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## **Place Scrutiny Committee – 19<sup>th</sup> November 2020**

### **Report of the Director of Public Health & Well Being**

#### **Air Quality Monitoring in Dudley Borough**

##### **Purpose**

1. To update the Committee on the current position with respect to Air Quality monitoring within Dudley Borough and compliance with the National Objectives for Air Quality.

##### **Recommendations**

2. It is recommended that the Committee: -
  - Note the current position with respect to air quality and air quality monitoring within Dudley Metropolitan Borough.
  - Support the continuation of air quality monitoring to show the general improvement in air quality across the Dudley Borough.
  - Support enhanced air quality monitoring at locations where poor air quality is suspected and to demonstrate that measures to improve air quality have been successful.
  - To endorse the measures being undertaken to improve air quality as detailed in this report.

##### **Background**

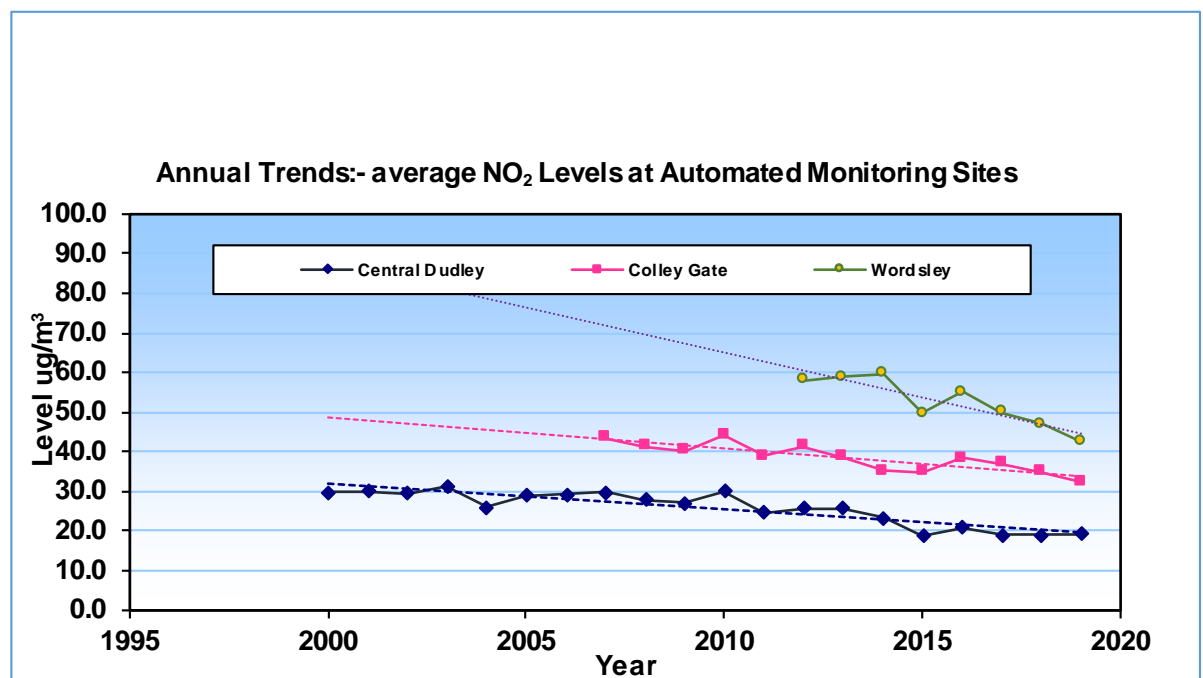
3. In 2007 Dudley Metropolitan Borough Council declared the whole borough as an Air Quality Management Area due to a number of exceedances of the nitrogen dioxide (NO<sub>2</sub>) annual mean objective. No other air pollutants exceeded national air quality objectives and the Dudley Borough has continued to meet objectives, with the exception of NO<sub>2</sub>. NO<sub>2</sub> is predominantly generated by the internal combustion engines of road vehicles.
4. The other pollutant which is routinely measured in the ambient air in Dudley Borough is Particulate Matter, both in 10-micron diameter (PM<sub>10</sub>) and 2.5-micron diameter (PM<sub>2.5</sub>) particle sizes.

5. Air quality monitoring provisions at Dudley MBC

Dudley MBC (DMBC) maintains 54 diffusion tubes monitoring nitrogen dioxide at 45 separate sites; including a new set of tubes near a pedestrian crossing on Duncan Edwards Way, and a new single tube near the pedestrian bridge over Duncan Edwards Way.

6. DMBC continues to operate three automatic monitoring stations;

- **Central Dudley, St James's Road** - monitoring NO<sub>2</sub> and PM<sub>10</sub>. This station has been operational since 1999, it was relocated in 2015 to the rear of 3-5 St James's Road. It is classified as an urban background site and data from this site is representative of typical exposure levels found in urban centres away from main roads.
- **Colley Gate, Cradley** - monitoring NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>. This roadside monitoring station has been operational since 2006, it monitors roadside pollution levels from the footpath in Colley Gate.
- **Wordsley, High Street** - monitoring NO<sub>2</sub>. This roadside monitoring station has been operational since April 2011 and monitors roadside pollution levels of nitrogen dioxide in a location which has significant standing traffic during peak periods. See graphed data for all three stations below.



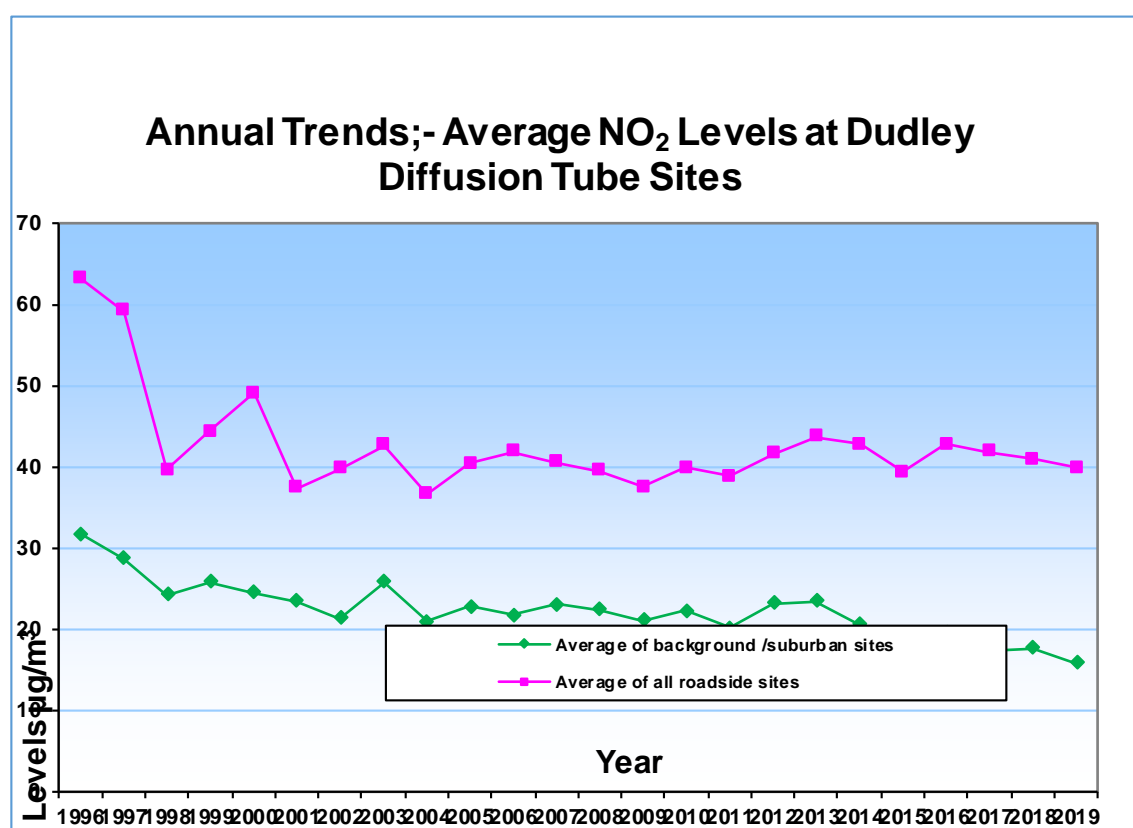
7. Monitoring results for year end 2019

The results of air quality monitoring show a gradual downward trend year on year, this trend continued in 2019. In 2018 nine areas of exceedance were identified within Dudley Borough. Monitoring in 2019 shows this number has fallen to six areas of exceedance. All six of these current areas of exceedance show a

reduction in NO<sub>2</sub> from the previous year and are therefore all improving. The six areas are listed in the table below.

| Location                        | Maximum annual average NO <sub>2</sub> measurement to end of 2019 |
|---------------------------------|---|
| Halesowen Road, Netherton       | 68.65 ug/m <sup>3</sup>   |
| High Street, Wordsley           | 48.96 ug/m <sup>3</sup>   |
| High Street, Quarry Bank        | 50.38 ug/m <sup>3</sup>   |
| Birmingham Road, Dudley         | 43.58 ug/m <sup>3</sup>   |
| Windmill Hill, Cradley          | 42.60 ug/m <sup>3</sup>   |
| Hall Street, Dudley             | 40.19 ug/m <sup>3</sup>   |
| <b>National Objective level</b> | <b>40.00 ug/m<sup>3</sup></b>                                     |

The graph below shows the average of all NO<sub>2</sub> diffusion tube results across the Borough and differentiates between the roadside locations which are remaining higher for longer than the background sites, which is reflected in the above list.



#### 8. Actions to improve air quality

The Environmental Health service works closely with Development Management to ensure that appropriate air quality improvements are required by condition on planning application approvals. This includes standard conditions on all approvals for new accommodation with respect to electric vehicle charging points and extra

efficient boilers which produce low NO<sub>2</sub> emission concentrations. Guidance on air quality & regeneration has been published and adopted by all Seven West Midlands Metropolitan Boroughs, while an Air Quality Supplementary Planning Document (SPD) has been adopted by the four Black Country Metropolitan Borough Councils. Dudley took the lead role in producing this document.

#### 9. Use of Grant Aid for Air Quality Improvements

The Environmental Health service has been active and successful in applying for government grants to fund air quality improvement projects. The projects implemented to date are listed below;

- UK Government's Clean Vehicle Technology Fund, to enable ten coaches operated by Prospect Coaches of Lye to be modified with the latest pollution reducing equipment. The modified coaches are those used to transport children and students around Dudley Borough and so add to emissions in areas of concern and in the vicinity of schools and colleges.
- Defra's Air Quality Grant Programme to upgrade two cycle and pedestrian links across the A458 in Cradley.
- An anti-idling project funded by Defra to raise awareness at schools and provide information on Dudley Council's web site to reduce the idling of car engines outside schools.
- Government grant funding in 2019/20 to upgrade several sets of traffic lights to optimise signal changes and improvements to pedestrian crossings on Duncan Edwards Way, Dudley. In addition, road layout changes and signalisation work in Wordsley which was completed in March 2020 and the funding to retrofit catalytic converters or assist to replace older buses operating on services in Dudley and Wordsley, to be completed by the end of December 2020.

#### 10. Working with Highways Engineers at Dudley MBC

The air quality measurements made by Environmental Health are supplied to colleagues working in Highways to inform them of the current air quality issues at locations where highway improvements are planned. This partnership working helps to focus resources on the locations where both transport and air quality improvements are required. The provision of air quality data to Highways Officers has assisted improvements to include;

- The provision and improvement of cycle and walking routes around the Dudley Borough.
- A growing network of electric vehicle charging points at public and private facilities.
- Improved provision of passenger information at key bus / rail interchanges, including improvements made to Merry Hill bus station in Brierley Hill.
- Air quality data is also being used to support the provision of the Midland Metro extension project to link Brierley Hill, through Dudley to Wednesbury.

## 11. Summary

Monitoring carried out has demonstrated that Air quality in Dudley Borough is continually improving, but there are still several areas where air quality needs to be further improved.

- 12. Air quality data collected and processed is used to inform projects and the ongoing work undertaken in Transport Services and Development Management to ensure that the best outcome for air quality improvements is achieved.
- 13. Continued and where necessary enhanced air quality monitoring will enable future resources to be focused on actions to progress the improvement in air quality across the whole Dudley Borough to achieve compliance with National Objectives as soon as possible.

## Finance

- 14. Air Quality work is largely undertaken by 1.0 FTE officer with management support and located within the Environmental Safety and Health Team in Environmental Health and Trading Standards. The post is funded through the base budget.
- 15. In addition, there is an annual budget of £14,600 which funds the consumables, maintenance and repair of the air quality monitoring systems. This includes the contracts to service the equipment and purchase of the NO2 diffusion tubes.
- 16. All of the physical improvements to either highways or other infrastructure and other initiatives such as educational projects are undertaken when grant funding is successfully obtained. This is normally from Central Government, but funding has also been provided from Public Health reserves in the past.

## Law

- 17. Dudley Council has a statutory duty under the provisions of the Environment Act 1995 to undertake air quality monitoring and where National Objectives for air quality are being, or likely to be, exceeded an Air Quality Management Area must be declared.
- 18. Once an Air Quality Management Area has been declared, section 84 of the Environment Act 1995 requires that Local Authority to publish an Air Quality Action Plan detailing the steps to be undertaken to achieve the National Air Quality Objectives.

## Equality Impact

- 19. Improvement of air quality benefits all residents of the Dudley Borough. However there is a correlation between poorer air quality and health inequalities as areas with highest traffic pollutants largely correspond to more deprived areas within the Borough. This is because both areas are normally associated with dense urban



habitation rather than suburbs and semi-rural areas of habitation. Therefore, improvements in air quality are likely to be more advantageous to the residents of Dudley Borough who experience the highest level of inequality.

### **Human Resources/Organisational Development**

20. There are no HR/organisational development implications arising from this report.

### **Commercial/Procurement**

21. There are no commercial implications associated with this report. There are several contracts in place to enable the air quality service provision, they include a service, maintenance and calibration contract for the Air Quality Monitoring Stations (AQMS), a contract for the supply of the NO2 diffusion tubes and analysis of the data and a contract for data from the AQMS analysers to be collected and collated for Dudley Council. The appropriate contract procurement procedures are followed and compliance with Contract Standing Orders and Dudley MBC Financial Regulations are adhered to.

### **Health, Wellbeing and Safety**

22. 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 and older people, and those with heart and lung conditions. The continued and where necessary enhanced monitoring and reporting of air quality will have a positive impact on the health, wellbeing and safety of the Borough's residents. Use of air quality data to recommend enhanced requirements for new residential developments and to assist highways engineers in determining highway improvement schemes that will also provide the most effective improvement in air quality benefits the current and future regeneration of the Borough.



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Background Documents:  
Air Quality pages on the council's website  
<https://www.dudley.gov.uk/business/environmental-health/pollution-control/air-quality/>