

LYNSTED with KINGSDOWN PARISH COUNCIL

13 January 2023

Claire Lydon
Senior Scientific Officer
Mid Kent Environmental Health Service



Dear Ms Lydon

SBC CONSULTATION on Air Quality Action Plan (2023-2028)

~ Response from Lynsted with Kingsdown Parish Council ~

CONTEXT/RATIONALE

SBC are obliged to take measures to reduce harmful pollutants below defined thresholds of harm identified by the European Union and, in due course, the thresholds identified by the World Health Organisation (WHO). The most pressing of harmful pollutants that need to be reduced is PM2.5, but this is not being measured at all by SBC. Instead, their primary focus is on NO₂, which has been reducing at a national level through changes in Government/EU policies on emissions – e.g., HGVs and diesel fuel.

Broadly, SBC's response to their legal obligations is to rely on measurement of NO₂ over which it has neither control nor accurate and timely measure within AQMAs. Worse still, within AQMAs where concentration of traffic and congestion has produced locally non-compliant levels of NO₂, SBC relies on the notoriously inaccurate annualisation of periodic (one month) deployment of diffusion tubes along the A2 in Teynham/Lynsted.

This lack of granularity in the evidence-base means SBC simply cannot claim to 'meet' government targets neither for the four most harmful pollutants (NO₂, PM_{2.5}, PM₁₀, and VOCs¹) nor the intensity of harmful pollution events over one hour, one day, or one year.

SBC has introduced PM₁₀ measurement in St Paul's Street (Sittingbourne) and Ospringe. They continue to reject "real-time" measurement uniformly across all declared AQMAs for all the pollutants identified in Government policy. This denies residents, workers and visitors any ability to judge their exposure to all four harmful products and change their behaviour accordingly, including active travel, gardening and exercising.

Rather than investing in their own network of comprehensive real-time monitoring stations for all pollutants in each AQMA, SBC officials rely on an argument of 'correlation' with 'equivalent' measurements found in Maidstone. SBC compares a fully urban topography with the through-traffic and congestion of AQMA5 [Source: Informal clarification by SBC Planning Officials at a public Working Group meeting in Swale House in July 2018 attended by LKPC].

Defra's examples of best practice promote the use of "real time" monitoring.
<https://laqm.defra.gov.uk/air-quality/air-quality-assessment/detailed-modelling/>

¹ Volatile Organic Compounds – which are also implicated in production of PM_{2.5} scale pollutants.

- SBC should be invited to “take a lead” by integrating a harmonised ‘real time’ network of monitors covering all four traffic-related pollutants. This would:
 - give policymakers an honest view of the problem at different times of day and across the seasons.
 - give residents meaningful and timely information to inform their decisions on active travel, exercise, outdoor leisure pursuits, opening windows, enjoying gardens etc.

OBJECTIVES

SBC identified a series of ‘measures’ in their AQAP 2018-2022 that can and should be challenged on progress and/or validity/relevance. What is missing is an **evaluation**, which often happens with policies that “roll over” one year to the next.

For the 2023 ‘update’, residents and PCs are quizzed on their views on the *achievability* of a limited slate of ‘new’ ‘interventions’. If you say “no” to a question, you can elaborate in comment boxes on the following page.

SBC’s overall objectives were (are?) (October 2018 AQAP Document):

“Introduction

This Air Quality Action Plan (AQAP) is being produced as part of the Council’s statutory duties required by the Local Air Quality Management framework. It outlines the strategic and local actions we will take to improve air quality in Swale Borough Council between 2018 and 2022.

Our key priorities are to develop measures which deliver compliance of air quality objectives through a combination of strategic and local focused AQMA measures. We have identified measures which target reductions in emissions from vehicle fleets (HGV, LGV and cars), smooth traffic flows and reduce congestion and protect local communities.”

The Terms of Reference for the latest Consultation.

“The updated plan outlines how we’ll:

- *Set up more car clubs and new bike hire schemes*
- *Install more electric vehicle charge points*
- *Work with Kent County Council to improve bus services and public transport infrastructure*
- *Explore traffic solutions such as creating one-way streets or installing chicanes to reduce or slow traffic in our AQMAs.”*

With the best will in the world, these ‘new ideas’ are little more than ‘greenwashing’ and are completely *out of scale* with the problems facing local communities - at least those communities outside our main towns. None of these can claim to make material inroads into the habitual reliance on private cars for domestic use and HGV/LGV use for commerce.

Indent 1: “We’ll set up more car clubs and new bike hire schemes”. A resident’s 24-hour manual count of traffic (21st/22nd July 2022) showed traffic volumes significantly higher (15,691) than the DfT manual count in 2019 (14,001 vehicles). This count predates the chaos created by M2/J5 shenanigans. Video files (x2) available on request.

The 2022 data reveals that 76.5% of traffic towards Faversham and 78.5% of traffic towards Sittingbourne is made up of private cars. In both directions there were only 27 bicycles (50% of which used pavements rather than the metalled road). Having more bicycles on hire is irrelevant to the conditions and lifestyles of people in the real world.

The national discussion of “active travel” is focussed solely on urban environments where distances are within the boundaries of willingness to use bicycles and alternative public transport exists.

In this context, the impact of Indent 1 is trivial and irrelevant to rural communities. Their impact on urban environments is also open to doubt.

The manual count referred to above reflects facts on the ground at a local level. At this local scale where the relationship between traffic and people is intimate – there are no mitigations. No opportunities to remove pollutants only feet away. National statistics for the period of Covid-19 dips in overall traffic at the height of the pandemic. At this national level, the differences between current and pre-2019 are narrowing. See, <https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic>

Indent 2: “We’ll install more electric vehicle charge points”. Yet SBC has stated it has no plans to include Teynham/Greenstreet. We note in the consultation document under Q3 that the option to “explore opportunities for EV charge points at AQMAs” specifically excludes AQMA5. Why? Probably because SBC’s thinking is well on its way to revoking AQMA5 based on flawed data. Without a perceived threat, the ‘educational’ value to our communities is discounted. However, this failure to install EV points in Teynham (pub car parks or the public car park) further downgrades the attractiveness and utility of investment in the future sustainability/relevance of Teynham/Lynsted.

Newington AQMA is comparable in topography/character but is not facing the same threats. See *Supplementary Note on AQMA5 status in SBC documentation below.*

Indent 3: “We’ll work with KCC to improve bus services and public transport infrastructure”. Is this an attempt to inject some humour into an otherwise dry subject? Public transport for rural communities has been emphatically revoked by KCC! The Council has withdrawn subsidies to private operators to run services that are not commercially viable. The consequence is that there will not be a single bus service in Lynsted with Kingsdown Parish and only an hourly service we understand along the A2 between Sittingbourne and Faversham. How exactly is SBC intending to work with KCC “to improve bus services” and what other “public transport infrastructure” are you referring to? The loss of ‘feeder’ services feels like the unintended consequences experienced after the Beeching hatchet-job on our railways.

This idea is another step in the process of cutting rural communities adrift to fend for themselves. In these circumstances, SBC may feel it has ‘free licence’ to dump on Greenstreet as it holds little value to them.

- Perhaps a more fruitful avenue for cooperation with KCC might include reclassifying/downgrading the KCC A2 stretch to make it less ‘visible’ to HGVs using satellite navigation. HGVs are not the problem on NOx but they are part of the generation of PM2.5 friction particles.

Indent 4: “We’ll explore traffic solutions such as creating one-way streets or installing chicanes to slow traffic in our AQMAs”. Traffic-calming measures are largely impossible along the A2 which provides a key emergency vehicle route in normal conditions but essentially during M2 incidents (or roadworks).

Current plans to reduce the speed-limit between Bapchild and Teynham/Lynsted to 30mph are largely irrelevant as speed throttling is designed to reduce severity of injury and death in

urban environments. Predominantly, that 'problem' only exists INSIDE Bapchild, Teynham and Ospringe. Is this idea preparatory to the coalescence of Teynham and Bapchild?

AQMAs are, almost by definition, the busiest and most congested environments. Further throttling 'by design' without reducing volume does very little to address the generation and impact of pollution. The evidence-base is ambiguous on how and whether speed restrictions are (a) observed and (b) effective in tackling pollution. This field of analysis is exclusively focussed on complex town and city conditions rather than a 'through route' between larger centres A and B.

Reducing traffic speed does not remove the count of vehicles and their generation and recirculation of friction particles as wind and traffic pass along the road surface. If friction particulates are to be reduced, there would need to be a change in driving behaviours (instead of braking/accelerating when vehicles are close to each other).

- Slower traffic reduces distances between vehicles with the consequence that there are fewer "pauses" creating opportunities for pedestrians to cross the A2.
- Shorter distances also lead to greater 'soot'/PM2.5 intake by following vehicles.
- TfL evidence base assessment. <https://content.tfl.gov.uk/speed-emissions-and-health.pdf>. Slower traffic does not correlate with, or lead to, reduced pollution - as traffic contends with the many dimensions of physical restriction and competition/conflict in driver (and pedestrian) decision-making.

If SBC succeed in revoking AQMA5, they can remove any need to address the impact on pollution and its harms from high volumes of transit traffic through a narrowed and built-up area where vehicles are suddenly exposed to complexity/vulnerabilities created by pedestrians, cyclists, rural lane ingress, parking, deliveries, agricultural traffic and large numbers of wide Commercial (HGV/LGV) traffic (20-22% of total traffic along the A2 at Teynham).

THE “MISSING INDENT” – Developments and pollution (NPPF)

Under NPPF, SBC is obliged to make decisions on planning that REDUCE impacts on AQMAs. They are obliged to consider “cumulative impacts” of their decisions.

Unable to address this linkage in AQMA5 it appears to be SBC’s preferred option to revoke AQMA5. Removing this status opens up opportunities to dump housing in this area without consequences.

We strongly oppose the suggested revocation of AQMA5.

We recommend the following initiatives:

- **An air quality strategy designed to reduce **volume** in order to have any impact. There should be a MORATORIUM (a new and direct Policy) on ALL planning proposals between the Eastern side of Sittingbourne and Ospringe.**
- **Introduce real-time, continuous measurement across all declared AQMAs for the four pollutants identified in Government policy - NO₂, PM_{2.5}, PM₁₀, and VOCs.**
- **Enforcement of bicycle use of pavements as they now have stronger (paper) protection amongst other road-users.**

In short,

- This consultation exercise is TRIVIAL in terms of its impacts and relevance in the real world;
- the likelihood of an attempt to revoke AQMA5 is the greater threat to our health and well-being because the decision is entirely dependent on NO₂ measurement. It also threatens arguments against future development proposals.

Supplementary Note - The Future of AQMA5

The most recent SBC Consultant's review contains some surprising conclusions based on flawed data series and prejudicial restriction to NO2 as the only measure of harm:

The latest SBC commissioned report suggests AQMA5 should be revoked despite the absence of real-time monitoring. Our own local monitoring (90-95% accuracy against reference devices) has shown frequent wide variations in harmful pollutants that EXCEED thresholds for harm over one hour (Very High) and one day (High risk of harm). SBC has refused on several occasions to acquire the relevant real-time data. Nor are they prepared to address the PM2.5 harms that remain more intractable than NO2 (which is declining due to national policies).

The **Swale Borough Council - 2022 Annual Status Report. Bureau Veritas, June 2022.**
<https://kentair.org.uk/report/swale-borough-council-annual-status-report-2022>.

Swale Borough Council considered revoking both AQMA No.3 (East Street) and AQMA No.5 (Teynham/Lynsted) in 2020, but further data was required to aid decision making due to COVID-19. Monitoring data for 2021 reports compliance at AQMA No.5, which now supports the revocation of AQMA No.5, since concentrations have been below the limit for the past 5 years. NO2 concentrations have shown a consistent decline year by year, with the maximum concentration within AQMA No.5 in 2021 at 25.3µg/m3.

The revocation of AQMA5 would be based on evidence bridging but including the Covid-19 period. Our video-count of traffic along the A2 (video evidence available on request) confirms that traffic levels are now above the DfT manual count of 2019. So, revocation now would be premature as it is based on flawed evidence.

The relevant guidance on "revocation" can be found here:
<https://laqm.defra.gov.uk/air-quality/aqmas/how-to-revoke-an-aqma/#:~:text=The%20decision%20to%20revoke%20an,used%20to%20reach%20the%20decision>.

An earlier Report: "Swale Borough Council - Air Quality Action Plan (2018 – 2022) - In fulfilment of Part IV of the Environment Act 1995 - Local Air Quality Management - (September) 2019 stated:

"Recommendations

We would recommend:

1. including more supporting detail for the decision to target East Street and Ospringe AQMAs. The AQAP mentions that the three other AQMAs (St Paul's, Teynham and Newington) will be fully compliant by 2020 or 2022, however the compliance measures aren't clearly explained."

https://services.swale.gov.uk/assets/Air-Quality/AQAP_SwaleBC_2018%20final.pdf

Imperial College modelling for DEFRA

Our first exercise (in response to the Reg19 consultation) of collection of Imperial College modelling (for DEFRA) at postcode level along Greenstreet showed uniform "RED exceedance" well beyond the AQMA5 footprint. We repeated the exercise in 2022 (Imperial College updated their dataset to reflect WHO thresholds) and RED has turned PURPLE throughout Greenstreet and red throughout the Parish!

You are referred to the attached excel analysis.

The Imperial College model defines ALL addresses in the Parish as in exceedance of ALL THREE pollutants listed.

Imperial College's use of colour bands corresponds to the deciles in which our addresses fall when compared to the national picture. So purple means that we are in the worst polluted addresses in the country. Red takes you down one level of "deciles" into the second worst addresses on the national scale and so on.

It is astonishing to note that our air pollution is directly comparable to that found in built up towns and cities

We are a village along the A2 but because of the topography (single thoroughfare, increasing levels of traffic, complexity leading to congestion as people navigate junctions, parked cars, van deliveries, etc) we are suffering an increasingly harmful set of conditions. Made much worse where the historic pattern of development means most of our homes front directly onto the A2. Therefore, no mitigation is possible.

It might be helpful to explain how to interpret this data, taking the first entry as an example: Claxfield Farmhouse, London Road ME9 9PX.

Pollutant one: PM2.5

At this address, the annual average of the pollutant PM2.5 is 10.68mcg/m³. The World Health Organization limit is 5mcg/m³.

This study shows 19.9% of strokes were attributed to exposure (for a year or more) of PM2.5 concentrations exceeding 10mcg/m³.

PM2.5 can also cause asthma, jeopardize lung functions and promote cancer.

Pollutant two: PM10

The reading for PM10 at this address is 17.56mcg/m³. The limit is 15mcg/m³.

Cardiovascular mortality increases by 0.76% and respiratory mortality by 0.58% for every 10mcg/m³ increase of PM10.

PM10 can cause wheezing, bronchitis and reduce lung development.

Pollutant three: NO2

The reading for NO2 at this address is 13.01mcg/m³. The limit is 10mcg/m³.

Long term exposure to even low levels of this toxic gas increases mortality rates and contributes to the development of asthma, and other respiratory issues.

Yours sincerely

JULIEN SPEED
Chairman
Lynsted with Kingsdown Parish Council