory objectives for benzene, carbon monoxide, 1,3-butadiene, sulphur dioxide and lead.

4.3 During 2020 continuous monitoring for nitrogen dioxide (NO<sub>2</sub>) took place at six locations in Dundee. These being Broughty Ferry Road, Lochee Road, Mains Loan (background reference monitor), Meadowside, the Seagate, and Whitehall Street. Continuous monitoring of Particulate Matter (PM) took place at 10 locations: Albert Street, Broughty Ferry Road, Lochee Road, Logie Street, Mains Loan (background reference monitor), Meadowside, Myrekirk Terrace, the Stannergate, and Whitehall Street.

4.4 The 2020 ratified monitoring data shows compliance was met for all air quality objectives at all of the locations referred to in 4.3. A table of the 2020 ratified monitoring data results for each of the pollutants monitored at the continuous monitoring locations listed in 4.3 against the Air Quality Objectives for Scotland is contained in Appendix 1.

4.5 The lockdown measures imposed during 2020 in response to the COVID19 pandemic resulted in a dramatic drop in road traffic within Scotland's cities, including Dundee. It is well established that road traffic is the main source of oxides of nitrogen (NO<sub>x</sub>) within cities and therefore measured NO<sub>2</sub> concentrations decreased significantly during the lockdown. The reduced traffic emissions will be the main reason for annual mean NO<sub>2</sub> air quality objectives being met in 2020. The direct impact of the lockdown on particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) cannot be determined with confidence due to reasons such as the secondary nature of particle formation through

chemical reactions of other pollutants; and its transboundary nature, where PM forms and travels over long distances. This means that both the weather and sources from out with the United Kingdom can have a much greater impact on local concentrations than local sources of PM.

- 4.6 Ricardo Energy & Environment, on behalf of the Scottish Government, carried out an analysis of the impact of lockdown measures on ambient air quality across Scotland, and have produced reports for each local authority area including DCC. The analysis focuses on NO<sub>x</sub> / NO<sub>2</sub> from between January 2020 and January 2021. This report can be found on the Scottish Air Quality website at: [www.scottishairquality.scot/assets/documents//Dundee\\_City\\_covid\\_analysis\\_updated.html](http://www.scottishairquality.scot/assets/documents//Dundee_City_covid_analysis_updated.html)  
The report provides analysis of the reductions in pollutant concentrations at the six NO<sub>x</sub> / NO<sub>2</sub> continuous monitoring locations in Dundee (Broughty Ferry Road, Lochee Road, Mains Loan, Meadowside, Seagate and Whitehall Street). The report includes graphs showing the magnitude of changes in monthly and annual average pollutant concentrations.
- 4.7 The Council's Air Quality Action Plan (AQAP) includes a range of measures that continue to be progressed in order to achieve further improvements in air quality across the city. The measures are not focussed on specific locations but in combination contribute to improvements in air quality across the city. A summary of AQAP related measures undertaken during 2020 and proposed measures for 2021 are contained within Appendix 2 of this report.
- 4.8 Funding to help progress some of the proposed AQAP measures during 2021/22 has been obtained through the Scottish Government Air Quality Action Plan grant scheme, with £243,000 being awarded to Dundee City Council. Funding of £45,000 has also been obtained through the Scottish Government Local Air Quality Management scheme for LAQM duties, including for maintenance of the air quality monitoring equipment and undertaking an update of the existing 2011 Air Quality Action Plan. This update is necessary to reflect the improvements made to air quality in Dundee over the 10 years of the plan being in place, identify any areas where new actions may be required, and to align the plan with the forthcoming Low Emission Zone for Dundee and revised Scottish Government Cleaner Air for Scotland strategy. Given the impact of the reduction in NO<sub>x</sub> as a direct result of the lockdown measures, where possible, these factors will be carefully considered in determining future improvement actions.

## **5.0 POLICY IMPLICATIONS**

- 5.1 This report has been subject to an assessment of any impacts on Equality and Diversity, Fairness and Poverty, Environment and Corporate Risk. A copy of the Impact Assessment is available on the Council's website at [www.dundee.gov.uk/iia/reports](http://www.dundee.gov.uk/iia/reports).

## **6.0 CONSULTATIONS**

- 6.1 The Council Management Team were consulted in the preparation of this report and agree with its content.

## **7.0 BACKGROUND PAPERS**

- 7.1 **None**

Elaine Zwirlein  
**Executive Director of Neighbourhood Services**

Tom Stirling  
**Head of Community Safety & Protection**

27 May 2021

## **APPENDICES**

Appendix 1 - 2020 ratified monitoring data results for each of the pollutants monitored at the continuous monitoring locations in Dundee against the Air Quality Objectives for Scotland

Appendix 2 – Content for the 2021 Air Quality Annual Progress Report on measures linked to the Air Quality Action Plan and actions to be progressed during 2021

**Appendix 1: 2020 ratified monitoring data results for each of the pollutants monitored at the continuous monitoring locations in Dundee against the Air Quality Objectives for Scotland)**

Continuous Monitor location	Site type*	NO <sub>2</sub> annual mean (ug/m <sup>3</sup> )	NO <sub>2</sub> hourly mean (# times hourly 200ug/m <sup>3</sup> limit exceeded)	PM <sub>10</sub> annual mean (ug/m <sup>3</sup> )	PM <sub>10</sub> daily mean (# times that 50ug/m <sup>3</sup> daily mean exceeded)	PM <sub>2.5</sub> annual mean (ug/m <sup>3</sup> )
<b>Air Quality Objective<sup>1</sup></b>		<b>40</b>	<b>18</b>	<b>18</b>	<b>7</b>	<b>10</b>
Albert St	K	-	-	13.9	0	-
Broughty Ferry Rd**	UI	19.6	0	8.9 9.7 10.0	0 0 0	4.4
Lochee Rd	R	31.2	0	9.8	0	5.2
Logie St	K	-	-	14.0	0	--
Mains Loan	UB	8.5	0	7.0	0	4.1
Meadowside	R	<b>25.6</b>	0	9.1	0	4.6
Myrekirk Tce	R	-	-	11.0	0	-
Seagate	R	28.5	0	9.6	0	5.0
Stannergate	R	-	-	11.5	0	-
Whitehall St	R	24.0	0	7.9	0	4.3

<sup>1</sup> **Air Quality Objectives (Scotland):** NO<sub>2</sub> annual mean – 40ug/m<sup>3</sup>, NO<sub>2</sub> hourly – 200ug/m<sup>3</sup> not to be exceeded more than 18 times per year, PM<sub>10</sub> annual mean – 18ug/m<sup>3</sup>, PM<sub>10</sub> daily mean – 50ug/m<sup>3</sup> not to be exceeded more than 7 times per year, PM<sub>2.5</sub> annual mean – 10ug/m<sup>3</sup>

\* Site type: K = kerbside, R = roadside, UI = urban industrial, UB = urban background

\*\* The Broughty Ferry Road site includes 3 analysers that monitor PM<sub>10</sub> (FIDAS / OSIRIS / PARTISOL)

**NOTE:** full information on monitoring results in respect to type of analyser, % data capture, annualised results, and 99.8<sup>th</sup> percentiles will be available in Appendix 1 of the 2021 Air Quality Annual Progress Report for Dundee City Council.

## **Appendix 2: Content for the 2021 Air Quality Annual Progress Report on measures linked to the Air Quality Action Plan and actions to be progressed during 2021.**

Dundee City Council has taken forward a number of measures linked to our AQAP during the current reporting year of 2020 in pursuit of improving local air quality.

Key action measures undertaken in 2020 included:

- The ECO Stars schemes for larger commercial vehicles and for taxi / private hire vehicles continued during 2020. There was a 14% increase in the number of members to the Dundee ECO Stars larger commercial vehicles scheme, with 215 members (7793 vehicles) signed up by the end of 2020. The ECO Stars scheme for taxis/private hire vehicles increased its membership to 18 operators (575 vehicles) during 2020.
- The Drive Dundee Electric campaign continued its successful engagement with current and potential electric vehicle (EV) owners (both in public and business) through the local media in the form of EV related articles encouraging people to make the switch to EV.
- The continued promotion of EV vehicles and assistance to those who choose to switch to EV has helped result in there now being 161 pure electric taxis in Dundee, up from 97 at the end of 2019.
- DCC continued with the electrification of its fleet with number of electric vehicles increasing by 38 during 2020. There are now 154 electric vehicles in the fleet which includes two electric mini buses, one large electric road sweeper, and two electric refuse collection vehicles (named 'Bin Diesel' and 'Leonardo de Chargio') introduced in 2020.
- The new EV charging hub at the Olympia carpark was installed in March 2020 however the opening of the hub was delayed due to the pandemic. A Heavy Goods Vehicle charging hub was installed at the DCC Marchbanks depot.
- Despite the limitations caused by the pandemic, the Dundee School Active Travel programme was able to engage with 250 pupils from six primary schools to certify across Level 1 & 2 of the Bikeability scheme.
- 'Clean Air Day 2020' was postponed from its usual June date in 2020 due to the pandemic, with this being promoted via social media channels on the rescheduled date of 8 October 2020.
- Projects under the Spaces for People scheme were implemented across Dundee during 2020, including the closure of Union Street in the city centre to through traffic, the introduction of 20mph zones, and modal filters to encourage active travel and create more space for social distancing.
- The construction of the Active Travel Hub at the Dundee Waterfront progressed. Angus Cycle Hub have been identified as the operator of the hub and have already started to provide active travel services in Dundee. The Active Travel Hub is due to be opened to the public in mid-2021.
- The 'Embark Dundee' electric bicycle hire scheme' was launched in December 2020 by Ride-On, with 14 docking stations and 130 e-bikes being included in the initial phase. The aim is to have more than 40 docking stations installed by the end of 2021.
- Further progression was made with the development of the Dundee LEZ, with traffic modelling assessments of potential LEZ scenarios carried out. Due to the pandemic, the introduction date for LEZs in Scotland was agreed by Scottish Minister to be delayed to February – May 2022.
- Traffic modelling of potential road infrastructure improvements and active travel schemes on the Lochee Road corridor that would reduce congestion and help improve air quality commenced during 2020.

Air Quality Action Plan linked measures to be progressed over the course of the next reporting year include:

- Drive Dundee Electric will continue to help raise awareness and encourage uptake of low emission vehicles at various events throughout the year. This will include showcase events in the lead up to COP26 in November 2021.

- A continued expansion of the infrastructure to support uptake of ULEV as well as continued free parking for pure EV vehicles in the multi-storey car parks of the Olympia, Greenmarket, Bell Street and Gellatly Street.
- DCC will continue with improvements to its fleet with a further four electric refuse collection vehicles, one small electric sweeper, and at least 11 electric vans and 14 electric cars to be added during 2021. New EV charging infrastructure is planned to be installed at 12 DCC depot sites to help make them viable for EVs.
- The Innovate UK pop-up charger pilot project is to be operational in summer 2021, with the first pop-up hub to be opened at the Waterfront site next to the V&A Dundee.
- Continuation of both ECOSTARS Schemes for Heavy Duty Vehicles and Taxis / Private Hire vehicles to encourage engagement with and participation of these transport providers in the achievement of air quality improvements in the city.
- Continued support for Active Travel related projects including the delivery of the School Active Travel Delivery programme, the embedding of the Sustrans Cycling Strategy Officer within City Development
- The new Active Travel Hub at the Waterfront is due to open in mid-2021 with the operator, Angus Cycle Hub to provide active travel services to residents and visitors to Dundee.
- The Embark Dundee e-bike hire scheme is to be expanded to make 40 docking stations available by the end of 2021, including locations in the city with higher levels of pollution and health inequality.
- The development of the Dundee LEZ will progress in line with guidance provided in the National Low Emission Framework and the LEZ Regulations. DCC will be represented in all the tiers of governance set up to deliver the LEZ in Scotland.
- Development of detailed options for road infrastructure improvements which will consider active travel and public transport on the Lochee Road corridor that would reduce congestion and improve air quality will be undertaken in 2021.
- A review and update of the existing 2011 Air Quality Action Plan to reflect the improvements made to air quality in Dundee over the 10 years of the plan being in place, identify any areas where new actions are required, and to align the plan with the forthcoming Dundee LEZ and revised Scottish Government Cleaner Air for Scotland strategy. Given the impact of the reduction in NO<sub>x</sub> as a direct result of the lockdown measures, where possible, these factors will be carefully considered in determining future improvement actions.