THE CLEAN AIR ISSUE

June 2019

The Greater Manchester Clean Air Plan

Taking Action: School Green Zones

Plus... Cargo Bikes, Bus Regulation, Electric Cars & Play Streets

Friends of the Earth Manchester

The Clean Air Issue

This issue is all about clean air. We all need it, yet it's hard to find in our polluted cities.

Greater Manchester is no exception. It has unhealthy, polluted air. In Greater Manchester over 70% of air pollution is produced by transport, in particular private cars. Diesel engines make the biggest contribution.

This contributes not only to 2000 premature deaths each year but also to strokes, asthma, chronic and acute respiratory disease, heart disease, cancer, dementia and mental illness.

These illnesses affect the youngest, oldest and poorest in our communities and the effects stay with children into adulthood. The resulting health impacts have significant cost implications for the NHS and the economy of the region.

Greater Manchester has the highest rates of emergency admissions to hospital for asthma in the whole country, and Central Manchester and North Manchester NHS trusts have emergency admissions at double the national average. Evidence shows that the most vulnerable people and those living in disadvantaged areas are at greater risk from air pollution.

Research by Kings College London estimated that the annual cost to the Greater Manchester economy is huge, with air pollution costing us between £1 billion and £1.2 billion each year and every single local authority in the area affected[1].

1 **"Atmosphere: Towards a proper strategy for tackling Greater Manchester's air pollution crisis"** report from IPPR North, June 2018.

This issue is brought to you by Manchester Friends of the Earth volunteers Ali, Cat, Graeme, Ian, Pete, Steve.

Photos: cover and page 4, Peter Abel; page 4 Vecteezy.com; page 7 Russell Scott Primary; page 8 Manchester Bike Hire; page 9 Athena Mellor; page 11 Playing Out.

What Can You Do?

Clean up the way you get around by favouring walking, cycling and public transport.

Find out about public transport routes at my.tfgm.com/#/planner/.

Keep the car well serviced, with tyres correctly inflated, and the engine running as efficiently as possible.

Minimise idling. Cut your engine when waiting at train crossings and traffic lights.

Drive as smoothly as possible to reduce the need to brake excessively. Brake linings and moving car components cause 50% of air pollution from traffic. See the Ethical Transport Association (www.eta.co.uk/driving-tips/).

Think about whether you need your car. Hire cars, taxis and car share schemes are there for when you might need access to one. Try Car Share GM (www.carsharegm.com).

Tell friends, family and colleagues and think about ways you can help to influence others. Could you put in place cycle storage and car sharing at work? Or could you encourage your local school to promote cleaner travel?

Greater Manchester's Clean Air Plan

The recently launched Greater Manchester Clean Air Plan outlines how local authorities plan to tackle the illegal levels of air pollution in Greater Manchester.

TOO LITTLE, TOO LATE

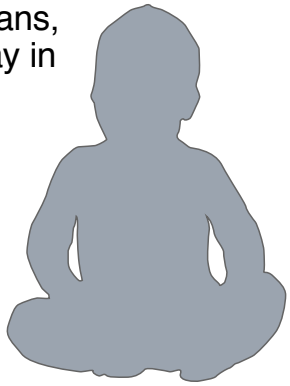
Manchester Friends of the Earth believe that these plans are inadequate. Our councils are breaching their legal duty to reduce air pollution in the 'shortest time possible'. It is unacceptable that our air quality would not be legally compliant before 2024.

Read on to find out why air pollution is so worrying, what the plans are, and what you can do about it.

AIR POLLUTION IS A HEALTH CRISIS, LET'S TREAT IT AS SUCH.

Dirty air from road transport can seriously damage our health and plays a part in thousands of deaths every year.

Under current plans, a child born today in Greater Manchester will be 5 before they can breathe air that meets legal requirements.



ROAD TRAFFIC

In Greater Manchester, over 75% of outdoor air pollution comes from road traffic.

UK law, in line with other European countries, sets air pollution limits that are legally-binding. For many years these have been breached in most major cities across the UK and recently the Government has been taken to court on this issue and is facing close scrutiny regarding its actions to respond and clean up our air.

The UK Government plan to tackle roadside air pollution required local authorities with illegal levels of air pollution to set out initial plans by March 2018 and final plans by the end of December 2018. It is stipulated that these plans must meet the legal requirement to reduce air pollution in the 'shortest time possible'.

But Greater Manchester will not have a plan in place before the end of 2019 and the current proposals will not achieve legally compliant air quality levels before 2024.

The Government's own modelling shows that by adopting a charging scheme, local authorities could achieve statutory NO2 limits by 2021 in most cases[1]. Whilst Greater Manchester's proposals do include a charging scheme, private vehicles will not be charged. We believe that this is insufficient, and modelling backs up our concerns.

JOIN THE CLEAN AIR CONVERSATION

People in Greater Manchester can comment on the Clean Air Plan as part of the 'Clean Air Conversation': **cleanairgm.com.**

This is open until midnight on 30th June 2019.

You can use this as an opportunity to call on the Greater Manchester Combined Authority (GMCA) to take stronger action.

We'd suggest insisting that they:

- ☑ Ensure the Clean Air Plan is legally compliant and meets the air pollution legal limits in the 'shortest time possible'.
- ☑ Introduce Clean Air Zones more rapidly and include all polluting vehicle types. Effective Clean Air Zones will lead to fewer, and cleaner cars on our roads, safer streets, more welcoming neighbourhoods and healthier lungs for children.
- ☑ Road traffic needs to be reduced to meet climate change targets as well as those for air pollution. Traffic-generating schemes such as airport expansion and road building and widening must be scrapped.
- ☑ Improve infrastructure to support alternatives to driving, such as safe cycling and walking routes.
- ☑ Re-regulate our bus services to provide clean, affordable and reliable public transport and therefore a viable alternative to the car for more people.

1 UK plan for tackling roadside nitrogen dioxide concentrations.
http://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017

Air Pollution and Trees

While the most effective way of reducing air pollution in urban spaces is to reduce vehicle numbers and their tail-pipe emissions, the planting of trees and shrubs in our towns can also help.

In fact, their contribution can be a lot more than you may initially think. A report commissioned by the C40 cities climate leadership group in 2016 'Planting Healthy Air' stated that:

"Trees can actually take pollution out of the air - reducing fine particles in their immediate vicinity by as much as a quarter."

SO, HOW DO WE DO THIS?

Several studies have shown that maximising removal of air pollution calls for careful consideration. It is important to consider the tree species to be planted, their eventual canopy volume, the shape of nearby buildings and other features that may block wind flow, and of course the likely wind speed and direction[1].

As tree leaves remove particulate matter through dry deposition, tree species that have a larger leaf surface area will generally remove more pollution. Tree species could either have a dense canopy or the leaf surface have lots of ridges or hairs, and this increases the surface area.

Pollutants from vehicle exhausts disperse quite quickly as you move away from the road, so trapping near the source at exhaust pipe level in hedges is really helpful, and the denser the better.

Planting trees along major roads where people are also moving and living should be done with care as dense tree coverage can inhibit air circulation, trapping pollution in and under the canopy. One study suggested that to be safe, along major roads single roadside tree lines should be planted with a tree species with high particulate matter removal capacity and with enough spacing between tree canopies to allow wind flow between trees[2].

GOOD HEDGING

Conifers, yew, portuguese laurel, and privet are all good examples; as well as lavender, hebe and rosemary.

SUITABLE TREES

Scab pine, common alder, larch, norway pine, field maple, ash and silver birch will remove the most pollutants without contributing to the formation of new pollutants[3].

As well as planting more air pollution busting plants in your own space why not join Greater Manchester's City of Trees tree planting volunteers (www.cityoftrees.org.uk), ask your council to plant more trees and ensure you defend the ones that we already have.

For more on the benefits of trees, see this blog from the Woodland Trust:
www.woodlandtrust.org.uk/blog/2018/05/air-pollution/

1. https://thought-leadership-production.s3.amazonaws.com/2016/10/28/17/17/50/0615788b-8eaf-4b4f-a02a-8819c68278ef/20160825_PHA_Report_FINAL.pdf
2. Maher, B.A., et al., Impact of roadside tree lines on indoor concentrations of traffic-derived particulate matter. Environmental Science and Technology, 2013. 47(23): p. 13737-13744.)
3. https://ecosystemsknowledge.net/2015/9/24/trees-townscape-urban-tree-guide

Taking Action: School Green Zones

Many children develop asthma during childhood, an average of three children per class[1]. Regularly breathing nitrogen dioxide and fine particles from exhaust emissions will make existing health problems worse and cause other respiratory illnesses[2].

Increasing concern of many parents and teachers has prompted some schools to take radical action to reduce dirty air by:

- ☑ piloting 'car free zones'
- ☑ persuading parents to 'leave the car behind' on the school run,
- ☑ banning engine 'idling',
- ☑ choosing the healthier option of walking or cycling.

In 2018, Russell Scott Primary in Denton led the way, creating its own 'Green Zone'. Increasingly concerned about the exposure of children and staff to a daily dose of toxic emissions, head teacher David Marsland, decided to act. His school is a pollution hotspot, bordered by the M60 and A57.

Ahead of Clean Air Day 2018, David built cooperative relationships with parents, whose cars were the cause of pollution and hazards. Meetings with them, Community Police Officers and Highways opened up conversations about making the area around the school healthier. Children were 'trained up' as Junior CPSOs in hi-vis, given powers to politely issue 'penalty notices' to drivers caught 'idling', or parking hazardously - a role they took up with much enthusiasm.

To celebrate Clean Air Day, a fete was held with games, planting and scooting sessions for children and police. We recently asked David about how the campaign had progressed. He was delighted to tell us about many positive results.

On reducing air pollution, the situation had "100% changed for the better", with most children walking to school. He felt awareness and concern about pollution had brought the community together.

David believes "children power" will be central to the campaign's future. Staff have noticed children's interest in their environment has broadened immensely, with some lessons now including climate change issues.

Children are more confident to express opinions. They even heard from a Nigerian school wanting to emulate the Junior PCSO scheme.

David says Clean Air Day this June will be 'Get Scooting' Day, with training and races. He has purchased 20 scooters for future loan to pupils. He also plans more greening with tyre-planting and making a living hedge to freshen the air.

1. Royal College of Paediatrics and Child Health, 'Toxic air harming children across 86% of UK' (Unicef)Feb.2019
2. British Lung Foundation, 2016

Cargo Bikes

Cargo bikes can be used to transport young children or shopping. They can also be used by businesses for short urban deliveries.

Local couple Joanna and Ian took the decision earlier this year to purchase a Babboe City E bike and have never looked back (except before pulling out to turn right, of course).

WHY BUY A CARGO BIKE?

Jo - “After having our daughter we found it hard to cycle year-round, especially in the cold and wet and dark of winter. By February I would be feeling really down with the lack of fresh air and exercise”. Not wanting to buy a second car, a cargo bike was a great solution as it provided a sheltered space for their daughter and all their bags. “We didn’t have to think, we could just chuck everything in and go”

HOW DID YOU DECIDE WHAT TO BUY?

Ian - “We knew we wanted a two-wheeler because a) they’re more agile and b) there are lots of chicanes on UK bike paths and a trike might not get through as easily”.

Jo test rode a few types through Manchester Bike Hire and then borrowed a Babboe city-e for a week (for free!) to try it out properly. By the end of the day one she was sold!

HOW YOU HAVE FOUND USING THE BIKE?

Jo- “It took a few rides to get used to the handling. (“Look where you’re going, not at the front wheel” was very useful advice.) It doesn’t so much ‘turn’ a corner as banks like an aircraft. It’s sort of the bike equivalent of a lorry: each manoeuvre (parking, turning) requires a little planning. The size of the bike and the electric assistance also mean you can take the lane quite easily & match the speed of the traffic (up to 25kph), even with a full load”

PRACTICAL TIPS.

Storage A garage makes it easier to protect the bike from the elements.

Security The bike comes with a Horseshoe lock on the rear wheel and they carry a heavy duty d-lock when out and about; being careful where they leave it and choosing busy locations with CCTV.

Safety The bike comes with two sets of seat straps for any kids travelling in the box. The seat bench is very hard so we put some foam and a blanket over it to make the ride more comfy.

WHERE CAN I BUY ONE?

Manchester Bike Hire (www.manchesterbikehire.co.uk) built the bike for Jo and Ian, and did the initial warranty service. They also sent a mechanic out to put on a tougher tyre after a puncture on the way to work. (Which is another good practical tip from them: if the bike doesn’t have marathon plus tyres on when you get it, change them!)

VeloTimes cycle hire based on the Mersey River in Sale also sell Cargo bikes: www.velotimes.com

You might also be interested to know that the Department for Transport have an eCargo Bike Grant Fund for businesses to apply to and support green last mile deliveries: www.energysavingtrust.org.uk/transport/freight-and-retrofit/ecargo-bike-grant-fund

Why Bus Regulation Is Crucial For Better Air

Bus companies have failed us on greening the bus fleet for 30 years, argues Pascale Robinson of Better Buses for Greater Manchester, and short-term plans to invest in some new clean buses under a partnership proposal are not enough.

Manchester has one of the worst polluting fleets in the country. This is because our current deregulated system means that bus companies have not been required to invest in clean buses - so they haven't.

In London's regulated system, the Mayor directs bus companies, and he has demanded that all double-decker buses are hybrid by 2019. In London, 37% of all buses are electric or meet Euro 6 standards. In Greater Manchester, this is just 10%.

While these figures came out in 2016, broadly speaking the picture has not changed. What has happened in fact is bus companies have received millions of pounds of public money to get them to clean their fleet, with Stagecoach recently getting £6.9m to clean their fleet, and First receiving another £2 million. The public purse foots the bill for bus companies' refusal to provide buses that keep our air healthy, ensuring shareholder dividends can be kept high. 40% of bus companies revenue is public money, and 10% of this public money ends up as shareholder dividends every year, yet they're not even providing a sufficient service.

We need to be able to demand more of bus companies, through public control, as London and Jersey have. Transport is an essential public service.

London's Mayor and Transport for London have been able to force bus companies to invest in and provide better buses for passengers and staff. In a regulated network you set the standards for what you want on the streets, what you pay drivers, the colour of the bus, almost everything.

We shouldn't forget that the reason we have so many cars on the street is that people increasingly have needed a car to get around and participate in society. With 8 million miles of routes cut from GM's network since 2010, and fares having gone up by 55%, so many of us have turned to cars. Mattioli at University of Leeds estimates that 6.7% of households in the UK experience forced car ownership and just over half of those in forced car ownership were in arrears for unpaid utility bills.

We need to be able to compel bus companies to provide a clean, frequent and affordable bus service, as London's publicly controlled network has been able to demand successfully, with even bigger plans yet to come. We want buses that don't harm our bodies and companies should pay for them, not passengers. This is why 76% of us in Greater Manchester want our buses to be regulated. Bus companies have failed to run their companies in a way that provides a good, dependable and affordable bus network, have been dragging their feet on investing in clean buses, and are now resisting attempts to pay for greening the fleet, taking our public money instead. The deregulated bus network has failed to get us the buses we deserve, and regulation allows us to set the standards and demand more.

We in Greater Manchester know that it is time to re-regulate our buses. Please tell Andy Burnham this by signing the petition at www.betterbusesgm.org.uk.

Electric Cars?
Necessary but not Sufficient

Government policy on reducing climate change emissions (carbon) from cars is mainly focussed on vehicle electrification. While this is essential, the scale and speed of carbon saving that is needed means that electrification is insufficient on its own, and demand management to reduce traffic volumes will also be necessary.

Many politicians are nervous of action to reduce traffic because it has (wrongly) come to be seen as 'anti-motorist'. In addition, focussing on electric vehicles as a "silver bullet" to solve carbon emissions and air pollution ignores the other impacts of motorised vehicles with regard to physical inactivity (deterring people from walking and cycling), congestion, particulate pollution and the amount of urban space allocated to vehicles rather than people.

According to research from the Ellen MacArthur Foundation, the typical European car is parked 92 percent of the time – often on valuable inner-city land. When the car is used, only 1.5 of its 5 seats are occupied and as much as 50 percent of inner-city land is devoted to mobility (roads and parking spaces). This is illustrated below.

Across the UK 7 million front gardens have been concreted over for car parking. Surface parking lots create heat islands and sources of polluted stormwater runoff. We do not calculate (or charge) the true costs of parking with estimates that 94% of all parking away from the home is free.

The scale of traffic reduction required is uncertain until the Committee on Climate Change has modelled the least-cost pathway to a 1.5°C target. Provisional work by the Tyndall Centre has found that even if all new cars were Ultra Low Emission Vehicles (ULEVs) by 2035 (80% battery electric, 20% plug-in hybrids), a 58% reduction in car mileage between 2016 and 2035 would be needed for car CO_2 emissions to be in line with a 'well below 2°C' pathway.

Research carried out for national Friends of the Earth estimated that it will be necessary for the government to investigate policy options for traffic reduction in the order of 20-60% between now and 2030.

So even if all road vehicles will be electric, we still need fewer of them and we need to get more people walking and cycling.

FIGURE 3 **STRUCTURAL WASTE IN THE MOBILITY SYSTEM**

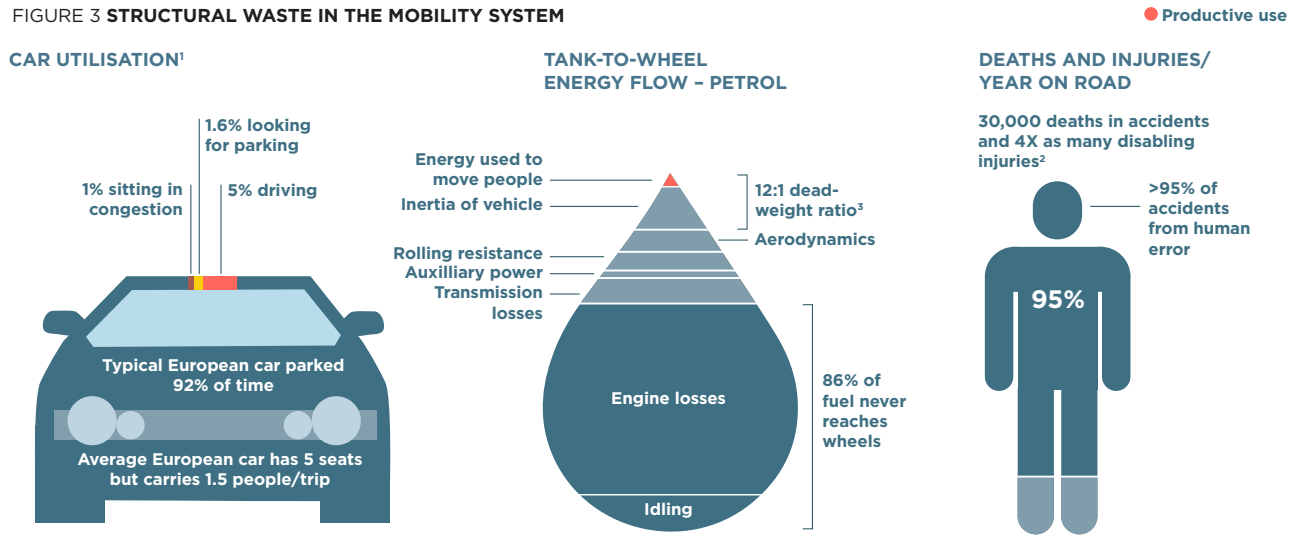


Image reproduced from Growth Within: A circular economy vision for a competitive europe by Ellen MacArthur foundation https://www.ellenmacarthurfoundation.org/assets/downloads/publications/EllenMacArthurFoundation_Growth-Within_July15.pdf

Play Streets

We need ways to reverse the dominance of the car in our urban environment as well as ways to make walking and cycling easier and to allow communities to come together safely outside their front doors.

Play Streets are one such idea. Put simply, Play Streets give children the ability to play safely and easily on the street where they live.

Children playing on the street is not a new idea but children today spend a lot less time out on the street playing than their parents did. This is thought to impact on their social development and their sense of independence as well as increase their reliance on cars for transport to activities.

The charity Playing Out has been working with communities across the UK to make the process of working with local authorities smoother and playing out accessible to all.

In Greater Manchester at present each council has a different system in place to allow communities to close off their streets for a community event. This may involve a hefty fee, insurance and a time-consuming application form each time an event is held. Playing Out believe that all children should have a regular opportunities to play with their peers on the street where they live and that the procedure to arrange this should be as straightforward and cheap as possible.

Some Manchester communities have been trialling one-off street closures and Salford City Council are also considering making the process easier.

If you would be interested in encouraging your council to adopt Play Streets see www.playingout.net or get in touch to see how we then can support you.

1. www.playday.gn.apc.org/resources/research/2007-research/

BIKE FRI DAY .ORG

On the last Friday of each month, join others cycling from around Greater Manchester and meet for breakfast before work.

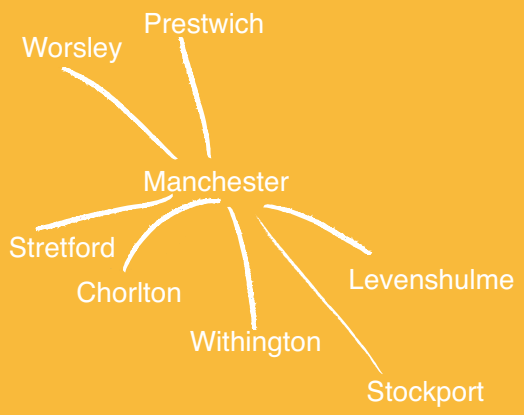
We ride at a moderate pace & have experienced guides.

All welcome. Bring a bike.

SOCIAL RIDE & COFFEE

Last Friday of each month, from around Greater Manchester.

* Except December (check website for monthly details)



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