

<b>Item No.</b> 14.	<b>Classification:</b> Open	<b>Date:</b> 17 September 2013	<b>Meeting Name:</b> Cabinet
<b>Report title:</b>		Air Quality and Schools in Southwark	
<b>Ward(s) or groups affected:</b>		Electoral wards: All	
<b>Cabinet Member:</b>		Councillor Barrie Hargrove, Transport, Environment and Recycling	

## **FOREWORD - COUNCILLOR BARRIE HARGROVE, CABINET MEMBER FOR TRANSPORT, ENVIRONMENT AND RECYCLING**

This report updates the cabinet on the progressive actions being taken by this authority under its Air Quality Improvement Strategy, with regard to the important issue of poor air quality around our schools. In particular, it details the progress of the Clean Air 4 Schools programme, initiated in 2012 and due to commence this autumn school term within 6 schools in the borough, together with our plans for taking this project forward. It also sets out our intention to introduce the AirTEXT air quality information system across our schools. I believe that such actions clearly demonstrate this Authority recognises the potential impact of poor air quality upon our children and our commitment to protecting their health and wellbeing.

### **RECOMMENDATIONS**

1. That Cabinet notes the progress made on working with schools to improve air quality.
2. That regular update reports are brought back to the cabinet member for transport, environment and recycling.

### **BACKGROUND INFORMATION**

3. On 29 May 2012, the cabinet member for transport, environment & recycling approved the Southwark Air Quality Improvement Strategy for 2012-2017 (AQIS) and related Action Plan 2012-2017 (AQAP). Together the documents set out this Authority's approach to local air quality improvement. The Southwark AQIS places improvements in levels of nitrogen dioxide and particulate matter at its core.
4. The Southwark AQIS recognises the particular health impacts of poor air quality upon the young. The related Southwark AQAP made a commitment that funding opportunities would be pursued enabling a pilot scheme intended to identify and implement local air quality improvements near to schools and publicise the results.
5. On 16 April 2013, the Cabinet considered an e-petition headed 'Reduce Air Pollution' signed by 121 persons, which raised concerns over 'high levels of pollution near schools in Southwark'. The petitioners campaigned to demonstrate how strongly people feel about the issue. The petition stated:

***“We the undersigned petition the council to urgently reduce air pollution on main roads near schools to protect the health of children in London, to measure levels of air pollution near affected schools and to help them take steps to protect children and staff.***

*London records the worst levels of nitrogen dioxide (NO<sub>2</sub>) in Europe as well as dangerous concentrations of tiny particles, smaller than the diameter of a human hair, known as PM 10s and PM2.5s. These invisible gases and particles irritate and lodge in the lungs, exacerbating heart disease and asthma and cutting years off the average life expectancy.*

*After smoking, air pollution is now the leading cause of early death. Young people are particularly vulnerable because their lungs are still developing. It's estimated that traffic pollution may be responsible for 15-30% of all new cases of asthma in children. Yet there are 48 schools in Southwark within 150 metres of roads that carry over 10,000 vehicles a day. That's why this petition concentrates on schools.*

*Children, the elderly and people with existing respiratory illness suffer most from air pollution, but we're all affected. A study commissioned by the Mayor of London estimated that 4,267 Londoners died prematurely in 2008 as a result of long-term exposure to polluted air – mostly through heart attacks and strokes.”*

6. The minutes of the meeting of 16 April 2013, note that the petition spokesperson addressed the cabinet and further outlined residents' concerns in respect of air pollution on main roads near schools with particular reference to the detrimental impact upon the health of children and the general community. The spokesperson asked the council to roll out the clean air for schools initiative; sign all schools up to the AirText service; provide a dedicated budget to the environmental protection team for air quality improvement initiatives; and to work closely with Transport for London (TfL) to reduce air pollution.
7. The cabinet decided that a report should be made to them within three months to assess progress made, with specific reference to resources within the public health budget and measures to promote engagement with schools.
8. While the requested report back was originally delayed so as to allow full information to be provided on related grant applications being made, this report now provides update on all relevant current activities / issues through which either direct or indirect benefits may be realised.

## **KEY ISSUES FOR CONSIDERATION**

### **Air Quality in London**

9. London, as a premiere world city, economic centre and transportation hub suffers from poor air quality from time to time. Contributing factors include that:-
  - London is a large and busy city region with many sources of emissions to air;
  - the most significant source of atmospheric pollution in Southwark is diesel engines; and
  - London is in a river valley basin which traps atmospheric emissions under

certain weather conditions, for example low wind or temperature inversion and in bright sunlight may develop photochemical smog.

10. Poor air quality events impact upon everyone in the affected area, but impact with a greater significance on individuals who have compromised respiratory function due to age or infirmity and on children, who have smaller, immature lungs. London regularly breaches the European Economic Community (EEC) Air Quality Objectives for NO<sub>2</sub> (Nitrogen Dioxide) and PM<sub>10</sub> (breathable particulates). There are also concerns regarding the levels of Black Carbon and PM<sub>2.5</sub> in London. Many of these poor air quality incidents are caused by meteorological conditions transporting air pollution from outside London, including from industrial Europe. In March 2013, pressure group ClientEarth took the UK Government to the UK Supreme Court due to the lack of effective response to and breaches of the air quality objectives. The Supreme Court has ruled that the UK government has failed in its legal duty to protect people from the harmful effects of air pollution. This potentially means that the UK Government may be liable to financial sanctions for infraction of EU law. However, before deciding whether to take further action to enforce the law, it has referred a number of legal questions to the Court of Justice of the European Union.
11. A recent report by the pressure group Campaign for Clean Air in London has stated that up to 4,267 people died prematurely due to the impacts of poor air quality in London in 2008. Poor air quality places a strain on human respiratory and pulmonary systems which results in a deterioration in the quality of individuals biological function and hence, an average reduction in life-span of 7-8 months.
12. Officers in public health and environmental protection have recently worked with the Mayor's office to produce the document "Air Quality in Southwark – A Guide for Public Health Professionals" which reports on the implications of air quality on the health of Southwark's population. A copy of the report may be viewed using the link:  
<http://www.london.gov.uk/sites/default/files/Air%20Quality%20for%20Public%20Health%20Professionals%20LB%20Southwark.pdf>
13. Key points arising from the report were that:
  - While outdoor air quality is an important consideration and its impact should be recognised, the most common respiratory conditions (asthma and chronic obstructive pulmonary disease (COPD)) are most affected by smoking, passive smoking (cigarette smoke from smokers inhaled by non smokers), indoor air quality (smoke and other indoor pollutants) and health condition management, including self management (e.g. correct use of inhalators, medication review and physical activity); and
  - The health benefits of being physically active far outweigh the risks from poor air quality and that individuals (including schools) can reduce the risks when air pollution levels are elevated.
14. In 2012, according to the Quality and Outcomes Framework (QOF) disease registers kept by Southwark GPs, there were 13,097 people (all ages) with asthma – 4% of the total registered patient population. This is slightly lower than the UK overall prevalence of 5.99%. There were 3,899 people with COPD (generally due to smoking), constituting 1.2% of the total registered patient

population. Again, a little lower than the UK wide figure of 1.74%.

15. The Campaign for Clean Air in London has also stated that across London there are 1,148 London schools within 150 metres of roads carrying about 10,000 vehicles a day. The majority of these routes are managed by Transport for London (TfL). In poor air quality events everyone, including all schools within the affected area, experiences diminished air quality. However, it is clear that if a school is located roadside of a busy road, then its air quality will be significantly poorer than at schools on quiet roads. Air quality measurements are categorized as 'background' when they are more than 50m from a predominant source/road.
16. Emissions to atmosphere are a global issue without boundaries and are known to be causing climate change. Poor air quality in London is both a regional and a pan European issue with much of the funding to research and address air quality historically coming from European Community grant sources.
17. Southwark is a central London Authority with main arterial road routes carrying regional traffic through the borough and has limited influence regarding the volume and make up of vehicles using those routes. Despite this, much can be done to work regionally, to raise awareness regarding air quality and to influence personal and business transport mode decisions within the borough.

#### **Southwark's Air Quality Improvement Strategy for 2012-2017**

18. As has been noted, Southwark's approach to local air quality improvement is set out within the Southwark Air Quality Improvement Strategy & Action Plan for 2012 – 2017. Overseen by the Council's Environmental Protection Team, with contributions from across the Council's other services; the strategy is intended to complement national and regional air quality strategies as well as other relevant local strategy, such as the Southwark Transport Plan and planning and sustainability policy.
19. In pursuit of the Southwark AQAP, a range of initiatives are currently in place intended to raise awareness of air quality issues through working with local schools and linking measures that reduce air pollution with other environmental issues.

#### **Clean Air 4 Schools (CA4S) Programme**

20. The CA4S programme, referenced within the e-petition received by the Cabinet, forms an important part of this work. Run concurrently across eight London boroughs, in conjunction with the Greater London Authority (GLA), Southwark is currently in the process of delivering the CA4s programme to six primary schools within the borough. This innovative schools engagement and education programme comprises:
  - A Key Stage 2 educative programme for children and teaching staff intended to raise air quality and air pollution awareness. It includes air quality monitoring around the school and intends to reduce exposure to pollution through choice of route to school;
  - Improvement in the quality and effectiveness of the involved schools Travel Plans to promote transportation modal shift out of private cars for the 'school run';
  - A campaign aimed at parents to raise awareness regarding an individual's

contribution to poor air quality and to promote a switch from the private car to public or active transport. The campaign also promotes anti-idling when dropping children off and encourages parents to park away from school entrances and not on the yellow zig zags;

- Individual school celebrations and awards related to the project; and
- A half-day seminar for school staff across the borough to promote the airTEXT health alert service and the value and success of the CA4S toolkit. This event also aims to encourage schools to sign up for the programme.

21. Running alongside the CA4S programme this year is a sustainability project intended to help the involved schools reduce their energy usage, carbon footprint, bills and on-site pollution. The project hopes to fund 100% of these improvements. Sustainability audits have taken place at each of the schools and have identified the most helpful changes to make. These include the installation of new boilers, the tuning of boiler controls; and the installation of thermostatic radiator valves.

22. The initial short list of Southwark schools preferred for involvement in the CA4S programme was developed using the criteria set out below.

- High % of pupils driven to school, therefore more capacity for modal shift and reduced levels of pollution;
- Area of known poor air quality, therefore more capacity to make educative message relevant;
- Potential to undertake infrastructure works to improve air quality within the school and its environs or improve the carbon footprint of school;
- Geographical spread across borough; and
- Size of school role.

23. Not all of the schools initially approached were able to take up the opportunity to participate. However, six suitable schools have signed up to the project and an action plan and air quality monitoring strategy for delivery of the project within each of the schools has been agreed with the relevant head teacher. Our delivery agent, Parose Projects Ltd, will be working in the schools in the autumn term between September and November 2013. The involved schools are:

- Bessemer Grange Primary School;
- Charles Dickens Primary School;
- Grange Primary School;
- Peter Hills with St Mary's and St Paul's Church of England Primary School;
- Rotherhithe Primary School; and
- St Francesca Cabrini Roman Catholic Primary School;

24. The council's environmental protection team leads on this programme. However, the identification of criteria for selection, efforts to get schools on board and work to secure funding for the schools to receive significant energy efficiency improvements to their heating systems (either from the GLA or other internal budgets) have all been done in partnership with officers from the low carbon schools programme (managed by the climate change and sustainability team) and by children's services.

25. This initial Southwark programme has been funded by an award of £21,000 from the Departments for Environment Food and Rural Affairs (Defra) 2012 Air Quality Fund, supported by additional funding from the Southwark travel plan budget for 2012-13.
26. It is recognised that many more schools in the borough could benefit from this programme and further funding opportunities are being pursued in order to extend the scheme. It also our intention to be able to embed the future delivery of the education and awareness raising elements of the project in-house.
27. To date, the Mayor's Air Quality Fund has given 'in principle' agreement to fund the expansion of the CA4S programme to more of Southwark's schools through to 2015-2016. This agreement involves the allocation of £20,000 in 2013-2014 and further potential awards of up to £40,000 in each of the two following years (2014-2015 and 2015-2016) for an air quality awareness scheme which includes the expansion of the CA4s programme and proposals to improve general access through the Southwark website to local, regional and national air quality information. This associated work is intended to help individuals reduce their personal exposure to poor air quality and suggest actions for individuals, families and business to reduce their contribution to atmospheric pollution.
28. In pursuit of these 'indicative' awards, we are currently in the process of preparing a detailed project plan to be submitted to the GLA in October 2013 for approval. The final award made will be match funded by the council. Officers are currently considering options. In making the awards the GLA stated that 'the school air quality project has the potential to have a significant impact' and has indicated that it would wish to work with Southwark to develop a comprehensive monitoring strategy.
29. Our progress in extending the CA4S programme and establishing a comprehensive monitoring strategy will be subject of future reports.

### **School Travel Plans**

30. Closely allied to the CA4S programme are school travel plans. Travel plans are used for schools as a means of improving safety and encouraging sustainable travel options among students, parent, guardians and staff. Travel plans are also used to encourage educational programmes relating to child travel linked to the environment, safety and health.
31. Incorporated within the Council Plan is a target to reduce the number of children being driven to school from a baseline of 15.7% in 2010-11 to 13% by 2013-14. In the past 5 years a 5% decrease in numbers has been achieved. Travel plans play a primary role in achieving this reduction.

### **AirTEXT**

32. Associated with the CA4S project is the AirTEXT initiative, also cited by the recent epetition. AirTEXT is a unique air quality information service for people who live or work in London, especially those who may suffer from asthma, emphysema, bronchitis, heart disease or angina. AirText works by sending alerts and health advice to those people who are most likely to be affected on days when air pollution is high in their local area.

33. Under the CA4S project it is the longer term intention to provide all schools in the Southwark area with regular 3 day health bulletins (from AirTEXT) which deal not only with air pollution but UV index; pollen; and temperature also. The basic infrastructure for the regular supply of information is in place, but further work is necessary, on the supporting advice that may be given to schools on actions to be taken in the event of high or moderate forecasts, before the scheme may be commenced. The appropriate advice is intended to be developed and agreed in conjunction with the GLA so as to provide a consistent basis for future pan London use.

#### **Mayor's Air Quality Fund (Other Tacit Funding Approvals)**

34. Along with the current GLA funding decisions given in respect of CA4S under the Mayor's Air Quality Fund, there are several other Southwark projects given tacit approval totaling £730,000 over the next 3 years (inclusive of the £100,000 earmarked for CA4S and web site development detailed earlier). Officers are currently in the process of preparing detailed project plans to be submitted to the GLA in October 2013 before grant monies are given final approval and released. These are:

- a joint project with private sector contractors and academic partners to **scientifically test the use of dust suppression agent Calcium Magnesium Acetate (CMA) at a major demolition site**. CMA is a biodegradable saline solution that enables the surfaces it is sprayed on to stay wetter for longer so dust particles are less able to re-suspend in the air. The project aims to undertake a series of tests to assess which methods and frequencies of application will optimise the reduction of particles in the air around the site. This information will then be used to inform good practice across the demolition and construction industries. Southwark has met with its partners and is in the process of devising the experimentation and gathering background data on particulates and weather before the demolition commences;
- a joint project with Tower Hamlets for **an anti idling campaign at Tower Bridge**. When the inner ring road is temporarily blocked by the raising of Tower Bridge many vehicles back-up on both sides of the river causing local air pollution hot-spots. This project aims to reduce air pollution in this area and to give publicity to the impact of idling in standing traffic across the capital; and
- a joint project with nine other London Boroughs to improve air quality in Central London through **zero emission deliveries to business**. This project is being led by Westminster Council and includes private sector partners.

#### **Policy implications**

35. All matters addressed within this report are intended to progress the Southwark Air Quality Improvement Strategy for 2012-2017.
36. The Southwark Air Quality Improvement Strategy for 2012-2017 has four overall objectives. These are:
- To reduce emissions from vehicular transport

- To tackle emissions from existing fixed sources
- To reduce emissions from new development
- To protect public health and monitor air quality.

37. The strategy also considers:

- How we will work regionally to improve air quality across London,
- How we will work locally to improve air quality within Southwark.

38. The CA4S project arises from the commitment made in measure 3 of the Southwark Air Quality Improvement Strategy that Southwark will pilot a scheme to identify and implement local air quality improvements near to schools and will publicise the results. It also progresses the commitment made in measure 2 that Southwark will continue to implement, evaluate and publicise progress of measures to encourage sustainable travel choices, within the borough. Active transport equals air quality improvement and health improvement.

39. This project also supports the council's fairer future principles by making Southwark a place to be proud of by looking after the borough in a sustainable way for future generations.

### **Community impact statement**

40. Poor air quality is a contributing factor to health problems as well as damaging eco-systems, biodiversity and valued habitats. The adverse health effects from short and long term exposure to air pollution range from premature deaths caused by heart and lung disease to worsening of asthmatic conditions, often leading to a reduced quality of life and increased cost of hospital admissions. Despite improvements over recent decades, research by the Committee on Medical Effects of Air Pollution (COMEAP) indicates air pollution is still expected to reduce life expectancy of every person in the UK by an average of six months.

41. While the effects of poor air quality may have greater impact on the young; the old and those with certain medical conditions; and be more commonly found in areas of deprivation; the overall objective of the strategy, which is to provide improvements in local air quality, is one that will provide benefits across the whole of the Southwark community.

### **Resource implications**

42. No specific budget exists within the community safety and enforcement division for new air quality improvement initiatives. New programmes of work undertaken are dependent upon appropriate funding streams being identified and service resource demands being absorbed by the existing staff complement.

43. The transfer of public health responsibilities to the council has come with no new monies identified for funding air quality initiatives.

44. Match funding to support bids made under the Mayor's Air Quality Fund derive from a variety of sources. These have been detailed in other reports.

45. There are no new immediate financial implications arising from this report that are not covered elsewhere. Cabinet is at this stage being asked to simply note the progress being achieved on air quality improvements around schools and



funding opportunities currently being pursued. Any specific material financial implications arising from the implementation of the strategy that cannot be contained within the budgets or external grants will be subject to separate reports for consideration and approval.

### **Consultation**

46. No external consultation has taken place in the preparation of this report but comment has been sought and incorporated from other involved partner services including transport planning, sustainability, children's services and public health colleagues.

### **SUPPLEMENTARY ADVICE FROM OTHER OFFICERS**

#### **Director of Legal Services**

47. This report is submitted to cabinet to note the progress made on working with schools to improve air quality pursuant to the Southwark Air Quality Improvement Strategy for 2012 to 2017 and the related Air Quality Action Plan 2012-2017.
48. Further to paragraph 10 of this report, European Directive 2008/50/EC dated 21 May 2008 relates to ambient air quality and clean air for Europe. The Directive requires targets to be met by 1 January 2015. The UK government may not be able to meet the targets by the deadline. On 25 June 2012 the European Commission objected to the Government's postponement of the deadline. There is therefore a possibility of infraction proceedings.
49. If the UK government fails to comply with EU legislation it may be obliged to pay a financial sanction. Sanctions may be significant, for instance, a minimum lump sum of approximately 8.992 million Euros plus a potential daily or periodic penalty.
50. Part 2 of the Localism Act 2011 contains a discretionary power for a Minister of the Crown to require a local authority to pay some or all of such financial sanction.
51. The amount a local authority could be asked to pay must be fair, reasonable and proportionate following discussions with Central Government.

#### **Strategic Director of Finance and Corporate Services (FC13/061)**

52. The strategic director of finance and corporate services notes that this report presents progress made on working with schools to improve air quality, and the recommendation that regular update reports are made to the cabinet member for transport, environment and recycling. This update report does not in itself incur any additional revenue or capital costs. The report outlines the programmes and funding to support Southwark's Air Quality Improvement Strategy for 2012-2017. The costs will be monitored and reported on a regular basis as part of the departmental budget monitoring processes. Any additional financial implications arising from the implementation of the strategy would be subject to the council's usual approval processes.

## BACKGROUND PAPERS

Background Papers	Held At	Contact
Southwark Air Quality Improvement Strategy 2012 – 2017 and Action Plan 2012 - 2013 <a href="http://www.southwark.gov.uk/downloads/download/2637/air_quality_strategy_and_action_plan">http://www.southwark.gov.uk/downloads/download/2637/air_quality_strategy_and_action_plan</a>	Health Safety Licensing & Environmental Protection Unit. 160 Tooley Street. London. SE1.	Mrs Kirtikula Read. 020 7525 5748
Clean Air 4 Schools Toolkit <a href="http://www.london.gov.uk/sites/default/files/CA4S%20Toolkit[1].pdf">http://www.london.gov.uk/sites/default/files/CA4S%20Toolkit[1].pdf</a>	As above	As above
Air Quality in Southwark: A Guide for Public Health Professionals <a href="http://www.london.gov.uk/sites/default/files/Air%20Quality%20for%20Public%20Health%20Professionals%20LB%20Southwark.pdf">http://www.london.gov.uk/sites/default/files/Air%20Quality%20for%20Public%20Health%20Professionals%20LB%20Southwark.pdf</a>	As above.	As above

## APPENDICES

No.	Title
None	

## AUDIT TRAIL

<b>Cabinet Member</b>	Councillor Barrie Hargrove, Transport, Environment and Recycling	
<b>Lead Officer</b>	Deborah Collins, Strategic Director of Environment & Leisure	
<b>Report Author</b>	Richard Parkins, Health Safety Licensing & Environmental Protection Unit Manager	
<b>Version</b>	Final	
<b>Dated</b>	5 September 2013	
<b>Key Decision?</b>	No	
<b>CONSULTATION WITH OTHER OFFICERS / DIRECTORATES / CABINET MEMBER</b>		
	<b>Officer Title</b>	<b>Comments Sought</b>
	Director of Legal Services	Yes
	Strategic Director of Finance and Corporate Services	Yes
	Director of Public Health	Yes
	Chief Executive (Planning)	Yes
<b>Cabinet Member</b>	Yes	Yes
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