

M3 Junction 9 Improvement Project

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Air Quality

SUMMARY

Winchester FoE has led the main campaign on air pollution in Winchester for the last 12 years, including having made a formal complaint under the European Directive – a complaint accepted as part of the Commission’s declared intention to prosecute the UK. Though DEFRA progressively lost legal cases, by procrastination, it managed to delay doing anything about air pollution in the UK until Brexit took away the prospect of EU sanction.

The scourge of air pollution is still not widely understood. The widely quoted 40,000 early deaths per year in England (not the UK), of which 29,000 are attributed with greater precision to PM_{2.5} particulates and for the 25+ age group, is indication of the second largest cause of death. Even so it is not usually understood that ‘early death’ in this context signifies about 10 years of life lost. So, since passing the 2010 deadline for compliance with the European Directive, some 4million years of life have been lost in England. It is a scandal that post-Uxbridge political cynicism has deliberately promoted the interests of the polluter, with no concern for the very real victims.

DEFRA has downplayed both the role of transport and the scale of PM_{2.5} particulate pollution as a health burden on the nation, but the issue can no longer be avoided. In its proximity to human receptors and in its chemical toxicity, traffic-generated particulate pollution is a very significant contributor to mortality and morbidity. DEFRA is proposing to change the legal threshold for PM_{2.5} to the old WHO level (but still at twice what WHO sets now). The Applicant is wrong to make the assertion that Winchester already meets this threshold, but even more wrong in its presumption that things can only get better. This kind of pollution seems set to rise with the growing component of electric vehicles.

The DMRB, on which the Applicant relies, suggests there is no need to model PM_{2.5} at all and that PM₁₀ modelling can be used as a proxy. There is no evidence in literature that this is a reasonable position and the poor correlation between the two measures in Winchester demonstrates this. Nor is the DMRB’s assumption that such pollution can only get better valid since it does not take into account the likely increases in such pollution as a result of the move towards EVs.

The Applicant has thus presented no credible evidence of the likely health consequences of the scheme.

In our commentary on the traffic and economic modelling we have already pointed out that a monetarised benefit asserted for the scheme relies on a local traffic modelled output for which the Applicant has demonstrated no statistical significance. But, in any case, to claim that a scheme which is part of a road programme that generates the traffic that causes a significant part of the nation’s most harmful air pollution, is preposterous. It is worth noting that even DEFRA reckons the quantifiable health cost is at £18.6B per annum (c.f. £27B for the whole RIS2 programme) and that presumes a falling trajectory of the small particulates, an unlikely future.

Nitrogen deposition on the neighbouring chalk grassland is already well beyond the critical loading consistent with retaining the richness of the flora. It cannot be sensible for the Applicant to argue that its scheme adds an insignificant extra burden (just as it does with carbon). That is an argument for never having thresholds that need to be met.

The Applicant did not seem to know of research that shows that the smoother the road surface, the higher the proportion of the smallest particulates. We provide a citation for this.

Introduction: Winchester FoE has been the main campaigner on air pollution in Winchester for about 12 years. Our campaign has been grounded in literature research and practical DIY data collection, including an extensive diffusion-tube roll-out and our own-constructed sensor system. Our primary aim was to get Winchester City Council (WCC) to take measures to ensure that the streets of Winchester would be in conformance with the regulations derived from the 2008 EU Directive on Air Quality, transcribed into UK law in 2010. The Directive had specified a date of January 2010 for compliance. The City Council had declared an AQMA for central Winchester and its radial routes, within which there were many sites where diffusion tube evidence demonstrated that compliance was not being achieved in relation to the annual mean NO₂ level.

In 2012, following failure of WCC to take any measures to address the problem, and indeed planning several developments that would have the effect of worsening the problem, Winchester FoE and Winchester Green Party made a joint complaint to the European Commission (see Annex 1). The Commission accepted the complaint and *agglomerated* it into a SE regional complaint. The Commission went on to bundle all the complaints together and to represent to the UK Government that it was taking procedures against it, the outcome of which would be fines against the UK government of up to €300M p.a. until the UK was in compliance. DEFRA indicated to local authorities that it would pass down all fines to failing local authorities. But DEFRA itself prevaricated on requiring local authorities to act by the law and the EC then tied its procedures to the testing of the DEFRA inaction in the UK courts, action being taken by Client Earth. DEFRA went through a series of lost cases up to the and including the Supreme Court, being required by the courts to take action, which it never took. The process would then have proceeded to the European Court of Justice, had not Brexit intervened and let the UK government off the hook.

It also let the WCC off the hook. As an administration of the same colour as central government, by following DEFRA in its prevarication, WCC has benefited by being able to show that the problem has apparently lessened - NO₂ levels have fallen, so that only parts of Romsey Road now fail the threshold. Nevertheless, thirteen years after the EU required these thresholds to be met, the Council is still in breach of the law. Even though the complexion of the Council has changed no amelioration of traffic has occurred. We hasten to distinguish political inaction in Winchester from the thorough professionalism of the technical officers who monitor air quality for the City.

The Winchester AQMA was never declared against particulates because the PM₁₀ thresholds were never breached and PM_{2.5} did not need to be measured. Since the EU Directive it has become clear that all thresholds were set too high, being double those recommended by the WHO, which itself has since revised those levels downwards as the health consequences of air pollution have become more apparent.

Air Pollution and Health: One would not think, from the political trimming following the Uxbridge election result, that air pollution matters much to the main national political parties. In all the politicking, the sheer toll of air pollution seems not to have been understood or callously disregarded. That 40,000 early deaths per year are attributed to this bane apparently matters not to these politicians. Let us be specific. Public Health England has demonstrated that from PM_{2.5} alone and just for the population cohort aged 25 and above, 29,000 people per year die earlier than they would have done without it. Early death in this context is also quantified by the epidemiology as an average of about 10 years loss of life. What is more, since the PHE report, COVID has added to the mortality burden of air pollution.:

We found that an increase of only 1 µg/m³ in PM_{2.5} is associated with an 8% increase in the COVID-19 death rate (95% confidence interval [CI]: 2%, 15%). The results were statistically significant and robust to secondary and sensitivity analyses.¹

¹ Air pollution and COVID-19 mortality in the United States: Strengths and limitations of an ecological regression analysis;

Just think what the PHE result means, even in the absence of COVID. Since full compliance with the EU Directive was meant to come into in force in 2010, more than **4 million years of life have been lost to air pollution** in England alone, whilst DEFRA has done all that it could through the courts, to delay action to reduce this burden. We live in a society where such big numbers are apparently too uncomfortable for most of us to deal with (like those around the coming climate catastrophe) the prevailing political posture is to ignore them. If we cannot bear to look at the numbers, can we not find empathy enough to look at how this is affecting individual human beings? This was the face of [REDACTED]:



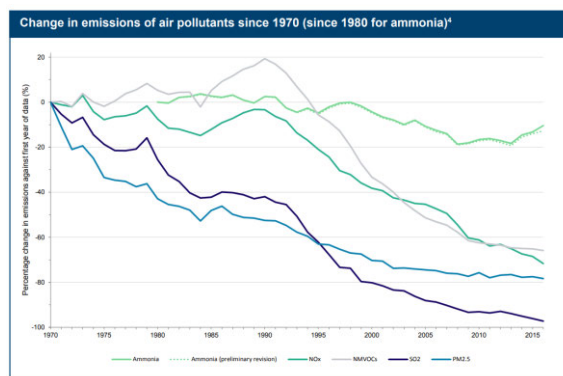
And now central government and especially No. 10 want to prevent local authorities taking any further action to alleviate this scourge. When a Prime Minister of the UK declares himself openly to be on the side of the polluter and indifferent to the victim, we know how far we have sunk in public discourse and governmental immorality.

Finally a significant point about particulate pollution was raised by the author of the PHE report:

the line connecting the level of particulates with increase in death goes through zero. There is no safe level of air pollution².

Of course, we all live our lives in the knowledge that there are risks though we often have poor appreciation of the relative risks associated with the different things we do. In respect of the 'no safe level' of particulate pollution, a common sense approach would be that we would feel safe if levels were those pertaining most of the time in open country away from towns, factories and roads.

The PHE research was looking at all PM_{2.5} pollution, from whatever source. When DEFRA reluctantly produced its Clean Air Strategy in 2019, it appeared to show a declining curve of particulate pollution:



Much of the decline in PM_{2.5} (as with SO₂) stems from decline in emissions from big industry, either through regulation and technology improvement, or through off-shoring of industry (just as a significant part of the UK's fall in carbon emissions is off-shored as our manufacturing base declines). The 1993 prohibition of stubble burning also helped. But generally, there has been little further decline in the last 20 years.

There are two important caveats in interpreting the above graph. Firstly, what matters is not so much the overall total of particulate emissions, but where those emissions fall, i.e. how proximate are they to human receptors, either

X. Wu, R. C. Nethery, M. B. Sabath, D. Braun,^{1,2} and F. Dominici; MedRxiv preprint, 2020

² Prof Stephen Holgate; *Oral evidence - Joint parliamentary inquiry into improving air quality - 23 Nov 2017*

directly or via indirect mechanisms? Secondly, to what extent is it just the size of the particles and to what extent is it the particle chemistry? There is good reason to suppose that both of these factors are of growing significance to counter any of the satisfaction DEFRA finds in the downward trend of the graph above.

Published this week: a new health warning:

A Lancet paper³ published this week revealed a further health consequence of particulate pollution, which very worryingly ties it into what is becoming a greater fear than another viral pandemic – antibiotic resistance:

Significant correlations between PM2.5 and antibiotic resistance were consistent globally in most antibiotic-resistant bacteria (R2=0.42–0.76, p<0.0001), and correlations have strengthened over time. Antibiotic resistance derived from PM2.5 caused an estimated 0.48 (95% CI 0.34–0.60) million premature deaths and 18.2 (13.4–23.0) million years of life lost in 2018 worldwide, corresponding to an annual welfare loss of US\$395 billion due to premature deaths. The 5 µg/m3 target of concentration of PM2.5 in the air quality guidelines set by WHO, if reached in 2050, was estimated to reduce antibiotic resistance by 16.8% (95% CI 15.3–18.3) and avoid 23.4% (21.2–25.6) of premature deaths attributable to antibiotic resistance, equivalent to a saving of \$640 (580–671) billion.

Air Pollution and Road Traffic: DEFRA asserts⁴ that only 12% of particulate pollution is due to road traffic. In view of DEFRA’s record in opposing action against air pollution, one has to regard this as a not very subtle but deliberate downplay of the importance of road traffic in air pollution. But in assessing the role of road traffic, the two caveats above must come into play. Firstly that most of the particulate emission from other sources in the country is distributed widely, whereas road traffic brings its emissions right up close to people and into the very houses where they live; it accumulates in the atmosphere, seemingly perversely at the height of children’s mouths.

Secondly, that particulate pollution from tailpipe emissions, but increasingly from brake and tyre wear, is not chemically neutral like Sahara sandstorm drift (which certain local politicians in Winchester like to cite in order to downplay local street data). Motor vehicle emissions are of a very different order – carcinogenic, neuropathological, immuno-compromising, endocrine-disruptive and genotoxic⁵ - what we are doing today is not just poisoning our children, but blighting future generations:

Tyre Leachate Constituents	Public Health Effects and Symptoms
Polyaromatic hydrocarbons (PAHs)	<i>Acute health risks:</i> skin and eye irritation, vomiting. <i>Chronic health risks:</i> cataracts, kidney and liver damage, respiratory problems, decreased immune function (Patel et al., 2020)
Benzothiazoles (BZTs)	<i>Acute health risks:</i> Skin irritant, respiratory problems. <i>Chronic health risks:</i> endocrine disruption, carcinogenic and genotoxic (Liao et al., 2018)
Isoprene	<i>Chronic health risks:</i> Carcinogenic, mutagenic, reproduction cell abnormalities (Melnick, 1994)
Heavy metals (zinc and lead)	<i>Acute health risks:</i> abdominal pain, renal dysfunction, fatigue, sleeplessness, arthritis, hallucinations, and vertigo. <i>Chronic health risks:</i> neurological damage, birth defects, psychosis, paralysis, muscular weakness, brain damage, kidney damage, may even cause death (Jaishankar et al., 2014).

³ Association between particulate matter (PM)2.5 air pollution and clinical antibiotic resistance: a global analysis
Zhenchao Zhou, PhD; Xinyi Shuai, BSc; Zejun Lin, BSc
Xi Yu, BSc
Xiaoliang Ba, PhD
Prof Mark A Holmes, PhD
et al.

Show all authors

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⁴ <https://www.gov.uk/government/publications/air-quality-explaining-air-pollution/air-quality-explaining-air-pollution-at-a-glance>

⁵ Tan Z, Berry A, Charalambides M, Mijic A, Pearse W, Porter A, Ryan MP, Shorten RN, Stettler MEJ, Tetley TD, Wright S, Masen MA; Tyre wear particles are toxic for us and the environment; Imperial College;(2023). <https://doi.org/10.25561/101707>

The smaller particulates by virtue of both their size and high surface-to-volume ratios are efficient carriers of VOCs deep into bodily organs and are even detected in the brain. They also find their way through run-off into rivers and the sea, into other animal organisms and vegetation, from which the leachate chemicals can rise up the food chain as a secondary health risk to human population.

Nor can we now expect that the technological improvements that have brought about a decline in tailpipe emissions will carry over into an EV fleet. Indeed, there is now great concern that EVs may bring significantly worse particulate pollution than ICE vehicles. In saying this we are aware of the danger of putting ourselves into the camp of the sort of saloon-bar bores, who think the whole EV revolution is just another conspiracy against the motorist. Their seizing on the headline research of the effect of EV weight on pollution, is a plea for doing away with electrification in order to carry on business as usual. And they are backed up in this false conclusion, by the Tufton Street crazies we have been hearing from, *ad nauseam*, since Uxbridge.

Electric vehicles (maybe mediated through hydrogen) are clearly a preferable future than a continuation of ICE vehicles, but that is not the point. A sustainable, efficient, economically sound transport future is only possible if it is dominated by public and active transport, meaning far less private motoring. EVs will be the obvious motive units of the road-based part of that disposition, but there is no environmental, economic or social case for EVs to simply replace ICE vehicles wholesale. So it is right to draw attention to the less desirable consequences of EVs. We think that the worldwide ecological, exploitational and conflict consequences of a massive move to battery manufacture are well-enough known for us not to dwell on them here.

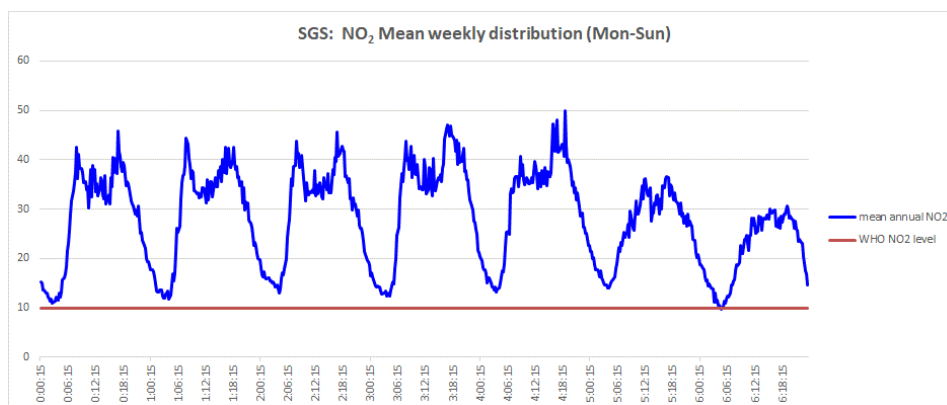
The obvious argument in relation to air pollution, is that EVs tend to be heavier than the ICE vehicles they replace, so that tyre wear (and to some extent brake wear – though the issue of regenerative braking is complex) increases. Data is beginning to abound, but often the apples-v-pears problem arises as to what exactly is compared with what. There have been dramatic headlines and sceptical responses. [Emissions Analytics](#) is now a well-established and almost certainly the leading analyser of vehicle emissions in real-world driving scenarios. It is a mainstream industry player, very far from being an environmental lobbyist. Last year it followed up its previous work, which led to startling media headlines, with an update even more shocking⁶:

The headline conclusion we draw now is that, comparing real-world tailpipe particulate mass emissions to tyre wear emissions, both in 'normal' driving, the latter is actually around 1,850 times greater than the former. Yes, in normal driving the ratio is almost double the previous figure for aggressive driving.

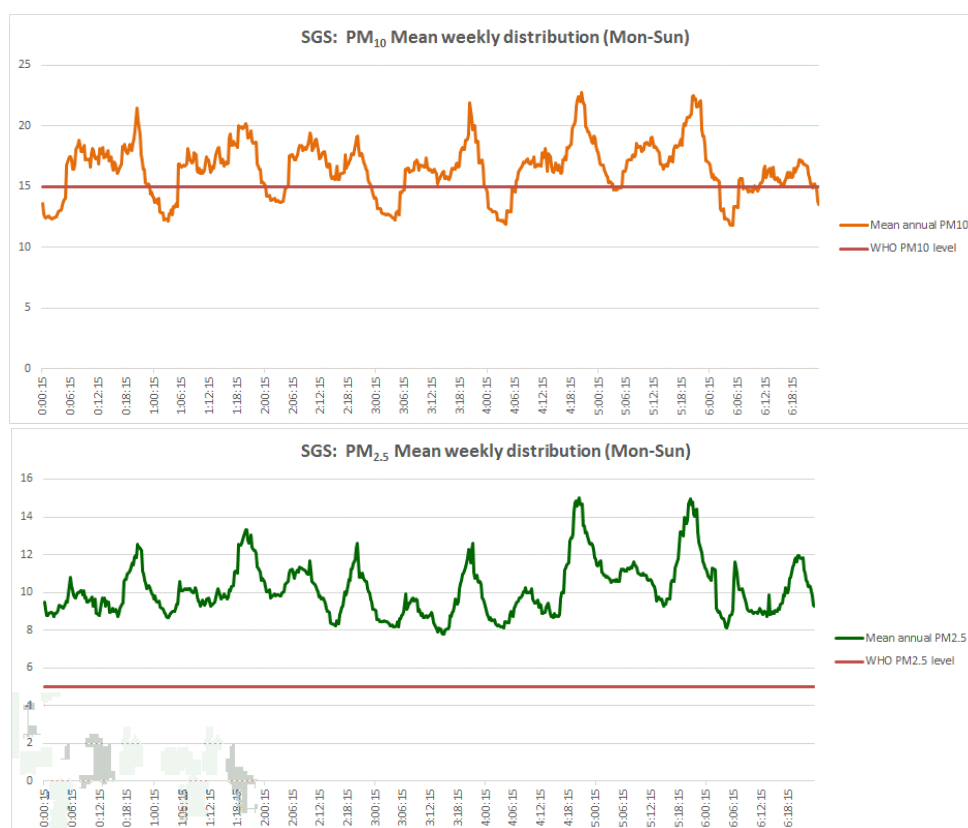
Quoting such ratios, however, needs careful interpretation. The fundamental trends that drive this ratio are: tailpipe particulate emissions are much lower on new cars, and tyre wear emissions increase with vehicle mass and aggressiveness of driving style. Tailpipe emissions are falling over time, as exhaust filters become more efficient and with the prospect of extending the measurement of particulates under the potential future Euro 7 regulation, while tyre wear emissions are rising as vehicles become heavier and added power and torque is placed at the driver's disposal. On current trends, the ratio may well continue to increase.

Air Pollution in Winchester: That significant air pollution in Winchester derives from road traffic is undisputed. It can be seen in the mean weekly NO₂ distribution (2022) from the St George's Street monitoring station:

⁶ Emissions Analytics Newsletter; 10th May 2022: *Gaining traction, losing tread - Pollution from tyre wear now 1,850 times worse than exhaust emissions*



A very clear imaging of double-peak hour days shows this gas is a good proxy for road traffic, though there is probably a hysteretic effect arising out of the dispersal time. For particulates the mean weekly distributions are less sharply defined:



The maximum-to-minimum ratios for the particulates are clearly a lot smaller than for NO_2 , suggesting high baselines that have no diurnal or hebdomadal component⁷. So clearly not all particulate pollution in Winchester arises from road traffic. These are yearly averages of weekly distributions; we have not yet analysed the data at seasonal level, which might allow inferences to be drawn about wood-burner and coal fire contributions. The fact, however, that the particulate distributions correlate in time with the double-peak-hour form of NO_2 (rather than a morning and later evening pattern one might expect from heating systems) suggests that traffic is the more important factor in that location at least.

In relation to health consequences, we should note, that none of the graphs are consistent with meeting WHO limits and that, in respect of $\text{PM}_{2.5}$, the mean level is above the level ($10\mu\text{g}\text{m}^{-3}$) new Government policy is specifying.

⁷ The baseline will probably be somewhat lower than the lowest points on these graphs due to data smoothing, arising out of the stay-time of pollutants – i.e. some of the pollutants below the low points will still be traffic-generated emissions

Particulate Pollution and Baselines: Whereas the Nox graph above shows a daily variation which must be dominated by traffic emissions (peak to night-time ratios ~5:1), the particulates have higher background (peak to night-time for PM_{2.5} ~2:1). It is wrong to draw from this, a narrative that the traffic emissions are a small part of the problem, for the reasons of toxicity of traffic particle emissions given above. But what a high baseline of all particles signifies is that when the Applicant talks about additions being small or insignificant (something National Highways seems to do a lot of particularly on GHG), it is not relating those additions to the right thing. What most matters with particulates is the amount of highly toxic particles in the mix and it is road traffic that is responsible for a large part of these. It is then the proportionate increase in these emissions that matters, not how such increments compare with the total particulate burden. This why it is important to have a proper modelling of the traffic-produced particulates, modelling that takes a realistic account of the likely tyre wear emissions that will pertain to an increasingly higher proportion of EV vehicles in the mix.

The Applicant has not done this, so that this Inquiry has no real information on the likely health impact of this scheme.

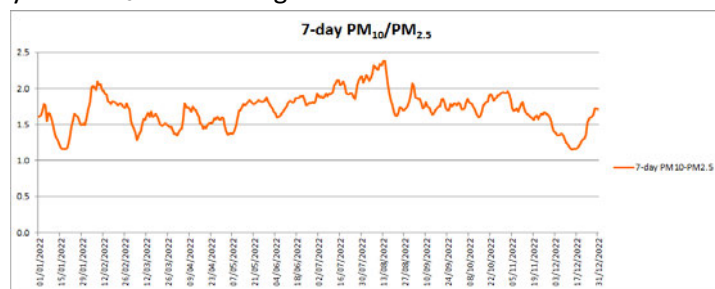
Air Pollution and this Scheme: We stand agog at the suggestion by the Applicant that there is an air quality benefit to be had from this scheme (they even monetarise the fiction). Road traffic pollutes the air. This scheme, like all major road building generates traffic. The general growth of road traffic in the UK has been largely brought about by the strategic road programme. All trips generated by a new scheme have trip ends somewhere off the SRN; most of those will involve journeys through populated areas and many of them in constrained residential areas. For the other traffic that will use an 'improved' section of road, but which is not generated by it, may nevertheless travel further for the same trip purpose (Metz effect), the SRN journey is longer and more polluting and still will have trip ends in the general network and through populated areas.

It is a ludicrous suggestion that building a new road can have a net pollution benefit to the population and ecology of the UK and neither the Applicant nor the DfT have ever demonstrated such a benefit. If a bypass brings some immediate benefit to a local network that is bypassed, it is at the cost of disbenefit somewhere else from the road trips or increased lengths of trips that are induced. And frequently even the local relief is only temporary. Seven years after the Newbury Bypass was completed, traffic levels in Newbury were back to the levels pre-Bypass⁸, while the corridor traffic on the A34 grew 44% faster than traffic generally in Berkshire. Similarly, we were promised traffic reduction in Winchester as a result of the Twyford Down scheme. It has grown.

The DMRB on which the Applicant relies, states:

There should be no need to model PM_{2.5} as the UK currently meets its legal requirements for the achievement of the PM_{2.5} air quality thresholds and the modelling of PM₁₀ can be used to demonstrate that the project does not impact on the PM_{2.5} air quality threshold. NOTE There are very few areas in the UK outside of London that exceed the air quality thresholds for particulate matter (PM₁₀ or PM_{2.5}).

This statement seems to indicate a poor understanding of particulate emission, even with the current road transport mix. PM₁₀ is not a good proxy for PM_{2.5}. In St George's Winchester 2022:



⁸ An analysis of the "Five-Years After" Post-Opening Project Evaluation for the A34 Newbury Bypass. Taylor I; Elliot J; Sloman L; Matson, L; 2006. Evidence to the Transport Select Committee: The major road network: Government Response to the Committee's Eighth Report of Session 2009–10

PM₁₀:PM_{2.5} ratio varies here from 1.1 (PM_{2.5} are 91% of mix) to 2.4 (42% of mix). Nor would one expect dispersion modelling of PM₁₀ particulates to closely resemble PM_{2.5}, where gravity is less of a factor. And indeed, this is reflected in the literature⁹:

showed a poor correlation between the outdoor PM₁₀ concentrations and NO₂ concentrations in an urban environment with a better correlation between PM_{2.5} and NO₂

There are two things really wrong with the DMRB statement. Firstly the assumption that if an area is currently meeting legal particulate thresholds, then it will only get better. This is at variance with the evidence that a move to a significant proportion of EVs in the mix, will likely increase the smallest particle emissions. Secondly the Clean Air Strategy has proposed meeting the WHO standard for PM_{2.5} of 10µgm⁻³ (though since the strategy, the WHO have recognised that this level is far too high and have halved it). The current running average of PM_{2.5} on Saint George's Street is 10.5µgm⁻³, and it cannot be assumed that this will fall. It is inappropriate for the Applicant, therefore, not to model for these particulates.

Mr. Tidridge of Winchester City Council, rightly drew a distinction between meeting statutory thresholds and following technical manuals, and the duty to minimise ill health consequences. The PHE report and much subsequent research demonstrates that neither the existing pollution thresholds nor the thresholds proposed by the Clean Air Strategy adequately represent the danger to the population. While the examination of this scheme has to consider how it fits with policy, it must also be a requirement that the scheme should not have adverse health consequences. The DMRB may have guidance on whether or how pollution modelling should be carried out, but if that guidance is out of date in respect of the science or is otherwise in error, its use cannot absolve the Applicant from responsibility for arguable or demonstrable health consequences of doing no more than following the guidance.

Air Pollution Monetarised: In our evidence on the Traffic and Modelling report, we show how the Applicant's assertion of an AQ benefit in central Winchester arises from reliance on a local traffic model, for which no credible statistical significance is demonstrated. Even if it were, it is to ignore the big picture by carefully selecting a small one, like seeing global heating as having an advantage for wine production in Scotland.

Air pollution, of the most toxic particulate form, in Winchester is very largely (almost entirely in the case of Nox) the result of road traffic. Air pollution alongside the SRN is almost entirely the result of traffic on the SRN. The Applicant's scheme, like all of the Applicant's schemes generates ever more traffic. There is nothing in air quality science to suggest that increasing the speed of traffic has a better air pollution outcome, even if it were true that road building decreases overall congestion, which it does not. It defies common sense for the Applicant to assert that air pollution is reduced by any such schemes.

We do not say that health consequences cannot be monetarised – the NHS makes value-for-money judgments all the time. But the big picture is that air pollution must represent a very large cost to the nation. DEFRA's Clean Air Strategy (2019) puts the figure at £18.6Billion¹⁰ per annum by 2035 and that figure presumably includes their assumption that PM_{2.5} will continue to be on a falling trajectory, whereas we have argued that the road-based emissions are much more likely to be on a rising trajectory as the EV proportion of traffic rises.

Nitrogen deposition and chalk grassland: In 6.3 Environmental Statement - Appendix 5.3, it is apparent that all of the St Catherine's Hill, Dongas and Deacon Hill SSSI grassland is significantly and, in some cases, massively overloaded with nitrogen. This scheme adds to that. A Natural England requirement of the management of these sites is the reduction of brash growth, to bring the grassland back towards its pre-war and pre-myxomatosis state. A condition

⁹ A review of dispersion modelling and its application to the dispersion of particles: An overview of different dispersion models available; N.S. Holmes, L. Morawska; Atmospheric Environment; Volume 40, Issue 30, 2006, pp 5902-5928

¹⁰ One can get bigger figures if one were to use the value-of-life assumptions within the DfT's accident cost calculations.

that NE places on the Wildlife Trust, in this management, is that removed vegetation must be cleared from the site, and if burned (which for most of the site is the only practical policy) that all residual ash should be bagged up and removed. Nitrogen enrichment already compromises the grassland flora – nettles are a classic indicator of this.

The Applicant's argument is that the extra pollution from this scheme is insignificant compared with the existing overburden of nitrogen. This is the same argument that NH has to carbon emission, that extra straws do not matter to an overladen camel. It is preposterous.

While we do not argue that the nitrogen overburden is entirely down to road traffic emissions (there are still cropping fields, heavily reliant on nitrogen fertilisers in proximity to the protected sites) it cannot be right for the Applicant to bring about any additional deposition on the downland. Because the existing road is likely adding to the burden every single year, NH ought to have some responsibility for mitigating this already. If the scheme proceeds, this responsibility would increase. We don't have the knowledge to recommend the best way of achieving mitigation, but the Wildlife Trust management is clearly working in this direction already, though with the highly limited resources that a largely voluntary organisation has. The Applicant could discuss with the Trust, whether it could do more if more significant funding were available.

Particulates and road surface: I pointed out, in relation to the use of noise reduction surfaces, that there could be a particulate pollution consequence of this. Mr Branchflower said he was unaware of this. The subject is discussed within the Imperial College paper⁵ cited above, specifically referring to:¹¹

The contact interaction between the tyre and the road is governed by factors such as vehicle weight, tyre material, driving style and road conditions and the type of wear particle generated depends on a combination of these factors. For example, tyres in contact with smooth roads will produce a greater amount of micro-wear particles and tyres driven on rough surfaces will result in larger abraded particles.

I was not arguing for not having noise-reduction surfaces, merely pointing out that if they lead to a particulate distribution that biases towards the more harmful PM_{2.5} (or even the PM_{0.1} to which Mr. Tidridge referred) one needs to consider that. If it is an important factor, there are other ways of reducing both noise and pollution, notably speed reduction.

C Gillham

¹¹ Manas, D., Manas, M., Stanek, M. & Pata, V. (2009) *Wear of tyre treads*. Journal of Achievements in Materials and Manufacturing Engineering. 37.

Annex 1 Complaint to the European Commission 2012

COMPLAINT

TO THE COMMISSION OF THE EUROPEAN COMMUNITIES

CONCERNING FAILURE TO COMPLY WITH COMMUNITY LAW

Complainants: Winchester Friends of the Earth (WinFoE);
Winchester Green Party (WinGP)

Represented by: Christopher Gillham BSc, MSc, PhD, ARCS, DIC
Dr Michael Wilks MB, BS, DRCOG, FFFLM

Nationality: United Kingdom

Address: [REDACTED]

Telephone: [REDACTED]

Email: [REDACTED]@btinternet.com

Place of activity: Winchester, England

Member State or public body alleged by the complainant not to have complied with Community law:

1. Winchester City Council
2. Hampshire County Council
3. UK Government: Department of the Environment, Food and Rural Affairs (DEFRA)

Confidentiality: We authorise the Commission to disclose our identities in its contacts with the authorities of the Member State against which the complaint is made.

Signed:

Dr. Michael Wilks for Winchester Green Party:

Christopher Gillham for Winchester Friends of the Earth:

1. Summary

1.1 *Community Law under which this Complaint is made*

- 1.1.1 We make the complaint against two local elected authorities in Winchester, under the provisions of the EC Ambient Air Quality Directive (Annex XI) for mean annual NO₂ concentrations, for persistent failure to take action to meet the strictures of the Directive.
- 1.1.2 We further make the complaint that the UK Government has failed to meet its obligations under the Directive, to compel the local authorities to act to protect the health of the citizens of Winchester.

1.2 *What is the Air Pollution Problem?*

- 1.2.1 Winchester has an air quality problem, which shows no sign of amelioration. The problem is acknowledged by Winchester City Council, which defined an Air Quality Management Area in 2003 and issued an Air Quality Action Plan in 2006. Initially, problems were identified both in particulate (PM₁₀) exceedances of EU and UK limits and in annual mean NO₂ exceedances in the City centre.
- 1.2.2 Presumably with improvements in vehicle technology, the PM₁₀ level has declined below threshold in recent years. The NO₂ exceedance has remained stubbornly at the same level for the last 8 years.
- 1.2.3 We give technical details of the pollution levels in §3.1.

1.3 *What have the Authorities done about it?*

- 1.3.1 A scientific officer of the City Council has been doing good consistent analysis of the problem over a number of years. The Air Quality Action Plan identifies the issue of general level of road traffic in central Winchester as being at the heart of the problem and makes recommendations that measures be taken to reduce traffic in the centre.
- 1.3.2 Both the City and County Councils have a number of policy documents that state that it is their intention to address the air quality problem. There is no dispute that the problem cannot be solved without reduction of traffic. The difficulty is that neither of the Councils will take the measures outlined in the Air Quality Action Plan or define any alternative course of action directed at reducing traffic in Winchester.
- 1.3.3 The level of disconnect between policy statement and action to implement it is further stressed by the Councils continuing to make other planning decisions which can only have the effect of worsening the problem.
- 1.3.4 WinchesterFoE has made several submissions over the years in relation to the issue of traffic in Winchester and its air pollution consequences. At the end of 2011 it formally asked the City Council what it proposed to do to bring the town into compliance with the statutory air quality requirements. The City Council formally replied but gave no indication of any action likely to rectify the problem, except for the vague assertion highlighted in Appendix A.1.2.
- 1.3.5 WinFoE then formally asked (February 2012) the UK Department for the Environment, Food and Rural Affairs (DEFRA) what it intended to do to ensure that Winchester Council complied with its obligations. DEFRA responded by stating that WCC had assured them that action was being taken to address the problem.
- 1.3.6 WCC has not introduced any measures over the last year that can plausibly be seen to address the problem. Nor has it responded further to us to indicate any intention of taking any action.
- 1.3.7 We detail these failures of process at §3.2.

1.4 *Can the Problem be solved?*

- 1.4.1 The air pollution problem is generated by motor vehicle traffic in Winchester. The City is effectively bypassed by all regional traffic movements. The traffic problem in Winchester is entirely the result of motorised access to the town and is entirely within the City and County Councils' powers to address.
- 1.4.2 We demonstrate (see §3.3) that the traffic in the centre of the city is likely to be primarily determined by the amount of car parking in the centre and the pricing policy that dictates its use. The removal of car parking provision from the centre, pricing policy to encourage the parking of vehicles in the underused car parking outside the centre and measures to encourage public transport and other, healthier access modes, would clearly address the central traffic problem.

1.4.3 The Councils accept this analysis and have indeed made undertakings to central government (the UK Highways Agency) to remove significant amounts of car parking. Those undertakings have target dates attached which have long since been passed, with hardly any of the promised action being taken.

1.5 *Why are the Councils not acting?*

1.5.1 The City Council has been extremely tardy of action over many years. We explore the reasons for this in §3.5.1. Essentially the reasons we believe are two-fold. Firstly there is a fear that encouraging cars to park slightly further out from the centre will have economic consequences, reducing the footfall of shoppers in the centre. We on the other hand see that growth in footfall with car-based access is unlikely simply because the network is close to all-day congestion. A central road system with much reduced car traffic allows more access of people by efficient public transport and more encouragement of alternative, healthier modes of access.

1.5.2 Secondly the City (District) Council's peculiar electoral arrangements have meant that Winchester's transport policy has been determined almost entirely by representatives of constituencies in the rural hinterland, that may have a strong interest in motorised access to the County Town and hardly at all by any elected representatives of the community in the urban area which must suffer the health consequences of that policy.

1.5.3 County Council attitudes are slow to change, we believe, because institutionally it has in the past been a major developer and promoter of highway schemes. Its many years as an agent for central government roadbuilding in our view have left a mindset that is still near exclusively highway related. And indeed it is currently pursuing a capacity improvement on a local motorway junction that is likely to have traffic-generating effects through central Winchester. We explore these matters at §3.5.11.

1.6 *What are we asking the Commission to do?*

1.6.1 It is clear now that the City and County Councils know what they should do to bring about compliance with EU and UK statutory NO₂ limits, have indeed said that they would comply, but continue to demonstrate an unwillingness to take the action. The City Council has, moreover, continued with other policies and pursued its own development ambitions that manifestly will tend to worsen the traffic and pollution problem.

1.6.2 The UK Government Department responsible for ensuring that local authorities comply with air quality legislation appears to be satisfied with never-ending and never-fulfilled statements of intention by the City Council and to be unwilling to take any measures to compel the local authority to obey the law.

1.6.3 We consider that nine years of more-or-less complete inaction, following the declaration of the AQMA, is ample demonstration that there is no real intention by the local authorities to take the meaningful action it could easily take.

1.6.4 We ask the Commission to intervene to:

1. Require the Councils urgently to define a firm, time-tabled course of action to reduce traffic levels in central Winchester, with specific graduated intermediate target levels of NO₂ reduction, to reach compliance with the Directive over a period of no more than 3 years.
2. Require the City Council immediately to set aside its own development project at Silver Hill (see §3.2.10), which would have the effect of permanently building in new traffic attractors to the area affected by air pollution, or to modify its development plan to remove such traffic attractors.
3. Require the City Council, in its course of action to reduce traffic levels, to take specific cognizance of the likely new traffic generation effect of its own Core Strategy proposal to permit the major new housing development at Barton Farm (see §3.2.8).
4. Require the County Council immediately to review its ambition to increase the capacity of Junction 9 of the M3 motorway at Easton Lane (see §3.2.17) in terms of its likely traffic effects on central Winchester and take no further action to promote this scheme until convincing mitigation of its traffic effects can be demonstrated.

2. Background

2.1.1 Winchester Friends of the Earth (WinFoE) has been involved in pressing for sustainable environmental policies in Winchester for at least 37 years, to a large extent, but not entirely concerned with transport policy and its environmental effects. The Winchester branch of the Green Party (WinGP) has also been active in recent years in Winchester, pressing for policies that will encourage and permit true local sustainability.

2.1.2 Though Winchester has a long history of importance in England, being for a number of centuries, and intermittently, the capital city of the country, it is a relatively small cathedral town by European standards, with a population of about 45000. It is the County town of Hampshire (the more significant cities of Southampton and Portsmouth being separate administrative areas from the rest of the County). As well as being a Cathedral City (ranking third after Canterbury and

York), an Assize town and, recently, a University town, it is thus also an administrative centre. Its commercial prosperity relies on these mainly administrative functions, on it being a minor retail centre within a largely rural hinterland (major retail provision being provided by Southampton, 18km to the South), a significant attractor for tourism and a dormitory town for London commuting, by virtue of a relatively fast 120km railway link. Winchester has no manufactory significance.

- 2.1.3 Despite the dominantly administrative and tourism nature of its economy, Winchester has a persistent air pollution problem in its centre, for which there appears to be no explanation other than that it is the result of car traffic dominance of the streets. The city, being a 'gap town'¹² in the South Downs chalk hills, does lie on a major north-south transport route – rail from London and two major roads (M3 from London and A34 from the Midlands, which converge at Winchester) en route to Southampton as an international port.
- 2.1.4 **The major roads fully bypass Winchester¹² in a north-south direction and the very much smaller east-west movement is accommodated by peripheral rural routes. Road traffic in Winchester itself is thus almost entirely generated within the town or by virtue of its attraction as a place of work, a shopping centre and a tourist destination. Essentially the air pollution problem is internal to Winchester - it is entirely within the domain of local government to control.**
- 2.1.5 Winchester is governed at two local levels. Hampshire County Council (HCC) is the major organ of local government, covering the County of Hampshire, except for the cities of Southampton and Portsmouth which are self-governing unitary authorities. HCC is responsible for social care, schools, waste management, police and highways (except for national trunk roads, including motorways).
- 2.1.6 Apart from the unitary authorities Hampshire comprises 11 Districts, each with a District Council. Winchester City District Council (WCC) essentially comprises Winchester town and rural mid Hampshire to the West Sussex border. WCC is responsible for planning control, social housing, refuse collection and some aspects of highways and transport.
- 2.1.7 **Though the main budget for transport matters resides at HCC level and is covered by their Local Transport Plan (LTP), transport planning (and such things as the ownership and administration of car parks and the running of Park-&-Ride bus services) for Winchester city is partially devolved to the WCC and is supposedly¹³ covered by the Winchester Town Access Plan (WTAP), itself to be a subsidiary document to the LTP.**
- 2.1.8 Air quality measurements have been taken in Winchester City since 2003, when exceedances of EU Directive thresholds in both PM₁₀ particulates and NO₂ necessitated the declaration of an Air Quality Management Area (AQMA).

¹² Indeed the M3 motorway past Winchester was routed in a highly controversial manner through one of the most important landscapes and habitats in southern England. The Twyford Down cutting for the M3 was the subject of two complaints under the European Directive 85/ 337.

¹³ Though this Plan, which has been many years in development, remains to be finalised.

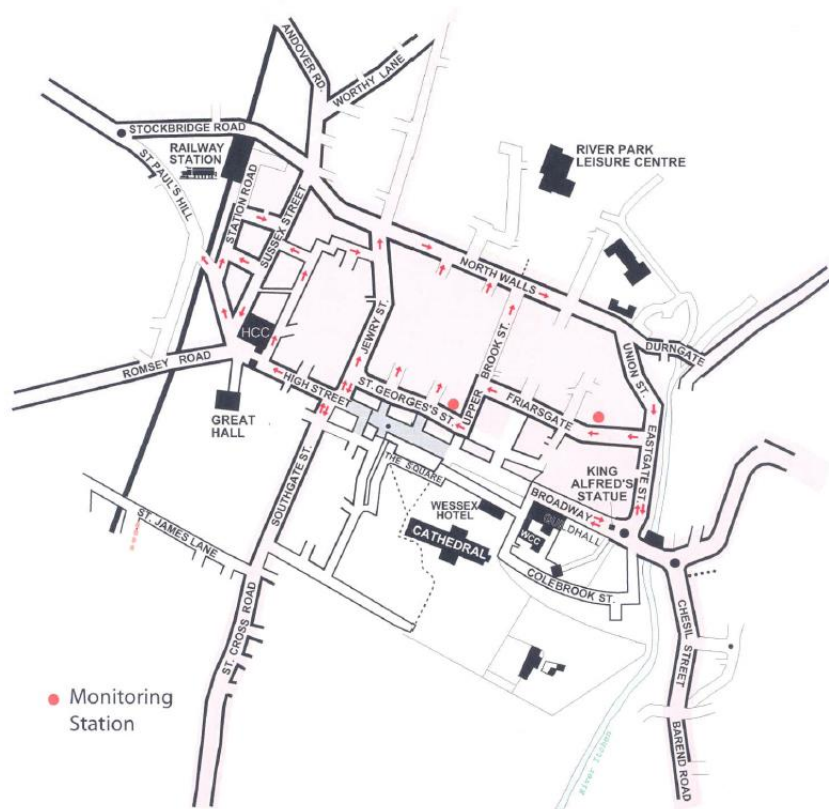


Figure 1 Air Quality Management Area

- 2.1.9 The street pattern in central Winchester is essentially mediæval. Because the narrow streets make it difficult to accommodate higher traffic levels, the local authority many years ago opted for one-way systems, rather than seek to limit the amount of traffic in the City centre. The traffic network now comprises a major circulatory ring (Jewry St, North Walls, Union St, Eastgate St, Friarsgate, Upper Brook St, St Georges St) with a subsidiary ring of mixed 1-way and 2-way roads to the west. This figure-of-eight is essentially fed by eight radial routes.
- 2.1.10 The one-way circulatory system essentially results in significantly more vehicle-km within the city centre than would be the case with simple in-out radial access. The main (as distinct from background) all-year monitoring station is in St George's Street. Diffusion tubes distributed around the town are also regularly monitored. Most of our comments relate to the St George's St. location and we acknowledge that WCC are probably right in assuming that this location is the area of most concern in the centre.
- 2.1.11 **There may be geographical factors of importance here, because this area lies essentially in the main river valley of Winchester, with significant uphill gradients of downland immediately to the east of Figure 1 and a long upward gradient to the west along High Street and Romsey Road. Diffusion tube results, however, do also indicate other areas of concern, especially at the eastern end of Romsey Road.**

3. Air Pollution in Winchester.

3.1 The Physical Air Quality Problem

- 3.1.1 There are strict limits for air pollutants laid out by both EU and UK law. Winchester fails to meet the annual mean NO₂ target in the centre of Winchester (and spot measurements elsewhere, e.g. on Romsey Road, also indicate a likely problem with this measure). It appears that this is not a target that will be reachable merely with the passing of time, through car technology improvement (as PM₁₀¹⁴ appears to have been).

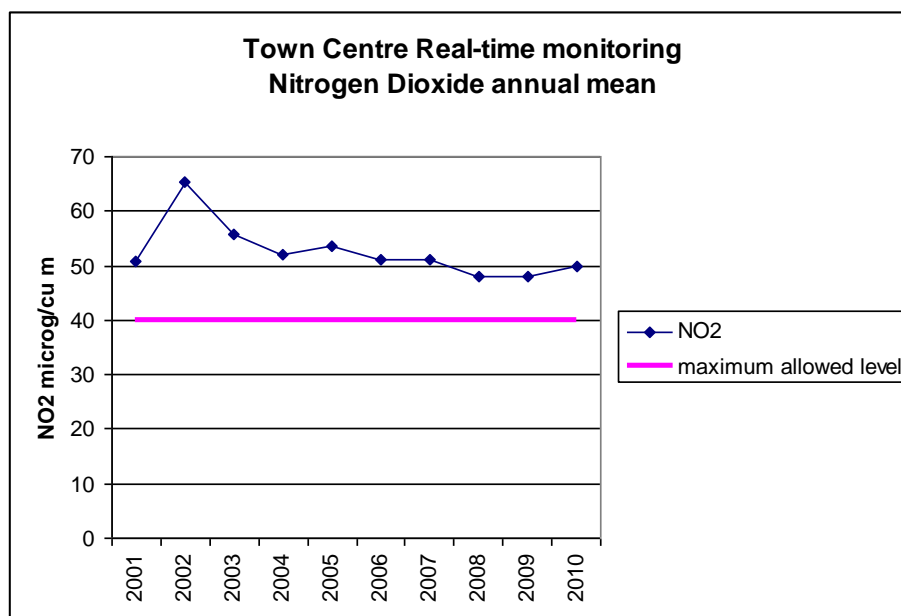


Figure 2 Continuing NO₂ failure

- 3.1.2 Almost since the declaration of the AQMA in 2003, and certainly since the publication of the Air Quality Action Plan (AQAP) in 2006, there has been no significant diminution in the annual mean NO₂ concentration. Nor is this because technology improvement has been offset by traffic growth. While there has probably been significant growth of traffic in Winchester on various chord roads (e.g. Chilbolton Avenue, Park Road, Badger's Farm Road, Berewecke Road) radial traffic is most likely to be pertinent to the AQ hotspots and this has scarcely grown at all (Figure 3):

¹⁴ We are acutely aware that air pollution from sub-10µm particulates is increasingly being seen as a major health issue, but, as far as we know, neither the EU nor the UK have yet acknowledged this research or defined appropriate target levels.

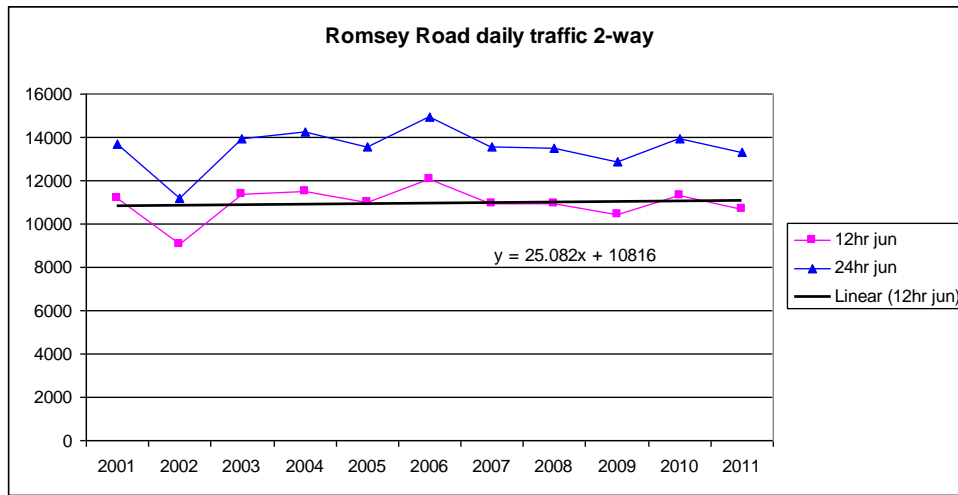


Figure 3 Radial traffic changes over 10 years

3.1.3 Figure 2 thus shows that NO₂ is consistently 25% above the required maximum (40µgm⁻³) specified by the EC Ambient Air Quality Directive (Annex XI) for mean annual NO₂ concentrations that should have been met by the 1st January 2010¹⁵. There is no evidence from Figure 2 that technology will make this better, as it has signally failed to do so over the last 8 years.¹⁶

3.1.4 We are somewhat confused by the various target dates that appear in relation to air pollution legislation. The UK Government incorporates the EU target in its Air Quality Objectives and states that it needed to be met by an earlier date of 31st December 2005. We understand, however, that the UK Government Department for the Environment, Food and Rural Affairs (DEFRA) has sought an extension of deadline for some local authorities to 2015. Winchester did not ask DEFRA, at the appropriate time, for an extension of date for compliance, so that it seems to us that Winchester is in breach of the legislation already and by a significant margin.

3.2 Actions of the Local Authority in Relation to the AQMA

3.2.1 The complainants acknowledge that the responsible officer of the Council has been scrupulous in his science and methodology in measuring the levels of air pollution in Winchester and assiduous in his monitoring and reporting of the problems. We do not dispute the data.

3.2.2 An Air Quality Action Plan (AQAP) was produced in 2006. It made 20 recommendations to bring about compliance with target levels of pollution. These 20 recommendations are outlined in the correspondence with the City Council shown in Appendix A.1.1 (see also below). The Action Plan in our view was a reasonable enough first line of attack, though we doubted its effectiveness at the time, in view of our doubts about the City Council's Park and Ride proposals.

3.2.3 The problem has been that WCC has failed to match action to the rhetoric of the AQAP. We stress the word 'action' to distinguish it from policy. Transport policy in Winchester (see Appendix 3) is replete with references to the importance of dealing with the air pollution problem. It is also clear from these policy statements that both WCC and HCC accept that the problem cannot be addressed without traffic reduction in central Winchester. The AQAP is also very specific about the need to reduce traffic. What WCC and HCC refuse to commit to, however, is an actual plan to reduce traffic. Indeed, as we detail below (Barton Farm – see §3.2.8; Silver Hill – see §3.2.10), both WCC and HCC appear to be increasingly committed to other policy that can only have the effect of increasing traffic.

3.2.4 We have formally asked the City Council (see correspondence at Appendix A.1.1) what plans it has to bring itself into compliance with the EU and UK NO₂ target requirements and they have not told us of any measures that they fully intend to implement that can plausibly achieve the target by any defined timescale. We have then formally asked DEFRA to intervene (see Appendix 2) but they have indicated that it is for the Council to take the necessary action. DEFRA does, however, appear to believe that WCC is in the process of reviewing the AQAP and considering more radical options. DEFRA quotes from the latest report (2010) on the progress of the Action Plan:

Even with the completion of 5 of the 21 actions, and progress with most of the others, it is clear that concentrations of nitrogen dioxide are not reducing to the extent that the action plan predicted. With the Action Plan now having been in place for four years and many of the actions having progressed (some to completion), and in light of continuing exceedances of the annual mean nitrogen dioxide objective, it is considered that the Action Plan should

¹⁵ On tolerances the Directive states: 50 % on 19 July 1999, decreasing on 1 January 2001 and every 12 months thereafter by equal annual percentages to reach 0 % by 1 January 2010

¹⁶ Indeed we understand that there is evidence that the technological changes to diesel engines to reduce PM₁₀ emissions may have increased NO₂ emissions.

be reviewed, with the current actions updated and more radical options considered. It is suggested this is undertaken through a full review of the Action Plan to fit in with the LTP3 and WTAP processes. It is likely that the best timing for this would be within the financial year 2011/12.

- 3.2.5 This is in fact the reporting statement of the scientific officer of the Council concerned with the measurement of pollutants and it is an expression of his opinion as to what action should be taken. It is not a statement, as DEFRA seems to think, of what the elected WCC or its senior executive and planning officers intend to do. Since the report dates from 2010 and our correspondence (Appendix A.1.2) with WCC in late 2011 indicates no such review has taken place, nor that any suggestion of radical action is being considered, the quotation above can be of very little encouragement that serious consideration is being given to tackling the air quality problem.
- 3.2.6 Indeed we would point to a number of more recent developments that show an increasingly blasé attitude of the Councils and their more senior officers to the air pollution problem:
- 3.2.7 Scrutiny Committee Report: A scrutiny panel of WCC Councillors examined the issue of non-compliance with the air quality objectives and reported in January 2012. It made 17 recommendations, not a single one of which seriously addressed the issue of traffic reduction and its inevitable relationship with the availability of central car parking (see §3.3.1). We believe we can demonstrate that this report is essentially window dressing of existing failed policy and takes no useful step towards radical action.
- 3.2.8 Barton Farm Inquiry: Barton Farm is a proposed major housing development on the northern outskirts of Winchester. The UK Government has recently (2nd October 2012) approved the development at outline planning level. The Minister concerned cited the fact that the local draft Core Strategy designated the site as appropriate for housing development, even though the Core Strategy has only just entered the official phase of Examination in Public. The purpose of the Examination in Public is to determine whether a Strategy is sound, legal and justified, so that the UK government has now approved a scheme that will inevitably add pollutants (thus making it unsound, illegal and unjustified) just before the strategy that permits it has been examined.¹⁷ The point of relevance here is that, on the developers' own admission a significant increase (perhaps 10%) to central Winchester traffic may be expected. The HCC transport officer assured the Inquiry Inspector that this was acceptable.
- 3.2.9 On the simplest interpretation of this one would expect the 25% exceedance of NO₂ levels to rise to 38% exceedance. For reasons of congestion limitation that we explain elsewhere (Appendix 6) we consider a 10% increase in central traffic to be unlikely, but the air pollution consequences of fully congesting Winchester's streets throughout the day might actually be far worse than a simple proportional traffic increase would suggest. The main point here, however, is that HCC are perfectly happy to accept significantly increased pollution levels above the existing exceedances.
- 3.2.10 Silver Hill Scheme: WCC and a commercial developer propose a major and highly controversial shopping, housing and office development in the heart of Winchester (indeed nearly adjacent to the highest measured pollution levels. This development, which is currently going through the stage of compulsory purchase of land, adds several hundred car parking spaces to central Winchester. On the simplest interpretation this would mean significant extra traffic attracted into the centre.
- 3.2.11 For the same reason (§3.2.10) of congestion limitation (and issues of existing over-capacity that we explain below - A4.3.7) the extra attraction might simply saturate the network at a little above current levels. The issue is more that new multi-storey car park provision takes away the simplest radical option of removing existing ground-level parking. It effectively freezes into central Winchester a level of high-investment parking that will continue to attract more traffic than is consistent with solving the air pollution problem. That WCC is actively planning to do this shows that it has no real intention of solving the problem it perpetuates and probably worsens it.
- 3.2.12 Town Forum¹⁸ Vision: The Town Forum has recently published a report *The Vision for Winchester Town 2012-2017*. This document, in which we struggle to find anything 'visionary', contains the wishful statement:
- Our goal is to reduce pollution and improve access by managing traffic well and providing real choice between modes of transport*

¹⁷ This is the new reality in the UK. Supposed economic growth trumps all other concerns, and in particular environmental ones.

¹⁸ Winchester Town Forum is not what the term implies, but a subset of WCC, comprising Councillors from urban Winchester (as distinct from the wider Winchester District. There is no third level of representation for the City, such as the parish councils found in rural communities in the wider District.

- 3.2.13 It does not, however, propose any specific measure that might be taken within the 5-year period to reduce pollution. It certainly proposes no specific action to reduce traffic in the centre, though it does suggest that a 20mph (32km/hr) speed limit may be brought in (which may have some car-journey-deterrent effect and is certainly welcomed by us – but we cannot see it as bringing about traffic reduction on the scale needed to bring NO₂ levels down by 20%). Nor does the ‘*providing real choice between modes of transport*’ ring very true to us since the level of HCC support for public transport has been very markedly reduced in recent years and continues to worsen.
- 3.2.14 On the specific need to reduce city centre car parking the report is assiduous and deliberate in its equivocation:
The debate over car parking spaces in town has become increasingly polarised. The Forum has a clear vision¹⁹ of parking provision in Winchester. There must be sufficient spaces in the right place to support the economic success of the town centre whilst unused spaces in the wrong place should be put to better use.
- 3.2.15 While it is welcome that the Forum suggests the better use of empty car parking spaces (and we have been waiting for progress on this for years - see §3.3.7 below) it is indicative of the lack of analysis in the WCC that they have not realised that it is the used car parking spaces that are the trip ends of the polluting car journeys. We note in this regard that car park pricing policies have largely been directed towards higher turnover in central car parks, i.e. higher central traffic (§3.4.7)
- 3.2.16 We believe, therefore, that we have taken all measures we can to get either the Council or the Government to commit to actions that will bring about compliance with the EU and UK standards. There is clearly no commitment and, moreover, a dangerous tendency towards making the problem significantly worse. We believe our only remaining recourse is to make a formal complaint to the Commission.
- 3.2.17 M3 Motorway Junction 9 Capacity Increase: Apart from the careless assertion²⁰ by a County Council officer that the extra central traffic generated by the Barton Farm proposal would be acceptable (§3.2.8), HCC itself has a transport ambition that will clearly tend to increase traffic in Winchester centre. HCC plans to increase the capacity of Junction 9 of the M3 Motorway, in order to relieve congestion on the Easton Lane radial access route.
- 3.2.18 The inevitable, if unintended, result of this measure will be to encourage traffic growth across the centre of the town. Although the existing network congestion in the centre is an obvious deterrent to redistributed or induced traffic movements across the centre, any action by the City Council to relieve the centre of traffic by reducing radial access through car park reduction, will relieve the network congestion. Any relief of the traffic domination of the centre by radial access will then be offset by a growth in cross-town traffic.²¹

3.3 Air Pollution, Traffic Reduction and Car Parking

- 3.3.1 The Pollution-Parking Relationship: The concentration of NO₂ in central Winchester will be a function of traffic levels, congestion and geographical and meteorological factors. Little can be done about the latter. Because it is the annual mean concentration that matters, it is more a factor of average or total traffic²² (including some appropriately weighted factor representing congestion) that must be addressed. We believe that addressing congestion on its own is not promising as it can have unlooked-for effects.
- 3.3.2 If we were able to reduce junction delays within Winchester and create freer-flow conditions²³ (and if we could, why have we not done so already?) the resistance of the network to traffic growth reduces and more of the suppressed traffic is realised. Individual vehicles might be in the system for a shorter time and their emissions thus reduced, but the growth in the number of vehicles could undo this and more – the elasticities are simply unknown.
- 3.3.3 The only safe and sensible interpretation to make is that the key to meeting air quality targets is traffic reduction. The AQAP is explicit:
To this end, the main area of concern that forms the focus of attention of this Air Quality Action Plan is to change the way in which people access the city centre with particular emphasis on modal shift away from private vehicle use to more sustainable forms of transport.
- 3.3.4 In fact traffic reduction in the centre is a somewhat more complicated matter than this emphasis on changing access mode suggests, since through traffic (or rather cross-town traffic) is probably significant (perhaps 20% of the traffic, though the only available data is rather sparse on this). And we could assume that reducing access traffic without any other measures would reduce the network resistance to through traffic and hence lead to an increase in such traffic – nature

¹⁹ That is spelt out nowhere in the document or anywhere else that we are aware of.

²⁰ An assertion that was clearly crucial to the decision by the UK Government to allow the development.

²¹ This is not strictly through traffic, but cross-town access to the motorway and supermarket shopping by the motorway junction (cross-centre movements becoming shorter than by peripheral routes).

²² That signifies that it is not really a matter of tackling peak traffic as is commonly supposed.

²³ Faster free-flow, e.g. through more pedestrian/motorist segregation, is counter to the idea of more street-sharing. Slower free-flow consistent with street-sharing would be more resistive to traffic and would result in traffic suppression.

abhors a vacuum. But the key here is the phrase ‘*without any other measures*’ and we believe that there are other traffic (or rather network) management measures which would counter this effect. This is probably not the place to be drawn into these sorts of practicalities.²⁴ The point is that we do not cavil with the AQAP view that the key to meeting the NO₂ target is radial car access reduction.

- 3.3.5 The Arithmetic of Parking: It now becomes a matter of arithmetic. We can calculate what it is necessary as a minimum (that is on the most optimistic assumptions) to do to the level of central car parking in order to meet the NO₂ targets. We show this arithmetic in Appendix 4. At the most optimistic (most conservative) calculation nearly 600 spaces of public car parking should be removed from the City centre to stand any chance of reducing NO₂ levels towards the statutorily required limit.
- 3.3.6 It is true that the City Council recognises the parking-traffic link and even acknowledges a need to reduce car parking. It even mentions a figure of 500 spaces to be removed from the City Centre (see §A3.2.3). If we thought for one moment that this was a sincere intention we would not be pursuing this complaint. The fact is we simply cannot get the City or County Councils to make a firm commitment to this. We specifically ask for commitment on this in our letter to the Leader of the City Council (see §A.1.1) and we received no such commitment (see §A.1.2).
- 3.3.7 The insincerity of the Councils on this matter is cogently demonstrated in the dealings with the UK Highways Agency (HA) when Park & Ride provisions were being justified. HCC (as transport authority) apparently gave an undertaking to the HA when it was seeking approval for the new P&R (South) at Bushfield. We show this letter at Appendix 5. It requires some explanation. P&R (South) added 864 new car parking spaces. The HA says:

The HA draws comfort from the fact that Winchester are committed to levelling this net increase of 440 spaces by the P&R's opening date through continuing to reduce the levels of on and off street parking within the town centre. This aligns with Government guidance.

²⁴ The kind of street-sharing vision, that many people in Winchester share, is only possible when traffic levels get below a certain level. But then, past that threshold, street-sharing itself becomes traffic deterrent – through traffic sees a longer journey time; pedestrians and cyclists see a more friendly space that they invade; through traffic sees an even longer journey time – the circle is virtuous.

- 3.3.8 It is clear from this statement that the Highways Agency believed²⁵ Winchester was committed to removing car parking places from the centre equivalent in number to those it was providing on the periphery. In fact, if the aim of P&R is (as it was claimed to be) to reduce city centre traffic, more car parking spaces need to be removed from the centre than are provided in P&R sites, for reasons related to the simple arithmetic of different turnovers between commuting and other journey purposes (especially retail).
- 3.3.9 The Highways Agency also clearly believed that half of the compensation job was already done or was in the process of being done in 2007. We should look at these figures. First the 250 spaces vacated by the County Council. This indeed happened but all those spaces are accounted for by a so-called temporary HCC P&R site at Bar End of at least 250 (probably 300) car capacity, which ought, according to the logic of the Highways Agency assumptions, be separately compensated for by loss of equivalent central places. The Colebrook Street (not Cole Street) car park of 77 spaces has not been removed. The Upper Brook Street car park of 52 spaces has not yet been closed but will be as a result of shifting the St Clement's medical practice from the Silver Hill area on to this car park.
- 3.3.10 Thus apart from the removal of 45 spaces from the Jewry Street site with the library extension, none of the complementary car parking assumed by the HA had actually happened "*by the P&R's opening date*" in April 2010; nor has much of it happened since (probably 8 spaces in St Peter's car park have been lost to a fence displacement to accommodate a school extension). Winchester's undertaking to make compensatory cuts to city centre parking, in accordance with Government guidance, and by April 2010, thus fell short and still falls short by 811 car park spaces.
- 3.3.11 There were also undertakings made to the Inspector at the Public Inquiry in 1997 into an earlier P&R scheme at St Catherine's (591 spaces) to remove an equivalent number of car parking spaces in the City Centre. No car parking spaces were removed. We are not aware of commitments made at the time of the first P&R scheme at Barfield (194 spaces) but logically they should have been compensated for by removal of central provision.
- 3.3.12 We should also note here that, since the opening of P&R South, Winchester has the further prospect of upwards of 400 new P&R car park places, with approved planning permission at Pitt Manor on Romsey Road and the recently approved Barton Farm development. In relation to both of these, the Highways Agency is clearly expecting the same complementary central car park removal:
- Pitt Manor** (e-mail from HA to Jill Lee, WCC, 3rd March 2010): *However the Park and Ride spaces should be offset by a reduction in City centre car parking, as has been agreed for the approved P&R sites, to avoid generating new traffic.*
- Barton Farm** (letter from HA to Nick Parker, WCC, 13th Jan 2010): *The HA recommends that the amount of Winchester City Centre parking is reduced in line with the additional Park and Ride parking provision, as per the Park and Ride at M3 Junction 11.*
- 3.3.13 Thus the car park removal commitments made by the Councils in relation to public P&R provision add up to more than 1800 spaces (not counting the Barfield P&R). Of these 1800 spaces we can perceive the actual loss of only 53 (§3.3.10) central car parking spaces, plus the expectation in the near future of 52 (§3.3.9).
- 3.3.14 **Network Congestion and Pollution:** The unimproved NO₂ levels of the last several years may be set to worsen as a result of other City Council development now in plan. In Appendix 6 we explore the problem of network congestion. Traffic levels at peak hours exhibit significant congestion, which is probably dominating the pollution levels. The traffic in Winchester over the last two decades, however, is getting increasingly less 'peaky', to the extent that now the mean traffic levels in the normal shopping/working day are at about 88% of peak, i.e. the network is close to all-day congestion. This may have a dire effect on the pollution levels.
- 3.3.15 The City Council is not only not doing anything about reducing city centre car parking, but is actively planning to increase it, fix it in, in semi-permanent multi-storey provision and create a major new traffic attracting development in the centre and close to the air pollution hotspots.

3.4 **What the Councils could do to solve the Air Quality Problem**

- 3.4.1 **Car Park Removal:** The logic of the above analysis (§3.3.5) dictates that public car parking within the central circulatory system should be drastically reduced.
- 3.4.2 There is a multi-storey car park in the central area, called The Brooks (see §Appendix 4), which is a modern car park with a significant capital investment in its making. It would not easily be convertible to other use. For this reason we do not see it as an immediate candidate for closure. There is a second central multi-storey facility called Friarsgate, which is in a rather dilapidated state with little capital value and which we believe is a good candidate for removal. Indeed the

²⁵ Highways Agency endorsement of the P&R (South) scheme must have been a significant factor, if not in the decision of the County Council to grant itself planning permission, then in the Department of Transport's decision not to call in the controversial permission for examination at Public Inquiry. The content of the HA letter only became apparent, from an FoIA request, after the P&R site was built in 2010.

City Council itself wishes to demolish it as part of its Silver Hill development ambition. That plan, however, proposes replacement by a significantly bigger multi-storey facility.

- 3.4.3 All the remaining central car parking provision is surface level and readily removable, either wholesale or piecemeal.
- 3.4.4 There is no need for a ‘Big Bang’ removal of central car parking²⁶. The removal of Friarsgate would be the only major increment that would be desirable (average peak use 109 vehicles). We believe that the remaining process of car parking removal can be incremental and progressive and complemented by alternative measures. Caution is wise, but the City Council must not continue to be so over-cautious as to make no progress at all. It must be determined to persevere on a timescale that ensures compliance with the Directive reasonably soon.
- 3.4.5 Car Park Pricing: The process of removal of car parks should logically be taken together with a pricing policy that encourages the first use of those car parks less implicated in the pollution problem. Currently the charging regime does not obviously do that (see §A.4.4).
- 3.4.6 It is clear for example that there is a modern multi-storey facility outside the central circulatory system, but within very few minutes walking distance of the retail centre, that is nevertheless much underused. The Chesil Street multi-storey has average peak occupancy of 46%. The failure of the charging system to favour sensible use of this car park, clearly represents a lamentable reluctance by the City Council to make proper use of a major capital investment. But its potential use to reduce central traffic and central air pollution is very significant.
- 3.4.7 Similarly (though somewhat further out) the surface car parks on the north side of Winchester (Cattle Market, Coach Park and Worthy Lane) are very underused. These are obvious places to divert car parking removed from central Winchester by more discriminatory parking charges. Illogically, however, when the City Council gets to talk about significant removal of car parking at all, it cites these car parks as the appropriate candidates. Their removal would have no beneficial effect on the traffic in the central circulatory system at all, indeed it could have the opposite effect, since traffic from the north would have nowhere else to park without entering the centre.
- 3.4.8 Finally it is incomprehensible that the City and County Councils, having invested large capital (and running cost) sums in Park and Ride provision with average peak use of under 50%, have not adjusted their parking charge policy such that this under-use of investment is addressed.
- 3.4.9 Public transport alternatives: We contend that public transport improvements are an obvious complement to car park removal. In a network that is close to capacity throughout the day, access of people to the centre is limited (growth in access becomes possible only through additional walking, in an unpleasant and unhealthily polluted environment).
- 3.4.10 If car access becomes limited by car park removal then more efficient access can be provided by bus transport, streets become better places for people to inhabit and the healthy alternatives of cycling and walking will be encouraged. The vicious circle of decline that takes place with a concentration of car access (buses are less used, their economics of operation worsen, bus services decline in frequency and coverage and cost more, buses are less used.....) can be made virtuous and overall access of people to the town centre can increase well beyond its present limit.
- 3.4.11 We could go into some detail about a strategy of increasing bus use whilst reducing car use. This could include a cross-subsidisation process whereby some of the large existing subsidy to motorised access (car parks which barely cover their administration costs, yet are sited on highly valuable city centre land represent a major resource cost to society) can be progressively fed into efficient public transport alternatives.
- 3.4.12 However desirable such new thinking may be, we do not think it is necessary to discuss it here in any detail, since it is not essential to the particular aim of meeting air quality objectives. All existing car access trips could be accommodated in existing car parks outside the central circulatory system and the current air pollution hotspots. There is indeed spare car parking capacity for extra car journeys to Winchester if that were desirable, although we do not know whether that would mean that air quality would not meet objectives outside the central area (Romsey Road is a particularly sensitive zone - §2.1.11).

3.5 *Why are the Councils reluctant to act?*

- 3.5.1 City Council Reluctance: Given that the commercial land value of car parking sites in Winchester is very high, it is surprising that the City Council which owns them is not more ready to put them to more beneficial use. Simply as a financial asset, the public purse ought to be able to realise a market level of income – it certainly does not do that from parking fees.

²⁶ Even though that was effectively signed up to by the Councils in their undertakings to the Highways Agency at the time of the P&R site construction (see §3.3.7 - 864 spaces to be removed by the P&R’s opening date of April 2010)

- 3.5.2 It is hard to see that there is any justification for subsidising motoring access. For any local authority there are clearly facilities and services that they can reasonably provide that do not secure a financial return. But subsidy that is essentially regressive (benefiting the better off more than those who do not have cars) has little obvious merit.
- 3.5.3 Undoubtedly the reluctance of the Council to act to protect its citizens from the pollution of their air stems from a perception that local business interests would be against any measures to reduce central car parking provision. Indeed the Business Improvement District (BID), an organisation representing local businesses, has expressed alarm at the idea of removing any car parking from the centre of Winchester. Although the same organisation has expressed the entirely contradictory view that retail activity in Winchester would be encouraged by introducing street sharing. Such a concept is entirely dependent on the idea of reducing traffic levels in Winchester, which at the moment is logically inimical to the preservation of the main traffic attractors – the car parks.
- 3.5.4 This is not the place to discuss the evidence that relates car access to the economic success of town centres. We pause only to state our view that greater efficiency of access represented by public transport, together with the improvement of the ambiance of streets that comes with reducing motor traffic is more likely to encourage more economic activity than less. On the other hand, as we discuss elsewhere (Appendix 6), car-borne access to central Winchester is nearly at its physical limit. If the ‘footfall’ of people in the town centre is a measure of likely economic success, then a transport strategy that takes people there in individual boxes is unlikely to allow much further growth.
- 3.5.5 Nor is this the place to discuss the overall merits of generally moving transport policy away from car-borne access, though we have strong views on this. In our pursuit of action to reduce central air pollution, we are not, therefore, suggesting that cars parking in Winchester as a whole would have nowhere left to park.
- 3.5.6 If all the current central surface car parking were removed, at mean normal weekday peak use, those cars currently parked could be accommodated entirely within the Inner Ring car parks, outside the central circulatory system (see Figure 5, Appendix 4). These inner ring car parks are all within 10 minutes walk of Winchester’s shopping centre.
- 3.5.7 The solution to the air pollution problem in Winchester centre is thus seemingly straightforward and represents no plausible threat to the economy of the retail centre. The will to do it is all that is lacking.
- 3.5.8 Why, therefore, does the City Council not have the will to act? In part in recent years we believe this is because of a peculiarity of democratic representation in Winchester. The City Council is named from the City of Winchester, but is in fact a District Council comprising both the urban city of Winchester and a larger rural hinterland. The rural hinterland comprises the greater population and the greater electoral representation.
- 3.5.9 Moreover the peculiar system of government for this Winchester City District Council is one whereby the majority of the decisions are made by a Cabinet of councillors. Such has been the arithmetic of the constituency in recent years, that this Cabinet has contained not a single elected representative from the urban confines of Winchester.
- 3.5.10 The decisions, therefore, that are made concerning life in Winchester City and the health of its citizens are made by those who do not represent them. It is hardly surprising, therefore, that policy related to transport access to Winchester is more concerned with representing the views of those accessing the town, who may wish to get their cars as close to the centre as possible, than with those who live in the town and have to suffer the consequences of that access.
- 3.5.11 County Council Reluctance: While we do not perceive them to be major obstacles to progress, there are some considerations that make the County Council unready to act in this matter. In the first place there is a similar disconnect in electoral representation between the wider hinterland of the County and that of urban Winchester, which we believe encourages the same emphasis on meeting the presumed needs of those accessing the town, rather than those living there.
- 3.5.12 Secondly the County Council administrative operation is based in Winchester and a significant part of the executive is in-commuting. Thus both elected and executive arms of local government at this level are also likely to be more concerned with access to Winchester than with the problems of living there. We acknowledge, however, that the County Council executive has taken significant measures to reduce its own commuting imprint on the City and that there are indeed voices within the executive that seek progress towards sustainable transport.
- 3.5.13 We believe there remains, however, a legacy within the County Council of an older mode of thinking that does not easily sit with concepts of sustainable transport. The legacy dates from the County Council’s role for many years as agent of the road building executive of the UK Department for Transport, specifically as part of the South East Road Construction Unit.
- 3.5.14 The Commission may recall earlier complaints in relation to the destruction of Twyford Down by Winchester, for the M3 motorway. The earlier scheme development of the M3 was technically carried out by the County Surveyor’s office in Winchester, though that was later defeated at public inquiry and the further working up of the alternative M3 scheme through Twyford Down moved to the main offices of the Department for Transport. Nevertheless the County Council remained a crucial supporter of the scheme which was highly controversial for Winchester.

- 3.5.15 The County Council was also the body that worked up a controversial access road from the M3 into the heart of Winchester, called the Easton Lane Link Road, though happily that hugely damaging scheme was defeated at Public Inquiry.
- 3.5.16 Though their attitudes on transport have generally changed for the better, we believe that the County Council still has the mindset of meeting motorist needs in Winchester before those of the resident population. Indicative of this is their current proposal (§3.2.17) to increase the capacity of the M3 junction at Easton Lane – a reprise of the thinking behind the Easton Lane Link proposal 30 years ago.

4. Conclusions

- 4.1.1 Winchester City centre has an enduring air pollution problem. The annual mean NO₂ concentration has persisted at a level 25% above the target set by the EC Ambient Air Quality Directive (Annex XI). Winchester City Council has responsibility for meeting the Directive and acknowledges its failure to achieve compliance so far. The City Council also recognises that the problem arises principally or entirely from the presence of motor traffic in the central road system.
- 4.1.2 The City Council has been properly and systematically monitoring the state of air pollution in Winchester for a number of years, declaring an Air Quality Management Area for the town centre and an officer has defined an Action Plan aimed at Winchester meeting its obligations.
- 4.1.3 The elected Council, however, has consistently avoided taking any of the real action within the Action Plan. Furthermore it is now abundantly clear that Councillors have no real intention of complying with the Air Quality Directive, even though all approved policy documents assert that action must be taken.
- 4.1.4 Not only do the two local authorities neglect to implement their air quality policy but they actively contrive to worsen the pollution problem by encouraging the growth of new car traffic.
- 4.1.5 Hampshire County Council has critically influenced the granting of planning permission for a major housing development in Winchester by asserting that the known traffic (and hence air pollution) increases would be *'acceptable'*. The County Council has, moreover, sought and obtained central government funding for a scheme to relieve congestion at a local connection to the motorway network which will increase cross-town traffic through the central area.
- 4.1.6 Winchester City Council is joining with a development company to create a new commercial development with additional car parking capacity and a stated intention to attract new access trips to the centre. It is currently seeking Government permission to facilitate this development through compulsory purchase powers.
- 4.1.7 The complainants have asked the City Council for assurance that it will tackle the air pollution problem through a timetabled plan. The City Council has declined to define such a plan or provide any assurance that one may be forthcoming. The complainants have asked the responsible department of central government to intervene to compel the local authorities to produce a plan to reach compliance with the Directive. The Secretary of State has declined to intervene.
- 4.1.8 We believe we have shown that the problem is capable of solution, involving reasonable changes to parking policy and encouragement of and affordable support for alternative public transport access to the city centre. We believe that the City and County Councils know what needs to be done and have suggested no plausible alternatives that would bring about the necessary traffic reduction in the City centre.
- 4.1.9 What is missing is the will to take action. We believe there are a variety of reasons for inaction, probably including the political demography, a sensitivity to local business lobbying, an unevincenced belief that action would have undesirable economic consequences and a long-standing mindset toward meeting motorist interests before residential welfare.
- 4.1.10 The City and County Councils, by neglecting this problem for so long, have shown themselves unwilling to look after the health of the residents of central Winchester. There is no reason to suppose that their attitudes or actions will change unless some other authority gives them a reason to do so. The UK central government has shown itself unwilling to bring sanction to bear. In our view, if the Directive is not to be ignored indefinitely, the Commission is the only body that can act.

Correspondence between Winchester FoE and WCC

A.1.1. Letter from WinFoE



Winchester Friends of the Earth Transport Group
Please reply to: Chris Gillham at 16 Upper High Street, Winchester, SO23 8UT

22nd November 2011

Councillor George Beckett
Winchester City Council
City Offices
Colebrook Street
Winchester SO23 9LJ

Dear Councillor Beckett

Winchester Air Quality

You will be aware that, since the declaration of an Air Quality Management Area in Winchester in 2003, the failure to meet the annual mean NO₂ level required by European and UK legislation has persisted. Indeed since 2004 the exceedance of the allowed maximum level in St George's Street has remained at a stubborn 25%.

The EC Ambient Air Quality Directive (2008/50/EC, which updates the Directives of 1996 and 1999 in respect of NO₂ and other pollutants) specifies (Annex XI) that the target for mean annual NO₂ emissions should be met by the 1st January 2010.¹ The UK Government incorporates this target in its *Air Quality Objectives* and states that it needed to be met by the earlier date of 31st December 2005.

The separation of effects of NO₂ from other pollutants is complicated but the Committee on the Medical Effects of Air Pollutants (www.comeap.org.uk/component/content/article/28-page-linking/117-oxides-of-nitrogen.html) states:

Evidence suggests that ambient (outdoor) concentrations of nitrogen dioxide can increase the sensitivity of asthmatics to allergens and therefore increase the likelihood of asthma attacks and longer term exposure to nitrogen dioxide can increase the likelihood of respiratory illnesses in children.

A responsible local authority must take cognizance of this under simple precautionary duty of care for the health of its citizens. The legislation is not an arbitrary burden that we can seek to offload or defer.

An Air Quality Action Plan was published in 2006, identifying 20 actions:

1. New Park & Ride – we have had this but the new P&R has not significantly increased the use of P&R - all it has done is divert it from the existing St Catherine's site. The peak (mid-morning) occupancy of the P&R sites on normal weekdays has averaged 47%, a level which could have been entirely accommodated within the previously existing P&R sites.
2. P&R buses to be low emission – not clear whether this is a significant contributor to NO₂
3. Loading restrictions in St George's Street.
4. (and 5.) Real-time information systems to reduce traffic circulation. Not at all clear what benefit these have brought and since city centre car parks are currently underused (mean peak

¹ On tolerances the Directive states: 50% on 19 July 1999, decreasing on 1 January 2001, and every 12 months thereafter by equal annual percentages to reach 0% by 1 January 2010

occupancy on normal weekdays of central car parks – 66%) there seems little reason for people driving round looking for empty spaces.

6. Unspecified traffic management - waiting on WTAP - still waiting 5 years later.
7. Develop walking and cycling strategy – still waiting for this.
8. Action against vehicles with high emissions – we are unaware of any such action being taken.
9. Encourage integrated transport – we do not know of any such action. Meanwhile HCC is significantly reducing support for buses.
10. Manage parking charges in conjunction with bus service improvements – again no action on this, indeed bus services are less supported than they were.
11. Parking charges directed at more use of P&R – this simply has not happened. While we welcome a recent modification of prices into a three-tier structure we will be very surprised if these are differential enough to have any significant impact.
12. Council own vehicles to have improved emissions – we imagine that this has happened to some extent as vehicles have been replaced and is to be encouraged. But it is unlikely that Council-owned vehicles form a significant part of the problem.
13. Increase public awareness of AQ – although we are very impressed with the technical data collection and analysis work done by the Council and with the clarity of publications resulting from that, we have seen virtually no sign that either the Council as an elected body or senior executives of the City Council have communicated their concerns about the issue to the general public. Considering we are talking about poisoning the air of an inhabited city, this is a marked insouciance.
14. Ensure that forthcoming plans and policies will take account of AQMA, including LTP (*‘Special regard will be paid to air quality issues in the preparation of the next Local Transport Plan for Hampshire’*) – LTP pays lip-service to the problems of air quality, but presents not a single action to tackle them. Nor are there any plausible policies in WTAP to reduce pollutants in Winchester. There is a statement that *‘The Access Plan focuses on improving accessibility and air quality, reducing the level of traffic in the city centre and therefore improving the situation in terms of localised congestion.’* But there is not a single policy or anticipated action in the WTAP that can reasonably be interpreted as likely to reduce the level of traffic. The proposed Silver Hill development is intended to replace 263 parking places in central Winchester with 501 new ones.
15. Ensure that all new developments and transport schemes take AQ into account - we know that HCC were perfectly happy at the Barton Farm Inquiry to accept a significant increase in traffic deeming the pollutant increases to be *‘acceptable’*. We know now that the City Council is determined to allow some such sort of development of the scale and location of Barton Farm to take place and yet has not shown how such a development can occur without actually making the Air quality problem worse.
16. Businesses and the Councils to develop travel plans. We are aware that Winacc has done quite a lot of evangelising on travel plans, but we are unaware of any travel plan having been implemented with any monitoring scheme to gauge its progress.

17. Council encouragement of car share schemes and car clubs. We are unaware of any progress in this.
18. Councils to encourage schools to develop travel plans - Winacc has done this but we are unaware of Councils doing it.
19. Encouragement of reduction in emissions for taxis through licensing - we understand licensing is under review "*but not in relation to emission conditions*"
20. Support the County Council in its aim to achieve traffic reduction - LTP and WTAP contain not a single plausible measure to achieve this

We are told that the WTAP process is grinding on, and that measures to tackle the traffic problem are being discussed. At a recent WinACC meeting, Steve Tilbury was unable or unwilling to give more substantive information than the suggestion that Upper Brook Street car park may be closed at some unspecified time. If it is related to the Silver Hill scheme then the removal of 52 places would be coincident with the provision of an additional 67 public spaces and 171 private or business places.

There is some talk about the possible removal of 500 spaces being considered. In respect of this number we feel obliged to point out that the Highways Agency, when it approved the scheme for P&R South, believed it had a commitment from Winchester to remove an equivalent number of spaces (i.e. 864)² from the centre of Winchester. Nevertheless, even counting broken promises, if 500 spaces were to be removed from the City centre now, it would be a step indicative of some seriousness on the part of the Council. But we have to be clear that they would not be enough to have a major traffic reduction effect, since the average normal weekday peak occupancy of City centre car parks leaves around 400 spaces empty.

Furthermore, if the 500 spaces is an expectation, we have yet to hear any Councillor or officer of the Council make any statement about the likelihood of them being removed from the City centre itself. We note, however, that the recent Audit Committee report is recommending the removal of St Peter's car park (which is long overdue and was promised to coincide with the opening of the Brooks more than 25 years ago). This would certainly be a step in the right direction, but it has yet to appear as an actual proposal by the City Council. It is a pity, however, that the Audit Committee suggestion comes together with suggestions for developments at Gladstone Street and the Cattle Market.

The desirability or otherwise of such developments could be debated at another time, but it is very clear that the traffic levels and air pollution in the City centre are not addressed by such proposals. Indeed, if substantial city centre car parks are left intact whilst the 'inner' car parks are developed, there is the possibility of journeys currently ending outside the central circulatory system, moving their trip ends into the central area. This is possible because, even with removal of St Peter's and Upper Brook Street there is spare capacity in the centre.³

In summary there is clearly no publicly revealed plausible plan to reduce traffic in central Winchester by the amount required to bring about compliance with statutory air quality objectives. The City and County Councils have had 7 years to tackle the problem without any success or indeed taking any serious measures that might be expected to bring about such success. There is nothing in the LTP, LDF or WTAP plans that suggest any serious action will be taken in the future. It is time for action.

² Letter from HA to HCC, July 2007: '*The HA draws comfort from the fact that Winchester are committed to levelling this net increase of 440 spaces by the P&R's opening date through continuing to reduce the levels of on and off street parking within the town centre.*' The 440 spaces is in addition to the 45 spaces actually removed at Jewry Street and proposed removals of 52 spaces at Upper Brook Street and 77 spaces at Colebrook Street. This is a removal of 614 spaces promised by the opening date (April 2010) of which only 45 spaces have been surrendered. The HA also counted 250 spaces as removed in the Ashburton Court scheme (even though these were supposedly promised against the P&R scheme at St Catherine's).

³ The mean peak occupancy of central car parks is 67%, equivalent to about 400 empty spaces. With Silver Hill the spare capacity rises to around 415 spaces. Capacity of St Peter's + Upper Brook Street = 241.

We formally ask the City Council, as the authority with the responsibility of protecting citizens of Winchester from the chronic harmful effects of air pollution, to provide a clear plan of action to bring NO₂ levels in the AQMA within the statutory limits within the next 2 years (making 10 years since the AQMA was set up).

According to DEFRA, a number of authorities have sought a time extension to 2015. As we understand it Winchester has not been one of those authorities and so is assumed to have complied already or well before that date. After failure to meet the 2010 objective, compliance by 2013 cannot be seen as in the least unreasonable.

We will shortly be writing to DEFRA to ask them what measures they will be taking to ensure Winchester's rapid move towards compliance and what timescales they intend to impose. In the absence of a clear statement of intent from Winchester City Council and a detailed plan of action by the Spring of next year, we signal our intention to pursue a petition or formal complaint to the European Community.

Yours sincerely



Chris Gillham
CC Cllr Kelsie Learney
Simon Eden – Chief Executive
|

A.1.2. Response from Leader of WCC

The only response from the City Council was from the Leader of the Council and came as a combined response to the above letter and another entirely unrelated letter (on the subject of failure properly to consult on Council policy). The only discernible reference to our letter on air quality is the paragraph highlighted in red, which makes reference to an entirely unexplained (and still unexplained 11 months later) reference to unspecified thinking about reduction of through traffic in St George's Street. We address the implausibility and contradictory nature of any such thinking in our main text.



Winchester
City Council

**George
Beckett**
Leader of
The Council

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Mr C Gillham
Winchester Friends of the Earth



Our Ref: GB/ba
Your Ref:
Enq to: Bee Ambrose
Direct Line:
Email: @winchester.gov.uk

21 December 2011

Dear Mr Gillham

Winchester Town Access Plan and Air Quality Management

Thank you for your letters of 25 October 2011 and 27 November 2011. As they cover related issues I hope you will accept one reply to cover all the matters you raise.

The Council appreciates the contribution that Friends of the Earth make to the debate on transport issues. We are pleased to have views from every direction and emphasising a range of concerns. We never ignore those contributions nor are our consultations anything but genuine. But as you yourself say, Friends of the Earth's views are 'provocative' and you make no attempt to balance them against other objectives which the overwhelming majority of our citizens also think are important. If it were easy to solve transport and environmental problems to everyone's satisfaction them we would have done so. Unfortunately life is more complex than Friends of the Earth would have us believe.

The vision for Winchester as a place will be set out by the Town Forum in its forthcoming update of the Vision for Winchester document. Our approach to transport policy will support that vision. Unlike Friends of the Earth, my administration supports economic prosperity along lines that would be recognised by most of the people who live and work in Winchester. They live in the real world in which their employment opportunities and their leisure activities require that we make reasonable provision for parking, car use and, of course, public transport. Our approach may not make exciting headlines but it accepts the notion of choice, the reality of life in rural areas and the need to work with people's interests not against them.

The picture you paint of the present and future contribution of the City Council's work is both extreme and untruthful. You dislike Park and Ride and therefore simply discount its effectiveness – proved in the run up to Christmas this year. You ignore our policies explicitly designed to ensure the relocation of jobs, services and new dwellings.

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including living car-free in the town centre. You grudgingly acknowledge our very clear car parking pricing strategy but complain that it is not expensive enough. You seem to forget the negative impact that over-charging for car parking can have on prosperous town centres – without which public transport users would be unable to access many of the shops and other services they need. These matters cannot be dealt with in isolation.

I have made clear that good, sensibly priced car parking is an essential element in maintaining a prosperous local economy. I have also said that when car parking spaces are not well used or essential then we will consider putting them to a better economic use. That is what we are doing in Upper Brook Street and on part of St Peter's Car Park. I am sure there will be more changes in the future.

The City Council has been very actively working with Sustrans to improve cycle access to the City and this features prominently in our Capital Programme. We are reducing emissions from our own fleet, including staff vehicles for which expenses are paid for official journeys and in our contracts for services such as waste collection. We are supporting the Town Forum's desire to achieve 20 mph limits in Winchester, starting with The Square. Perhaps none of these things are radical, but they are sensible, worthwhile and affordable.

Friends of the Earth do not have a monopoly on concern for the health and well-being of our citizens. That is why work is proceeding to look at ways of reducing through traffic on St George's Street which is where our air quality problem arises from. In an historic town solutions are not easily implemented but we will achieve improvements in line with any of our legal obligations and our belief in improving quality of life.

In closing let me say again that it is important that Friends of the Earth and other organisations make their case and argue with politicians about the issues that Winchester has to address. But no "single view" organisation should expect its views to prevail when they do not recognise that other views and other arguments exist and that we have to steer the best course we can for long term advantage.

Yours sincerely



Cllr George Beckett
Leader of the Council

c.c. Cllr Kelsie Learney
Cllr Rob Humby
Simon Eden – Chief Executive
Steve Tilbury – Corporate Director

Appendix 2. Correspondence between WinFoE and UK DEFRA

A.2.1. Letter from WinFoE to the DEFRA Minister



Winchester Friends of the Earth Transport Group

Please reply to: Chris Gillham at [REDACTED]

23rd February 2012

Rt Hon Caroline Spelman MP
DEFRA
Nobel House
17, Smith Square
London
SW1P 3JR

Dear Secretary of State

Winchester Air Quality

After the declaration of an Air Quality Management Area in Winchester in 2003 a failure to meet the annual mean NO₂ level required by European and UK legislation has persisted. Indeed since 2004 the exceedance of the allowed maximum level in a central shopping street has remained at a stubborn 25%. Other areas of Winchester are of similar concern.

On 27th November last year, Winchester Friends of the Earth wrote formally to the Leader of Winchester Council and to the Chief Executive asking for a commitment to measures to bring Winchester into compliance with the UK legislation and EU Directives. We attach the letter we sent outlining why we believed that there was nothing in plan by the local authorities (Winchester City Council for car parking management and all planning matters; Hampshire County Council as the highway authority) that would bring about compliance or would even take Winchester in the direction of compliance.

On the 21st December we received the attached response to our letter, from the Leader of the City Council. It is a little difficult to extract from this letter exactly what pertains to our very specific questions and statements on air quality, since the letter bundles in a response to an entirely separate letter of ours concerned with what we considered to be the failure of the Council to involve the public in meaningful consultation on its Access Plan. The main part of the letter that can reasonably be supposed to pertain to the question of what the City Council intends to do about Air Quality is in the penultimate paragraph.

Friends of the Earth do not have a monopoly on concern for the health and well-being of our citizens. That is why work is proceeding to look at ways of reducing through traffic on St George's Street which is where our air quality problem arises from. In an historic town solutions are not easily implemented but we will achieve improvements in line with any of our legal obligations and our belief in improving quality of life.

Nearly 8 years after the initial AQMA was set up and 6 years after an Air Quality Action Plan was published, not a single action has been taken to reduce traffic in the City centre. The sole prospect that the Leader of the Council presents for any action is that '*work is proceeding to look at ways of reducing through traffic*'. This statement is simply incredible and smacks of pretence of action while doing nothing. Work has apparently been proceeding for decades on the Winchester Movement and Access Plan that morphed into the Winchester Town Access Plan (WTAP) and yet the WTAP, published last year, has not a single action within it that can be construed as likely to reduce traffic in Winchester centre.

The only reference to reducing traffic is the unspecified thinking process that may lead to the reduction of through traffic. Combating through traffic manifestly does not solve the Air Quality problem since, even if the Council has a plausible way of removing this traffic, that can only have the consequence of freeing the network to new radial traffic generated by the excess of central car parking. Since the Council is not

only not reducing central car parking but is actually proposing to increase it, this generation of new radial traffic can only be the intention of policy. The Council is actively planning to increase radial traffic in the centre.

Since we have asked (as we have asked for many years now) what the Council might do to reduce traffic, it was surely incumbent on it to say something about what these thoughts might comprise. The letter from the Leader of the Council does not say. In its response to public consultations on the WTAP the Council says not a single thing about anything we raised on transport matters. Since we cannot seem to get any answers from the Council that indicate any seriousness about addressing the air quality problem in Winchester centre we are asking DEFRA to seek those answers.

Winchester remains significantly in breach of an EU Directive and UK legislation and has so far shown no intention of seeking to come into compliance with that legislation.

Yours sincerely



Christopher Gillham
for Winchester Friends of the Earth

A.2.2. Letter from Secretary of State Caroline Spelman

The response from DEFRA appears to say that it is up to the local Council to meet the targets and that it (WCC) has undertaken to review its plan to meet targets:

CCU 4th Floor
Ergon House
Horseferry Road
London
SW1P 2AL

Email: helpline@defra.gsi.gov.uk
Website: www.defra.gov.uk



Mr C Gillham
Winchester Friends of the Earth Transport Group

CCU Ref: DWO262521/ARG

6 March 2012

Dear Mr Gillham,

Winchester Air Quality

Thank you for your letter of 23 February to the Secretary of State, enclosing your correspondence with Winchester City Council (WCC), about air quality in Winchester. I have been asked to reply. You will appreciate Defra is not able to comment on WCC's response to your letter of 27 November.

The Government has overall responsibility for ensuring that the various limit values set by the EU Directive are met, but it is local authorities which are responsible for local air quality management. Local authorities are required to work towards meeting the national objectives, which are a statement of policy intentions or policy targets. The aim is that local authorities achieve a steady reduction in levels of air pollutants towards the national objectives and if practicable, reach the objectives before the target dates, or achieve air quality which exceeds those objectives.


Concerning the Councils' Air Quality Action Plan, we have seen a copy of the Council's recent progress report on the implementation of the Action Plan, and note that the report states:

'With the Action Plan now having been in place for four years and many of the actions having progressed (some to completion), and in light of current exceedences of the annual mean nitrogen dioxide objective, it is considered that the Action Plan should be reviewed, the current actions updated and more radical options considered. It is suggested this is undertaken through a full review of the Action Plan to fit in with the LTP3 (Local Transport Plan 3) and WTAP (Winchester Town Action Plan) processes. It is likely that the best timing for this would be within the financial year 2011/12'.

Similar to our recommendation to the Council on the Action Plan Progress Report, we would expect the WCC to review its Air Quality Action Plan to consider more effective measures that can be implemented to improve air quality across the Borough. Defra will also continue to advise the Council where further efforts can and should be made to mitigate the effect of air pollution.

We trust this provides some reassurance that efforts to improve air quality in Winchester are ongoing, and would like to thank you for bringing the matter to our attention.

Yours sincerely,


Anthony Griffiths
Customer Contact Unit

Appendix 3. Transport Policy

A.3.1. Local Transport Plan

A3.1.1 The Local Transport Plan (LTP, 2011) for Hampshire (Winchester specifically has its own access plan within the LTP process – see §A.3.2) has a number of policy objectives aimed at sustainable and healthy transport, reducing the use of cars, improving air quality, reducing carbon emissions and civilising urban spaces.

Policy Objective 2: Work with district authorities to agree coherent policy approaches to parking, including supporting targeted investment in 'park and ride' to provide an efficient and environmentally sustainable alternative means of access to town centres

Policy Objective 9: Introduce the 'shared space' philosophy, applying Manual for Streets design principles to support a better balance between traffic and community life in towns and residential areas;

Policy Objective 10: Contribute to achieving local targets for improving air quality and national carbon targets through transport measures, where possible and affordable;

Policy Objective 12: Invest in sustainable transport measures, including walking and cycling infrastructure, principally in urban areas, to provide a healthy alternative to the car for local short journeys to work, local services or schools; and work with health authorities to ensure that transport policy supports local ambitions for health and well-being.

A3.1.2 While the LTP is rather short on credible measures directed at achieving these objectives, we contend that the purposes are clear – towns are places where it is desirable to reduce the amount of car traffic. Objective 2 is about alternatives to car access; Objective 9 is about physically having fewer cars in the space to be shared; Objective 10 is either about reducing emissions (CO₂ and noxious) of vehicles or, more plausibly within the next decade or two, reducing the amount of car mileage within the polluted centre; and Objective 12 (like 9) is about making the space in towns less threatening, so that healthy alternatives are truly encouraged.

A3.1.3 There is thus no question that LTP objectives can mean anything else other than traffic reduction in the centre of Winchester.

A.3.2. Winchester Town Access Plan

A3.2.1 The Winchester Town Access Plan (WTAP, 2011) is perhaps more clear still than the LTP on the necessity of traffic reduction measures, at least within the City itself.²⁷ For example, the key aims are:

- *To ensure that the vitality and resilience of the local economy is strengthened by planning for movement and access which is economically and environmentally sustainable²⁸*
- *To lead a transition to cycling, walking, public transport and low-carbon modes of travel, including low emission private and commercial vehicles.*
- *To reduce the negative effects of transport related carbon emissions on all neighbourhoods including the town's historic environment, particularly in relation to air quality and the safety of pedestrians and cyclists*
- *To enhance the social and cultural wellbeing of Winchester by providing access for all.*

A3.2.2 WTAP acknowledges (Executive summary) the obvious link between traffic problems (including air quality) and parking policy:

This access plan looks at the location of key services and facilities within Winchester and how by making changes access can be improved. For example the new Park and Ride site at south Winchester will help to reduce peak congestion along the Romsey Road. This will in turn allow visitors and commuters to access the town centre without the need to drive into the ancient city centre thus helping to improve the air quality. However, this needs to be linked with other developing strategies in terms of traffic management and town centre car parking policies.

And at WTAP§2.3:

²⁷ It is arguable that Park and Ride measures may increase overall traffic on the wider network – see *Parkhurst G: Transport Policy 7*, p159-172, 2000; *Parkhurst G and Richardson J: Journal of Transport Geography 10*, p195-206, 2002

²⁸ WTAP, incidentally, accepts the Brundtland definition of sustainability: “sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Measures to reduce the need for traffic to enter the town centre, such as Park and Ride, better signage and better bus routing will help to reduce the negative effects caused by congestion and help to address the air quality issues.

A3.2.3

But the clear recognition that Park and Ride (P&R) makes no sense without complementary parking measures in the centre is shown in WTAP§2.6:

The focus of retail, entertainment and leisure should continue to be in the town centre where these are easily served by public transport. A planned approach to car parking is needed to support the use of the Park and Ride facilities on offer. All the evidence demonstrates that Winchester has more town centre car parking than is necessary to meet reasonable needs, especially with the additional Park and Ride spaces now available. This means that some space might be put to more economically beneficial use during the plan period. Opportunities will be explored with a view to initially reducing car parking capacity within the Town centre by up to 15% which is around 500 spaces. Reductions beyond this we need to consider peak demand and how this may be met for special events in the Town, and this will be reviewed on a regular basis.

Appendix 4. Public Car Parks in Winchester

A.4.1. Size and Location of Car Parks

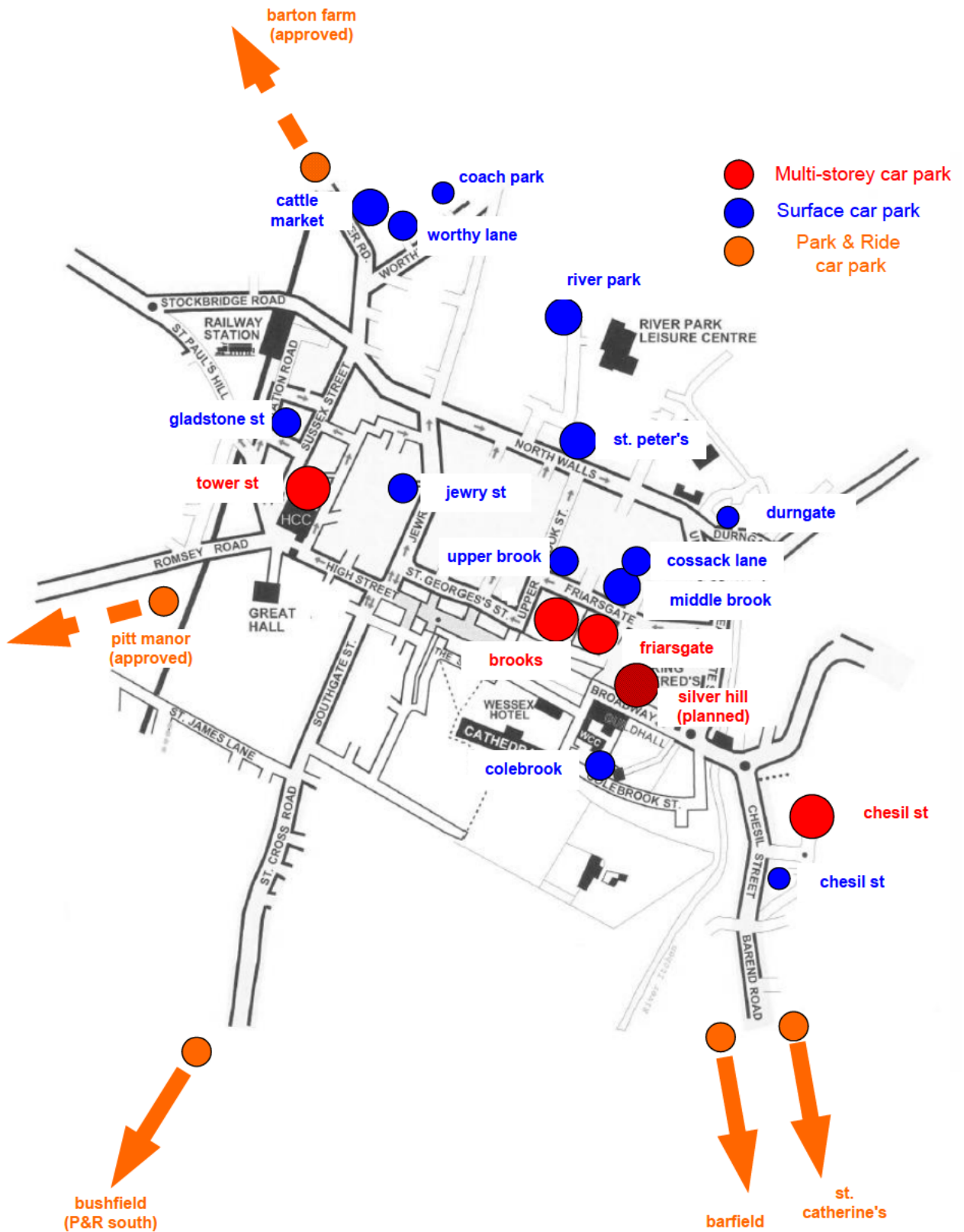


Figure 4 Public Off-street Car Parks

A.4.2. Size and Use of Car Parks

	Capacity	Mean Peak Vehicles 2010-12	Mean Peak Occupancy 2010-12
Central Car Parks			
Surface Car Parks			
Middle Brook Street	142	133	94%
Colebrook Street	77	72	93%
Cossack Lane	45	38	85%
Upper Brook Street	52	43	83%
Jewry Street	39	36	91%
St. Peter's	189	95	50%
River Park	169	119	70%
All central surface	713	535	75%
Multi-Storey Car Parks			
The Brooks	315	223	71%
Friarsgate	263	109	42%
All central M/S	578	332	58%
All central	1291	868	67%
Inner Ring Car Parks			
Surface Car Parks			
Gladstone Street	108	100	93%
Chesil Street	84	74	88%
Cattle Market	195	62	32%
Worthy Lane	152	111	73%
Coach park	103	29	29%
Durngate	67	37	56%
All inner ring surface	709	413	58%
Multi-Storey Car Parks			
Tower Street	522	486	93%
Chesil	625	288	46%
All Inner Ring M/S	1147	774	67%
All inner ring	1856	1187	64%
Park & Ride			
Barfield	194	188	97%
St. Catherines	591	266	45%
South (Bushfield)	864	357	41%
All P&R	1649	811	49%
All Car parks	4796	2865	60%

Figure 5 Public Off-street Car Parks and Peak Occupancies

A.4.3. The Arithmetic of Parking:

A4.3.1

Having concluded (§3.3.4) that the level of air pollution must be directly linked to the level of central car parking, the requirement for action is simply that central car parking be reduced. The scale of the required reduction is a simple matter of

arithmetic. We can reasonably assume that if NO₂ levels are 25% above the statutory level then we need a 20% reduction in car trips accessing the centre to comply. Car parking that serves these trips may be classified in three types:

- Public on- and off-street parking
- Private non-residential parking
- Private residential parking

A4.3.2 We believe that private residential parking within the central circulatory system is not substantial. Private non-residential parking is significant – there are probably about 800 parking spaces in this area (and perhaps 1500 in a wider circuit that goes out to the east side of the railway station). Public on-street car parking is also fairly limited in this area – we think about 240 spaces. Public off-street car parking in this area is more accurately reckoned at 1291 spaces (and in a wider circuit to take in the inner ring car parks – 3147 – see §A.4.2).

A4.3.3 These spaces are not all of equal traffic value. It is likely that private non-residential parking is largely employment parking and a parking place probably turns over only once per day. Private residential and that part of public on-street car parking which is for residential permit use is also likely to be of low turn-over. Public off-street car parking is likely to have a significantly higher turnover (we are unaware of any recent council data on this, though a survey of central car park spaces in the 1980s apparently showed turnovers of around 7 per day).

A4.3.4 Public off-street car parking must therefore dominate the trip ends of the traffic in central Winchester. While it is possible that the Council would seek to reduce private non-residential and private residential parking by some appropriate taxation process²⁹, we have not heard that they have thought of doing this. It is, therefore, clear that its only real option is to reduce public car parking in the centre.

A4.3.5 If the requirement is to reduce traffic by around 20% then it follows that car park trip ends must be reduced by something rather more than this. We say ‘more than this’ because all traffic is the problem and we do not expect that the Council would set out to take 20% from each of the private trip ends or 20% of through traffic – at least it has not indicated that it intends to do this or knows how to do it.

A4.3.6 But even a 20% reduction in car park trip ends in the centre of Winchester implies a lot more than 20% reduction in existing car park capacity, by reason of the current occupancy levels.

A4.3.7 The Oversupply of Central Parking: WinFoE has been monitoring car park occupancies for the last 2 years on behalf of an organisation to which it belongs – Winchester Action on Climate Change (WinACC). We measure the percentage of off-street public car parking spaces that are occupied on a spot survey chosen in the late morning of ordinary (non-holiday) weekdays. Our experience is that this time corresponds normally to the peak occupancy for the day. The average peak occupancies of car parks over the last two years are shown in Figure 5.

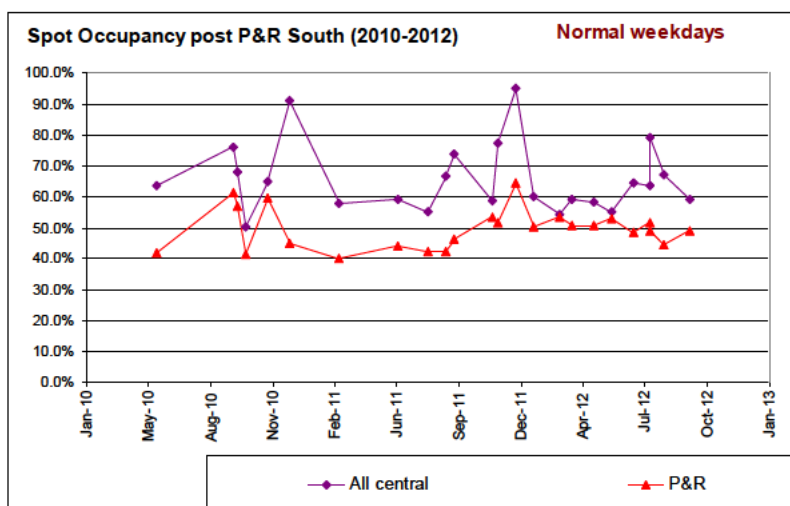


Figure 6 Use of Central Car Parks and Park-and-Ride

A4.3.8 In Figure 6 we show the use of the central car parks over the last two years. Although, notably in the pre-Christmas shopping period the peak occupancy can reach 90+, the average normal weekday peak occupancy is 67%. The average occupancy will be significantly less than this and we should remember that the pollution problem is related to the average level of traffic and that in turn is related to the average number of cars parked.

A4.3.9 A 67% occupancy is therefore highly conservative, but it signifies 423 car parking spaces unoccupied. In other words at least 423 parking spaces could be removed from the centre of Winchester without affecting the average traffic (and hence the

²⁹ And it would seem strange for a Council intent on reducing such parking to be introducing more of it in the Silver Hill development.

average NO₂ concentration) one iota. To reduce the traffic by 20% one logically needs to go on and reduce the 868 occupied spaces by 20%, i.e. by 174 spaces. Thus in total at least 597 spaces would need to be removed from the centre to reduce the access traffic enough to meet the air quality objectives.

A4.3.10 Assuming that the Brooks multi-storey car park remains in operation (and it represents a much bigger capital investment and a much less realisable asset than surface car parking) these figures imply that apart from two small car parks the size of Colebrook Street or Cossack Lane, air quality objectives could only be met by closing all the remaining central surface car parks (i.e. all but 116 spaces). If Silver Hill is built it adds 67 public spaces (i.e. not counting the additional private spaces which themselves add to the traffic burden) which suggests that only one car park the size of Upper Brook Street should remain.

A4.3.11 We reiterate here the point that these calculations are all based on the assumption that current average traffic levels (the proxy for the average NO₂ concentration) map to the current average peak use of central car parks. They ought really to be mapped to the average use of those car parks. We do not have the data to model this – it would require the determination, for example, of some aggregate of the daily turnover of the individual car parking spaces.

A4.3.12 But we can reliably assert that if the capacity of the central car parks were reduced to the levels implied in §A4.3.10, the current level of pollution is arising from an occupancy of that capacity from its peak downwards. If all that reduced capacity remains and the trend towards filling up the inter-peak-hour period continues (see Appendix 6), as would be expected by the provision of additional attractors such as at Silver Hill, then the average occupancy of the reduced capacity will increase towards the current peak occupancy and pollution will, therefore, increase as well.

A.4.4. Car Park Charges in Winchester

Winchester City Council		MONDAY TO SATURDAY						Season Ticket Group
		Up to ½ Hour	Up to 1 Hour	Up to 2 Hours	Up to 3 Hours	Up to 4 Hours	Over 4 Hours	
		£	£	£	£	£	£	£
'Centre' Car Parks								
The Brooks			1.30	2.70	3.00	4.00	15.00	6.00
Middle Brook Street			1.30	2.70	3.00	4.00	15.00	6.00
Colebrook Street (7566)			1.30	2.70	3.00	4.00		
Friarsgate			1.30	2.70	3.00	4.00		
Guildhall Yard (Sat Only)			1.30	2.70	3.00	4.00		
Jewry Street (7217)			1.30	2.70	3.00	4.00		
Cossack Lane (7218)			1.30	2.70	3.00	4.00		
Upper Brook Street (7222)			1.30	2.70	3.00	4.00		
St. Peters (7563)		0.30	1.30	2.70		4.00		Group B
Lower Street (7565)			1.30	2.70	3.00	4.00	8.00	Group B
Gladstone Street (7562)			1.30	2.70		4.00	8.00	Group B
'Inner' Car Parks								
Chesil (Multi-Storey) (7559)			1.10	1.80	3.00	3.50	6.00	Group DC
Chesil Street (Surface) (7219)			1.10	1.80		2.50	6.00	Group DC
Dumgate (7220)				1.80		3.50	7.00	Group D
The Cattle Market (7560)				1.80		3.50	7.00	Group D
Worthy Lane (7564)				1.80		3.50	7.00	Group D
Coach Park (Cars) (7561)				1.80		3.50	7.00	Group D
Coach Park (7561B)							7.00	
River Park Leisure Centre (9am-5pm) (7221)		0.70	0.90	1.20	Up to 5 hours 5.00	10.00 Mon-Fri 8.00 Sat		
Crowne Terrace					Season Ticket Holders Only			Group B
The Lido					Season Ticket Holders Only			Group D
Barfield Close					Season Ticket Holders Only			Group E
Rural Area								
Lower Lane, Bishops Waltham		FREE	0.60	0.80	1.20	1.50		Group F
Basingwell Street, B/Waltham		FREE	0.60	0.80				
The Square, Wickham		FREE	0.30	0.60	0.80			
Alresford Station, Alresford			0.30	0.60	0.80	1.20	1.50	Group F
Perins, Alresford			0.30	0.60	0.80	1.20	1.50	
'Outer' Car Parks - Park & Ride								
Barfield	St Catherines	3.00 per day (Mon-Sat)	2.50 off-peak (after 10:30 Mon- Fri)	1.50 (Saturday only – 3hr max)	(Free after 4pm)		Smart Cards Available	Annual Season Ticket available £552.00
South Winchester		3.00 per day (Mon-Sat)	2.50 off-peak (after 10:30 Mon- Fri)				Discounted parking at £2.70 per day	

Winchester City Council

OFF-STREET PARKING CHARGES

Mon-Sat 8am-6pm (River Park 9am-5pm) (WITH EFFECT FROM 2nd April 2012)

Key

- Disabled Bays
- Mother & Child Bays
- Motorcycle Parking
- Coach Parking
- Motorhome Parking
- Caravans
- (7566) Pay by Phone Code
- Not Available

SEASON TICKETS

ANNUAL PRICES

- Group B £1472.00
- Group D £1288.00
- Group DC £1104.00
- Group E £552.00
- Group F £275.00

QUARTERLY PRICES

- Group B £400.00
- Group D £350.00
- Group DC £300.00
- Group E £150.00
- Group F £75.00

CATTLE MARKET AND WORTHY LANE ONLY (Purchase from car park machine)

- 28 Day Ticket £85.00
- 7 Day Ticket £25.00



Figure 7 Car Park Charges

A4.4.1 The logic of current car parking charges is understandable in terms of utility or perceived utility. One can understand that the charges might relate to the value motorists place upon them, bearing in mind their proximity to likely final destinations (shopping centre, railway station and administrative employment centre).

- A4.4.2** The charges do not map quite so well to the environmental consequences or external costs of the siting of the car parks. In particular the River Park site, though greater in radial distance from the centre than many other car parks, is only accessible by traffic through the central circulatory system.
- A4.4.3** The charges in Figure 7, represent the Council's opinion that they are sufficiently differential to cause behaviour change. We believe that the occupancy data says that there is no logical differentiation pattern that maps these charges to the usage behaviour.³⁰
- A4.4.4** A conundrum bedevils decisions on parking charges. The more valuable central car parking sites are perceived as commodities to be more fairly shared, which works in the direction of encouraging greater turnover (i.e. short-stay use). Commercial (retail) interests also tend to favour increasing footfall, which they tend to equate to higher turn-over of car parks, though there is some debate about what average length of stay maximises the total amount of money spent by shoppers.
- A4.4.5** As far as we know nobody has done quantitative research on this and in Winchester we do not know how the decisions on parking charges have been made. Certainly when various increments of the P&R system have been introduced there has been a tendency to declare that parking charges will be adjusted to encourage more short-stay parking. The conundrum lies in the fact that P&R is usually justified on the basis of reducing radial access traffic, whilst the move towards shorter-stay car parking means that the central car parks generate more trips than when they partly accommodated commuter traffic.
- A4.4.6** Turnover increases may or may not be advantageous to retail businesses, but the certain result is that there are more car trips into the centre and there is an increasing tendency towards network congestion in between the morning and evening rush hours and both work towards increasing pollution.

³⁰ We have done the regression analysis on this, but do not think it appropriate to detail here. We can make available if wanted.

Appendix 5. Highways Agency Letter

Annex 2, Doc 2

Our ref:
Your ref: AP/GH/DAF/227068/02

Hampshire County Council,
The Castle
Winchester
Hampshire
SO23 8UJ

Federated House
London Road
Dorking
RH4 1SZ

Direct Line: 0130 [REDACTED]

Fax: 01306 878 100

6th July 2007

For the attention of [REDACTED]

Dear [REDACTED]

SOUTH WINCHESTER PARK AND RIDE TRANSPORT ASSESSMENT – APRIL 2007

Further to the meeting held at PB on 25th June 2007, I am writing to set out the Highways Agency's (HA's) comments in relation to the above development proposal.

Parking Levels

Further to the letter dated 28th June 2007 from [REDACTED] the HA is able to set out its view on the parking strategy. It has been indicated that there is a programme to reduce the following car parking in the town centre as follows;

- Hampshire County Council – reduction of 250 spaces;
- Closure of Brook Street car park - reduction of 52 spaces; and
- Jewry Street car park - reduction of 45 spaces
- Cole Street - reduction of 77 spaces.

Whilst this reduction in car parking within the town centre equates to approximately 420 spaces, the P&R site is proposed to introduce 864 parking new spaces. The HA draws comfort from the fact that Winchester are committed to levelling this net increase of 440 spaces by the P&R's opening date through continuing to reduce the levels of on and off street parking within the town centre. This aligns with Government guidance which recommends reducing the provision of car parking facilities as restricting parking facilities diminishes the attractiveness of private car trips and boosts the viability of sustainable transport alternatives.

The HA also welcome the provision of taking traffic off the M3 at the south end of Winchester (Junction 11) rather than at Junction 10. As I am sure you are aware, this section of the M3 is operating above capacity in a northbound direction, particularly during the peak hours. Bringing traffic off early should add relieve to this section of the trunk road.

Lighting

Further to the information provided by [REDACTED] in his email dated 28th June 2007. The HA can confirm that subject to the following conditions we are satisfied that the safety of motorists is not compromised by the development proposals:

Appendix 6. Network Congestion, Pollution and Traffic Attraction

A6.1.1 We have seen (**Figure 3**) that radial traffic levels have remained fairly constant for the last ten years. The level of traffic will be a function of the attractiveness of the trip ends (i.e. the attractiveness of the trip purpose), the physical existence of car trip ends (i.e. car parking) and the resistance of the highway network.

A6.1.2 Hitherto in the history of air quality measurement in Winchester, the physical existence of enough car parking has not been a factor. Even at the busiest pre-Christmas access period last year there was still excess capacity in the central car parks. The fact that radial traffic has remained constant must either be due to a limited attractiveness or to a highly resistive network. We believe it is probably something of both.

A6.1.3 The peak pre-Christmas busyness in Winchester indicated an extra attractiveness. The rapidly growing reputation of the Christmas Fayre and the ice rink in the Cathedral Close seems almost certainly to be a factor here. What was noteworthy during several of the pre-Christmas shopping days was that the road network was manifestly overloaded for several hours in the day.

A6.1.4 Winchester's streets are for the most part fairly free-running. There are peak congestion problems (Winchester is not unique in this respect) especially in St George's Street and at the junctions feeding out of or into the radial access/egress routes, which can run for an hour or two on the average weekday. What is noteworthy, however, is how close to capacity the network is now between peaks.

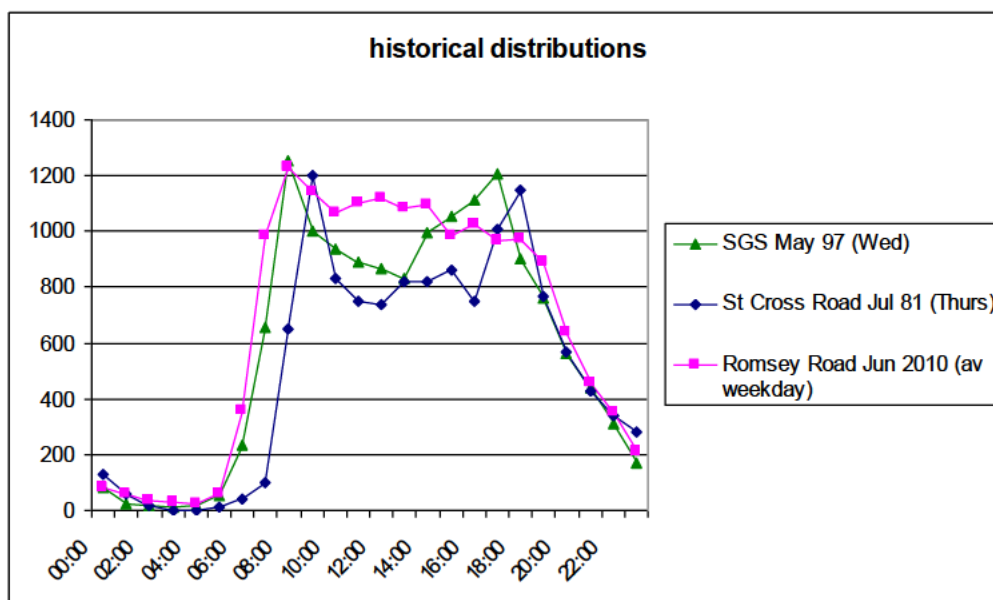


Figure 9 Daily 2-way radial traffic distributions

A6.1.5 Older data is hard to come by but the graph above shows some daily traffic distributions over the last 30 years. In 1981 on a radial route there is a strong rush-hour peaking pattern to the daily traffic (mean:peak ratio 07:00-19:00 = 0.67). In 1997 on St George's Street the peaking effect is somewhat less (mean:peak ratio 07:00-19:00 = 0.76). And in Romsey Road in 2010 the graph is decidedly less peaky (mean:peak ratio 07:00-19:00 = 0.88).

A6.1.6 If the peaks correspond to significant congestion (and they do) then total access of cars to the centre of Winchester is saturated at those points. The plateauing of the distributions in recent times signifies that Winchester is close to saturation for car access throughout the shopping and employment day. If there were more car parking to be had the network would not permit access to it.

A6.1.7 We do not have the data relating to the effect of congestion on pollution, but it would be very surprising if pollutant emissions were not very much higher in periods of congestion than in periods of free flow. Indeed we would expect that the congestion periods in Winchester were dominating the contributions to the annual mean NO₂ level.

A6.1.8 The road network in an historic City like Winchester is, physically, largely unalterable. The management efficiency of the road network to accommodate traffic is less clearly limited, but we would have expected the various experiments with one-way systems over the years to have brought us by now to the point of optimum capacity for road vehicles. That is not a criterion that is desirable to us. The Councils have been more ambivalent about it. They have actively attempted to reduce traffic

pressures on some streets (notably the High Street and the more historic streets to the south), but seem generally to have planned transport on the principle of getting maximum capacity on the roads that serve the car parks.

- A6.1.9** The relative stability of traffic levels over recent years needs some explaining. The catchment population for Winchester for retail, commercial and official public trip-end purposes has probably grown significantly, which one might imagine would put upward pressure on the road system. A significant amount of population growth in Winchester, however, is now concentrating within the centre of the town, reversing the trend of urban emigration that characterised the town 30-40 years ago. Such population generates less urban car use than suburban population. Car ownership levels have also probably not increased and indeed since the Recession began may indeed be on the decline.
- A6.1.10** And against the increase in catchment population there has been the continuing tendency toward edge-of-centre or out-of-town retail siting, which works against radial access. Winchester has probably suffered much less town centre decay than many other urban places, but it does now have three major peripheral supermarkets and much tin-shed edge-of-town car-dependent retail activity.
- A6.1.11** Presumably the balance of these various factors has resulted in little overall change in radial car access.³¹ The pressure, however, is now back as a result of two major factors. Firstly there are major new population pressures about to be placed on the system from Barton Farm (§3.2.8), Pitt Manor (§3.3.12) and other smaller permitted housing developments on the urban fringe. And secondly the City Council is deliberately seeking to generate a whole new urban traffic attractor at Silver Hill (§3.2.10).
- A6.1.12** The whole commercial *raison d'être* for Silver Hill presumably rests on the assumption that the town can support a large increment of trade (unless it means simply to wrest trade away from existing outlets). Such trade is presumably a product of extra trips and extra spending on each trip (both the old trips and the new ones). Both of these factors put further questions into the Access debate.
- A6.1.13** If the extra trips are to be car-based, then presumably the graph at Figure 9 will simply fill up for the whole working/shopping day to the saturation level of the peak hours. This will represent a very significant rise in the air pollution measures.
- A6.1.14** The extra trips could, of course, be accommodated by efficient public transport and cycling and walking access. Unfortunately the Councils' actions in this regard run entirely counter to the likelihood of modal shift. Firstly the County Council is actively retrenching on public transport provision – its financial support has drastically declined and sets to worsen. Secondly modal shift means making the streets more accessible to public transport (i.e. not choked with traffic) and the encouragement of healthy alternatives demands the taking of environmental measures to improve street ambience.
- A6.1.15** The City Council is taking the opposite measure of creating a central development with extra car parking. The proposed parking provision at Silver Hill, moreover, is of a multi-storey nature, not easily disposed of if the traffic consequences come to be regretted by the Council itself and more environmental policies are pursued. The additional car parking is thus fixed in a way that existing surface parking is not. The air pollution problem is also thus fixed in.

Appendix 7. Glossary

AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
DEFRA	Department for the Environment, Food and Rural Affairs
FoIA	Freedom of Information Act
HA	Highways Agency
HCC	Hampshire County Council
LTP	Local Transport Plan
P&R	Park and Ride
WCC	Winchester City (District) Council
WinFoE	Winchester branch of Friends of the Earth
WinGP	Winchester branch of the Green Party
WTAP	Winchester Town Access Plan

³¹ It may be that the radial access has actually declined and that the steady central traffic levels are the result of a compensating increase in cross-town traffic to access the edge-of-town facilities. The Tesco supermarket on the Easton Lane in particular may be expected to have generated significant cross-town (i.e. through the central circulatory system) traffic from western urban Winchester.

