

## **SCRUTINY REVIEW PANEL 3 – AIR QUALITY MINUTES**

**Thursday 14 February 2019**

**PRESENT:** Councillors: Anthony Young (Chair), Munir Ahmed (substitute for Paul Driscoll), Gary Busuttil, Linda Burke, Karanvir Dhadwal, Kate Crawford (Vice-Chair), Abdullah Gulaid, Kamaljit Kaur Nagpal, Swaran Padda (substitute for Kamaldeep Sahota).

**Other Members Present:**

**LBE Officers Present:**

Harjeet Bains	Scrutiny Review Officer
Nicky Batkin	Senior School Travel Advisor
Mwim Chellah	Democratic Services Officer
Alison Forde	Head of Property Regulation, Planning Enforcement and Environment, LBE
John Freeman	Regulatory Services Officer, LBE
Holly Robinson	Regulatory Services officer, LBE
Paula Portas	Democratic Services Officer

**Others:**

Dr Ian Mudway	Senior Lecturer in Respiratory Toxicology, King's College London
Mrs Katie Tramoni	Headteacher of Christ the Saviour, Church of England Primary School
Dr Ben Sherliker	Parent from Christ the Saviour, Church of England Primary School

### **1. Apologies for Absence** (Agenda Item 1)

Apologies were received from Cllr Paul Driscoll (substituted by Cllr Munir Ahmed), Cllr Kamaldeep Sahota (substituted by Cllr Swaran Padda), Dr Esther Kwong and by the Headteachers of Ark Byron Primary School and Ark Priory Primary Academy.

### **2. Declarations of Interest** (Agenda Item 2)

There were none.

**3. Matters to be Considered in Private**

(Agenda Item 3)

There were none.

**4. Minutes of the Meeting Held on 22 November 2018.**

(Agenda Item 4)

**Resolved:** That the minutes of the meeting of the Panel held on 22 November 2018 be agreed as a true and correct record.

**5. Air Pollution and Children**

(Agenda Item 5)

The Chair welcomed John Freeman, Regulatory Services Officer, to introduce the report on Air Pollution and Children.

John Freeman said that Children were at a greater risk than adults from the negative health effects of air pollution; this was due to a combination of their environment, physical development and how they acted socially. Children were uniquely vulnerable to air pollution, especially during their foetal development in the womb and in their earliest years. The function of vital organs such as lungs, hearts and brain were still maturing throughout childhood. Poorer function of these organs could lead to risks of developing disease and ill-health later in life. Children breathed faster than adults, taking in more air and, with it, more pollutants. They stayed closer to the ground, where some pollutants reach peak concentrations. They tended to spend more time outside, playing and engaging in physical activity in potentially polluted air. Even small impacts on the normal development of organs to an individual child could have marked changes on many in a population, and those that would develop diseases as a result.

A graphic presented from a 2016 report by the Royal College of Physicians, showed that a foetus exposed to air pollution in the womb had a risk of developing a smaller head and lower birth weight. Toddlers exposed to vehicle exhaust and industrial emissions risked having developmental problems, more wheezing and coughs. Children exposed to outdoor pollution showed slower development of lung function, asthma and start of atherosclerosis.

Small damages to lung function and other organs in individuals may not cause them to have a disease. However, a number of cases in a population followed a normal distribution around the average; exposure to air pollution shifted the population average downwards and resulted in more people in the population having low enough lung function to cause disease.

There was compelling evidence that exposure to air pollution damaged the health of children in many ways. Health effects of air pollution included adverse birth outcomes, increased risk of infant mortality, neurodevelopmental disorders, childhood obesity, lung function and development, respiratory infections, asthma, middle ear infections and childhood cancers.

The Public Health Team was exploring the option of reviewing evidence and analysing the health needs as a part of a new Joint Strategic Needs Assessment (JSNA) for 2019, with the aim of incorporating an updated evidence base to inform the recommendations of the Council's wider air quality action plan and future aspirations. There was a need to address the sources of air pollution and to take action to reduce exposure in children and adults.

It was estimated that 25% of primary schools in London were in areas with dangerous levels of air pollution. As a response, the Mayor of London had launched the Air Quality Audit programme in 2017. It provided funding for fifty 'air quality audits' that identified hard-hitting measures to protect pupils locally from toxic air. The primary schools selected were in areas exceeding legal limits of nitrogen dioxide (NO<sub>2</sub>) in different London boroughs. Under the scheme, each school was set to receive a detailed audit, carried out by an experienced transport and environment consultancy, which reviewed ways to lower emissions and exposure to pollution in and around the school. The audits highlighted key interventions to reduce exposure and run alongside a pollution awareness-raising education programme at each school. It aimed to help boroughs reduce primary school children's exposure to poor air quality at those sites, which could be delivered as part of the boroughs' Local Implementation Plan (LIP) funding schemes, as well as other sources of funding such as Clinical Commissioning Groups, local businesses and charitable trusts. Ark Byron Primary Academy in Acton and Christ the Saviour Church of England Primary School in Ealing were the two Ealing schools selected to participate in the scheme. Their audits had been published and the schools had been asked to devise action plans to implement the recommendations.

John Freeman noted also that measures to promote idling awareness and behaviour change in parents and carers who transported children to school by car were also part of the range of measures needed to improve air quality at school entrances. The Council's concession to not enforce civil penalties for parking, the so-called 'period of grace' for parents when dropping and collecting children from schools, which had intended to promote safety but unintentionally allowed idling near schools, was now being withdrawn.

Nicky Batkin, Senior School Travel Advisor, said that the school travel programme aimed to reduce car use, improve road safety and increase sustainable modes of travel. Those measures were expected to lead to reduced congestion and bring improvements for local air quality and the health and well-being of the community.

The school travel programme was primarily funded via Transport for London (TfL) LIP grant. The funding was used to employ School Travel Advisors (STAs), adopt School Travel Plans (STPs), deliver school travel behaviour change projects and road safety engineering.

The School Travel Team comprised two full time STAs and one newly appointed part time Active Travel Officer. The team's role was to provide support and guidance to 140 schools, nurseries and children's centres in the Borough, to enable them to promote and enable safe, active and healthy travel on the school journey. They facilitated, and project managed, behaviour change initiatives that contributed to more sustainable, safe and active journeys.

Given the current and future scale of school provision in Ealing, officers had implemented a prioritised list of schools to target resources more effectively. The Priority List focused on 22 schools, selected using criteria including data on number of obesity/overweight pupils in Reception and Year 6; areas of multiple deprivation; air quality focus areas; pedestrian/cycle casualties and parking issues. The School Travel Advisors continued to support all schools, but resources (paid-for services) would concentrate on these priority schools.

The TfL Sustainable Travel Active Responsible and Safe (STARS) accreditation scheme had been designed to provide the whole school community with skills and resources to inspire young people to travel sustainably, actively, responsibly and safely. It engaged and empowered pupils to participate in active travel behaviour; cycling, walking and scooting and using public transport. Schools recorded and monitored sustainable travel activities on STARS to develop a school travel plan and achieve accreditation. In August 2018, 35 schools had achieved accreditation at Bronze, Silver or Gold level. To meet predicted demand, the school travel team encouraged schools to be more self-sufficient by offering a range of suggestions on how schools could deal with issues themselves before contacting the Council. For instance, by running the Perfect Parking Campaign and training school staff to deliver curriculum-based balance bike sessions. The campaign encouraged behavioural change and aimed to get children on board, helping them understand why they should not want parents to drive them to school. Future plans included undertaking research for the implementation of the 'School Street' initiative, a scheme to transform roads outside schools, so that only pedestrians and cyclists can use them at school start and finish times.

The Chair thanked officers for the presentations and invited Panel Members to comment and ask questions.

Questions and comments:

Panel members:

- Queried how the school priority list worked and what could be done to encourage wider school participation.

Heard that staff in the School Travel Team encouraged all schools to work with the Council and to find sustainable ways for them to travel. Some schools did not have accreditation because they were not working with the Council yet. Councillors could help reaching out to those schools with which they had links if they were not working with the Travel Team. Working with the Council on this was not compulsory. Schools had resources available at their disposal free of charge on Ealing Grid for Learning.

- Asked what involvement had the Highways Department in reviewing and advising on Construction Management Plans (CMPs) and collaboration with the planning system.

Heard that the team were not involved in the reviewing of CMPs so far, but that they planned to be involved in the future.

- Enquired about the implementation of the 'School Street' scheme.

Heard that part of the criteria to be considered for the scheme was to be accredited. Schools must work with the Council to be considered. Research on implementing the scheme was still in progress.

- Queried what powers of compliance, if any, the team had to engage schools.

Heard that the School Travel Team had no such powers. Cooperation was voluntary on the part of Schools. All schools in Acton were currently involved in a pilot scheme to remove the idling concession for parents.

- Asked what help and resources were available for early years/nursery children centres.

Heard that the team worked with all education providers, including early years, nurseries and children centres.

- Queried parents' view on the end of the period of grace around parking.

Heard from Katie Trameni, Headteacher of Christ the Saviour Primary School, that ideally the number of parking permits would be reduced rather than stopped altogether. Many pupils came from a relative distance and parents drove them to school. The period of grace had been established from a safety point of view and to avoid having cars stopping right at the school's front gate. Decisions ought to be made together with parents. The school encouraged parents to car-share and to drive each other's children to school.

- Queried whether it would be feasible to reduce the number of lorries driving around school areas.

Heard that such an initiative would be difficult to manage but it was being considered and researched. The team would not encourage parents to walk to school if it meant going through industrial/garage areas.

- Asked what went wrong with the cycle training scheme.

Heard that the company providing the training had gone into liquidation. They had been unable to offer the cycle training scheme to anyone since October 2018. The Council had to wait until the company was liquidated before initiating the procurement of a new contract. The present contract was due to end at the end of March 2019. Ealing Council's legal team had advised that procurement should start in April 2019. The cycle training programme was

expected to start again in September 2019. This service was offered to schools free of charge.

The Chair welcomed Dr Ian Mudway, Senior Lecturer in Respiratory Toxicology at King's College London, to make a presentation on air pollution in London and its impact on children's health.

Dr Mudway made some initial observations. He noted that the figure presented earlier had been quoted from a report by the Royal College of Physicians published in 2016. The science in that report was older, up to 2014. Hence, the report findings were already five years out of date and the science and results around air pollution and children's health were now more advanced. He also observed that the diagram quoted showed lung function in a population, a measure used as proxy for length and quality of life. Delayed lung development in childhood meant already a poor trajectory for the rest of the individual's life. The costs of these changes in population trends for the NHS were massive.

Dr Mudway explained that air pollution had changed over time, distinguishing three different epochs:

- Soot: 1940-1950s, the main pollutant being sulphur dioxide from coal burning. The Clean Air Act 1956 marked a change into the next epoch.
- Lead: 1960s-1980s, lead, the main pollutant being carbon monoxide also mainly from industry sources. Lead in fuel was restricted in 1998, marking the step into the third epoch.
- Particulates: 1980s-2000s, the main pollutants being nitrogen dioxide from a range of sources, but mainly car pollution.

The impact that these types of air pollution had on children's health had been well documented over time and it was not new. It was known that smog had been a cause of death affecting mainly two groups, the elderly (counted as those over 45 years of age) and babies under 1 year of age. The impact on children's cognitive development had been known for years. What had now changed was that the information and the debate was percolating to society at large.

This change had been achieved partly with the publication of a report in 2010 by the Committee on the Medical Effects of Air Pollution. The report had been widely misquoted over time because it was not easy to condense the information on air pollution into a single aggregate number of deaths. The report noted that because of Air Pollution the:

- UK population lost 340,000 years of life in 2008; or
- 29,000 deaths; or
- The average loss of life would have been two years (with different individuals differently affected)
- Experienced loss of life expectancy from birth of 6 months.

The report also showed some short-term effects of air pollution, yet smaller than the long-term effects. It demonstrated that air pollution not just accelerated disease, but that it caused it.

The reason why air pollution was bad for human health was that it induced inflammation of the lungs. In an experiment carried out with Finnish students where they were exposed to diesel fumes – PM<sub>10</sub> 300µg/m<sup>3</sup> and filtered air for 1 hour and 100µg/m<sup>3</sup> and filtered air for 2 hours — in a controlled environment to the equivalent of typical London street exposure to air pollution, it had been found that low level inflammation had already occurred. The experiment showed a negative impact of fumes on neutrophils, white blood cells that lead the immune system's response, causing inflammation. Just walking along the street and breathing pollutants from diesel would cause this inflammation. Children were more sensitive than adults because they have smaller lungs, and breathe higher doses of pollutants, relative to their size, faster.

The impacts of air pollution across the life course of a person ranged from low birth weight, smaller lungs and possibly lower cognitive ability in childhood, to increased risk of chronic disease and acute respiratory exacerbations in adulthood to acute and chronic premature death and dementia for the elderly. There was increasing evidence that children living near to roads with elevated levels of toxins exhibited lower reasoning capacity. Studies also showed that poor air quality was associated with mental health problems, particularly in children and teenagers. Air pollution also increased the risk of contracting viral and bacterial infections, with a consequential impact on work absenteeism.

Ealing was not the London borough worst affected by air pollution. Other boroughs, such as Tower Hamlets and Hackney, where air pollution levels were high, were also boroughs with low rates of car ownership and high rates of childhood deprivation. In a study published in the Lancet journal in 2014 researchers found that, despite the capital's first low emission zone introduced a decade ago, 2,000 primary school children living in these highly polluted areas of London showed a loss of approximately 5 per cent in lung capacity. These children (and adults) there were breathing air polluted by others and suffering the consequences.

Whilst the maps in air pollution in London boroughs showed that many areas were above the EU limit, this limit was an arbitrary measure. The World Health Organisation (WHO) stated that there was no safe level of PM<sub>2.5</sub> and that the safe level for human health of PM<sub>10</sub> was below the EU limit. This meant that even parts now mapped as having lower levels of air pollution in blue colour, would turn yellow (unsafe) if WHO standards were the measure used.

What all the above demonstrated was that air pollution was a problem that could not be dealt with at local or even city level. It needed to be resolved at national and international levels. Yet it was not all 'doom and gloom'. Measures, in the form of

regulation, could be taken to improve air quality. Regulation, rather than persuasion, had been shown to be the successful mechanism to deal with these kinds of problems. It had been used successfully in California and in China. Whilst tighter regulations were often opposed by industry/car manufactures and other stakeholders, the opposition had been shown to not last long as actors adapted to new circumstances.

A new Ultra Low Emission Zone was going to be implemented in London from April 2019. Research had been commissioned to see whether it would contribute to an improvement to children's lungs. Some of the latest research was already looking at epigenetic changes brought about by air pollution. The research commissioned, and funded by research councils, had a cost of £2 million. Local authorities should work together with the scientific community to fund and carry out research projects and estate-of-the-art local plans.

The Chair thanked Dr Mudway for his presentations and invited Panel Members to comment and ask questions.

Questions and comments:

Panel members:

- Asked about the consequences of maternal exposure to air pollution.  
Heard that maternal exposure had been linked to low birth weight in the final trimester of the pregnancy. Yet carbon particulates from diesel had been found present in placentas. Chemicals associated with diesel appeared in DNA.
- Queried what rate of premature births could be seen already in inner London boroughs.  
Heard that rates of premature births were higher than expected, by comparison with average rates over time. Cigarette smoking had a worse impact, but it only affected those who smoked. Air pollution tended to produce hidden damages, but across an entire population. Moreover, cost evaluation generally did not account for increased costs on paediatric, mental health or dementia care. Whilst people understood hidden or invisible risks - such as those produced by viruses or bacteria - it was more difficult to grasp risks when the effects were often displaced in time and visible mostly at aggregate level.
- Asked about the consequences of breaching EU legal limits in air pollution.  
Heard that the UK had been taken to court twice in respect of the breaches and that the EU was about to impose fines on the UK in this regard. The German state had been taken to court successfully by an individual about the right to clean air.

The Chair welcomed Mrs Katie Tramoni and Dr Ben Sherliker, Headteacher and parent of Christ the Saviour Primary School, to talk about the experience of the school community.

Dr Sherliker said that the School had been part of the Mayor's air quality audit as it was one of the worst polluted school sites in London. The results of the audit showed nitrogen dioxide levels above legal limit and provided numerous recommendations to improve air quality. He, as a concerned parent at the school, had worked with Mrs Tramoni to monitor air pollution. Whilst he was a scientist, he noted that he was not an environmental expert. Air pollution (especially NO<sub>x</sub> and particulate matter) was linked with asthma, lung damage and lower IQ in children. NO<sub>x</sub> was hard to measure and filter – PM was easier to measure and filter. A problem with the audit was that it did not provide much localised data and was based on extrapolated data collected in 2013. Localised and recent data was needed, so monitoring and filtering equipment was used at the school: NO<sub>2</sub> diffusion tubes, IQ Air Visual monitor measuring PM<sub>2.5</sub> and CO<sub>2</sub>. An air filter was installed but the school's Broadway site already had classroom filters. The particulate (PM<sub>2.5</sub>) measurement map showed that results were high but typically below the legal limit. The NO<sub>2</sub> results showed that the Broadway playground was over the air pollution limit.

Actions needed to improve the air quality in the site included:

- Replacing buses with hybrids / electric / euro 6
- Establishing a Clean Air Zone near school
- Using a green screen at the Broadway.
- Preventing idling at bus stops/traffic lights with large signs
- CPZ charges are good to reduce diesel
- Filters in classrooms
- Reduce/redirect lorries /buses away from Springbridge Road if possible.
- Lobbying to speed up Crossrail and improve public transport to reduce parents driving.
- Encouraging lift sharing/bikes, educate parents, designate best walking routes.

Mrs Tremoni said that air pollution had been a big concern for the school since February 2017. The school was among the fifty schools located in the worst sites for air pollution in London. The school community had been alarmed about this fact and the problem had been high up in the school's management agenda. The audit had provided some recommendations and the school had actioned some of those, specially the less costly ones. The school had installed air filtration units, limited deliveries brought on site, restricted all building work to holiday periods, engaged in cycle training, and 'green for life' plans (indoor plants). The school was also encouraging behavioural change and a raised understanding of the problem by pupils. However, schools were busy places and tackling the air pollution problem could not be the responsibility of Headteachers and educational community.

The Chair thanked Dr Sherliker and Mrs Tramoni for their presentations and invited Panel Members to comment and ask questions.

Questions and comments:

Panel members:

- Asked whether Christ the Saviour was part of a network of schools that could share information and good practice on air pollution.  
Heard that the school had links with schools in Acton.
- Queried what should be the borough's top priority from the perspective of the school.  
Heard that local authority help with cycle and pedestrian training and teaching safety to children was helpful. It was noted that it could be easier to get some families walking to school than cycling. Also, looking into modifying bus routes and renovating the fleet with a modern less polluting fleet.

**Resolved:** That the report on Air Pollution and Children be received.

## 6. Bonfires

(Agenda Item 6)

The Chair invited John Freeman to present to the Panel the report on Bonfires.

John Freeman noted that it was not illegal to burn a garden bonfire, but the smoke from bonfires could cause a nuisance to neighbours and contribute to the worsening of air quality locally. Hence, the Council discouraged the use of garden and allotment bonfires and recommended that an alternative method was used to dispose of garden waste, such as composting or disposal at a recycling facility. Bonfire smoke could potentially amount to what was considered a 'statutory nuisance'. If so, the Council could serve an abatement notice under section 80 of the Environmental Protection Act 1990 ("the EPA 1990"). Prosecution for breaches of an abatement notice could lead to a fine of up to £5,000. Except in a very limited number of circumstances, it was an offence under the Clean Air Act 1993 to emit "dark smoke" from a bonfire on industrial or trade premises.

The Council's Response Team dealt with complaints from the public on a wide range of statutory nuisances including bonfire smoke. Whether the nuisance arose within the borough or from premises in another borough, officers could – subject to staff being available – visit to witness the nuisance and where appropriate, take enforcement action. Where the smoke complained of was suspected as being from a commercial bonfire, the Response Team would refer the complaint to the Street Services Team's contractors Kingdom Services Group, whose officers were authorised to issue fixed penalty notices (FPNs) for commercial bonfire offences. However, this enforcement route did not extend to complaints of commercial bonfire smoke arising beyond the borough boundary.

The Chair thanked John Freeman for his presentation and invited Panel Members to comment and ask questions.

Questions and comments:

Panel members:

- Asked how many FPNs had been issued.  
Heard that 23 FPN had been issued in a three-year period. The penalties included a £400 fine per disposal plus an additional fine due to the lack of appropriate documentation for the waste being disposed of. FPNs were a more effective way to deal with the problem than prosecutions. However, the option to prosecute was also open to the Council.
- Councillor Rice commented on the recurrent problem of domestic bonfires in North Greenford and Brentside and noted the health dangers of bonfire smoke: it was worse than passive smoking. She asked what could be done to encourage councils to work together in their response to this problem.  
Heard that, in relation to domestic bonfires, responsible officers from Ealing Council could do visits outside of the borough. However, for non-domestic bonfires Kingdom officers were not authorised to issue FPN outside of the borough boundaries. There was room for improvement in the interface with neighbouring boroughs.

**Resolved:** That the report on Bonfires be received.

**7. Panel Operations Report**  
(Agenda item 7)

The officer report asked the Panel to agree the agenda items and actions for the next meeting which were included in the appended Updated Work Programme.

**Resolved:** that the Updated Work programme be approved.

**8. Date of Next Meeting**  
(Agenda Item 8)

The Panel were advised that the next meeting of the Panel would take place on 9 April 2019.

Councillor Anthony Young, Chair.

The meeting ended at 9.30 pm.