

# AIR QUALITY

April 2012 Issue 72 Special ERG reprint

BULLETIN

## NPPF

# Planning framework out

The National Planning Policy Framework is finally out. It replaces 1,500 pages of guidance such as that in PPS23 with 50 pages of top-level strategic policy.

The controversial publication fulfils the Government desire to shift decision making to the local level with local plans taking on far more importance, as national guidance is binned.

Opposition from powerful groups such as the CPRE led to a number of key changes, including a dilution of the “golden thread” – a presumption in favour of sustainable

development. This has the effect of increasing countryside and protection compared to what was originally intended.

The framework sets out a ‘core’ planning principle of which oblique reference is made to air quality: “Planning should contribute to conserving and enhancing the natural environment and reducing pollution.” The framework explicitly becomes a material consideration for planning decisions and appeals and takes effect immediately.

Other clauses include:

Reprint from April  
Air Quality Bulletin:  
Gary Fuller interview:  
see page two...

To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects

● Continued on page 5

## IN BRIEF

### Budget removes diesel penalty

The company car tax penalty for diesel powered cars is to be removed, it was revealed in the Budget.

Despite calls from many academics and pressure groups to curb the growth of diesel (diesel is favoured because of apparent CO<sub>2</sub> benefits), the Chancellor has said that from April 2016, the 3% loading for diesel company cars will go. This leaves diesel cars subject to the same level of tax as petrol cars.

● More on the cuts and NPPF: see page 11

### Odour leads to Ombudsman rap

Odour and noise from a farm in Durham has led to the local authority being fined and censured.

The Local Government Ombudsman criticised Teesdale (now part of Durham County Council following reorganisation) for failing to log complaints and properly investigate them as a nuisance. The Ombudsman found “incompetence and neglect led to smell nuisance from intensive cattle-rearing buildings which has wrongly been granted planning permission three times”.

Planning permission for two agricultural buildings was initially granted without any conditions to protect the amenity of nearby homes. The buildings were used to house up to 120 veal calves some 60 to 100 metres from residents. Many of their complaints of foul smells of excrement and animal carcasses were not logged by the council and/or dismissed.

Officers appeared to try to cover up their mistakes by making up post-dated letters soon after the investigation started.

## WALES

# Wales says LAQM must respect noise impacts

Welsh Government has issued explicit guidance to local authorities that air quality policies should take into account noise.

Prompted by setting out of its planned quiet areas, the Welsh Government has amended its LAQM policy to warn of policies that improve air quality at the expense of noise. “This supplementary policy guidance is for local authorities carrying out their LAQM duties and specifically addresses situations where LAQM measures have the potential to affect levels of traffic noise experienced by members of the public.”

It adds: “The purpose of LAQM is to improve health and quality of life. This is also the purpose of traffic noise management. Air pollution and

noise are often emitted from the same sources (notably road traffic), and locations of poor air quality often coincide or overlap with locations subject to high noise levels. Even where they do not, poor air quality at one location and high levels of noise at a neighbouring location may be related to one another through the way in which traffic is managed in the wider area. In aiming for the most beneficial outcome for members of the public, it is important to seek measures that both improve air quality and reduce noise levels, and avoid measures that worsen one while seeking to improve the other.”

Wales is ahead of England on noise policy – it has proposed Noise Action Planning Priority Areas (NAPPAs), which are

areas where residential dwellings are exposed to the highest levels of road traffic and railway noise according to noise maps.

Guidance states: “Wherever air quality action plans prioritise measures in terms of costs and benefits, traffic noise should receive due consideration, qualitatively if not quantitatively. Special consideration should be given to NAPPAs and any other areas where a local authority considers traffic noise to be a matter of concern, where these may be subject to changes in traffic noise levels as a result of air quality management measures. This effect may not be local, for example if

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# Fuller fills in the public

Is ERG's Gary Fuller the Brian Cox of air quality? We interviewed him to find out

**G**ary Fuller may not have quite the perma-grin of Professor Brian Cox, the on-all-channels current media darling of science, but like Cox, he does crop up pretty well everywhere and is usually cheerful. He is high profile and not just because of the hi-viz jacket that he carries around with him, a bicycle being his weapon of choice for local commuting.

Fuller, with Kings College London's Environmental Research Group, can be found at any air quality conference of note. He personally pens many of the air quality warnings and episode analyses that cover the south east of England, and is commissioned to write a regular column on air quality for *The Guardian*. This has a lot to do with Fuller's enthusiasm for air quality and ability to translate science into plain English and present it in a fresh and optimistic manner.

*AQB* thought it was time to interview Fuller to see what makes him tick. Would we be able to shake the cheerfulness and optimism that is his trademark? Actually we couldn't – even when we threw at him all we could muster by way of mid-recession pessimism and journo-cynicism. We hope his optimism is well founded.

Fuller's official title is senior lecturer at Kings College and manager of the monitoring group at the Environmental Research Group. ERG is fully integrated into Kings despite being majority funded by commercial contracts with local authorities. The group has contracts in various areas of environmental and health policy areas as well as air quality.

In air quality, it carries out monitoring for local authorities both inside London and in the south east of England, it models air quality to create forecasts that drive the *Airalert* system used by the likes of Sussexair, and it runs sites such as Londonair to disseminate information. More recently it has recruited the likes of ex-Defra air quality chief Martin Williams, ex-Department of Health expert Heather Walton and emissions expert David Carslaw to provide a formidable policy team – and ERG's boss, Frank Kelly now heads up the Committee on the Medical Effects of Air Pollution. But it is Fuller who is most often seen talking about air quality monitoring, and spotting trends as they happen rather than in some fusty report several months after the event.

He is relatively unusual for an air quality academic in being neither a chemist, medic or an environmentalist. He took a science

degree “with a view to becoming a white-coated scientist” says Fuller. “The course I chose turned out to be too theoretical and I found that the best bits were at the end when I finished my degree in Sweden where there was some really hands-on science involving geophysics, lasers and blowing small things up.”

That pushed him down the direction of occupational health and he spent three or four years looking down microscopes at asbestos and mineral wool fibres.

At the time he got involved with the South East Institute of Public Health – SEIPH – which was setting up an air quality network for London. “I originally went for two weeks, then the contract was extended to a month, then three months, and then as the network expanded, I was offered a permanent job.

The London network was being set up as in the early 1990s, public health experts were very concerned about the health effects of air pollution, especially in east London where there was little information on concentrations, and data was inconsistent – and certainly not enough to answer the question on what impacts east London industry and power generation might have on populations. As the GLC had been abolished and the GLA yet to be set up, there was no obvious body to run it.

So London borough associations clubbed together to commission SEIPH to play a role in supervising the London network in a way that has not changed as SEIPH morphed (in a rather convoluted fashion) into Kings ERG.

Ironically ERG has many similarities with SEIPH in its early days. Fuller recalled: “When I first joined SEIPH, it had a wide role in public health and yet air quality did not really benefit from being under one roof – there was little cooperation between the likes of the social scientists and public health experts.

“ERG has also become a similarly broad group involving about 30-40 experts – but now there is the cooperation between disciplines such as toxicologists, epidemiologists and other scientists. As a result we have probably fulfilled far more of our original mission than we had ever hoped to achieve.

Fuller has a PhD, earned part time over several years at Kings, a path that many



Fuller: at home in Brighton

others in the team have followed. He specialised in source apportionment of PM<sub>10</sub>: “In theory this was an overlap with the work we were doing through monitoring ambient air but in actual fact the overlap proved to be quite small.”

The London network is relatively unique in the UK. Local authorities came together to fund ERG, which coordinates the monitoring (as well as directly carrying out its own monitoring, for instance through contracts to run AURN stations), supplying councils with information and expertise.

As air quality is not confined to political boundaries, it was quickly found that predictions in London required information from outside of London, and ERG took on work for other networks such as Sussex, Kent, Essex and Herts and Beds as well as individual districts such as Reigate.

That put ERG in a unique position – here was an academic-led organisation running most of the air quality monitoring across the whole south east of England. Whereas private sector contractors might run such a network with a view to doing as little as contractually possible for their fees, ERG, being a bunch of academics, is driven by scientific curiosity and took a view that it would do as much as it could within the allocated budget.

Private sector firms may not like that analysis, but the outputs are clear to see on a regular basis. ERG does not just pump out quantitative csv files with a cursory episode note from time to time, instead it distributes qualitative descriptions of episodes

● Continued overleaf

# Gary Fuller interview (from previous page)

effectively in real time, though email alerts, the web and twitter (and of course its text alerting system).

Instead of there just being a warning that a smog alert is happening or about to happen, ERG's analysis (often with Fuller's name on it) will come out saying why there is high pollution – eg. is it regional, or local, is it bonfire night pollution, or industrial.

The quality of information does rather put the rest of the UK to shame – but in defence of the likes of AEA, which owns the vast majority of the UK monitoring and modelling market, ERG answers to itself and can make subjective comments without having to subjugate itself to the dead hand of Defra. If ERG makes a mistake, it can be corrected, if a Defra-funded network operator makes a mistake, the Government is sucked in.

Fuller says the comparisons between the ERG-led south east network, and the Defra led UK wide network, may be unfair: "Defra is running a top down network funded centrally with set standards giving a degree of control. We have a bottom up network driven by local authorities who are drawn together to make something bigger."

But things are nibbling away at ERG's coverage of the south east of England. AEA took the Kent network a few years ago, and Geoff Broughton took Herts and Beds more recently. Does this undermine ERG's good work? Fuller visibly stiffens and chooses his words carefully: "It is a shame. We are really working with south east councils to make it easier to understand the regional picture. You need more than one site to understand the bigger picture and having a wider network works well on all counts. We are in the business of engaging with our work and adding value in terms scientific, technical knowledge and public information, when we see an episode, we are really interested in it and we are really keen to get the information out to people as evidence that air pollution is affecting health. Ultimately it is difficult for us to compete with those who aren't trying to do

the same thing.

"Local authorities are under tremendous cost pressures, made worse by the localism agenda which is steering councils away from regional activities."

This would be a shame, as ERG is having real success in engaging the public with air quality through its Iphone, Android, Twitter, email and web pages. "Some 4,000 people use our Chrome browser extension, and with the smartphone apps, at one time some 13,000 people hadn't just downloaded it, they were using it. For the Easter episode, we estimate that we were able to get 100,000 notifications out there on one day. As a university, we have a lot of freedom to do these things."

He believes that public information is the way forward in the current economic crisis where hard engineering solutions are likely to prove unaffordable. And there is a lot left to be done: "When we set out on this process in the 1990s, we have achieved a lot with some pollutants such as carbon monoxide, sulphur dioxide, for others such as particles and NO<sub>2</sub> we have been far less successful.

"It is quite shocking that we set in place targets in the late 1990s what were supposed to be achieved in 2005 and 2010 and here we are 14 years later struggling to meet targets on PM<sub>10</sub> that we should have met seven years ago. And it will be another ten years before we meet NO<sub>2</sub> targets.

"This begs the question about the process. We need feedback loops so that if we are not making progress, then we can analyse why. For instance the issue with primary NO<sub>2</sub> from modern diesel engines came out and we were caught by surprise. We are proud of the London network analysis which allowed us to pick this up, without the network, this may never have been resolved and we would still be scratching our heads. Only by measurement were we able to see the conflict between the emission inventories and reality."

Is Fuller worried about monitoring sites being removed? For instance the Highways Agency has effectively given up monitoring air quality near the M25 near Heathrow,

and councils are decommissioning many sites. "This will leave us more vulnerable to trends that we don't understand."

Fuller also worries about the directive revision which is under pressure from industry to include 'flexibility' and simplification.

Fuller pleads: "At the end of the

day it is worth remembering that a few years ago the Café process set out a range of actions that could be implemented to improve air quality. Even the most costly of the ranked options was cost beneficial."

And are the cuts forcing experienced air quality officers to leave? Fuller said: "The picture is variable, not every local authority faces the same pressures and yes there are people leaving – but there are also people coming through and doing good work. There is hope!"

As an academic, it will come as no surprise that Fuller is keen on more research into air pollution. "Defra's policy to date has been to recognise that it doesn't know what part of air pollution is harmful, so it is acting on all of it in the hope it will make the problem better. But is that the most efficient way? If research showed us which part of the mix was the culprit, we could target that, and as long as we had feedback built into the system, we would be able to see if the policy was working."

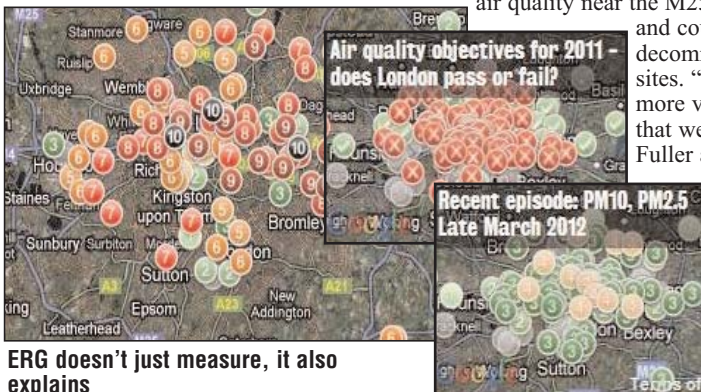
He feels the lack of feedback has led to the position where "there is a big problem of trust" between the regulators and emission technology. "Technology has simply not delivered."

So what are the risks facing us for the next ten years? "Diesel," fires back Fuller without hesitation. "A few years ago, Jo Swartz, the eminent US air quality researcher, said that in a few decades time Europe would regret its experiment with diesel – and so it proved. We are encouraging a hard-to-control technology which is apparently more efficient but does not into account black carbon or health. Will burning diesel be seen in the future as bad as burning coal in urban areas?"

"Similarly we are stumbling blindly into trouble with the growth in wood burning, both commercially and domestically."

And what about air quality science looking forward – will it survive the cuts? "There is a big question about whether we have sufficient capacity to answer science questions – in Europe there remains a whole host of government funded research laboratories which are part of Government, much like Warren Springs in the UK some time ago. The UK no longer has this type of research institute providing the necessary evidence to back up policy." The joint Kings/Imperial College MRC could fulfil a role but does need to be supported, he said.

And will he be doing his 250 words on air quality for *The Guardian* newspaper every month in ten years time? Is there enough to write about? "I enjoy it and like the challenge of being able to communicate air quality to the public in a straightforward way. Even when there isn't much happening in air quality, I can always find some questions to answer!"



Once again we are drawn to the language used by the popular press to sex up reports about poor air quality.

Headlines in the Northern Irish press screamed 'Excess amounts of Poisonous gas found on our streets'. Well we suppose they should be congratulated for not then going on to confuse NO<sub>2</sub> with N<sub>2</sub>O and calling it laughing gas.

Deliberately misusing shocking terms reminds your editor of times in the school playground with the mums and dads up in arms at the prospect of a local incinerator. We were expected to sign petitions to prevent 'toxic' emissions killing 'our children' (presumably it doesn't matter if poisonous gas is found on someone else's streets, or toxic emissions kill other people's children?). Well guess who became Mr Unpopular by refusing to sign the petition on the basis that playground parents' 4x4 drive-to-school emissions were far more likely to affect the health of 'our children' than a modern incinerator two miles away...

It seems ADM consultant David Harvey takes a similar view in his back yard. Farnham locals were protesting about excessive traffic fumes in the town - with Harvey on the local radio station acting as the voice of common sense.

became clear he wasn't about to whip up the frenzy, later bulletins used interviews from more interesting people happy to use scary terms.

Balanced truth can sometimes be simply too boring to broadcast.

31st March has come and gone - and Environmental Protection UK is no more as a trading entity.

As if to underline this sad event, its offices are up for rent, graffiti adorns the Epuk plaque and the website was down (when we checked it this week).

The organisation has already been missed. Epuk was the only lobby group that understood that environmental protection is more than pictures of cuddly polar bear cubs on melting ice caps.

The release of the hugely important National Planning Policy Framework came without the customary real-time comment from Epuk about the dangers of junking detailed guidance on air quality, noise and contaminated land in the name of dispensing with red tape.

Government and developers may be rubbing its hands with glee at the thought that they don't have annoying planning guidance and informed Epuk critics to get in the way of 'progress'. But we think



that the move to localism will backfire as local councils realise that they can

choose as much or as little protection as they wish. Some are highly likely to choose more protection.

The resultant random chequerboard of environmental policies across the country will make the absence of calm and considered guidance from Epuk even more poignant.

## AIR QUALITY

**Should you be getting this newsletter? See what you're missing!**

**25th-26th April**

**AIRMONTECH WORKSHOP**

to be held in Barcelona, website [www.airmonotech.com](http://www.airmonotech.com)

**2nd-6th May**

**AIR QUALITY AWARENESS WEEK**

US awareness event, more details [www.epa.gov/airnow/airaware](http://www.epa.gov/airnow/airaware)

**3RD-4TH MAY**

**2012 ANNUAL UK REVIEW MEETING ON OUTDOOR AND**

Indoor Air Pollution Research, IEH meeting at Cranfield, [www.cranfield.ac.uk/health/researchareas/environmenthealth/ieh/](http://www.cranfield.ac.uk/health/researchareas/environmenthealth/ieh/)

**16th-18th May**

**AIR POLLUTION 2012**

20th International Conference on Modelling, Monitoring and Management of Air Pollution La Coruña, Spain, [www.wessex.ac.uk/12-conferences/airpollution-2012.html](http://www.wessex.ac.uk/12-conferences/airpollution-2012.html).

**18th-27th May**

**AIR POLLUTION WORKSHOP**

44th Annual Air Pollution Workshop and Joint Meeting International IUFRO & APW & COST & ENVeurope Conference Kaunas, Lithuania, website [www.apworkshop.org/](http://www.apworkshop.org/)

**22nd-23rd May**

**THE ENVIRONMENT: EVERYONE HAS A ROLE TO PLAY**

OPAL (Imperial College/Environment conference to be held at Imperial College London, <http://www.opalexplorenature.org/conference>

**30th May**

**CLEARER FUTURE CONFERENCE: AIR QUALITY IN 2012**

Care4air conference to be held in Doncaster [www.care4air.org](http://www.care4air.org)

**11th June**

**INVESTIGATION OF AIR POLLUTION STANDING CONFERENCE**

Iapsc meeting to be held at SOAS, London, [www.iapsc.org.uk](http://www.iapsc.org.uk)

**13th June**

**AIR QUALITY AND HEALTH**

Short one day Newcastle University course aimed at air quality and health planners. [www.ncl.ac.uk/cegs.cpd/cpd/airqual.php](http://www.ncl.ac.uk/cegs.cpd/cpd/airqual.php)

**28th June**

**LONDONAIR SEMINAR**

Kings College ERG conference to be held in London [www.londonair.org.uk](http://www.londonair.org.uk)

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**AIR QUALITY**  
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*Jack Pease*