

Scrutiny Inquiry Panel - Air Quality

Thursday, 18th September,
2014
at 4.30 pm

PLEASE NOTE TIME OF MEETING

Committee Room 1 - Civic Centre

This meeting is open to the public

Members

Councillor Coombs
Councillor Galton
Councillor Hammond
Councillor McEwing
Councillor O'Neill
Councillor Parnell
Councillor Thorpe

Contacts

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PUBLIC INFORMATION

Role of this Scrutiny Panel

The Overview and Scrutiny Management Committee have instructed Scrutiny Panel to undertake an inquiry into Air Quality in Southampton

Southampton City Council's Priorities

- Jobs for local people
- Prevention and early intervention
- Protecting vulnerable people
- Affordable housing
- Services for all
- City pride
- A sustainable Council

Public Representations

At the discretion of the Chair, members of the public may address the meeting about any report on the agenda for the meeting in which they have a relevant interest.

Smoking policy – the Council operates a no-smoking policy in all civic buildings.

Mobile Telephones:- Please switch your mobile telephones to silent whilst in the meeting

Use of Social Media:- If, in the Chair's opinion, a person filming or recording a meeting or taking photographs is interrupting proceedings or causing a disturbance, under the Council's Standing Orders the person can be ordered to stop their activity, or to leave the meeting

Fire Procedure – in the event of a fire or other emergency a continuous alarm will sound and you will be advised by Council officers what action to take.

Access – access is available for the disabled. Please contact the Democratic Support Officer who will help to make any necessary arrangements.

Dates of Meetings: Municipal Year

2014	2015
31 July	22 January
18 September	
30 October	
20 November	
18 December	

CONDUCT OF MEETING

TERMS OF REFERENCE FOR THE INQUIRY

Purpose:

To develop understanding of the issue of air quality in Southampton and to identify what additional steps can be taken, if necessary, to improve it.

Objectives:

- a. To increase understanding of air quality issues within Southampton
- b. To examine the causes and impacts of air pollution
- c. To understand the actions being taken to reduce air pollution in Southampton
- d. Learning from best practice, to identify ways of improving air quality in the City now and for future generations

BUSINESS TO BE DISCUSSED

Only those items listed on the attached agenda may be considered at this meeting.

RULES OF PROCEDURE

The meeting is governed by the Council Procedure Rules and the Overview and Scrutiny Procedure Rules as set out in Part 4 of the Constitution.

QUORUM

The minimum number of appointed Members required to be in attendance to hold the meeting is 3.

DISCLOSURE OF INTERESTS

Members are required to disclose, in accordance with the Members' Code of Conduct, **both** the existence **and** nature of any "Disclosable Pecuniary Interest" or "Other Interest" they may have in relation to matters for consideration on this Agenda.

DISCLOSABLE PECUNIARY INTERESTS

A Member must regard himself or herself as having a Disclosable Pecuniary Interest in any matter that they or their spouse, partner, a person they are living with as husband or wife, or a person with whom they are living as if they were a civil partner in relation to:

- (i) Any employment, office, trade, profession or vocation carried on for profit or gain.
- (ii) Sponsorship:

Any payment or provision of any other financial benefit (other than from Southampton City Council) made or provided within the relevant period in respect of any expense incurred by you in carrying out duties as a member, or towards your election expenses. This includes any payment or financial benefit from a trade union within the meaning of the Trade Union and Labour Relations (Consolidation) Act 1992.

(iii) Any contract which is made between you / your spouse etc (or a body in which the you / your spouse etc has a beneficial interest) and Southampton City Council under which goods or services are to be provided or works are to be executed, and which has not been fully discharged.

(iv) Any beneficial interest in land which is within the area of Southampton.

(v) Any license (held alone or jointly with others) to occupy land in the area of Southampton for a month or longer.

(vi) Any tenancy where (to your knowledge) the landlord is Southampton City Council and the tenant is a body in which you / your spouse etc has a beneficial interests.

(vii) Any beneficial interest in securities of a body where that body (to your knowledge) has a place of business or land in the area of Southampton, and either:

- a) the total nominal value for the securities exceeds £25,000 or one hundredth of the total issued share capital of that body, or
- b) if the share capital of that body is of more than one class, the total nominal value of the shares of any one class in which you / your spouse etc has a beneficial interest that exceeds one hundredth of the total issued share capital of that class.

Other Interests

A Member must regard himself or herself as having an 'Other Interest' in any membership of, or occupation of a position of general control or management in:

Any body to which they have been appointed or nominated by Southampton City Council

Any public authority or body exercising functions of a public nature

Any body directed to charitable purposes

Any body whose principal purpose includes the influence of public opinion or policy

Principles of Decision Making

All decisions of the Council will be made in accordance with the following principles:-

- proportionality (i.e. the action must be proportionate to the desired outcome);
- due consultation and the taking of professional advice from officers;
- respect for human rights;
- a presumption in favour of openness, accountability and transparency;
- setting out what options have been considered;
- setting out reasons for the decision; and
- clarity of aims and desired outcomes.

In exercising discretion, the decision maker must:

- understand the law that regulates the decision making power and gives effect to it. The decision-maker must direct itself properly in law;
- take into account all relevant matters (those matters which the law requires the authority as a matter of legal obligation to take into account);
- leave out of account irrelevant considerations;
- act for a proper purpose, exercising its powers for the public good;
- not reach a decision which no authority acting reasonably could reach, (also known as the "rationality" or "taking leave of your senses" principle);
- comply with the rule that local government finance is to be conducted on an annual basis. Save to the extent authorised by Parliament, 'live now, pay later' and forward funding are unlawful; and
- act with procedural propriety in accordance with the rules of fairness.

AGENDA

Agendas and papers are now available via the City Council's website

1 APOLOGIES AND CHANGES IN PANEL MEMBERSHIP (IF ANY)

To note any changes in membership of the Panel made in accordance with Council Procedure Rule 4.3.

2 ELECTION OF VICE-CHAIR

To elect the Vice Chair for the Municipal Year 2014/15.

3 DECLARATION OF PARTY POLITICAL WHIP

Members are invited to declare the application of any party political whip on any matter on the agenda and being scrutinised at this meeting.

4 DECLARATIONS OF SCRUTINY INTEREST

Members are invited to declare any prior participation in any decision taken by a Committee, Sub-Committee, or Panel of the Council on the agenda and being scrutinised at this meeting.

5 STATEMENT FROM THE CHAIR

6 MINUTES OF THE PREVIOUS MEETING (INCLUDING MATTERS ARISING)

To approve and sign as a correct record the Minutes of the meetings held on 31st July, 2014 and to deal with any matters arising, attached.

7 AIR QUALITY IN SOUTHAMPTON: A PUBLIC HEALTH PERSPECTIVE

Report of the Assistant Chief Executive providing a Public Health Perspective of Air Quality in Southampton, attached.

8 AIR QUALITY IN SOUTHAMPTON: A RESIDENTS PERSPECTIVE

Report of Assistant Chief Executive detailing a Residents Perspective of Air Quality in Southampton, attached.

Wednesday, 10 September 2014

HEAD OF LEGAL AND DEMOCRATIC SERVICES

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SCRUTINY INQUIRY PANEL - AIR QUALITY
MINUTES OF THE MEETING HELD ON 31 JULY 2014

Present: Councillors Coombs, Galton, Hammond, O'Neill and Parnell

Apologies: Councillors McEwing and Thorpe

1. **APOLOGIES AND CHANGES IN PANEL MEMBERSHIP (IF ANY)**

It was noted that following receipt of the temporary resignation of Councillors McEwing and Thorpe from the Panel, the Head of Legal and Democratic Services, acting under delegated powers, had appointed Councillors Mintoff and Lloyd to replace them for the purposes of this meeting.

2. **ELECTION OF CHAIR AND VICE-CHAIR**

RESOLVED:-

- (i) that Councillor Hammond be elected as Chair for the Municipal Year 2014/2015; and
- (ii) that it be noted that the Vice-Chair would be elected at the next meeting.

3. **REVIEW TERMS OF REFERENCE**

The Panel considered the report of the Assistant Chief Executive setting out the terms of reference and the project plan for the Inquiry.

RESOLVED:-

- (i) that the terms of reference as set out in Appendix 1 to the report be noted: and
- (ii) that the outline inquiry project plan as set out in the terms of reference be approved.

4. **INTRODUCTION TO THE REVIEW**

The Panel considered the report of the Assistance Chief Executive setting out the introduction to the review on Air Quality.

RESOLVED that the following comments, from the Cabinet Member for Environment and Transport; the Team Leader from Southampton City Council's Scientific Services; and Member of the Public be noted and used as evidence in the review.

Councillor Rayment – Cabinet Member for Environment and Transport

Explained that Cllr Shields would be taking the lead on the issue with regards to Public Health.

Cabinet position – welcome the review as air quality was not as good as it could or should be.

Vibrant City with a very busy port, which bring many benefits, but also creates problems.

Air quality has been a matter of considerations since at least 2007.

Cabinet were looking at an action plan, but agreed to wait until the scrutiny review had been completed.

Concerns about the removal of air monitoring stations – one was not owned by City Council and there were issues with equipment that was not producing accurate readings.

Steve Guppy – Team Leader, Scientific Services

PowerPoint presentation giving a broad overview and covering the following:-
Central Government was responsible for air quality, however Local Authorities carry out the function. Measurements were link to “harm”.

Assessment process was a three year cycle and currently in fifth round and at the detailed assessment stage.

If figures show any issues then an Air Quality Management Area (AQMA) was declared. During the assessment process Southampton has declared a total of 10 AQMAs. Most were significantly due to road transport and were in the areas with arterial road links. Explained the network of 50+ diffusion tubes and the 8 locations for continuous monitoring stations.

Public Health Implications – possibility that some issues were not just the result of air quality, respiratory health issues could be linked to historic City occupations.

Air Quality Action Plan – included an air alert for those residents that have signed up, giving them information when air quality had reach moderate levels or above. This addresses the impact however there was a need to address the levels.

Focus was on transport as most of the issues were caused by this.

Improvements had been made but had not been delivered as expected. The increase in diesel sales, which contain much higher polluting levels had off-set a lot of the other positive measure that have been introduced.

DEFRA had funded a feasibility into introducing a Low Emission Zone along the Western Approach. It was clarified that consultants had been looking the option of a low emission zone for the City. They were indicating that it was possibly not feasible and that a strategy would probably be a better solution. Both options would be presented.

EURO6 vehicles would have to achieve test data.

Need to consider the cost of improving air quality compared to the cost to public health
Need to look at reducing emissions produced rather than the number of vehicles.

Many schemes being progressed as part of the action plan.

Ultra Low Emission Schemes were being considered, with possibility to bid for funding from Central Government.

It was confirmed that diesel trains did have an impact on the results, including the sidings that were located in the docks.

Concerns were raised that focus was on nitrogen dioxide (NO₂) levels and not on greenhouse gases and particulates. It was explained that these were separate issues and that monitoring was based on public health issues. Limits had not been reached. There had been large reductions in such emission, including the refinery.

Agreed that actual numbers, rather than percentages of premature deaths in Southampton associated with pollution would be presented to the meeting linked to Public Health.

Monitoring stations were located in areas where the volumes of traffic were greatest and also in areas where there was queuing traffic on a regular basis. Need to consider traffic planning to stop the queues from forming.

Air quality was a factor that was considered when bus routes were planned with the bus companies. However as private companies these agreements had to be based on good working relationships to ensure that they are fulfilled.

Concerned where raised that with the economic improvement there could be an increase in the emissions. It was agreed that there could be an impact, however it was noted there was not a big reduction in the trade from the docks during the recession.

HGV operators had other priorities such as fuel security and consumption and with these improvements there should be lower emissions. EURO6 engines should achieve this.

Clarity was sort on the reason why the monitoring station had been removed at Redbridge. This station had been there since 2002. Over the last two year NO₂ readings had only captured 20% of the data and 90% was needed. The particulate data recovery at the location was still good, however the station was not cost effective if it was not monitoring for NO₂. It was an option for a community group to take in the responsibility of monitoring the particulates if they wished, however the cost associated with servicing was in the region of £10,000.

A request was made for a progress update on the action plan detailed at appendix 5 to the report. It was noted that this information would be more beneficial in August/ September when there would be a better overview.

It was asked if there was an age limit for the taxis within the City. It was reported that there were quarterly meetings from the taxi trade and this matter was already being discussed, with the plan to include an age limit as part of the low emission strategy.

David Cooper, a member of the Southampton Cycle Campaign addressed the meeting and raised the following points:-

- Southampton does not have good city centre cycling
- Concerned about cycle routes at Platform Road and Western Approach and that views had not been properly listened to
- All plans in the City should consider cycling as per of the infrastructure as this would reduce emissions
- Concerned that even if results were below EU limits this did not mean that they were not harmful
- There should be a focus on vehicles as these were the cause of the pollution

Councillor Rayment responded to some of the issues raised. She explained that a new forum for cyclist had been established to promote cycling and improve communication. However the organisations that were receiving the invitations to the meetings were not necessarily informing the right members about attending. All were welcome. Councillor Keogh was leading on the forum.

Issues relating to schemes had arisen in the past as the different cycling groups had different views. Therefore the decision makers have to find a compromise.

It was confirmed that once the scheme at Platform Road was complete that there would be provision for cyclists.

Ms Lindsay Bluemel, secretary of the Southampton Cycling Campaign addressed the meeting and raised the following points:-

- Concerned about the cluster of accidents that have occurred on the Western Approach
- Plans to down grade the current off road cycle route on the Western Approach to mix with the traffic, which would be very dangerous for cyclists
- Concerned about the proposed closure of the cycle path from Millbrook to Central Station
- Shared paths with pedestrians was not the best option. Where possible separate cycle paths should be included

It was reported that the issues relating to cycle path route at Third Avenue were still being resolved, however this was proving complicated as many of the groups involved had different priorities.

Steve Dobson, a member of the Western Docks Consultative Forum, addressed the meeting and raised the following points:-

- Concerned about particulate monitoring not being undertaken
- EU have declared that there were certain particulates that it was not acceptable to have at all
- Concerned about the threat of major developments such as wood fired power stations

It was reported that monitoring of certain particulates was not required by regulation. Other emissions testing gave a good indication of levels.

Agenda Item 7

DECISION-MAKER:	SCRUTINY PANEL		
SUBJECT:	AIR QUALITY IN SOUTHAMPTON: A PUBLIC HEALTH PERSPECTIVE		
DATE OF DECISION:	18 th SEPTEMBER 2014		
REPORT OF:	ASSISTANT CHIEF EXECUTIVE		
<u>CONTACT DETAILS</u>			
AUTHOR:	Name:	Louise Fagan	Tel: 023 8083 2644
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STATEMENT OF CONFIDENTIALITY			
None			

BRIEF SUMMARY

At the second meeting of the Air Quality Inquiry the Panel will consider the impact air quality has on health in Southampton. Debbie Chase, Consultant in Public Health has been invited to provide a Public Health perspective and in addition draft findings from a Health Impact Assessment of air pollution in Southampton, attached as appendix 2 will be discussed.

RECOMMENDATION:

- (i) The Panel is recommended to consider the comments made by Public Health Consultant, Debbie Chase and use the information provided, including Fiona Davey's, University of Southampton, dissertation summary as evidence in the review.

REASON FOR REPORT RECOMMENDATIONS

1. To enable the Panel to compile a file of evidence in order to formulate findings and recommendations at the end of the review process.

ALTERNATIVE OPTIONS CONSIDERED AND REJECTED

2. None.

DETAIL (Including consultation carried out)

3. Debbie Chase, Consultant in Public Health, Southampton City Council is responsible for promoting Public Health initiatives across Southampton. She has produced a background paper covering public health impacts in relation to air pollution attached as appendix 1, and will present further information to the Panel at the meeting.
4. Fiona Davey, a student at the University of Southampton is studying for her Masters Degree. As part of her dissertation she has recently been working within Southampton City Council's Public Health team and is conducting a

Health Needs Assessment focusing on air quality in Southampton. She has provided the Panel with summary of her findings so far (Appendix 2).

5. The guests invited to present information at the meeting will take questions from the Panel relating to the evidence provided. Copies of any presentations and colour copies of appendix 2 will be made available to the Panel.

RESOURCE IMPLICATIONS

Capital/Revenue

6. N/A

Property/Other

7. N/A.

LEGAL IMPLICATIONS

Statutory power to undertake proposals in the report:

8. The duty to undertake overview and scrutiny is set out in Part 1A Section 9 of the Local Government Act 2000.

Other Legal Implications:

9. None

POLICY FRAMEWORK IMPLICATIONS

10. None

KEY DECISION? No

WARDS/COMMUNITIES AFFECTED:	None directly as a result of this report
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SUPPORTING DOCUMENTATION

Appendices

1.	Public Health background information
2.	University of Southampton student - Health Impact Assessment of Air Pollution in Southampton: Dissertation Summary

Documents In Members' Rooms

1.	None
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Equality Impact Assessment

Do the implications/subject of the report require an Equality Impact Assessment (EIA) to be carried out.	No
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Other Background Documents

Equality Impact Assessment and Other Background documents available for inspection at:

Title of Background Paper(s)

Relevant Paragraph of the Access to Information Procedure Rules / Schedule 12A allowing document to be Exempt/Confidential (if applicable)

1.	None	
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Subject: Air Quality in Southampton – Public Health Background information

Date: 18th September 2014

Recipient: Scrutiny Panel

1. How does air pollution affect health?

1.1 Air pollutants known to have effects on health are particles, sulphur dioxide, oxides of nitrogen, carbon monoxide and ozone. In the UK, these pollutants are mainly products of motor vehicle traffic combustion especially from diesel vehicles.

1.2 In a good state of health, short term exposure to moderate levels of air pollution is unlikely to have any serious short term effects. Short term exposure to high levels of air pollutants can cause a range of adverse effects such as exacerbations of asthma, effects on lung function and consequent increases in hospital admissions for respiratory and cardiovascular conditions.

1.3 Long term exposure to air pollution does increase the risk of deaths from cardiovascular and respiratory conditions, including lung cancer and existing lung and heart conditions. Chronic effects can be triggers of new disease, worsen severity of disease through increase in symptoms or accelerate progression of disease over time.

1.4 Children, the elderly and people with lung or heart conditions are more susceptible to the health effects of air pollution.

1.5 People with coronary artery disease are at greater risk of being affected by air pollution, especially particles, than people without such disease. Coronary artery disease, which can remain undetected, is common in older people.

1.6 Evidence of the long term effects of air pollution are most closely associated with levels of fine particulate matter (PM_{2.5}). There is no evidence for a threshold below which health effects would not be expected. For NO₂, studies have shown that both day to day variations and long term exposure to NO₂ are associated with mortality and morbidity.

1.7 Identifying the effects of individual air pollutants is difficult. Fine particles, nitrogen dioxide and carbon monoxide are all produced in urban areas largely by motor vehicles and they are closely correlated. The Department for Environment Food and Rural Affairs has produced a table showing the types of health effects experienced by the most common pollutants at elevated levels.

Pollutant	Health effects at very high levels
Nitrogen Dioxide, Sulphur Dioxide, Ozone	These gases irritate the airways of the lungs, increasing the symptoms of those suffering from lung diseases
Particles	Fine particles can be carried deep into the lungs where they can cause inflammation and a worsening of heart and lung diseases
Carbon Monoxide	This gas prevents the uptake of oxygen by the blood. This can lead to a significant reduction in the supply of oxygen to the heart, particularly in people suffering from heart disease

<http://uk-air.defra.gov.uk/air-pollution/effects>

2. Is it one of Southampton City Councils priorities?

2.1 Heart and lung diseases are significant health issues for our city. In Southampton there were 418 premature deaths from heart disease and stroke (ranked 11th worse of 15 similar local authorities) and 184 premature deaths from lung disease (ranked 14th worse of 15 similar local authorities) in 2010-2012 (<http://longerlives.phe.org.uk/>).

2.2 Air pollution is one of a number of risks for heart and lung disease. Stopping smoking has the largest impact on preventing risk and nearly one quarter of people within Southampton still smoke. Increased walking and cycling, and consequent reduced car travel, would not only reduce risk through reduction in air pollution, it would also benefit health through people being more physically active.

2.3 Reducing road traffic would reduce the number of road traffic accidents. There were 387 people 'killed and seriously injured on roads' from 2010-2012 (i.e. average of 129 per year) in Southampton City. There were an average of 5 deaths per year from land transport accidents.

2.4 Mapping of Chronic Obstructive Pulmonary Disease hospital admissions, asthma hospital admissions and cardiovascular hospital admissions against air quality management areas in Southampton City show close correlation. Those areas in Southampton with the highest pollution levels are also areas where hospital admissions for these indications are highest. These are also areas of significant deprivation and

where we would expect health outcomes to be worse. As previously described, air pollution exacerbates pre-existing conditions.

3. Impact of air pollution

3.1 Modelled estimates of mortality attributable to long term exposure to air pollution i.e. annual average concentrations of fine particulate matter (PM_{2.5}) have been published by Public Health England (<https://www.gov.uk/government/news/estimates-of-mortality-in-local-authority-areas-associated-with-air-pollution>). This suggests that in Southampton 6.2% of deaths in 2010 were attributable to air pollution, with long-term exposure contributing 110 deaths amongst those aged 25 years and over and 1,280 life years lost.

3.2 Just 18 µg/m³ PM_{2.5} could be responsible for an average loss of life expectancy from birth of around 2-20 months (average of 7-8 months). This compares to an estimate of around 7 years if all the population were smokers (Department of Health 2001).

3.3 The public health benefit of a 1µg/m³ reduction in national average PM_{2.5} concentration is estimated as being an increase in average life-expectancy of around 20 days (range 3 to 40 days) COMEAP 2010 (<http://www.comeap.org.uk/documents/reports>).

3.4 It is likely that, compared with factors affecting individuals such as smoking, diet and lack of exercise, air pollution has a smaller impact, similar to that of passive smoking.

3.5 As the level of pollution increases, as does the health impact. It has been estimated that a 10µg/m³ increase in a pollutant concentration e.g. PM_{2.5} is associated with a 1.4% increase in the relevant cardiovascular health outcome. So, if 70 people die each day from cardiovascular causes, a 10µg/m³ increase in PM_{2.5} will increase daily deaths by about one, to 71 deaths (<https://www.gov.uk/government/publications/comeap-cardiovascular-disease-and-air-pollution>).

3.6 People with pre-existing conditions suffer more symptoms as a result of air pollution. Overweight and obese people with asthma experience more asthma symptoms with increase in NO₂ than those individuals who are not overweight. People who smoke are also at higher risk of the effects of air pollution.

3.7 Measures to reduce air pollution will have other benefits apart from reducing mortality rates overall. Encouragement of active travel i.e. walking or cycling will have wider public health benefits associated with increased physical fitness and reduced excess weight.

4. What are we doing about it?

4.1 As described in background information for meeting 1, previous air quality actions have focused on transport related projects to improve the efficiency of the road network and reduce congestion. Recent findings from a study of the City's Western approach

suggest that emissions from road transport are the most significant contributor, however emissions from the Port are far more significant than previously understood.

4.2 As a result of the report's recommendation, a City wide Low Emission Strategy (LES) is being developed. A working group from departments across the council has been established to promote the delivery of existing initiatives and identify new ones. A City-wide emission reduction strategy will be developed for passenger cars, freight, buses and taxis. Examples of projects and policies are described in the background information for meeting 1.

4.3 The air alert service enables people who are more vulnerable to air pollution to manage the health impact in the event of high pollution levels. This service is free and open to all. There are currently 201 subscribers and 96 air alerts have been issued since June 2010.

4.4 Southampton has adopted recommendations from the national Active Travel Strategy published by the Department for Transport and Department of Health through its 'My Journey' initiatives. As an example, 100% of schools in Southampton have school travel plans in place, aided by 'My Journey' including the development of STARS and Bike It programmes. This enables schools to encourage children and their parents to cycle or walk to school instead of driving.

4.5 The council's 'Cycle to Prosperity' scheme hopes to increase cycling levels in the population from 3% to 18% within 10 years. A 10 year cycling strategy has been produced in association with Sustrans to increase the provisions for cyclists throughout the city and make it safer to cycle.

4.6 Cleaner buses are being introduced into Southampton and the city was awarded £632,700 from the Clean Bus Technology Fund to fund 37 buses with Flywheel technology, which will reduce pollution levels coming from buses.

5. What is good practise?

5.1 Interventions to combat air pollution are most effective when they are embedded in policy. The London Congestion Charging scheme has been attributed to gaining 26 per 100,000 life years in Greater London as a result of a 2.3% decrease in NO₂ emissions in this area.

5.2 According to the Asia-Pacific Economic Corporation's Best Practice report, Ports and Port Authorities should have the responsibility to reduce congestion around port terminals and provide on-shore power to ships at berth. This responsibility, whilst not mandatory, is a part of a port's Corporate Social Responsibility.

6. What does it cost us?

6.1 According to the national estimates, air pollution and its associated effects on society cost England £10 billion per year. This is expected to rise in future years as the number of cars on the roads increases.

7. Where can we improve?

7.1 Southampton City Council is already taking forward recommendations as endorsed by Public Health England i.e. implementation of recommendations for the Active Travel Strategy. To further improve, endorsement and adoption of actions resulting from the proposed City Wide Low Emission Strategy is required.

7.2. Findings from a recent MSc Public Health dissertation undertaken at University of Southampton (July-August 2014) suggest the following:

- To improve the public awareness, a clearer Council webpage should inform on progress since the last Air Quality Action Plan. A good example of this is Suffolk Coastal's website (<http://www.suffolkcoastal.gov.uk/yourdistrict/envprotection/airquality/>) which explains which Action Plan measures have been completed.
- To contribute towards reducing air pollution levels and promoting healthy lifestyles, the city should invest in appropriate infrastructure to encourage cycling. This requires continuous cycle lanes around the city and more stringent parking enforcement, to ensure that cyclists do not have to pull out into the road to avoid illegally parked cars.
- A strong working relationship with the Association of British Ports who run Southampton Docks is required, in order to develop interventions that mitigate the pollution resulting from ship engines and vehicle movements within the dock operations.
- Other cities have similar features to their AQAPs, although some have continuing actions that Southampton has discontinued. For example, Southampton's Cycle Challenge was stopped in 2011.
- Oxford has implemented fines for idling vehicles after implementing their Low Emission Zone strategy.

8. How do we compare nationally with other Local Authorities?

8.1 Since 2010, Southampton's estimated fraction of mortality attributable to particulate air pollution has declined, from 6.2% to 5.7%. This is in line with a national decrease.

8.2 2012 figures show that Southampton's fraction of mortality attributable to particulate air pollution (6.2%) is worse than both the England and South East average of 5.1%. Local cities are also rated better than Southampton, for example Portsmouth – 5.3%, Brighton and Hove – 5.0%, Oxfordshire – 5.1% Bristol – 5.2% and Bournemouth – 4.1%.

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A Health Impact Assessment of Air Pollution in Southampton: Dissertation Summary

My name is Fiona Davey and as a part of my dissertation for the MSc Public Health course at the University of Southampton, I have been conducting research into the health impacts of air pollution in Southampton and assessing potential interventions that could be implemented. Whilst my project is not 100% complete, I present to the Panel my preliminary findings and I am happy to share the full report once it is finished.

Methods

- A systematic literature search of the health impacts of air pollution and of evidence-based interventions that have been conducted in other regions and countries
- Qualitative research including a focus group with 5 members of the WDCF. Focus group discussion analysed with thematic analysis
- A comparison of Air Quality Action Plans (AQAPs) measures between Southampton, Bristol, Kingston-upon-Hull, Liverpool, Northampton, Oxford, Suffolk Coastal and Wiltshire.
- A scoring system to rate potential interventions identified from the literature search, focus group and AQAP comparison based on cost, safety, efficacy, public acceptability and the range of pollutants targeted.

Health Impacts

The literature review provided evidence that exposure to ambient air pollution has significant effects on the following: asthmatic mortality, heart failure, Ischemic Heart Disease, lung cancer, Sudden Infant Death Syndrome and children's cognitive function. Vulnerable people such as the elderly, children or those with existing co-morbidities experience worse health outcomes as a result of exposure to ambient air pollution.

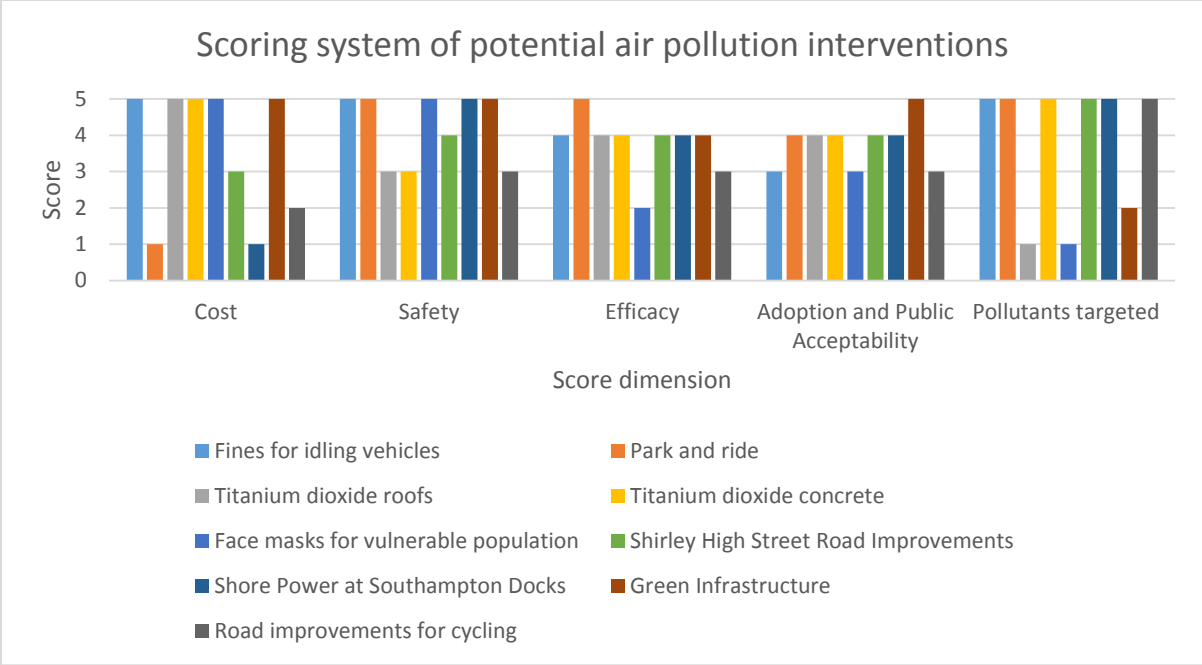


Figure 1 Ranking of the potential interventions by total score

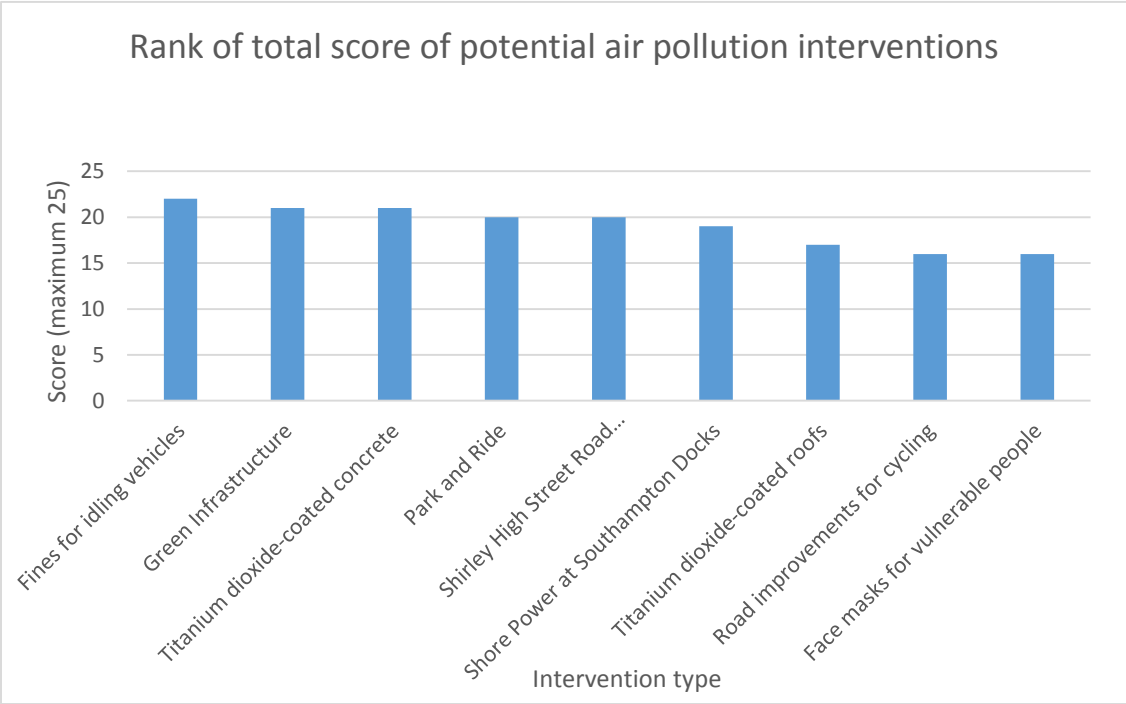


Figure 2 A comparison of potential interventions over the five dimensions

Summary of recommended interventions

Transport:

- Fines for idling vehicles (i.e. at railway crossings, taxis at taxi ranks, coaches, HGVs)
- Park and Ride

Docks:

- Green infrastructure (Silver Birch trees)
- Shore Power

Innovative Solutions:

- TiO₂ concrete
- TiO₂ roof tiles

Infrastructure:

- Shirley High Street road improvements
- City-wide road improvements for cycling

Decreasing vulnerability:

- Distribute face masks to vulnerable individuals signed up the Air Alert project

Public Relations:

- Lay summary of AQAP progress on Southampton City Council website

Detailed summary

Fines for idling vehicles

This has already been suggested in Southampton in a previous AQAP but was not taken forward. It remains a viable option. This is being implemented in Oxford as a part of their LEZ plan. Kingston-upon-Hull also have similar scheme but use fines as a last resort and instead use it as an education opportunity for drivers. At the focus group it was perceived as a good idea but they thought enforcement might be difficult, which could suggest that an educational approach is more appropriate.

Green Infrastructure

Green infrastructure would improve both ambient air pollution and improve resident's health, wellbeing and overall satisfaction with their living area. Silver birch trees are particularly effective at extracting NO₂ from the atmosphere and roads surrounding the docks could be lined with these trees to improve air quality in the surrounding roads. This could be implemented as a part of National Tree Week or a scheme run by local schools to involve schoolchildren in planting trees in their area.

Titanium Dioxide-covered (TiO₂) roofs and concrete

Innovative solutions such as applying TiO₂ were popular with the focus group. Concrete surfaces such as pavements can be covered with TiO₂ to extract NO₂ from the atmosphere. On concrete surfaces it can reduce NO₂ concentrations by up to 28.3%, although presently it wears off after 11 months so needs to be reapplied yearly. TiO₂-covered roof tiles are also being investigated and can reduce NO₂ levels by 88-97%, although the spray is not aesthetically pleasing. Roof tiles with TiO₂ in the actual material are available but at a cost of approximately 25% extra. The use of these roof tiles could be embedded within Planning Policy.

Park and Ride

Compared to the other 7 cities that were examined in this project, Southampton emerged as the only city without a Park and Ride facility. The focus group participants want to see a facility built and suggested the old Ford Worker's car park as a suitable site, but a site would also be required to serve the West side of the city.

Shirley Road

The design of Shirley Road is obstructive to free-flowing traffic. Pedestrian islands close by to bus stops mean that traffic gets stuck behind buses and cannot overtake. Shirley Road has the potential to be widened which could mean that lay-bys are built for buses or a continuous bus lane could be installed to ease congestion.

Shore Power at Southampton Docks

Shore Power at the docks would considerably reduce the levels of pollution. It is wanted by other docks (i.e. Felixstowe Docks) but as an expensive intervention it might raise the cost for ships, making the docks less competitive. Shore Power for all ports in the UK should be integrated into a national policy.

Road Improvements for Cycling

Participants at the focus group felt that cycling safety was a prohibiting factor for increased cycling rates in Southampton. Cycle lanes need to be considered with all new road developments and where possible, cycle lanes should be constructed on busy roads to keep cyclists safe.

Face Masks

Providing face masks for vulnerable people as a part of the Air Alert project could be an effective method of reducing individual exposure in the most vulnerable.

Public Relations

At the focus group it emerged that residents were dissatisfied with council public relations. They felt they did not have enough information on progress of air pollution action. A clear summary on the website (as seen on Suffolk Coastal's website) would be more user-friendly than a technical Progress Update report for the general public.

Agenda Item 8

DECISION-MAKER:	SCRUTINY PANEL		
SUBJECT:	AIR QUALITY IN SOUTHAMPTON: A RESIDENTS PERSPECTIVE		
DATE OF DECISION:	18 th SEPTEMBER 2014		
REPORT OF:	ASSISTANT CHIEF EXECUTIVE		
<u>CONTACT DETAILS</u>			
AUTHOR:	Name:	Louise Fagan	Tel: 023 8083 2644
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Director	Name:	Suki Sitaram	Tel: 023 8083 2060
	E-mail:	Suki.sitaram@southampton.gov.uk	
STATEMENT OF CONFIDENTIALITY			
None			

BRIEF SUMMARY

For the second meeting of the Air Quality Inquiry the Panel will be provided with a residents perspective of air quality in Southampton. The Western Docks Consultative Forum have been invited to deliver a presentation on air quality in Southampton. This will be followed by feedback from the air quality survey, undertaken to inform this inquiry, completed by nearly 300 residents.

RECOMMENDATION:

- (i) The Panel is recommended to consider the comments made by the Western Docks Consultative Forum and from the resident air quality survey and use the information provided as evidence in the review.

REASON FOR REPORT RECOMMENDATIONS

1. To enable the Panel to compile a file of evidence in order to formulate findings and recommendations at the end of the review process.

ALTERNATIVE OPTIONS CONSIDERED AND REJECTED

2. None.

DETAIL (Including consultation carried out)

3. The Western Docks Consultative Forum have been invited to present their views on air quality in Southampton. The Western Docks Consultative Forum are a resident's group who were established in 2013 in response to the Helios Bio-mass planning application. The group are committed to building relationships between communities and the ports.
4. As part of the inquiry an air quality survey was produced to help the Panel gain an insight into resident's views on air quality in Southampton. The survey ran from 7 August 2014 – 5 September 2014 and was widely promoted through social media. The survey received 298 responses and the results are

appended to this report (appendix 1). This response demonstrates how important the issue of air quality is to Southampton residents.

- The guests invited to present information at the meeting will take questions from the Panel relating to the evidence provided. Copies of any presentations and colour copies of the survey results will be made available to the Panel.

RESOURCE IMPLICATIONS

Capital/Revenue

- N/A

Property/Other

- N/A.

LEGAL IMPLICATIONS

Statutory power to undertake proposals in the report:

- The duty to undertake overview and scrutiny is set out in Part 1A Section 9 of the Local Government Act 2000.

Other Legal Implications:

- None

POLICY FRAMEWORK IMPLICATIONS

- None

KEY DECISION? No

WARDS/COMMUNITIES AFFECTED:	None directly as a result of this report
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SUPPORTING DOCUMENTATION

Appendices

- | | |
|----|--|
| 1. | Air quality – residents survey results |
|----|--|

Documents In Members' Rooms

- | | |
|----|------|
| 1. | None |
|----|------|

Equality Impact Assessment

Do the implications/subject of the report require an Equality Impact Assessment (EIA) to be carried out.	No
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Other Background Documents

Equality Impact Assessment and Other Background documents available for inspection at:

Title of Background Paper(s)	Relevant Paragraph of the Access to Information Procedure Rules / Schedule 12A allowing document to be Exempt/Confidential (if applicable)
1. None	

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Scrutiny Inquiry – Air Quality

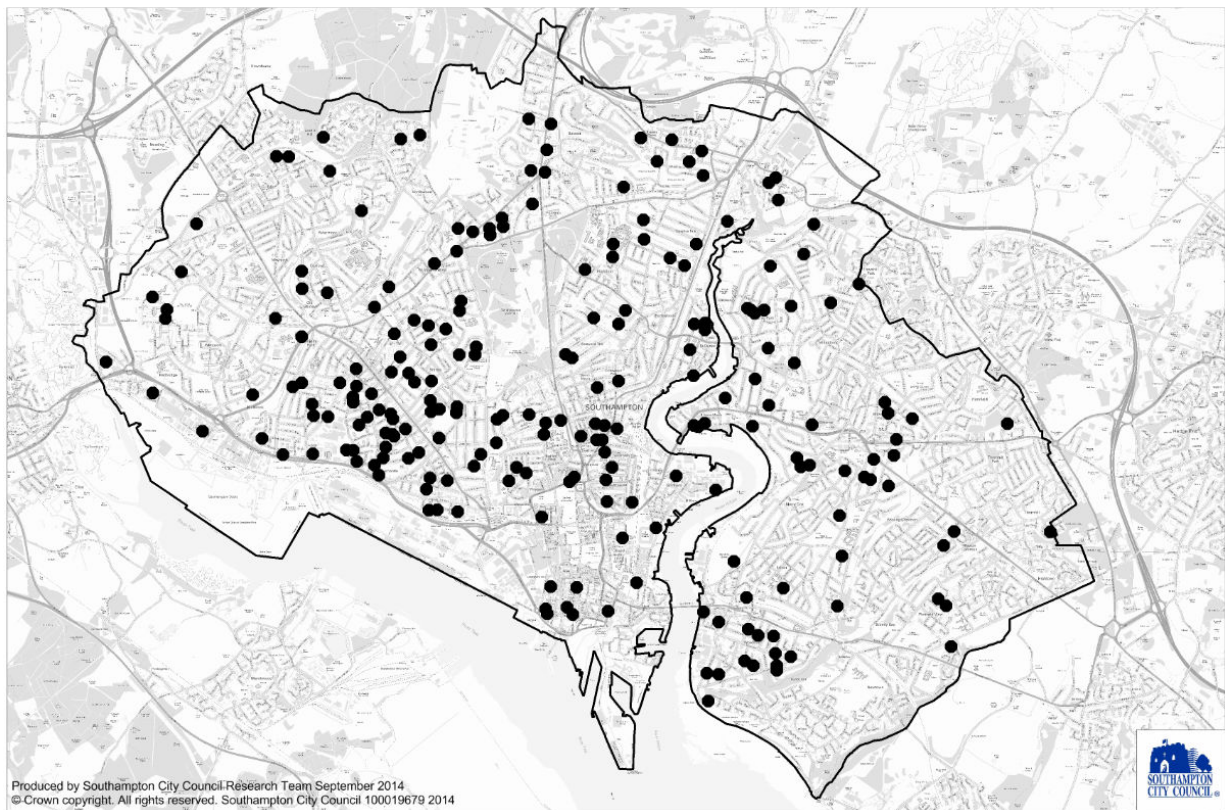
Air quality in Southampton – A resident's perspective

Survey results

Introduction

To gather views on air quality in the city a survey canvassing resident's views was undertaken for the scrutiny inquiry. The survey ran from Thursday 7th August 2014 to Friday 5th September 2014 and received 298 responses from across the city (figure 1). The number of responses received was in excess of expectations and gives a clear indication that people are interested about air quality in Southampton.

Figure 1. –Location of Southampton survey respondents (by postal code)



Methodology

The survey was promoted through the following sources: -

- Hosted on the Southampton City Council consultation webpage
- The Community News and Events newsletter (5,417 subscribers)
- The Communities Facebook page (1,009 likes)
- The Communities Twitter account (2,972 followers)
- The Members Bulletin (Southampton City Council Councillors)
- Southampton Friends Forum (Green spaces volunteers in Southampton)
- The Weekly Bulletin for Southampton City Council staff
- 1,850 contacts on the Southampton City Council's Communities database (incl. Voluntary Organisations, Community groups and individual residents)

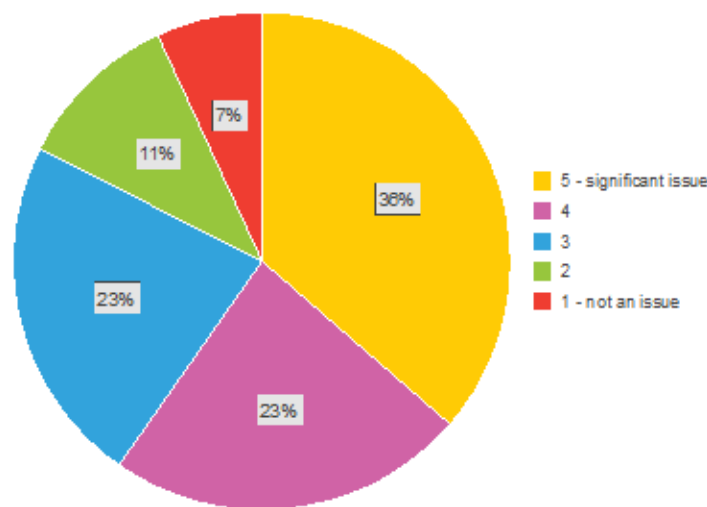
Findings

Whilst recognising the limitations of the survey due to its self-selecting nature, the following findings have been identified.

Question.1 – What are your views on air quality in Southampton?

291 respondents gave their view on air quality in Southampton and were asked to represent their view on a sliding scale, 5 being a significant issue, 1 being not important. 106 (36%) of those respondents felt that air quality is a significant issue. Whereas in contrast 20 (7%) respondents felt that air quality is not an issue in the city. (Figure 2). From the remainder of the 291 respondents, 68 (23%) had chosen 4, 66 (23%) had chosen 3 and 31 (11%) respondents had chosen sliding scale point 2. More than half (59%) of the respondents selected the higher points on the sliding scale (4-5).

Figure 2. – Q.1 what are your views on air quality in Southampton?



Question.2 – Which of the following do you feel contribute to air quality in Southampton?

Respondents were then asked to select sources of pollution they feel contribute to Southampton’s air quality. There were a total of 293 responses to this multiple choice question, which resulted in respondents identifying that cars, Heavy Goods Vehicles (HGVs), industry, buses and shipping and other port based activities as contributors to the city’s air quality (Figure 3 and Figure 4). There were fewer respondents (80) who felt that both pollutants from outside the city and background pollution (e.g. household boilers) are also contributing to the air quality in Southampton.

Figure 3.- Q.2 which of the following do you feel contribute to air quality in Southampton?

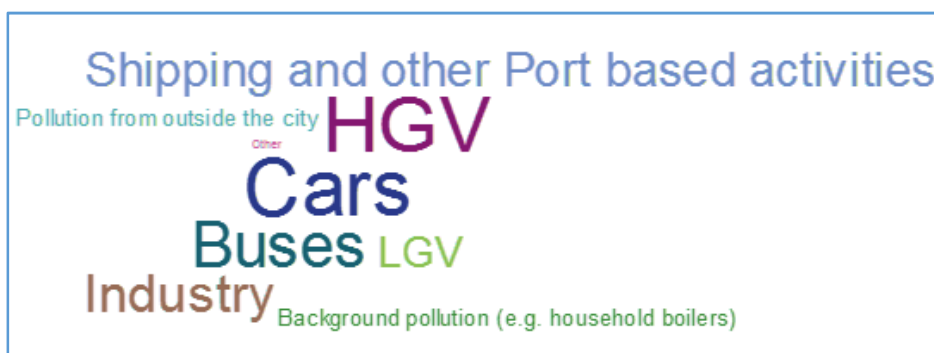
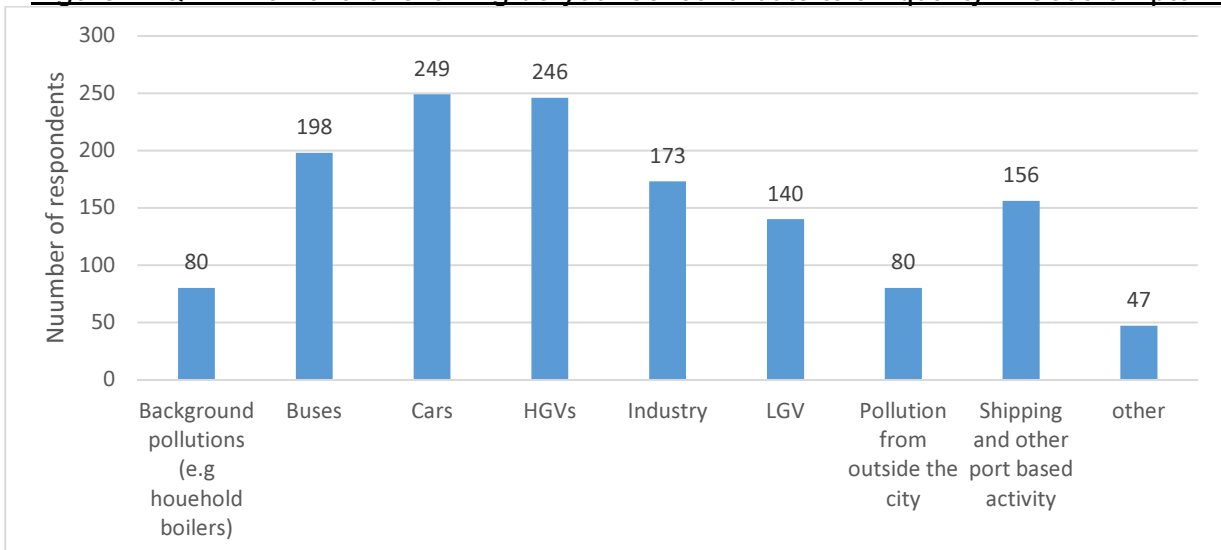


Figure 4. Q.2 which of the following do you feel contribute to air quality in Southampton?



In addition to the above, 47 respondents selected the other category. 14 of those respondents felt that the airport and associated aircraft contribute to the city’s air quality. 7 respondents identified the aroma of sewage as a contributor, the respondents also shared that they felt those smells were coming from Riverside Park and the Millbrook, St Deny’s and Woolston Sewage Works. 4 respondents thought that bonfires (commercial, domestic and allotments) contribute to poor air quality and there were 2 respondents who feel that smokers contribute to air quality in the city.

Question.3 – Which of the following do you feel is the most significant contributor to air quality in Southampton?

When respondents were asked what they felt is the most significant contributor to air quality in the city, cars (44%) were the most popular choice (figure 5), followed by HGVs (20%) and industry and shipping and other port based activities (10%). For ease of reference, the same question was cross analysed with respondent postal code and then plotted (figure 6). Predictably, there was a correlation between concerns about levels of pollution from the ports and sewage works and the views of those living nearest these locations.

Figure 5. Q.3 which of the following do you feel is the most significant contributor to air quality in Southampton?

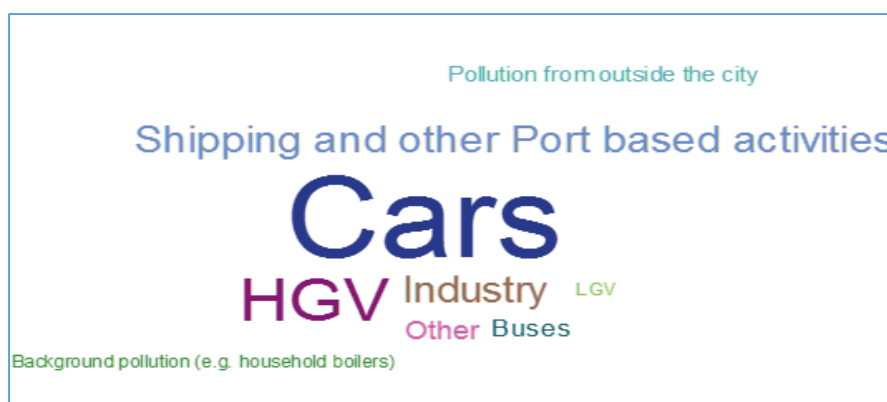
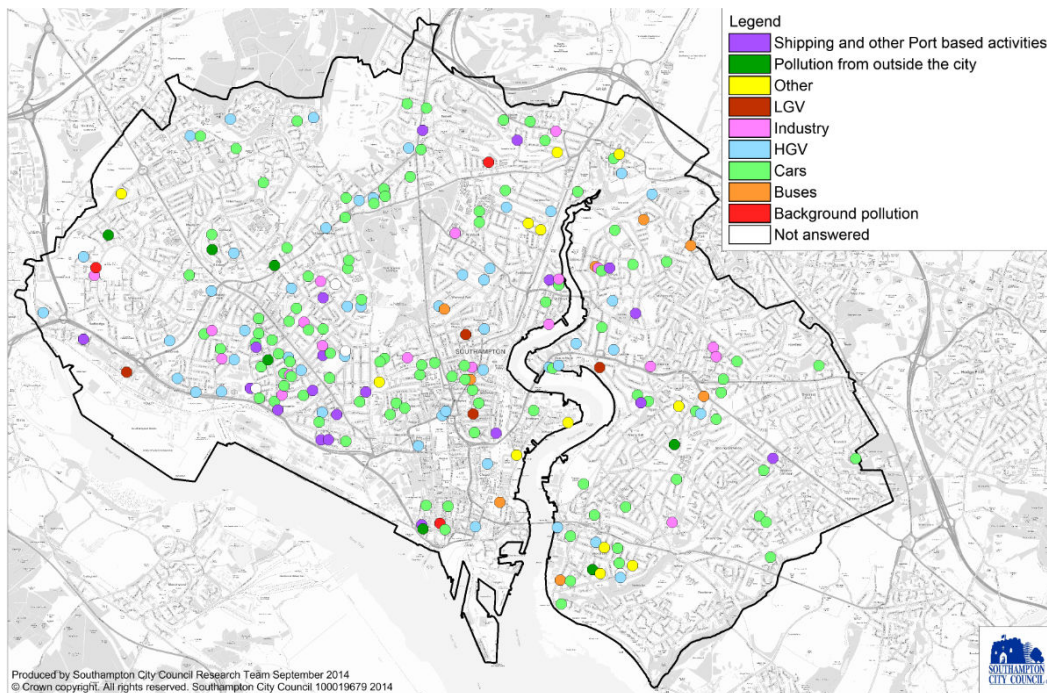


Figure 6. Q.3 Cross analysis - which of the following do you feel is the most significant contributor to air quality in Southampton by respondent postcode



Question. 4 – What do you think can be done to improve air quality in Southampton?

Due to the detail contained within the responses to this question, the findings are shown at the end of this report.

Question. 5 – In recent years, do you feel that air quality in Southampton has changed?

294 respondents answered the question and, as shown in figure 7, 173 (59%) felt that air quality has worsened. Only 12 (4%) respondents felt that it has improved, 52 (18%) respondents simply do not know, 57 (19%) respondents felt that the air quality in the city has remained the same in recent years. Figure 8 shows the respondents by postcode, those who felt that air quality had worsened over recent years, are evenly spread across the city. A few respondents with respiratory conditions such as asthma raised the point that they felt their condition has worsened either in recent years or since moving into the city.

Figure 7. Q.5 In recent years, do you feel that air quality in Southampton has changed?

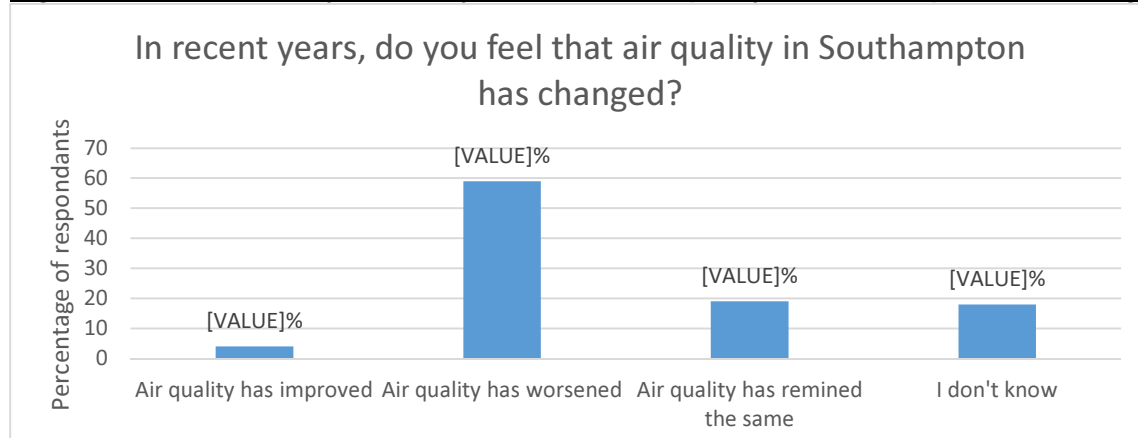
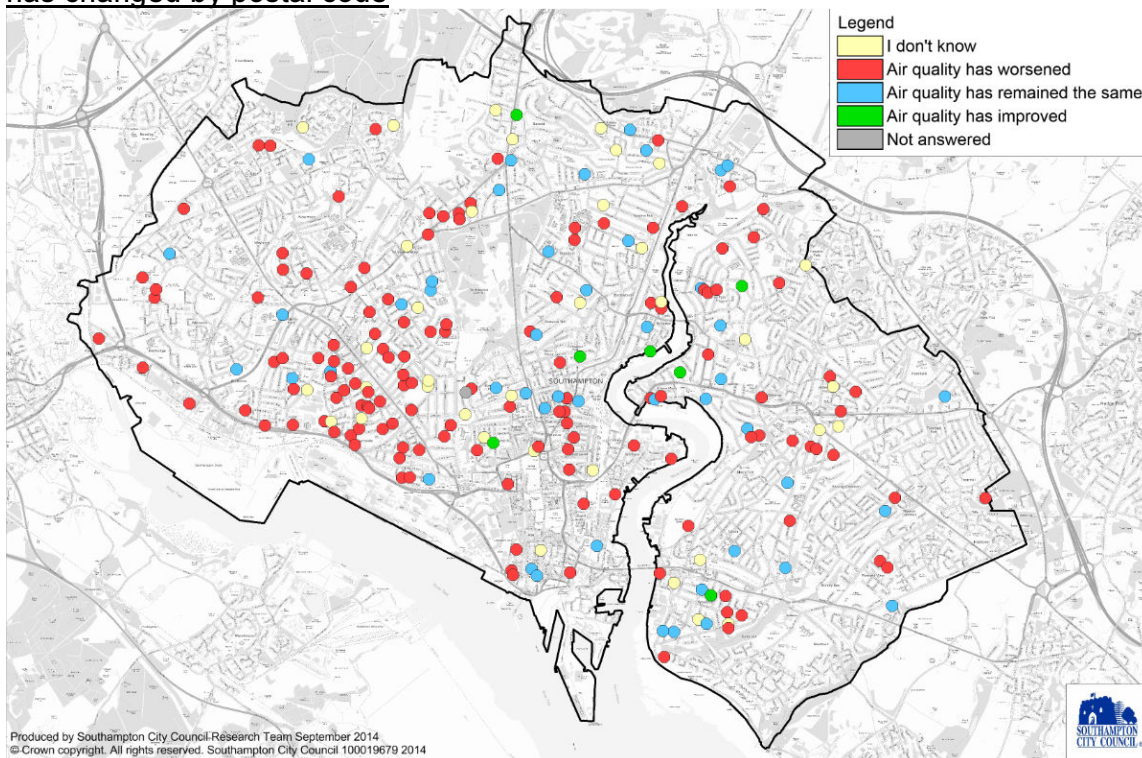


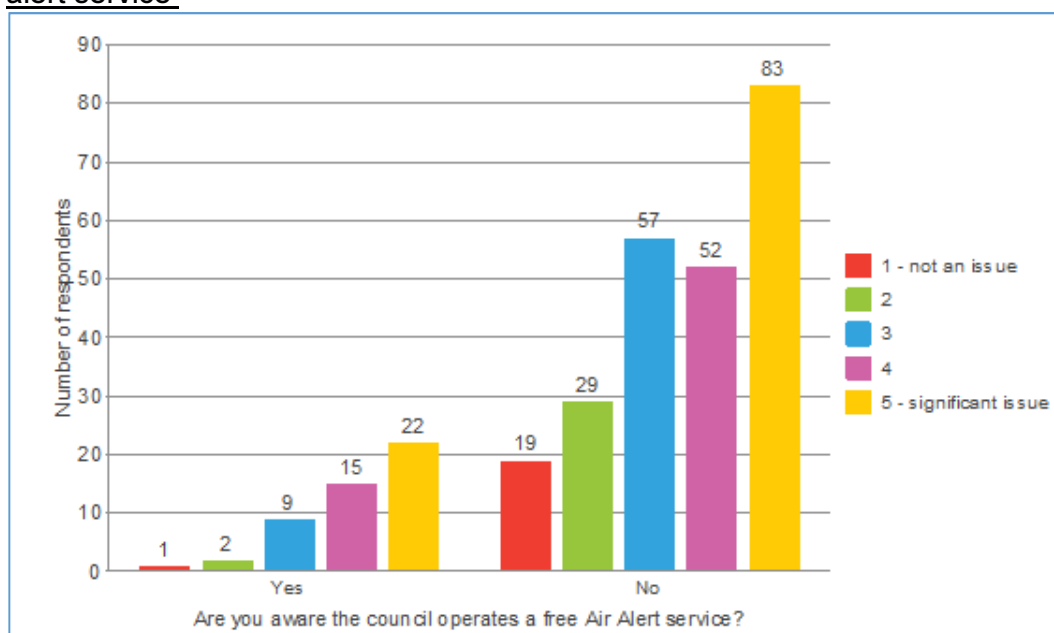
Figure 8. Q.5 Cross analysis -In recent years, do you feel that air quality in Southampton has changed by postal code



Question. 6 – Are you aware the Council operates a free Air Alert service?

Air Alert is a free service that sends out messages direct to registered users informing them about air pollution levels in their area. Out of the 285 respondents who answered the question asking if they were aware the Council operates its Air Alert service, 245 (83%) were not aware that the Council operates such a service. Interestingly, 83 out of those 245 respondents (figure 9) who were not aware of the Air Alert service had answered that they felt air quality in Southampton is a significant issue to them.

Figure 9. – Cross analysis – ‘Views on air quality in Southampton by awareness of the air alert service’



Question. 4 – What do you think can be done to improve air quality in Southampton?

The survey asked respondents to share ideas on ways to improve air quality in Southampton. A total of 238 out of the 298 respondents gave feedback. A wide variety of suggestions were received, covering a range of issues. A summary of the responses is shown below.

Public Transport

The most popular suggestion on how to improve air quality in the city, 26% respondents, was related to public transport. Respondents felt there is a need for bus and train companies to review their fares, networks and improve their services as a whole. Respondents felt that by making Public Transport more appealing for residents, this would in turn lead to improving air quality in the city. Included in the comments, were suggestions around improving the bus fleet by making buses more environmentally friendly for example running them on LPG (Liquid Petroleum Gas) or electricity. A respondent said that the Council should also make their own fleet more environmentally friendly by introducing electric vehicles and to install more electric charging ports for cars in the city. A few respondents suggested installing a tram or other public transport in the city centre, which could also be used by the docks and through to Shirley High Street. One respondent said that taxis should be prevented to using the inner town area.

Park and Ride

Another popular suggestion, identified by 23% respondents, is for the Council to introduce a Park and Ride service in the city. Respondents suggested possible sites to locate it and Oxford City's Park and Ride scheme was recommended as being good practise. One respondent shared that whilst modal shift schemes such as 'My Journey' are very good, for it to happen on a large scale then it could only happen through a Park and Ride scheme. Another suggested a small scale Park as this Ride would encourage car sharing, the use of public transport and more cycling. One respondent stated that car parking fees should be increased to make it less cost effective to drive.

Cycling

16% of the respondents made suggestions around cycling. The results show how passionate respondents were about improving and introducing new cycling routes, to encourage more residents to use this form of transport. The annual Sky Ride event that takes place in the city was praised and one respondent had mentioned Southampton should implement a similar event on a more permanent basis similar to Bristol's 'Make Sunday's special' and Bogota's 'Open streets' schemes. Respondents suggested introducing a cycle hire scheme in Southampton.

Lowering speed limits

Several respondents who felt that lowering speed limits to 20mph, either across the city or in residential areas, it would help improve air quality across the city. One respondent suggested that the Council need to lower the speed limit on the Avenue to 30mph and introduce road markings (south of Burgess Road) to help calm traffic. Many respondent's made comments about the number of traffic light systems in the city and that this should be looked at because traffic must keep flowing. One respondent shared that the Council should not be afraid to trial new traffic schemes and another suggests improving the coordination of road works and added that the Romanse system is poor and both need improvements.

Low Emission Zone

It was also suggested that the Council should introduce a Low Emission Zone within the City Centre, which includes Canute Road, Platform Road, Town Quay Road, Western Esplanade and West Quay Road.

Planting trees

Furthermore, 7% of respondents suggested that by improving green infrastructure through planting more trees and investing in open spaces would help improve air quality in the city. One respondent shared that planting Silver Birches, known for their pollutant absorbing leaves, would help and that they could be planted in the most polluting areas of the city. Respondents suggested that trees could be planted around the docks, Millbrook Road and in Bevois Valley areas. Another respondent said increase planting near roundabouts and pavement and another suggests that the Council could do more publicity on educating residents to encourage more tree planting and to promote eco initiatives for residents to get involved with too. It was also suggested that bonfires on allotments, the burning of residential and commercial waste should all have tighter regulations.

High-efficiency particulate air filters

A respondent suggested that the Council could install kerbside HEPA (High-efficiency particulate air) filters to help reduce pollution.

Congestion charge

Respondents said that a congestion charge should be introduced in the city.

No idling

On the other hand, respondents feel that more could be done on the idling of vehicles by introducing 'no idling zones'. Islington Borough Council's 'Don't be idle campaign' was given as an example of best practise of an area having already initiated such a scheme.

Air Quality Monitoring Stations

A few respondents disagree with the removal of Air Quality Monitoring Stations and suggest they should be reinstated. Whereas, it was suggested that monitoring stations themselves could be made mobile. The mobilisation of monitoring stations would allow various sites across the city to be monitored more frequently.

Air quality information

There was also a suggestion for the Council to do more around publicising its free Air Alert service. There were also respondents who said the Council could be more proactive in feeding back air quality results to residents, one respondent said for these to be more accessible possibly in the form of a graph. Another suggested that a map could be produced showing the most polluted areas of the city allowing cyclists and pedestrians to avoid those areas and another suggested 'real time' alerting would be beneficial.

HGVs

Redirecting and restricting HGVs was suggested. This includes using certain routes in the city and introducing a curfew on HGVs in the city outside of 9-5pm. It is also suggested that more businesses in the city should be made to use the distribution centre at Nursling. There was a suggestion to ban HGVs from using Winchester Road, except those visiting business and that HGV use on Millbrook Road should be limited. One respondent recommended that HGVs should be instructed to meet a pollution standard similar to London and another suggested improvements to be made to HGV queuing areas.

The Port

Whilst respondents recognised that the port and its activities are a significant contributor to the local economy and a number made suggestions that the port should investigate in developing a way for ships to get electricity from the shore and not to use polluting on board generators. One respondent said better management of cruise ship timings is needed by limiting the number of ships docking at any one time.

Industry

There were respondents who suggested that the Council must restrict further hazardous and health harming industries in the city and another shared that Fawley Oil Refinery should have more stringent inspections. A respondent shared that the Council should introduce initiatives to encourage industries to want to make a change and reward businesses who are proactive in helping to reduce air pollution. In contrast to this, another respondent shared that there is a need to increase planning controls on industry and increase business rates for those which generate the most pollution.

Shirley High Street

On various occasions Shirley high street was highlighted as a 'pollution hot-spot', especially with buses. Some respondents felt that more could be done to improve this, such as redirecting some buses and reviewing schedules.

National Policy

A respondent shared that air quality is an issue for central government and that government need to implement nationwide plans to tackle polluting cars and HGVs. Another respondent shared that there should be a national 'hotline' phone number to enable the whistleblowing of polluting vehicles, which could then be followed up by professionals and another suggests that there is a clear need to apply standards on emissions on vehicles. Another respondent suggested that there should be higher taxes on homes with more than one car.

Culture Change

Finally, one respondent stated quite powerfully that a change of mind-set for all is needed in order to improve air quality in the city.

Conclusion

In conclusion, the number of responses received was in excess of expectations and gives a clear indication that residents across Southampton are interested about air quality. A high percentage of respondents felt that cars are the main contributor to air quality and that it has worsened in recent years.

Overall, the results of the survey have provided the Panel with additional evidence that can be used to challenge the consultees who are scheduled to attend future meetings of the inquiry and shape potential recommendations.