

1. My name is Professor Stephen Peckham and I am Professor of Health Policy and Director of the University of Kent's Centre for Health Services Studies and Professor of Health Policy at the London School of Hygiene and Tropical Medicine. I have been working with local residents' groups and voluntary groups on air quality issues in Canterbury in respect of the developing Local Plan and in respect of proposed large scale developments. I recently gave evidence in the Planning Appeal re Pond Farm arguing that permission should be refused and the Planning Inspector accepted my argument that the developer had not fully considered the air quality impacts - despite the Council's Officer not raising objections to the proposed development on air quality grounds.
2. A core principle of the NPPF is that the planning system should contribute to preserving and enhancing the local environment and reducing pollution. It is for local planning authorities at the strategic level of developing local planning policies and when determining individual planning applications to have regard to improving air quality and reducing exposure to air pollution. The proposed development will considerably add to traffic movements in the immediate area in relation to travel to work, school access, leisure trips, shopping etc. Consideration of this application needs also to assess the cumulative impact of other recently agreed housing development such as the 19 23 units also located in the Eastern end of the village and other developments such as the recent permission for brickearth extraction which will lead to an additional 100 HGV movements through the village on working days.
3. Emissions from traffic adversely affect the quality of life for commuters and other road users and local residents in Newington. The current AQMA does not comply with current national NO₂ limits and concentrations of NO₂ are highest in the eastern part of the High street (east of Church Lane as measured by diffusion tubes SW35, 42, 45, 66 and 78) where the proposed development will be located. The evidence on the health impacts associated with exposure to NO₂ concentrations has developed considerably recently. The impact of reports from COMEAP are evidenced by the recent DEFRA Report *Valuing Impacts on air quality: Updates in valuing changes in emissions of Oxides of Nitrogen and concentrations of Nitrogen Dioxide* (September 2015) and *Improving Air Quality in the UK - Tackling Nitrogen Dioxide in our towns and cities* December 2015. It is beyond dispute that poor air quality is a major influence on public health. In addition, the adverse health effects of particulate matter (PM) are also widely accepted.
4. The Ambient Air Quality Directive 2008 was transposed in UK law by the Air Quality Standards Regulations 2010. Responsibility for meeting EU air quality limit values lies with central government, hence DEFRA coordinating air quality plans and assessments throughout the UK. In order for these objectives to be met and regulations implemented, the planning system, through local planning authorities, must play its part. The South East (zone 0031) area action plan arising from the DEFRA 2015 *Air Quality Plan* states that air quality should comply with national air quality standards by 2020. The Council has a legal obligation to meet EU directives on levels of air pollution. The recent national Draft Air Quality Action Plan (DEFRA 2017) highlights the substantial public health implications of poor air quality and stresses the need for

urgent action to bring air quality into compliance with national limits.

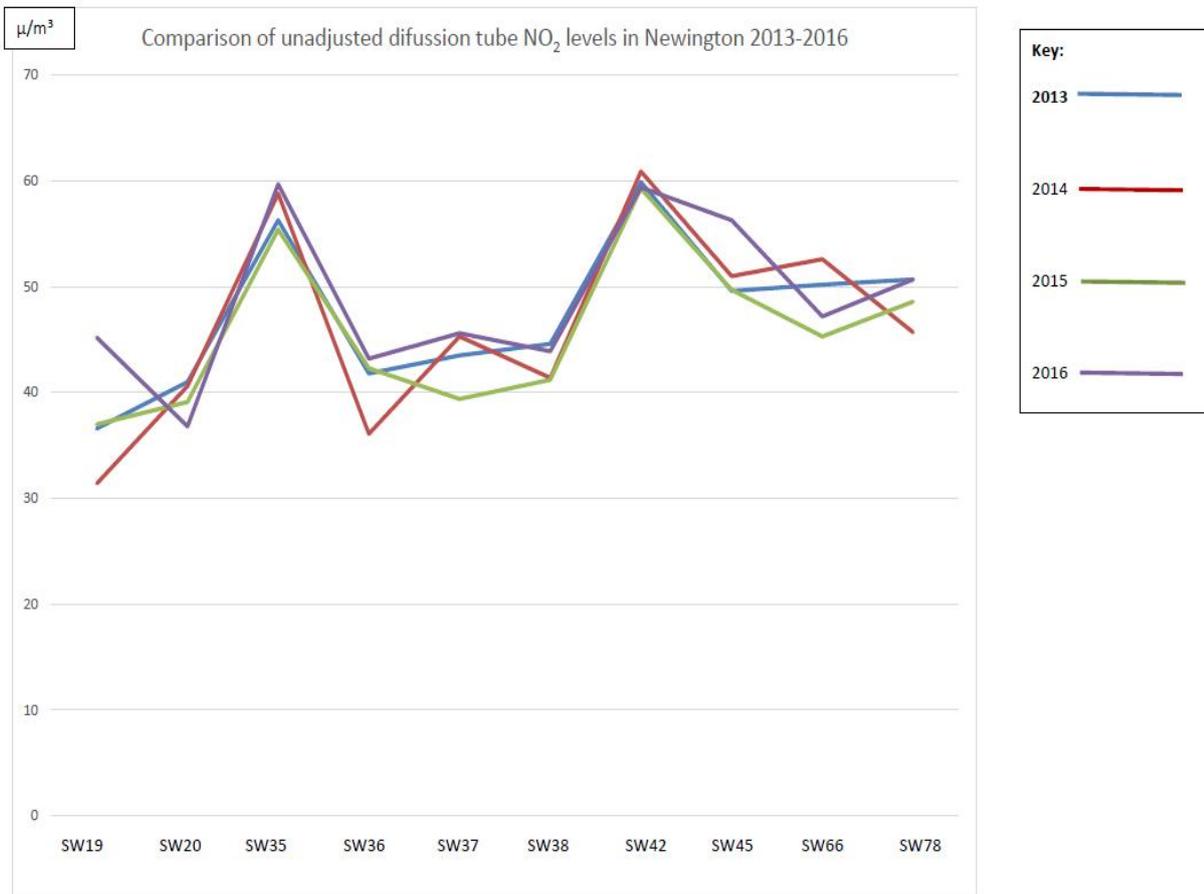
5. Environmental Protection UK and the Institute of Air Quality Management have produced Guidance "*Planning for Air Quality*" which is aimed at the spatial planning system. It is for local planning authorities at the strategic level of developing local planning policies and when determining individual planning applications to have regard to improving air quality and reducing exposure to air pollution.
6. Compliance with and contribution towards EU limit values or national objectives for air quality is a significant material planning consideration and the adverse impacts on public health must be central to the determination of any housing application with regard to its effects on the existing AQMA. But that has not happened. In *Improving Air Quality in the UK* DEFRA states that: *The National Planning Policy Framework is clear that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air pollution. New development should be appropriate for its location, taking proper account of the effects of pollution on people's health.* (Para 232)
7. Paragraph 124 of the NPPF states:
*Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, **taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas.** Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.*
8. The proposed development site lies adjacent to an AQMA in Newington covering the A2 with two further AQMAs located to the east and west on the A2 in Sittingbourne and Rainham. The main source of air pollution in the Newington, Rainham and Sittingbourne AQMAs is from traffic emissions from the major roads although background particulate matter (PM_{2.55}, PM₁₀, Ozone etc) also are important – especially PM_{2.5}. No assessment of PM_{2.5-10} is undertaken at roadside sites in this area but a recent World Health Organisation (WHO) report noted that in the South East both Eastbourne and Southend-on-Sea had PM levels above that recommended by WHO and this would also be true for this stretch of the A2 in Newington.
9. The developers have argued that the proposed developments will not have any significant impact on air quality and have not undertaken an air quality assessment and this appears to be accepted by the Planning Officer in their report to the Committee. However, responsibility lies with the local planning authority to ensure that additional impacts on air quality from this site are considered alongside other local developments in terms of fulfilling NPPF policy "*...**taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas.***"
10. On the whole, the Lustre Consulting Air Quality report appears sound. I note that the

Medway Air Quality Officer, Stuart Steed, has noted the significant variation between modelled and actual NO₂ and this is something that should perhaps be examined again in light of his comments. Overall, he is suggesting an under estimating of NO₂ levels of over 12%. Re-analysis of the monitoring data for Newington and the possible inclusion of the Sittingbourne AQMAs will lead to an upward adjustment of NO₂ levels and which will affect the cost calculations. The Air Quality assessment acknowledges that two AQMAs- Newington A2 and Rainham A2. Para 2.9 directly refers to the Newington AQMA as having exceedances of NO₂.

11. There is also no reference to the AQMAs in Sittingbourne. It would be unreasonable to assume that no traffic will go into Sittingbourne and therefore an estimate of the impact on the Sittingbourne AQMAs will probably be necessary.
12. The cumulative effect of these vehicle movements and others from proposed development in the same area will substantially increase traffic levels of the A2 through the AMQA. The level of traffic turning onto and off the A2 will also have an impact on traffic flow leading to further congestion – especially where the road narrows within the village requiring larger vehicles having to wait for oncoming traffic before passing through the village. Congested traffic significantly increases the level of emissions from vehicles.
13. NO₂ levels in Newington are measured by one automatic roadside station and ten diffusion tubes. Full data for all diffusion tubes is not available for 2017. Bias adjusted levels for 2016 ranged between 29µ/m³ and 49µ/m³ – slightly higher on average than 2015 with four tubes recording levels at 40µ/m³ or above – compared to three in 2015 – and two further diffusion tubes registering over 39µ/m³. The others recorded levels of just under 30µ/m³ or more. All five diffusion tubes recording levels of NO₂ 39µ/m³ or greater were located east of Church Lane on the A2. Data from the Swale Newington 3 automatic roadside monitoring station recorded a mean of 30µ/m³ in 2015 and 28µ/m³ in 2016. While UK maximum levels of NO₂ are 40µ/m³ the world Health organisation recommends maximum levels of 20µ/m³ and a recent report by the Royal College of Physicians⁵ identifies adverse health consequences for children above 10µ/mg. The AQMA in Newington is along a stretch of the A2 where buildings are close to the road edge which could create a canyon effect which prevents emissions from dispersing and therefore exacerbates poor air quality.
14. Any increases in traffic movements will undoubtedly increase pollution levels through increased traffic numbers and increased congestion. Any interruption of traffic (stop/go and severe slowing of traffic speed (to between 10 and 15km/hour) substantially increases the level of emissions from motor vehicles. A reduction from an average speed of 50km/hour to 10k/hour doubles CO₂ emissions from petrol and diesel cars (Based on Euro 4 data) and NO_x by at least 50%.
15. It is inconceivable that improvements in emission control in vehicles will enable a substantial reduction in NO₂ levels or indeed other emitted pollutants (CO₂, PM_{2.5-10}, SO₂) given that traffic levels are predicted to rise. The recent analysis by the UK Parliament's Environmental Audit Committee (2014) suggested that compliant Euro 6

diesel cars may in fact produce levels of NO₂ around seven times higher than the regulated limit in the real world. Thus, modelling using non-real world pollutant levels will be substantially underestimating actual NO₂ levels. New emissions testing will be introduced in the future but current analyses suggest that actual Euro 6 emissions may in fact be higher than the modelled levels for Euro 4 and 5 vehicles.

16. It is not clear how the effects of increased pollution levels are to be mitigated. Proposals for mitigation have been calculated as a financial contribution in line with DEFRA's national guidelines but there is no indication how such financial mitigation is to be used to reduce pollution levels. Any increase in traffic levels will result in increasing pollution levels and continued breaches of national air quality limits and increasing pollution levels and failure to meet the planned reductions by 2020 required by the South East (zone 0031) area action plan. Given the clear adverse impact on air quality it is unacceptable that there is no clear mitigation plan. The only possible way to ensure that future pollution levels in the AQMA are within statutory limits would be to reduce, not increase traffic. Thus any vehicle movements from the site would have to not be through the existing AQMA or impact on adjacent AQMAs in Teynham and Sittingbourne.
17. In 2013 Swale Borough Council undertook a Quantitative Appraisal of Newington AQAP Measures which provided "*... quantitative estimates of the impacts on local NO₂ concentrations likely to result from the implementation of the measures proposed in the Newington AQAP. The assessment focuses on impacts in the AQMA to predict whether compliance with NO₂ objectives is likely to be achieved if the measures are implemented*" (Section 1.2). The report concluded that to comply with NO₂ objectives **would require reductions in HGV and vehicle traffic along with moving the pedestrian crossing**. Clearly any increase in traffic would therefore exacerbate the problems of air quality in the AQMA and result in not meeting NO₂ objectives. The additional near 20% rise in HGV movement alone will lead to a further increase in NO₂ levels before this development takes place.
18. The effects of air pollution on human health cannot be ignored and all efforts should be made to improve, not add to, the ambient air quality in Newington, and in the local and adjacent AQMAs on the A2 in particular. To rely on mitigation measures dealt with by conditions in individual planning applications completely fails to address the cumulative impacts of allocating these large sites within the draft Local Plan on the Newington AQMA.
19. Essentially the Newington AQMA remains non-compliant and is already subject potentially to increasing levels of NO₂ as shown in the following diagram which compares the unadjusted diffusion tube readings for the ten tubes in Newington. The data does not suggest that there is a gradual decrease in NO₂ but rather a levelling off or small increase levels. With the recent granting of brickearth removal and a predicted increase in HGVs travelling through Newington levels are likely to continue to rise. Any increase in vehicle numbers will therefore contribute to a continuing breach of the national air quality limits and the AQMA will continue to remain non-compliant.



20. There is a substantive argument to suggest that the fact that the AQMA is non-compliant is sufficient grounds to refuse planning permission for any development where traffic levels will increase unless sufficient mitigation is provided to:

1. Bring the AQMA into compliance before development commences
2. Ensures that the AQMA remains compliant.

21. The Air Quality assessment predicts some small increases in NO₂ as a result of the development. However, there is reason to query the modelling due to the discrepancy in data identified by Stuart Steed. However, irrespective of whether the impact is deemed negligible or worse is immaterial to the argument that planning permission should not be granted where development leads to worsening of air quality in an AQMA which is already non-compliant. Current mitigation proposals do not address how to reduce existing levels of NO₂. Without these the application should be viewed as contrary to the NPPF and current government policy to bring AQMA's into compliance as quickly as possible.

22. There is little real attempt to ensure immediate mitigation that would ensure no additional deterioration in air quality. The inclusion of electric charging points is welcome but given the current electric vehicle market is unlikely to have any immediate effect. The lack of an extensive charging network in the locality remains a problem and it will be many years before this comes into being. Thus, while welcome as a way of achieving long term goals it will have little effect on the initial development. The other main proposal is a welcome pack (as a travel plan) that highlights walking and cycling routes. However, main shopping, employment and services lie some distance from Newington. References made to the bus services and train service appears beneficial as alternatives to car use but these services are infrequent. It is likely that residents of the new development will travel to Sittingbourne to access more frequent and fast rail services. There does not appear to be any concerted effort to change travel habits in the outlined travel plan or within the proposed mitigation measures.
23. Compliance with and contribution towards EU limit values or national objectives for air quality is a significant material planning consideration and the adverse impacts on public health must be central to the determination of any development application with regard to its effects on the existing AQMAs. This proposed development will contribute to the continuing breaches of limit values of the Air Quality Directive 2008/50/EC. This is a significant constraint on further development, and must be fully addressed by the applicants.