

		AGENDA ITEM 4
		PSEG/10/18
Committee:	Place Services and Economic Growth Scrutiny Committee	
Date:	17 May 2018	
Update on an Air Quality Policy		
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Background

An amended motion below was proposed by Councillor S Walsh and seconded by Councillor T Cutmore at December 2017 Full Council. In summary, it highlighted that the Place Services and Economic Growth Policy and Scrutiny Committee is undertaking a review of air quality issues and asks that Committee to consider a number of suggestions and make appropriate recommendations to the Cabinet Member, as part of the review.

The Place Services and Economic Growth Policy and Scrutiny Committee met on the 22nd February and a presentation was given on the Clean Air Review and the seven issues raised at full council

The item was introduced by Cllr Walsh, Portfolio member for Waste and Environment and it was presented by Mark Ash, the Director for Waste and Environment and John Meehan, the Head of Sustainability and Resilience. The Committees agreed to re-evaluate the topic at the next full committee (May) to give the proposal of a Task and Finish Group serious consideration.

A number of questions were raised at the meeting of 22 February and this paper seeks to address these.

Overview

Air pollution is the biggest environmental risk to health. Globally, nine out of ten people live in a city that does not comply with WHO air quality standards. Within the UK, poor outdoor air quality is linked to 50,000 deaths each year. The most vulnerable are children, the elderly, or those with pre-existing medical conditions. The design of our urban and rural infrastructure, particularly road infrastructure, determines where air pollution is produced, and how it is dispersed.

This is a multifactorial problem which requires a holistic solution.

Essex Context

Essex is a large County with differing circumstances affecting different communities. West Essex lies in the wind shadow of London, a global City with significant air quality issues. The M25, M11, A12 and A13 are large roads generating poor quality air. Likewise Stanstead Airport generates poor quality air too. In addition, there are pockets of pollution in industrial areas, shipping ports, train stations, and some large farming complexes.

Reported levels of air quality are focused where residents are directly affected by the nearby pollution source. In most cases these are households close to major roads. Other sources of air pollution such as sulphur emissions from shipping or particulate emissions from farming practices whilst measured are not considered a major factor in impacting upon human health. Emissions from industrial processes are also measured (and reported to the Environment Agency) and districts and boroughs will be aware of these 'sources'. There are two main traffic generated pollutants where data is collected and there is a requirement of local authorities to implement reductions:

1. **NO_x**, this is a generic term for the nitrogen oxides that are most relevant for air pollution, namely nitric oxide (NO) and nitrogen dioxide (NO₂).
2. **Particulate Matter (PM₁₀, PM_{2.5})** Particulate Matter is a non-gaseous air pollutant, made up of various different shapes and particle sizes. PM₁₀ refers to the sizes of particles which incorporates all sizes of 10 microns or less, PM_{2.5} incorporates all sizes of 2.5 microns or less.

Until relatively recently (2009) the major PM source was from industrial processes, however the promotion of diesel cars in favour of petrol (to reduce CO₂ levels) has seen an increase in levels of PM_{2.5}.

It is a district/borough responsibility to measure and report pollution levels, and declare Air Quality Management Areas (AQMA's) to Defra. However the majority of sites have been declared due to the proximity of residents to roads. In these cases the districts/boroughs work closely with Essex County Council in developing action plans to address the issues.

Essex County Council Strategic Focus

Improving the air quality of Essex will meet our strategic aims and priorities as set out in the Organisational Strategy.

It will meet the **strategic aim** of:

- helping to create great places to live and work.

It will also meet our **strategic objectives** of:

- helping to secure sustainable development
- protect the environment and also improving the health of the people in Essex.

Progress on the Air Quality Review Issues

Cabinet members proposed an overarching Air Quality policy which could include many recommendations.

Part of an Air Quality Policy would be

- 1) coordinating the considerable work which is being done across Essex County Council
- 2) Proposing new areas of work to improve Air Quality

Two questions in particular are addressed in this paper:

- 1. What could ECC realistically influence in terms of air quality?**
- 2. What are the definitions of a polluting car and what does data reveal to be the most polluting?**

To respond to these questions it would be beneficial to consider these against existing policies and actions.

1) What is already being done across Essex County Council

Throughout the Authority there are already actions and schemes being undertaken to address the issue of air quality within Essex:

a) Existing Environmental Standards for procured Essex Services

Services provided or commissioned by the Council are contracted with regard to their effects on air quality, and contractors are also expected to abide by the provisions of the overarching policy. Procurement and users of the Corporate finance system (TCS) ask suppliers to adhere to the industry environmental quality standards (ISO14001 etc. or similar).

What more could be done?

Current contracts managed by Category Managers could be further evaluated to a baseline air quality consideration. Existing services which appear as if they can be improved could be highlighted and re evaluated eg Some Essex buses seem to be older and therefore more polluting?

b) Lowering emissions via staff travel expenses

ECC sets out the most environmentally friendly way to travel during work in “Making Sustainable Travel Decisions” which is a guide to using alternative forms of transport other than the car. The guide explains how ECC provide expenses for cycle mileage and car sharing.

What more could be done? Should a new Policy consider enhancing these non-polluting expenses to make them more attractive?

Consideration could be given to lowering car expenses on larger, more polluting cars. It would be difficult to penalise the “most polluting vehicle” as the size of the engine, the differing fuels etc. are still being debated in terms of which are the most polluting.

Since 1992, European Union regulations have been imposed on new cars since 1992 to improve air quality. The regulations have become more stringent by design to define acceptable limits for exhaust emissions. The evolution of emissions standards can be viewed below. ECC may wish to consider using this table to define the most polluting vehicles.

Emissions standard	Applied to new passenger car approvals from:	Applied to most new registrations from:
Euro 1	1 July 1992	31 December 1992
Euro 2	1 January 1996	1 January 1997
Euro 3	1 January 2000	1 January 2001
Euro 4	1 January 2005	1 January 2006
Euro 5	1 September 2009	1 January 2011
Euro 6	1 September 2014	1 September 2015

c) Ensure that reduction of air pollution is properly considered in planning determination and comments on any Local Plan reflect improving air quality

This is carried out by the Environment team, the Sustainable Travel team and the Essex Highways teams who seek to promote and create public transport infrastructure, modal shift, and electric vehicle facilities to be a central part of any Local Plan. An example is the adoption by Epping Forest that all new developments include charging points for electric vehicles as standard.

Air quality can be a material consideration in the planning process for development proposals, particularly if the application may:

- conflict with proposals in an Air Quality Action Plan;
- lead to a deterioration in air quality as a direct result of the proposal;
- increase human exposure in areas of existing poor air quality.

Local and ECC planners consistently reiterate these issues.

d) Supporting cycling and walking as a safe alternative to petrol driven transport

ECC has a Sustainable Travel team, Public Rights of Way team and an Active Essex Team who are fully engaged in this agenda. ECC also support cycling through our countywide and district cycling strategies.

The Sustainable Travel Team has a variety of existing schemes to promote and market the use of sustainable travel

- The Bike loan scheme for ECC employees
- The Free Bike store of 30 bikes for use by ECC employees
- An annual Cycling Grant of c £100,000 to encourage cycling across Essex which is bid for by cycling and community groups
- The Cycling Ambassador Programme
- Consultation on Travel Plans for new developments
- The Bikeability scheme which improve the cycling skills of school children
- Promotion of Dockless bike schemes in Essex

There is a current consultation with ECC staff regarding modes of transport for getting to and from work and the committee may want to have sight of the results to inform its work.

Essex Highway have recently put up signs on the core Harlow cycling network to encourage more use, but there is a recognition that many older cycleways need new signage and maintenance. Essex Highway have secured £1.2 million for the cycling network around the A127 in April 2018.

ECC are supporting the Garden Communities development which is likely to have some major impacts on improving air quality as we strive for 60% sustainable travel use from these developments.

e) Incorporating Air Quality Issues into current and developing Strategies

Within Essex County Council there are already a number of existing strategies and policies which either directly or indirectly take air quality issues into consideration.

These Strategies are:

Energy & Low Carbon Strategy

Sustainable Modes of Travel Strategy

Green Infrastructure Strategy (in development)

Cycling Strategy

Walking Strategy (proposed)

Finance Regulations,

Procurement rules,

Public Health Strategies

f) Liaison between Essex Highways and national and local partners

Essex Highways are in constant dialogue with the districts and boroughs, Highways England and a wide variety of other partners. Part of their remit is to reduce congestion and part of the rationale for this is to reduce pollution, particularly in built up areas.

Essex Highways have worked with Colchester and Saffron Walden to seek to remove traffic from the town centre. In the case of Colchester bus technology has been improved to reduced emissions. ECC announced in February 2018 £1,072,500 was secured from The Department for Environment, Food and Rural Affairs' 'Clean Bus Technology Fund'. The money was secured through a joint bid with Colchester Borough Council, Rochford District Council and Southend-on-Sea. It will be used to retrofit 60 Arriva and First buses in the Colchester and Rochford Air Quality Management Areas to Euro VI, which is the highest emissions standard. Another bid for this funding is being prepared.

To further consider what else can be influenced or achieved the committee might like to give consideration to asking the Task and Finish group to considering The benefits of an overarching Air Quality policy including:

- Recommending the use of Green Infrastructure and trees to ameliorate pollution.

- The establishment of County Wide Monitoring, including monitoring of PM_{2.5}
- The creation and enlargement of Low emission Schemes and Strategies
- The further promotion of clean or alternatively fuelled vehicles
- The review of existing Travel Plans and the development on new Travel Plans
- The development of a County-wide Schools education programme about the effects and prevention of pollution
- The better use of Section 106 funding to improve air quality
- Promoting the role of renewable energy to improve air quality
- A comprehensive Public Engagement programme to explain the air quality issue and create behaviour change to improve the situation

The Local Government Association published a report in March 2017 called Air Quality – A briefing for Directors of Public Health had the following to say on what local authorities could do:

There are many things local authorities can do to tackle the health impacts of local air pollution – and to do so cost-effectively.

While overarching regulations like vehicle emissions standards are controlled by governments and the EU and new vehicle and appliance designs by industry, local authorities have many powers in:

- traffic and parking management
- street design and road layouts
- planning
- using idling powers
- public and school transport policies
- forbidding the dirtiest vehicles or favouring clean vehicle fuels like petrol, LPG or CNG over diesel and bio-diesel
- installing electric vehicle charging points
- reviewing and enforcing Smoke Control Areas
- low or zero emission last mile services
- fleet management and car clubs
- vehicle and building air conditioning
- building energy efficiency and cleaner heat sources

All these actions are potential ways to reducing emissions, concentrations or exposure to pollution.

Any improvement in air quality will have positive health consequences. Improvements to air quality are also an important co-benefit of interventions targeting other health outcomes, such as active travel and increased physical activity.

Actions to address the health impacts of air pollution can also play a critical role in supporting other local priorities such as health inequalities, care integration and supported self-management, sustainability, growth and regeneration and localism and community engagement.

Future Public Engagement Programme for the Clean Air Policy

Public engagement/consultation is a key part of the success of a new policy. Whilst there are clear benefits of the Clean Air Policy that is consulted upon, it needs

present a coordinated air quality message across Essex. This has two strands; public and sectoral.

a) Engaging with Public:

For the Clean Air Policy to have credibility with residents this will only be achieved by consulting with them. For this Policy to have value we would need to have a clear vision of what we wish to achieve and equally importantly, what is achievable. Engagement could be undertaken using different media, such as;

- A number of Roadshows
- Social media campaigns
- Press and publicity
- A formal consultation period

b) Engagement with the sector

Of equal importance to engaging with residents, is the need to engage with internal and external partners. ECC already works closely with districts and boroughs in its role as the Local Highways Authority. Given the multifaceted effect of poor air quality it is important that the following internal partners are consulted:

i) Internal

- Public Health,
- Active Essex
- Finance,
- Procurement
- Infrastructure and Environment.

ii) External

Whilst the Authority will be drafting the policy, the successful delivery of actions will depend upon the engagement and support of various partners. At this stage the list is not exhaustive, and there will be the opportunity to widen the list as the process progresses.

- Essex Air Quality Consortium
- Essex Planning Officers Association
- The 12 Districts and 2 Unitaries
- Various Clean Air groups
- Neighbouring Authorities
- Universities
- Department for Environment, Food and Rural Affairs

Case Studies to exemplify clean air projects

1. Cleaner Buses

Buses in Essex are set to have lower emission after Essex County Council and partners secured more than a million pounds in grant funding from the Government in April 2018. The Council announced £1,072,500 secured from The Department for Environment, Food and Rural Affairs' 'Clean Bus Technology Fund'.

The money was secured through a joint bid with Colchester Borough Council, Rochford District Council and Southend-on-Sea. It will be used to retrofit 60 Arriva and First buses in the Colchester and Rochford Air Quality Management Areas to Euro VI, which is the highest emissions standard.

Essex is one of just 20 local authorities in the country to have secured funding and is now looking to upgrade buses as soon as possible. Some of the first buses expected to benefit from the upgrades will be in Colchester where commercial and Park and Ride services will be improved. A number of bus services which run along the A127 corridor, where air quality issues have been identified, are also set to benefit from the funding.

A second bid is in preparation.

2. Solar Panels on ECC Buildings

Following an assessment of all Essex County Council assets the following 3 sites were selected to install solar panels:

Canvey Island Library – 13kWp

Ely House – 100kWp

Freebournes – 152kWp

Total: 265kWp

These sites are providing ECC pollution free energy which can be used on site. The Waste & Environment Team are now investigating further sites owned by ECC.

3. Air Quality monitoring using Street lighting Management Systems

The proposed scheme will take place in First Avenue Harlow as part of the on-going lamp column upgrade. Sensors will be mounted on identified lampposts at 5 – 8m. It will be possible to display a range of common atmospheric conditions and pollutants concurrently to enable an assessment of air quality.

- Pollution sensors (CO, CO2, NO2, O3)
- Temperature + Humidity
- Wind

The dashboard will provide map views highlighting zones where air quality metrics can be seen over selectable time periods. If successful this could be a model to extend the real time monitoring network throughout Essex.

4. Electric Chargers at Park and Ride April 2018

Motorists are now able to charge their electric cars at four new charging points at the Sandon and Chelmer Valley Park and Ride sites. Electric Blue, in partnership with Essex County Council, installed the points at no cost to taxpayers and drivers are able to pay using a mobile app. Each point is capable of charging two cars at a time. In total, four cars can be charged simultaneously at each site, so depending on your battery size it should take roughly four hours to fully charge your car. “There are no subscriptions, connection fees or minimum spends. Motorists can buy a unit of energy for around 25 pence, so for a 22 kilowatt car battery it is possible to do up to 100 miles for £5.50

5. Electric Chargers along the A127 Corridor

Following ECC securing funding from Highways England there is now ongoing scoping work to ascertain the suitability of installing Rapid EV Chargers at key locations along this road – leading to an expanding network of charging infrastructure, ensuring EV’s replace ‘traditional’ vehicles.

6. On street community charging points.

The ECC Environment Team is working closely with Essex Highways colleagues and district/boroughs to evaluate opportunities for residential on street charging points. The project will be part funded by OLEV (75%) and we are looking at working with a provider to meet the remainder of the 25%.

Recommendation

It can be seen that there has been a significant amount of effort put into improving air quality in Essex and there is more that could be done. This is a substantial area but there are many great financial and non-financial benefits to improving air quality in Essex. It is recommended that consideration is given To establishing a Task and Finish Group to carry out a full review of what has been achieved and what should be done to understand better what further efforts could substantially improve the air quality of Essex