



Scrutiny Committee

16:30 to 18:55

15 July 2021

Present: Councillors Wright (chair), Brociek-Coulton (substitute for Councillor Oliver) Galvin, Manning, Thomas (Va), Thomas (Vi), Carlo, Giles, Everett, Osborn, Stutely, Fulton-McAlister (M).

Apologies:

1. Public questions/petitions

There were no public questions or petitions.

2. Declarations of interest

There were no declarations of interest.

3. Minutes

RESOLVED, to approve the accuracy of the minutes of the meeting held on 24 June 2021.

4. Air pollution from woodburning

(The chair took the decision to hear this item first due to members of the public attending for this item.)

The chair welcomed Emeritus Professor Claire Reeves, an atmospheric scientist, from the University of East Anglia to the meeting.

The public protection officer presented the report.

Particulate matter, notably small particulates of size 2.5 microns or less, known as PM_{2.5} could lodge in the lungs and pass into the bloodstream causing health complications. There was no central government regulation for local authorities to meet regarding PM_{2.5} levels, however, the World Health Organisation document "WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulphur dioxide", recommended an annual mean guideline value for PM_{2.5} of 10µ/m³. This target was being met at the two air quality stations in the Norwich City Council area, Lakenfields and Castle Meadow. The public protection officer went on to discuss data

which showed the main source of PM_{2.5} in Norwich was transboundary originating from marine salt spray. For point source PM_{2.5} pollution, such as from woodburners/open fires, the government had brought in new legislation - Air Quality (Domestic Solid Fuels Standards) (England) Regulations 2020. This meant that all new wood/coal burning appliances had to meet certain criteria aimed at more efficient burning and hence fewer emissions. From May 2021, all wood sold must contain <20% water and have a Ready to Burn logo.

A member commented that volatile organic compounds could react to contribute to secondary sources of particulate matter and that it is not well known that particulate matter is made up of a whole range of compounds which medical science is not yet clear which are harmful and why. The councillor asked what does using wood burners responsibly mean in practise. It was consensus that the burner should be certified, clean and using the correct fuel.

Professor Reeves used a set of slides (attached at Appendix A) to help illustrate some of her points. She said that domestic sources such as wood burning did make a sizable contribution to primary (directly emitted) PM_{2.5} pollution, however a large proportion of PM_{2.5} comes from secondary source (i.e., produced from gases emitted into the atmosphere). Moreover, PM_{2.5} can be transported from distant sources. Consequently, a large proportion of PM_{2.5} in Norwich was outside the local authority's control. The emissions could vary dependent on how efficient the burner is and the wetness of the wood. She referred to a graphs showing pollution over time at Lakenfields and Castle Meadow and the roadside NO₂ pollution (Castle Meadow) showed a reduction over time, due to local authority policies targeted at road traffic, but this was not recorded at Lakenfields – a suburban site. The PM_{2.5} data showed no clear trend at either site demonstrating that the sources of PM_{2.5} are not dominated by road traffic. There was evidence presented that showed highest PM_{2.5} concentrations occurred when wind came from the east (associated with long range transport from Europe), but that the largest contribution to PM_{2.5} came from the south-west of the city due to the prevailing wind direction. This sector includes the South East of the UK as well as local sources. Whilst NO₂ concentrations at both Lakenfields and Castle Meadow, and PM_{2.5} concentrations at Castle Meadow, peaked at rush-hour times (indicating the impact of road traffic sources), the PM_{2.5} concentrations at Lakenfields showed a later evening peak that extended through the night. This was most noticeable in winter, possibly indicating a source from wood burners. Professor Reeves explained that at night, when the temperature dropped, pollution is trapped near the surface as dispersion is dependent on how well the atmosphere mixes, and the semi-volatile compounds are more likely form PM_{2.5} in the colder temperatures, and this could also explain the higher concentrations of pollution at night.

A member asked if point source pollution could be accurately measured. Professor Reeves said that this was extremely difficult to understand, hampered by the fixed nature of the air quality recording stations and the limited accuracy from mobile monitors. The approach DEFRA was using was to monitor point source pollution through a number of different fixed sites, however these were extremely limited due to resources. The Environment Bill, currently going through Parliament would legislate PM_{2.5} pollution in general and try to determine what targets should be set. There had been very little academic research done to capture the impact of pollution from a variety of sources and even less work done on indoor point source pollution.

A member asked if in the future burning carbon was stopped and changes farming practises introduced, where would PM_{2.5} be coming from. Professor Reeves highlighted that PM_{2.5} could not be eradicated from all sources, which included dust, sea salt, road abrasion and volatile organic compounds from plants. There was modelling work being undertaken to see what was achievable with regards to PM_{2.5} reductions, however it was dependent on Europe doing the same. Architects and builders would need to look at the tension of reducing loss of heat inside buildings but also have reasonable ventilation. The public protection officer said that as PM_{2.5} is trans-boundary it was difficult for Government to ask local councils to change something that they do not have control over.

A member said that undoubtedly wood burners give off particulate matter so that anyone who is close would be exposed to higher levels which could have a detrimental affect on health. Members discussed what action the council could undertake and the general consensus was that the council should be distributing information to residents on the effects of woodburners and how to use them responsibly. This could be done through existing social media channels, the council's website and the Citizen magazine. A member asked for clarity on the council's responsibilities and how could the council work with partner organisations?

A member said that there were 68 council owned properties which used solid fuel appliances as their main source of heating. This information was received as a result of a councillor enquiry and the member agreed to circulate the details received to the scrutiny committee members.

A member highlighted that Norwich had three smoke control areas – at the Airport, on King Street and in Bowthorpe. There was discussion on what fuels were certified to be burnt in these areas and what was the process to set up a new smoke control area including advice given on the DEFRA website.

A member commented that Camden Council ask their residents not to burn wood at all and whether there was any reason why this should not also be the message from Norwich City Council. They added that many people did not know that woodburning was bad for their health. Messages around this should be hard-hitting and include health issues known to be exacerbated by wood burning to highlight the dangers of exposure.

A member asked what level of resources the Health and Safety Executive (HSE) had for supporting employees who report employers for using non certified fuels; and if trade unions (TU) were able to support their members who had to work with point pollution. A member responded that, in his opinion, HSE and TU's did not have the resources to take much, if any, action saying that only the biggest of catastrophes were investigated. It was suggested that the scrutiny committee could write to the local MPs to raise the issue.

A member asked if the council's food safety team could highlight the health impacts of open fires when they are inspecting premises. The Executive director of development and city services suggested that this was not a role for environmental health officers as they had no statutory power to regulate or enforce on the issue however there could be power in communication through the licensing team potentially with a digital leaflet on the facts about woodburning attached to licensing applications and renewals.

A member said that prior to a strong communications campaign, the council should make sure that 'the council's own house is in order first', then look for local evidence for a positive campaign to build change. There was the opportunity to bring academic thinking into the campaign and work with expert psychologists who could advise on how best to influence behaviour change.

A member gave a recent example of some case work at Lakenfields whereby a resident had complained about persistent smoke from another resident's chimney. The executive director of development and city services said that smoke from domestic chimneys was covered under the Environmental Protection Act.

There was a short discussion around why the local fireplace retailer did not respond to the call for evidence. Professor Reeves said that there was a trade association for fireplaces and woodburners – the Stove Industries Association. It was agreed that a representative of the association should be invited to give evidence at the next meeting. The chair thanked the Mums for Lungs campaign group for their written submission which is attached to these minutes as Appendix B.

A member raised the topic of bonfires on domestic properties, primarily the burning of garden waste. Residents should be reminded to use their brown bins for this waste as bonfires constitute a statutory nuisance for smoke and fume. Persistent offenders could be served an abatement notice.

A member suggested working with partners such as estate agents, making buyers aware of the health implications of woodburners which could impact real estate value and become a 'nudge factor' for behaviour change.

The chair informed the committee that he did not feel able to make recommendations without scrutinising the whole topic, saying that the committee has heard some, but not all, of the evidence, in particular that from the member of the public who submitted the topic. Some members were in agreement with this view. Other members were in disagreement and were keen to make recommendations so that work could be started prior to the main woodburning season in the Autumn. A vote was taken and a majority voted in favour of recommendations being taken at the next meeting. A member asked that the member of the public who submitted the topic be invited to give evidence at that meeting.

The strategy manager said that a data set on fuel types at postcode level was available and that this would be circulated to members.

The chair thanked both Professor Reeves and the public protection officer who then left the meeting at this point.

It was **RESOLVED** to ask the scrutiny liaison officer to;

1. circulate the e-mail relating to the number of council properties who use solid fuel appliances as their main source of heating which was received as result of a councillor enquiry.

2. invite the member of the public who suggested the pollution from woodburning topic to the next meeting.
3. invite a representative from the Stoves Industries Association to the next meeting.
4. Circulate the data set on fuel types at postcode level.

And to;

5. continue the debate on air pollution from woodburning at the next meeting and to make resolutions at that point.

5. Report from Norfolk Health Overview and Scrutiny Committee (NHOSC)

The chair explained that as Councillor Oliver (the representative on NHOSC) had been appointed to cabinet Norfolk County Council's constitution stated the representative must be a member of the scrutiny committee therefore Councillor Oliver was unable to attend.

The council's substitute member, Councillor Giles, was not allowed to substitute for a vacancy under the County's constitution.

The outcomes and actions of the meeting had been circulated by Norfolk County Council and are attached to these minutes at Appendix C.

It was RESOLVED to note the outcomes and actions as attached at Appendix C.

6. Scrutiny committee work programme for 2021-22

The chair said that he had been asked to consider the opportunities provided by green finance initiatives at the meeting on 16 September, which would be timely for the budget setting process.

A member suggested 'rebuilding the local economy post covid' should be considered at the September meeting. After a short discussion it was agreed that the topics could be combined, being sure to give equal weighting to both. It was agreed that Councillors Wright, Osborn and Fulton-McAllister would meet and draw up a scope for the item which would then be passed to relevant officers to prepare a report. The scope should consider calling expert witnesses from relevant industries within Norwich such as the financial sector, the retail sector and representatives from the Local Enterprise Partnership.

The committee discussed the work programme setting meeting on Thursday 9 September. It was agreed that topic forms need to be circulated in advance and these should be received by the scrutiny liaison officer by Friday 27 August for publication on Wednesday 1 September. The committee then went on to agree to use part of the

meeting to gather further evidence on the topic of air pollution from woodburning prior to making recommendations on the topic.

The select committee on fly-tipping and communal bins was agreed as Councillors Stutely (chair), Everett, Giles, Osborn and Wright.

CHAIR

APPENDIX A

Large background PM_{2.5} concentration from distant, mostly secondary, sources.

Local sources such as road traffic and domestic burning superimposed on this.

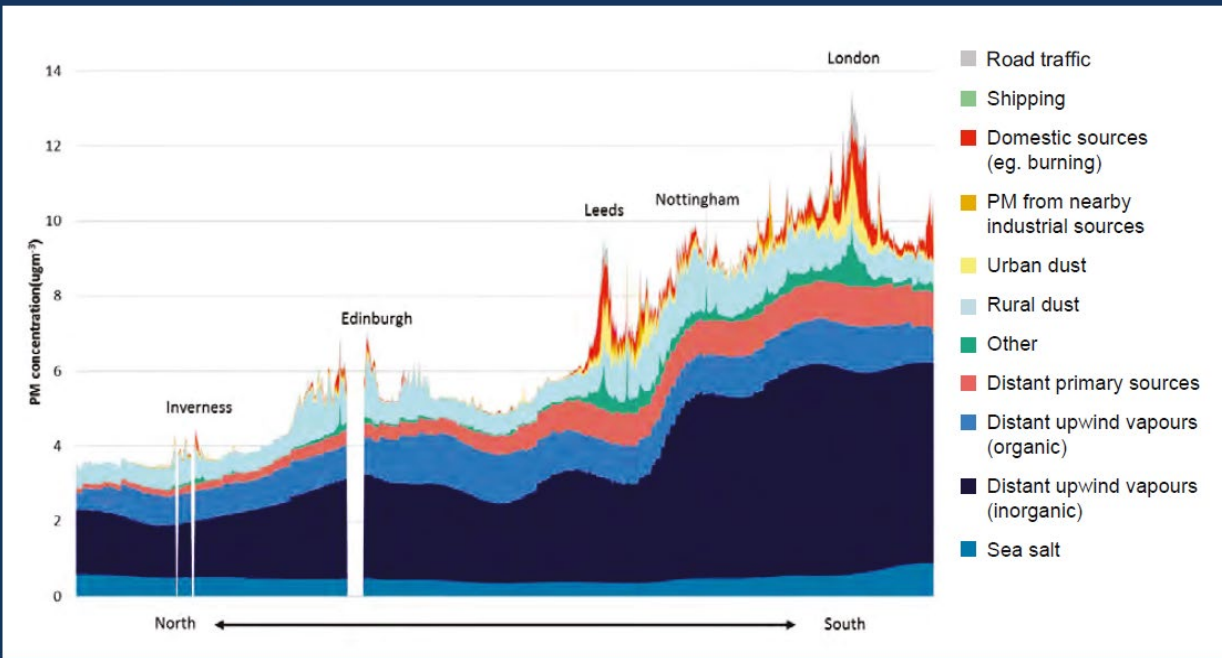
Only a small proportion controllable by local actions.

WHO “no threshold has been identified below which no damage to health is observed”.

Will always be a background concentration.



Annual mean PM_{2.5} north to south transect across the UK for 2017 from PCM model



Annual mean PM_{2.5} west to east transect across the UK for 2017 from PCM model

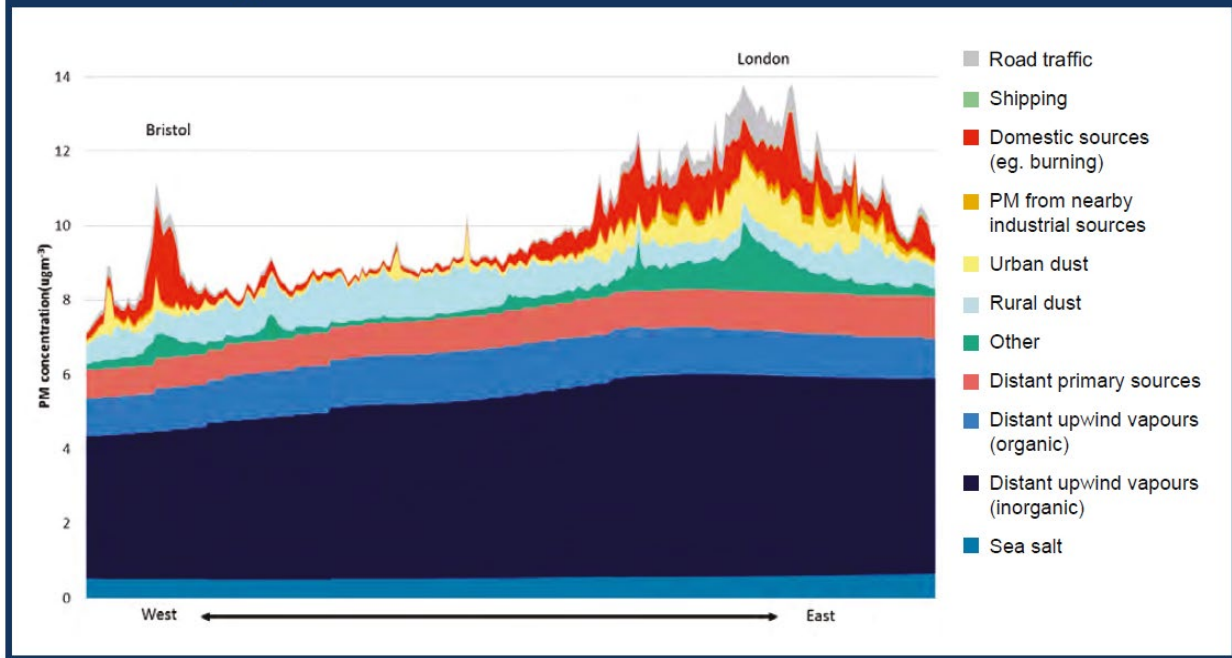
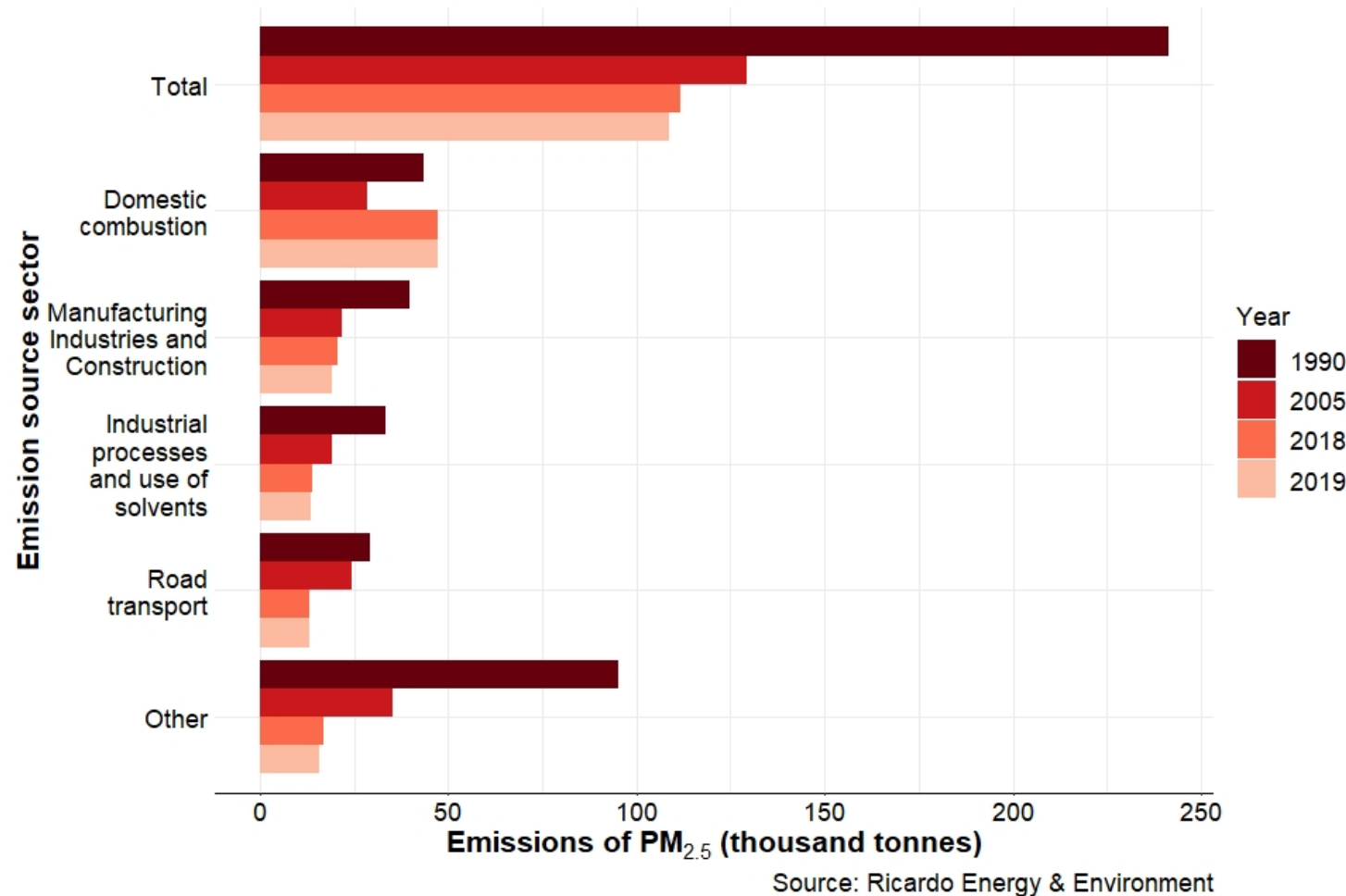


Figure 5: UK annual emissions of PM_{2.5} by 2019 major emissions sources: 1990, 2005, 2018 and 2019



Domestic combustion using wood as a fuel accounted for 38 per cent of **primary** emissions of PM_{2.5} in 2019.

AQEG “The Potential Air Quality Impacts from Biomass Combustion” (2017)

- Biomass consumption for domestic combustion is highly uncertain - informed by national scale data such as fuel supply rates and limited survey data.
- Real world emission factors from small scale devices depend on a number of operational factors which are highly variable between different appliances, users and test regimes.

National Statistics Emissions of air pollutants in the UK – Particulate matter (PM₁₀ and PM_{2.5})

(<https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-particulate-matter-pm10-and-pm25>)

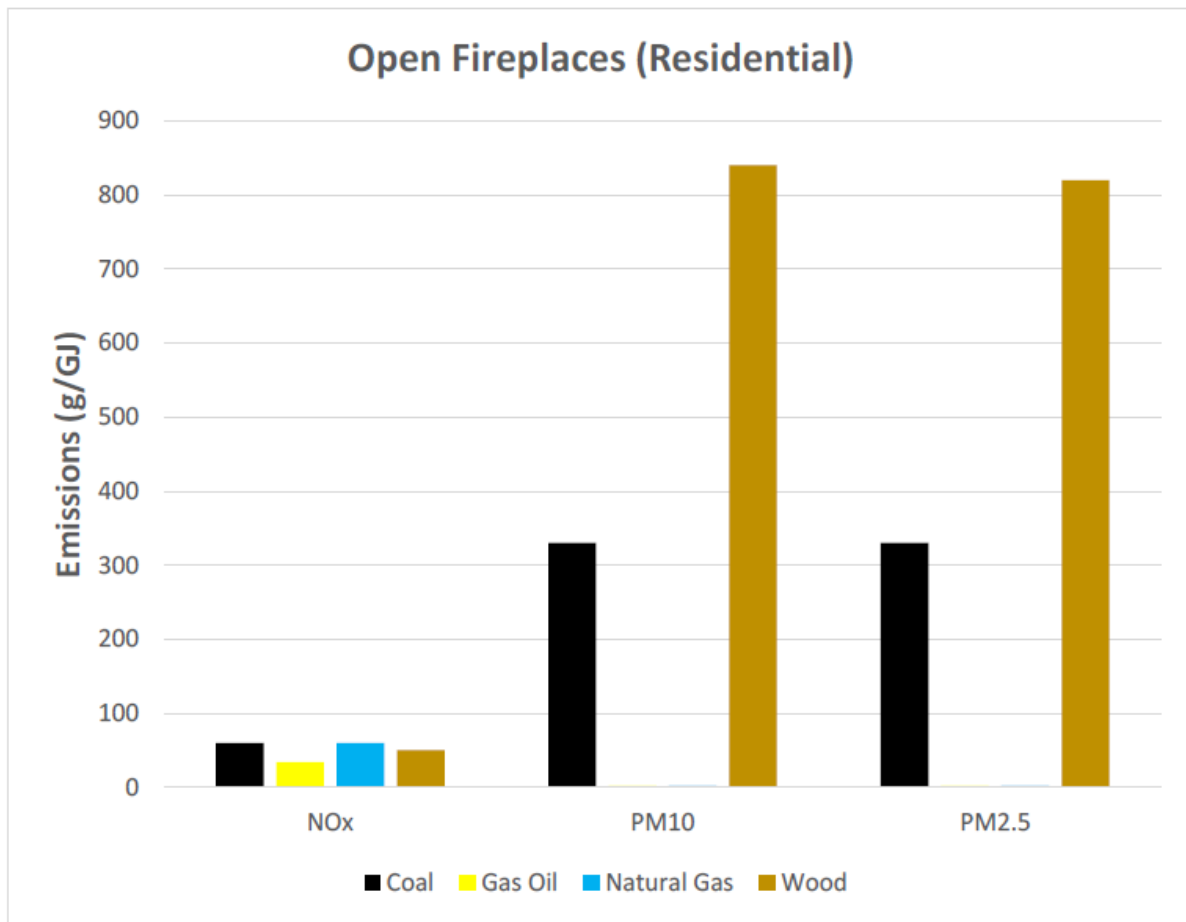


Figure 13: Emissions of NO_x, PM₁₀ and PM_{2.5} from open fire places utilising different fuel types.

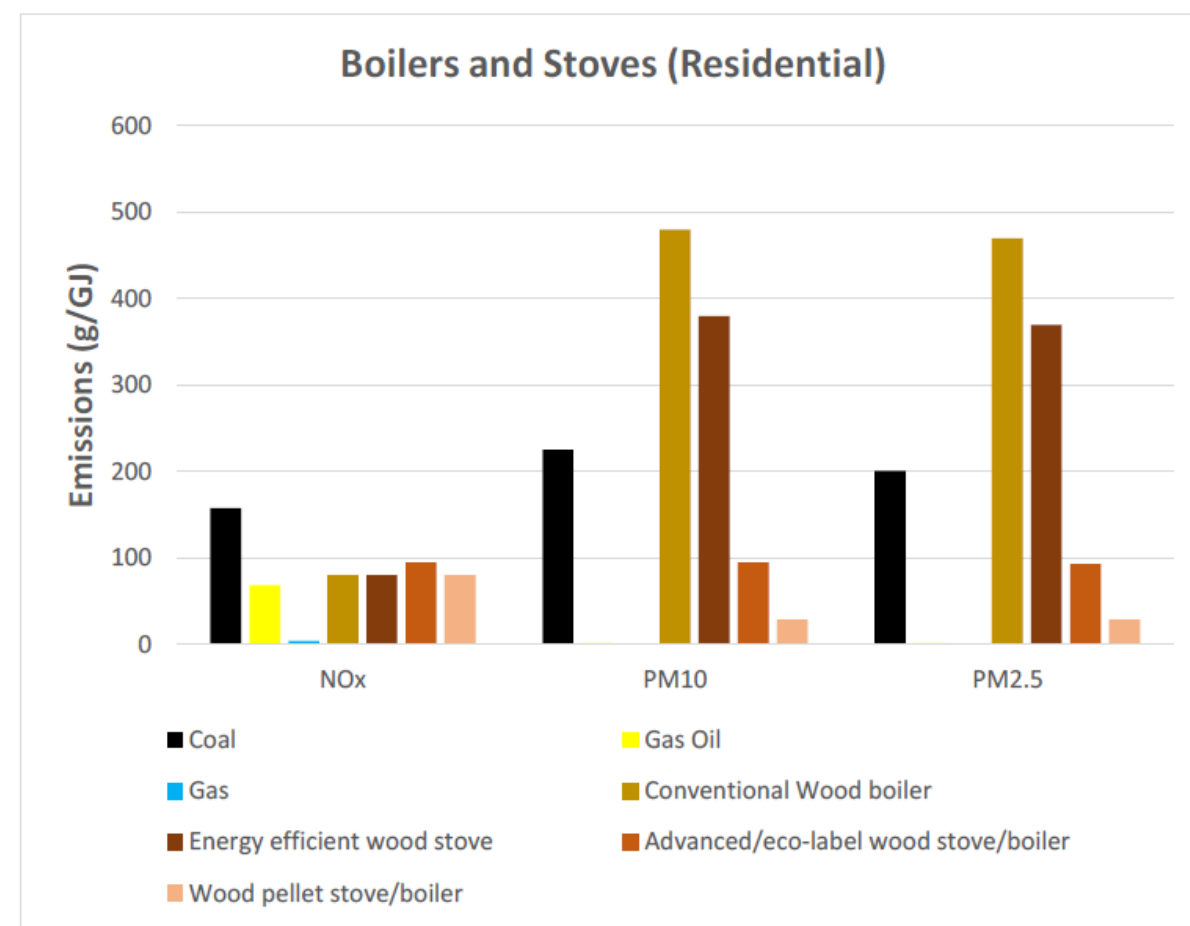
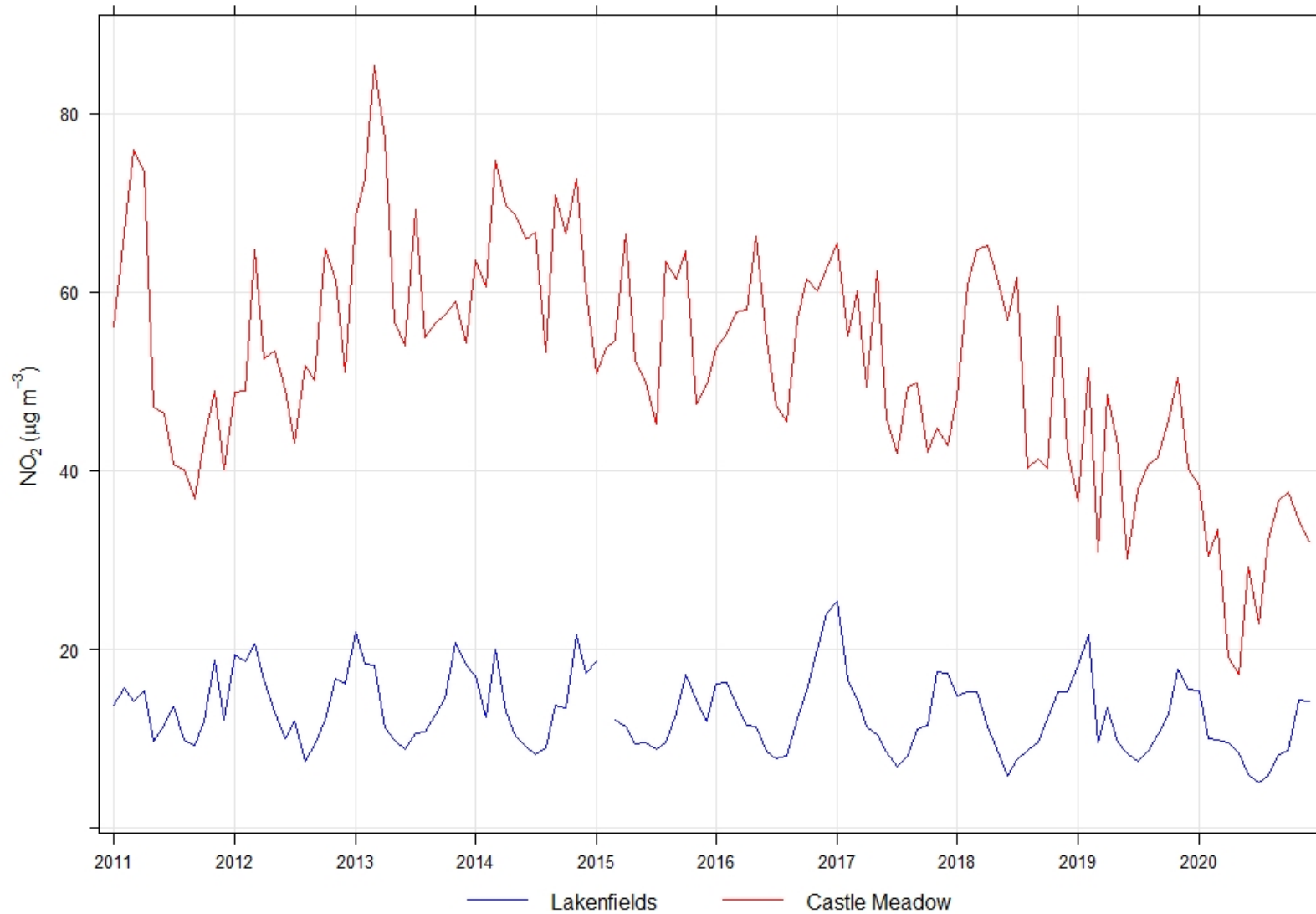


Figure 14: Emissions of NO_x, PM₁₀ and PM_{2.5} from residential boilers and stoves utilising different fuel types.

Preliminary Analysis of Norwich Air Pollution Concentration Data

Signals of PM_{2.5} sources?

Norwich Nitrogen Dioxide



Trends 2011-2020

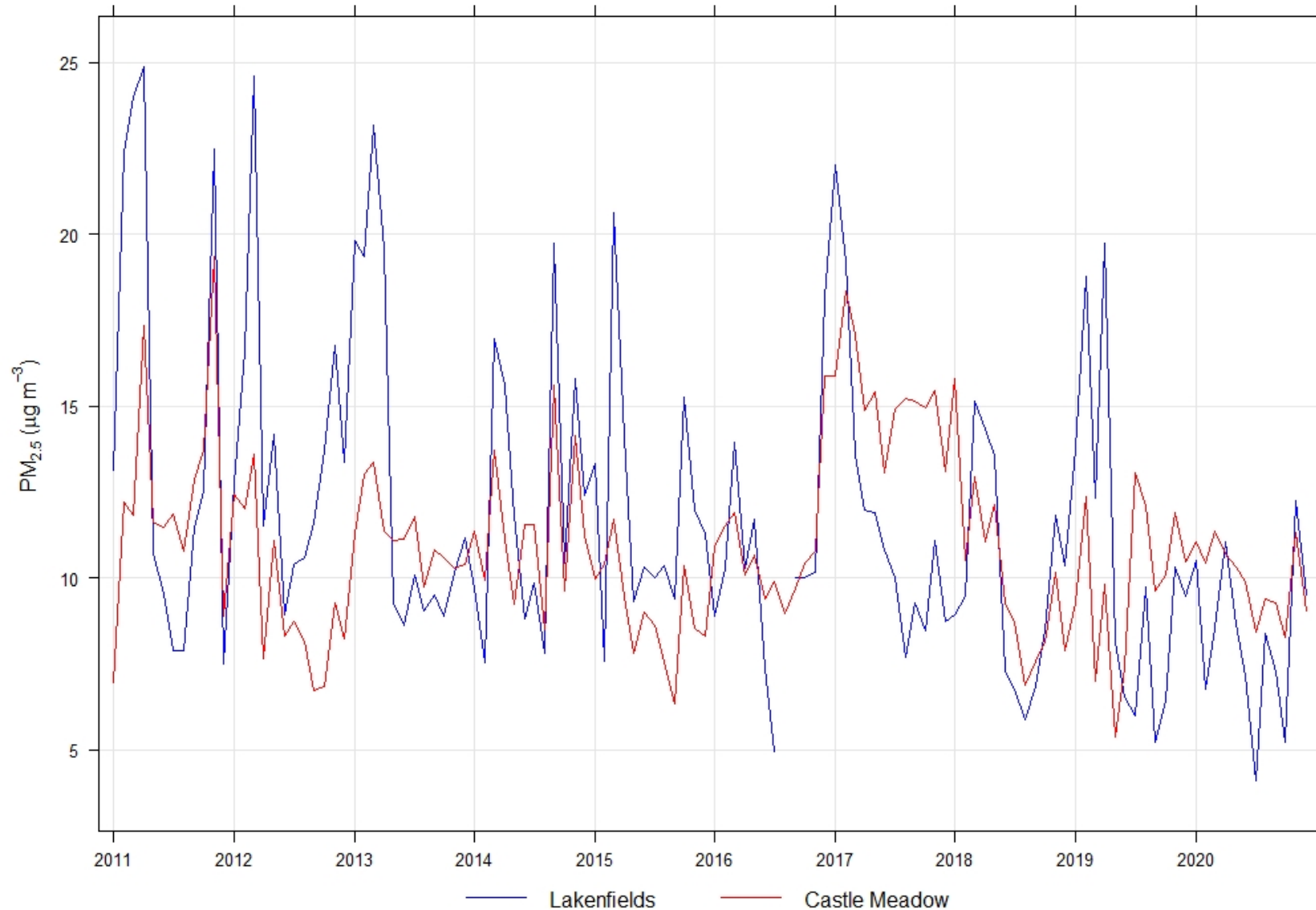
Concentrations much higher at Castle Meadow (roadside) compared to Lakenfields (urban background)

Marked decline at Castle Meadow

Little change at Lakenfields
(2020 – COVID lockdown)

NO₂ largely from road traffic.

Norwich PM_{2.5}



Trends 2011-2020

Concentrations similar at both sites.

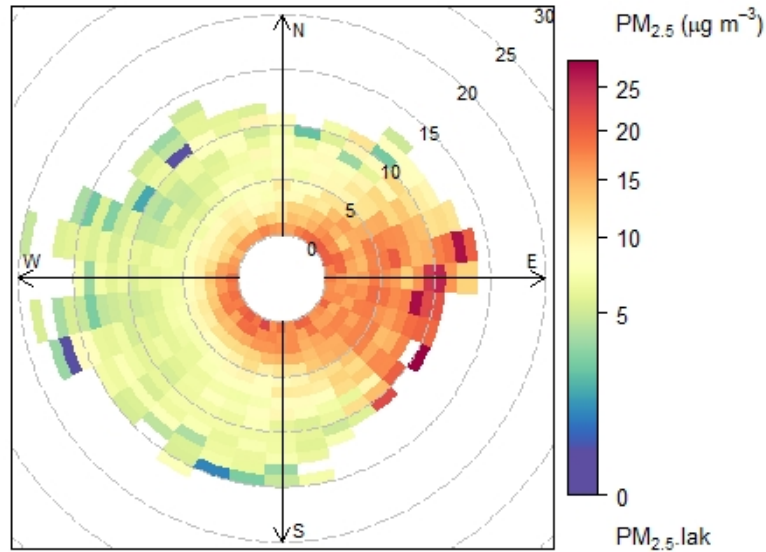
No clear trend

(2020 – COVID lockdown)

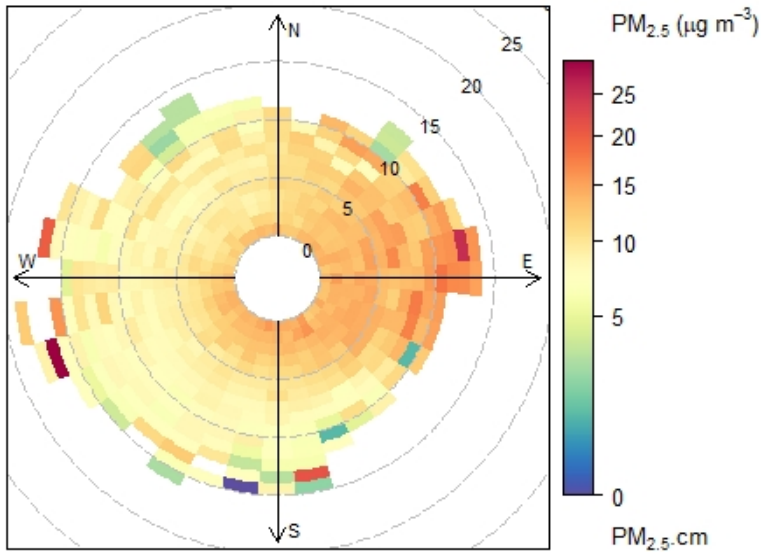
PM_{2.5} from multiple sources, not just road traffic, and regionally mixed.

(Evidence from analysis of other sites in East Anglia)

Lakenfields PM_{2.5} 2011-19



Castle Meadow PM_{2.5} 2011-19

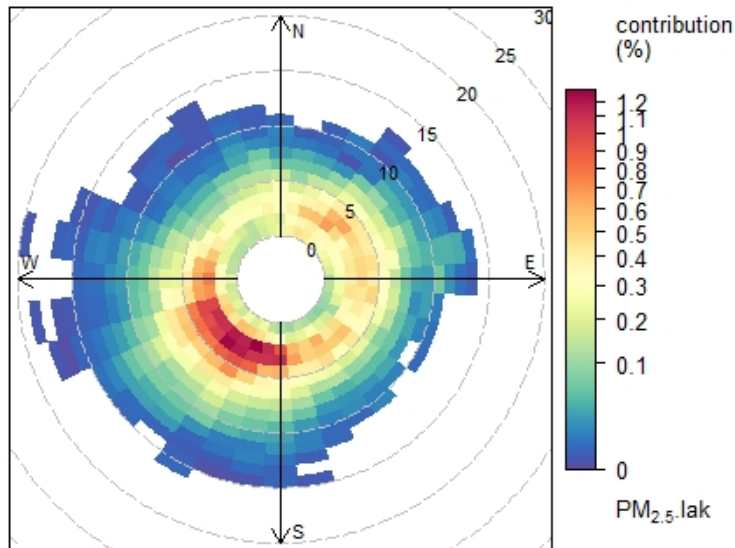


Concentrations by Wind Direction and Speed

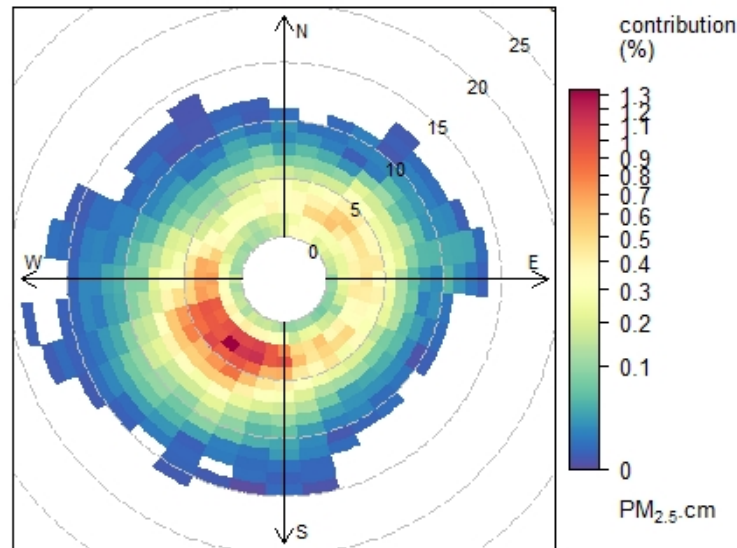
Highest concentrations when wind is from the east and at highest wind speeds.

Distant source to the east (continental Europe)

Lakenfields PM_{2.5} 2011-19



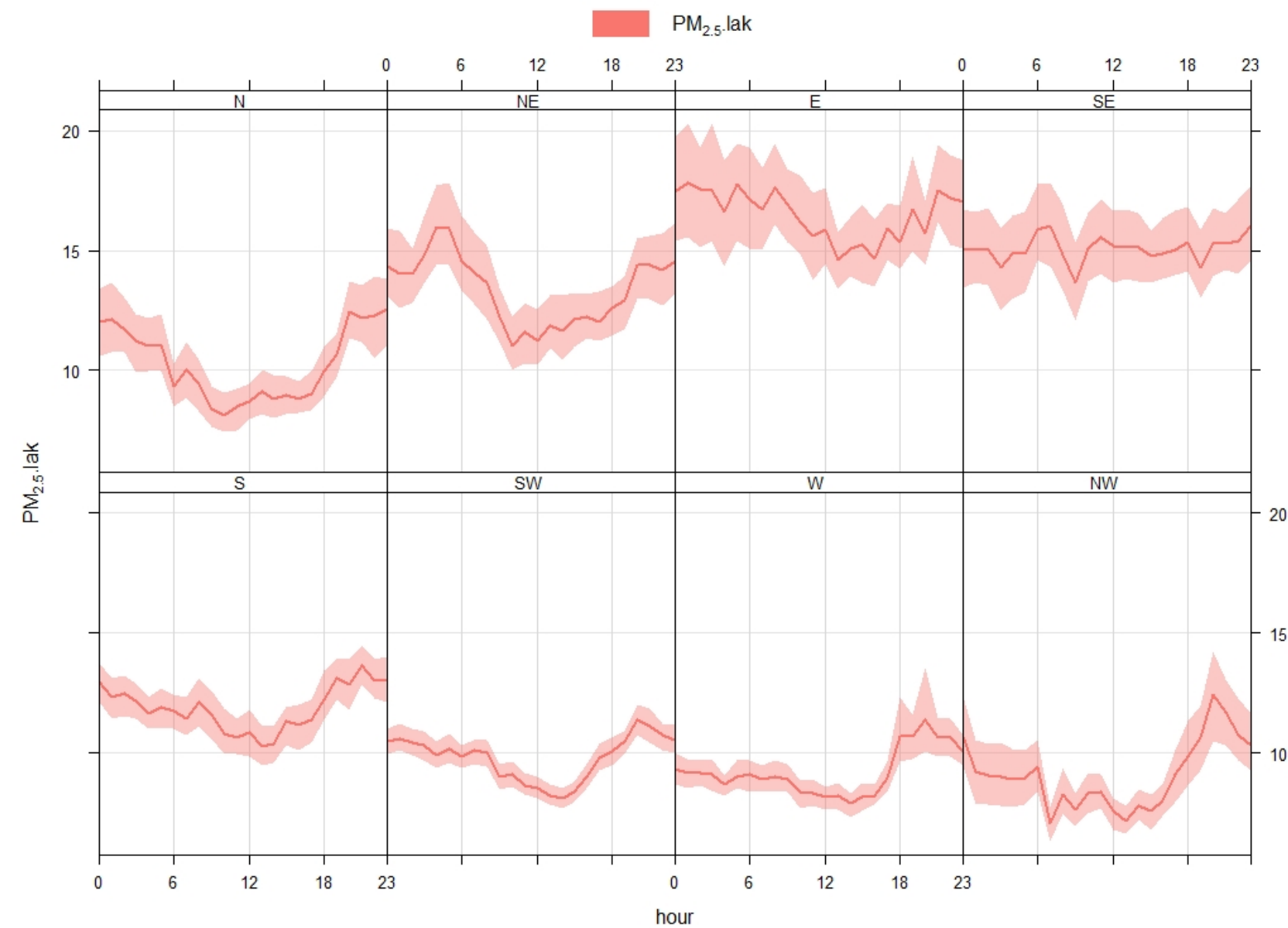
Castle Meadow PM_{2.5} 2011-19



Contributions by Wind Direction and Speed

Due to predominant wind direction the major contribution is from the south-west.

Also at lower windspeeds suggesting nearer sources.



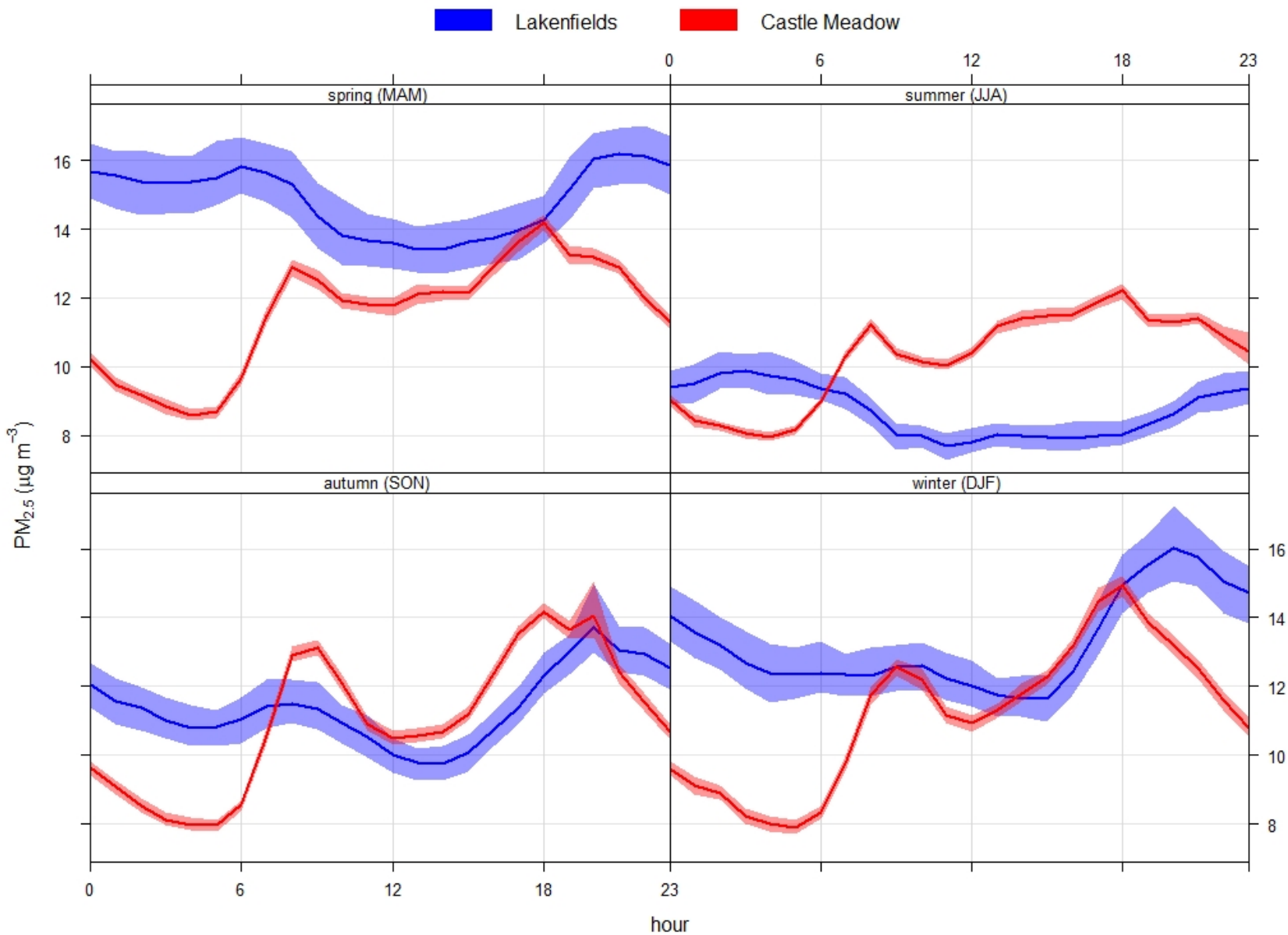
Diurnal patterns of PM_{2.5} at Lakenfields by wind sector

Little diurnal variation from east or south-east – long range transport

Strong diurnal patterns from other with sectors - more local sources.

Evening/night-time peak - indication of sources ...

BUT diurnal temperature changes impact
vertical mixing
volatility of PM_{2.5}.



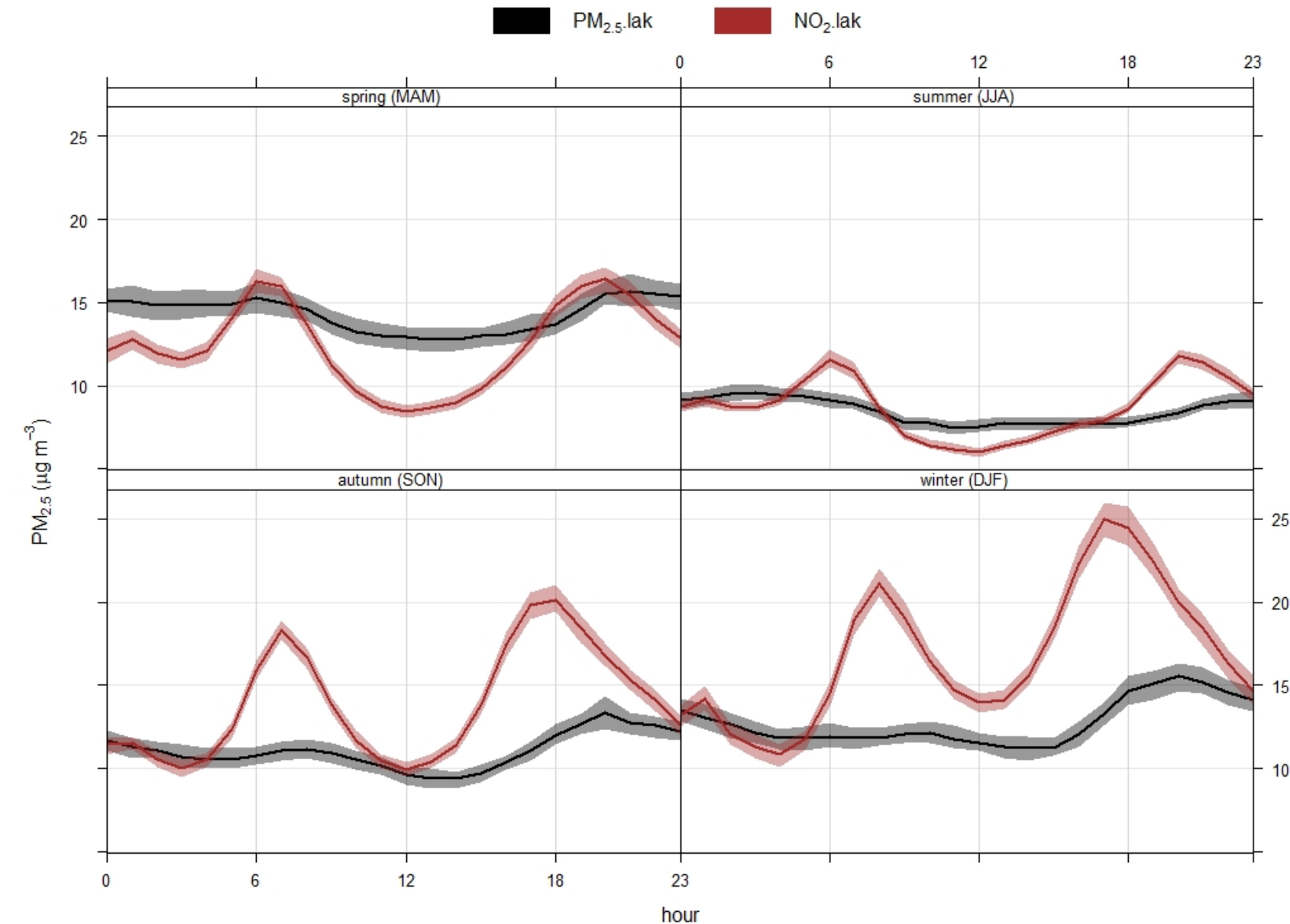
Diurnal patterns of PM_{2.5} at Lakenfields and Castle Meadow by season

Rush hour peaks at Castle Meadow

Smaller rush hour peaks at Lakenfields – evening peak later and extends

Evening/night-time peak - indication of sources ...

BUT diurnal temperature changes impact
vertical mixing
volatility of PM_{2.5}.



Diurnal patterns of $\text{PM}_{2.5}$ & NO_2 at Lakenfields by season

Rush hour peaks in NO_2

Smaller rush hour peaks in $\text{PM}_{2.5}$ – evening peak later and extends

Reduced vertical mixing at night earlier in winter illustrated by NO_2 .

Enhanced winter evening peak in $\text{PM}_{2.5}$ and later than NO_2 .



Mums for Lungs Wood Burning Stove Submission, Norwich City Council, July 15th, 16.30-18.30

To Norwich City Council, scrutiny commission

We are responding to an invite to submit evidence to the commission. Mums for Lungs is a network of parents campaigning for clean air to protect the health of everyone, but primarily children as these are the most vulnerable to air pollution.

Impact of air pollution and wood burning on health

Linked with 29,000 premature deaths in the UK each year ([COMEAP, 2010: 5](#)), particulate matter (PM) is one of the most harmful components of air pollution. Able to move into every organ in the body, PM is associated with the onset of asthma in children and strokes, dementia, and Parkinson's disease in adults ([Fu et al., 2019](#)). Particles with an aerodynamic diameter equal to PM2.5 µm or less (PM2.5) are especially dangerous as there are no safe limits of exposure ([World Health Organisation, 2016: 6](#)). In the UK, the primary source for this pollutant is the domestic burning of wood and coal for heating. Residential stoves are responsible for 38% of ambient PM2.5 emissions nationally, being generated by just 8% of the population ([Defra, 2019: 10](#)). This is more than three times the amount of PM2.5 produced by all road traffic in the UK.

The health effects of stove emissions are distributed unequally. Users are likely to be the most privileged members of society; 48 percent are from the two highest social grades, 42 percent own their homes outright, and 97 percent are white ([Defra, 2020: 92](#)). By contrast, those most at-risk from suffering adverse health effects are poorer social groups, children, older adults, and those with pre-existing cardiovascular or respiratory diseases ([Sacks et al., 2011](#)). The effect on children is particularly important. Exposure to PM pollution in early life is linked to the onset of several neurological disorders, including autism and attention deficit/hyperactivity disorder ([Myhre et al., 2018](#)), also being linked with decreases in brain function around learning ([Sram et al., 2017](#)). The proximity of wood burners to urban areas containing hospitals, schools, care homes, and residents with the above characteristics therefore has a bearing on the distribution of these harms. It is also worth noting that stoves triple the particulate matter inside the home through normal use ([Chakraborty et al., 2020](#)). With 33 percent of stove users likely to have children in the house ([Defra, 2020: 92](#)), the risk wood burning poses to children both inside and outside the home is clear.

Actions suggested

There are several approaches we suggest Norwich City Council undertake to reduce PM emissions:

- First, they could introduce new Smoke Control Areas (SCAs). Many of those in existence across the country are outdated, having failed to keep pace with changes to the urban environment around them. Introducing new SCAs would give greater coverage and signal to the public that

A group of parents seriously concerned about
the dangerous impact air pollution is having on children's health.



stoves are not harmless. However, in and of themselves SCAs are not a solution. Defra-certified appliances are exempt from their rules, but still produce substantial amounts of particulate pollution. In many ways they are undercutting the ability of SCAs to fulfil their original purpose.

- Secondly, we would ask Norwich City Council to adopt a wider awareness-raising strategy, on air pollution generally but especially the issue of woodburning, akin to local authorities in Eastleigh, Southampton, Winchester and the New Forest. This would help to raise awareness amongst all stove users – inside and outside SCAs, alongside those with and without Defra-certified appliances – and signal that wood burning is not harmless and, if possible, should be avoided.

An awareness raising campaign would have several other benefits, too. Wood burning has increased remarkably in recent years, with national stove sales running between 150,000 and 200,000 annually ([Font and Fuller, 2017](#)). Research shows that much of these increases are due to aesthetics, perceptions of ‘cosiness’ and the ‘green’ credentials assumed to stem from Defra-approval ([Defra, 2020](#)). An awareness-raising campaign would help to counter that narrative and tackle the problem at the point of sale. It would also equip people with the awareness needed to underpin the complaints-driven process of SCAs; many are unaware that residential chimney smoke has so many adverse health effects.

- Thirdly, central government action would be beneficial, like nationwide burn bans over winter (akin to San Francisco) as an interim measure until wood burners are ultimately banned for houses connected to the national grid, health warnings on stoves at the point of sale, and national education campaigns. We would therefore urge Norwich City Council to continue its leadership on the issue of wood burning as demonstrated through this commission and lobby Government for a ban on the sale of wood burners (by 2026), a ban on the use of wood burners (in the next decade) and interim measures such as the above. Ideally, Norwich City Council would be coordinating a lobbying effort with other councils, as we know that other local authorities too are concerned about the high levels of wood burning that is polluting our children and the ineffective national legislation and policies to address this.

We are happy to support and explore further ways Mums for Lungs can support Norwich City Council in its endeavours for local and broader change, that is so needed.

Thank you for the opportunity to contribute to this commission,

James Heydon and Jemima Hartshorn

A group of parents seriously concerned about
the dangerous impact air pollution is having on children's health.

mumsforlungs.org   MumsforLungs

mumsforlungs@gmail.com



Outcomes and Actions Norfolk Health Overview and Scrutiny Committee (NHOSC) 15 July 2021

Agenda Item Number	Report Title	Outcomes and Actions	Action by Whom
1.	Election of Chair	Cllr Alison Thomas	
2.	Election of Vice Chair	Cllr Daniel Candon	
8.	Cancer services	<p>Noted that there will be a single waiting list for cancer services across the Norfolk & Waveney system in due course.</p> <p>Further information required on the process for follow-up with people who do not respond to cancer screening invitations.</p> <p>Recommendation</p> <p>That Norfolk & Waveney CCG, Norfolk and Norwich University Hospital NHS Foundation Trust (NNUH) & NHS England & Improvement (NHSE&I) explore whether there could be better communication:-</p> <ul style="list-style-type: none"> • Informing people that primary care is open for patients with concerns and that they should come forward. • Keeping patients informed about cancer services waiting times. 	<p>NHSE&I</p> <p>CCG NNUH NHSE&I</p>

9.	Access to local NHS services for patients with sensory impairments	<p>NHSE&I and N&W CCG offered to meet with members of the public who spoke at the meeting regarding BSL interpreting, if they wish.</p> <p>NHOSC councillors and the wider network need information about how they can report specific individual issues and to whom.</p> <p>NHOSC suggested that the CCG and providers should consider mandatory training with regular refreshers for front line staff in the requirements & implementation of the Accessibility Information Standard.</p> <p>There was disappointment with lack of progress since the subject was last at NHOSC in November 2020. The committee will return to the subject soon.</p>	<p>CCG NHSE&I</p>
10.	Children's neurodevelopmental disorders	<p>Noted the long waiting times and disparity between the east of the county and the central & west area.</p> <p>Supported:-</p> <ul style="list-style-type: none"> Plans for the Family Action service to be a permanent service and would like to see it expanded if possible. Work to share good practice across the two children's NDD services in Norfolk & Waveney. <p>Noted that Norfolk County Council should do as much as it can to support schools to complete the reports that are necessary for children in the NDD pathways.</p> <p>The committee will return to the subject. Requested a short paper:-</p> <ul style="list-style-type: none"> Clarifying demand & capacity in the service and the consequent funding gap 	<p>CCG NCH&C JPUH</p>

		<ul style="list-style-type: none"> • Setting out the top priorities for action in the short to medium term • Identifying opportunities to improve processes within the pathways (potentially by sharing good practice across the two services). 	
11.	NHOSC appointments	<p>Agreed continuation of the current link councillors as set out in the paper and appointed the following councillors to the vacant link roles:-</p> <p>James Paget University Hospitals NHS Foundations Trust Link: Cllr Penny Carpenter Sub: Cllr Daniel Candon</p> <p>Norfolk & Suffolk NHS Foundation Trust Link: Cllr Brenda Jones Sub: Cllr Daniel Candon</p> <p>Queen Elizabeth Hospital NHS Foundation Trust Link: Cllr Michael Chenery of Horsbrugh Sub: Cllr Alexandra Kemp</p>	
12.	Forward work programme	<p>Agreed with the following additions:-</p> <p>NHOSC agenda</p> <ul style="list-style-type: none"> • Access to local NHS services for patients with sensory impairments – follow up to 15 July 2021 NHOSC • Children’s neurodevelopmental disorders - waiting times for assessment & diagnosis – follow up to 15 July 2021 NHOSC • Ambulance Service report to 2 Sept 2021 - include information on implications of the Education & Skills Funding Agency’s withdrawal of funding for apprenticeship learning at the East of England Ambulance Service NHS Trust. 	

		<ul style="list-style-type: none"> • Norfolk & Suffolk NHS Foundation Trust (NSFT) – use of out of area beds, including use of older people’s beds at the Julian hospital for younger patients. • Eating disorders – availability of specialist beds • Annual physical health checks for people with learning disabilities – to examine progress. • Dentistry – access in Norfolk & Waveney. <p>NHOSC Briefing</p> <ul style="list-style-type: none"> • NSFT – progress in response to Care Quality Commission requirements • Primary care in King’s Lynn – update on progress towards a new surgery in South Lynn. 	
--	--	---	--