

Killing You Softly

Medway is renowned for the beauty of its sunsets. A glowing red sky with a westerling sun, can be a magical sight. But there's a reason for this and it's not a healthy one.

To explain we need to go back a bit. In the first half of the 19th century artists often painted incredible sunsets. This was partly because there were a number of huge volcanoes at the time.

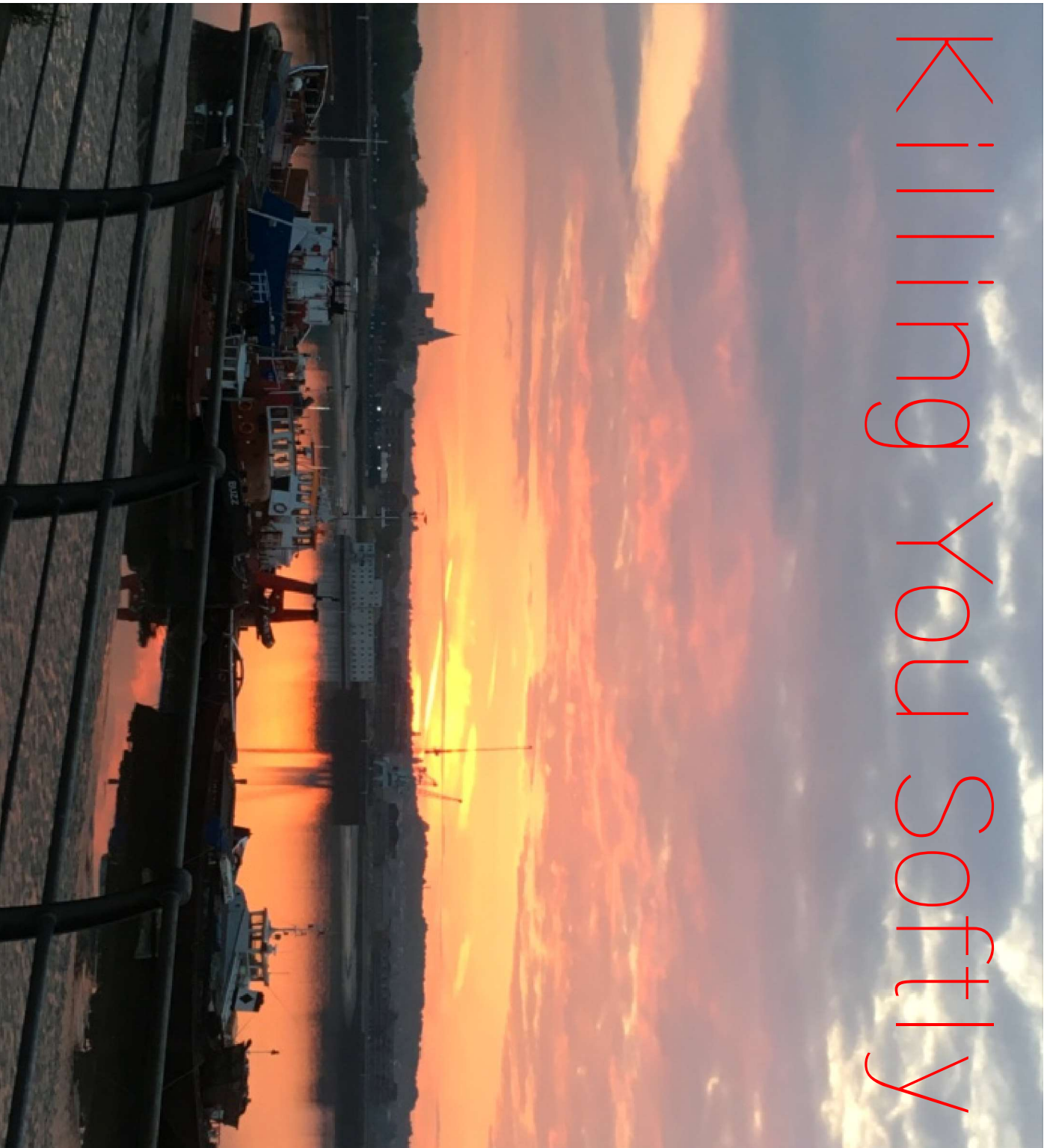
Tambora, an Indonesian volcanic island that literally blew its stack in April 1815, was the most famous. It is supposed to have been the largest ever volcano in recorded history and threw up so much dust it led to the year without a summer. Sunlight was blocked out. Crops did not grow and people starved.

There were other huge volcanoes at the time too. Cosiguina in Nicaragua in 1835 probably created the dust that made the super red charged atmosphere for JMW Turner's Fighting Temeraire painting in 1838.

Volcanic dust filters out the blue wavelengths as the sun approaches the horizon. That's when sunrays have to pass through the maximum amount of dusty air.

These days we don't need a volcano to have red skies in Medway. Pollution throws up such huge quantities of PM2.5, tiny bits of grit and dirt, that Medway's air quality is well below minimal standards laid down by the World Health Organisation.

It's the equivalent of a human volcano, right on our doorstep. And it blows its stack every day.



During a gap year I had as a very young teenager, I had a really good job which I thorough enjoyed working in the traffic

By Alan LeGrys

department at Stevenage Development Corporation. I found myself on the margin of a large project which was having to look into the cost of the roads that we were having to put into the new town. And some people started to ask about how much it actually costs when you tot up the cost not just of construction but of all the structure that has to go with it, so you have got car parks, you've got all the traffic regulations; you've got the policing. A whole range of things all the way down to things I would never have thought of. We came across some research the Road Research Laboratory as it was then on how much it actually costs to have a fatal accident on these roads that we were going to build and at 1970 prices it was costed out at, I think, £3,500. And when we did the arithmetic the amount of money it cost to build a new road was astronomical. So one of our senior engineers thought *what if instead of building the roads we had an effective public transport system* so we were set up with a kind



of fantasy brief; we were to imagine what it would be like if we were to set up a bus service in Stevenage that ran 24/7 throughout the year 365 days a year where a bus was provided free of charge for everybody living in Stevenage; where nobody had to walk more than 200 metres to a bus stop and they would never have to wait more than ten minutes for a bus. And when we did this kind of fantasy calculation and worked out the cost of providing that free service compared with the cost of building the new roads, the cost of the free bus service was absolutely infinitesimal; a slight fraction of what it was going to cost to provide the roads. And there was absolutely no comparison between them. So what did we do as a corporation? We committed ourselves to building the roads. And so we spent billions and billions of pounds

developing an infrastructure when we could have done effectively the same job for much less money. There's some very serious questions here which I think we are failing as a community to ask ourselves. For generations we have had this fixation on private transport and we have been encouraged more and more to have cars of our own. The myth is if we've got our own car we can move around freely. We have got freedom of movement. We can do exactly what we like. Well, of course, it's a complete fantasy. What in fact happens is that we not only destroy the environment, pollute everything and churn up the countryside; in the process we have the privilege of sitting for hours and hours in traffic jams. It's a no brainer. Why don't we put that money into public transport? And you can

see it in the political rhetoric that is used. When we talk about the cost of providing transport. It's constantly the language of investment in infrastructure for things like roads and even to some extent in railways but when we talk about public transport generally it's subsidy. Now that language is loaded, it's biased already before you start. So we will put billions of pounds into building roads while at the same time we will run down and make sure that public transport is depleted in terms of the need that's around there. It's a complete nonsense. And yet we seem to be so fixated on this myth of freedom of movement that we are just continuing to make the same insane mistakes.

Alan LeGrys is an academic and a theologian, who has spent most of his life working in the Church of England.

Air pollution in Dartford, Medway, Gravesham, Maidstone, Tonbridge and Malling and Swale exceeding World Health Organisation limits

By: *Geoffrey Bew*
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Air pollution in six areas of Kent exceeds toxic air guidelines set out by the World Health Organisation - putting the lives of nearly one million residents at risk.

Dartford, Medway, Gravesham, Maidstone, Tonbridge and Malling, and Swale have all made it onto a list of 30 council areas in the south east where people are being exposed to "dangerous levels of particles", known as PM2.5.

WHO guidelines say air pollution levels should not exceed 10 micrograms per metre.

Of the 30 councils highlighted, Dartford had the second highest level of toxic air recorded at 11.6, while Medway was fourth on the list with 11.5 and Gravesham fifth at 11.2.

Maidstone and Tonbridge and Malling both had 10.1 and Swale had 10.03.

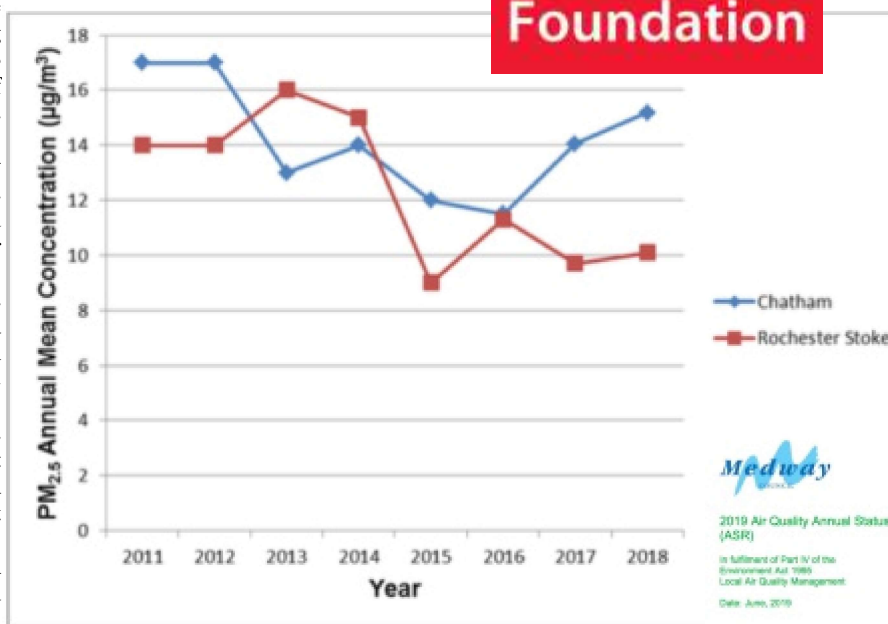
Adding up the population in each area amounts to 936,000 people in the county at risk of health problems, such as blood clots that could lead to heart attacks, according to the British Heart Foundation.

Campaigners say the data published by the charity shows the urgent need for the government to set legally binding air pollution targets. KMTV reports as companies in Kent are urged to do more tackle climate change.

Green Party campaigner Stuart Jeffery, who is based in Maidstone, said the figures were not a surprise given the growing

evidence that pollution levels are one of the biggest problems facing the country. "Tens of thousands of people are dying early each year and we have got 30 towns across the south east that are breaching World Health Organisation guidelines," he said. "This report focuses on a single particulate matter 2.5, which is the smallest size of particles and they come from diesel engines, petrol engines so forth. "They are very, very toxic, they can pass freely in and out of the bloodstream, they can go into the brain.

healthcare innovation, said: "We can't see them, but every day, we all breathe in tiny toxic particles which damage our heart and



The UK currently subscribes to EU limits on levels of PM2.5, which are not as strict as those set out by the WHO, and progress towards reducing levels of major air pollutants has been mixed since the previous government's Clean Air Strategy was published in January 2019. More than a year on, the BHF says that the nation's health cannot wait. It wants the government to adopt the WHO's strict air pollution limits into UK law by 2030. The Environment Bill, which returned to parliament last week, is a golden opportunity to set this in motion, the charity adds.

It promises the setting of legally binding air pollution targets, but some important commitments are missing, including pledges to adopt the stricter WHO guideline limits. Dartford Clean Air Coalition

Jacob West, director of healthcare innovation at the BHF, said: "This government has a once-in-a-generation opportunity to take brave political action in cleaning up our toxic air. "Tackling a public health emergency on this scale requires serious and

"They can basically affect any part any part of the body in terms of how they cause damage so they are particularly toxic, they're invisible and they don't smell at all so we don't know they're there."

It was earlier revealed people living in some of Kent's worst affected areas for pollution have an increased risk of death equivalent to smoking more than 140 cigarettes a year. High pollution levels prompted residents to call for a high tech air and noise barrier to guard against toxic air coming from the Dartford Crossing. Jacob West, BHF's director of

circulatory health. They are an invisible killer. "We must not become complacent and accept that dirty air is a part of normal life. "Politicians have a unique opportunity to limit the damaging effects of pollution and improve the quality of our air, and they must seize it. "Everyone can play their part in demanding a healthier environment for all. "We are urging people to write to their MP to demand a change to the law. "The more pressure we put on decision makers, the better our chances of cleaning up our air."

sustained commitment. "This could mean changes that might not be easy or convenient for organisations or individuals, but they will prove crucial to protecting people's health. **"You only have to look at past Clean Air Acts or more recently the smoking ban for examples of bold legislation that has improved the air we all breathe. "The uncomfortable truth is that UK heart and circulatory deaths attributed to air pollution could exceed 160,000 over the next decade unless we take radical steps now."**

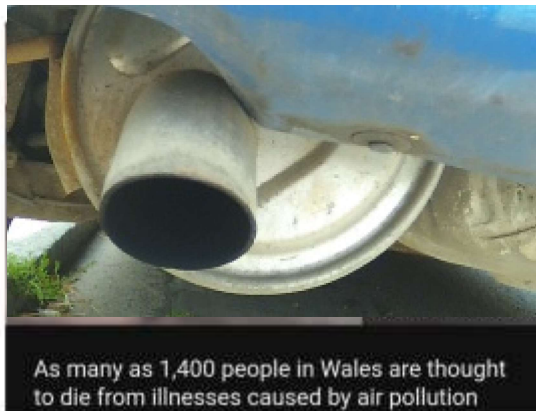


Published alongside the plan is a provisional analysis of how air quality in Wales has been affected by the coronavirus lockdown.

Air pollution Wales: Clean Air Plan proposes tougher limits

By **Steffan Messenger**
BBC Wales Environment Correspondent

🕒 06 August 2020 | **Wales**



As many as 1,400 people in Wales are thought to die from illnesses caused by air pollution

It suggests that between the start of lockdown on 16 March and 31 May, emissions of nitrogen oxides, which can be harmful to health, were almost half the expected levels.

Analysis of traffic data showed a "significant drop" in vehicle flows, mostly of cars, light vans and buses, with the report concluding "clear correlation" between traffic levels and reduced pollution.

Ms Griffiths said the different habits people had adopted during lockdown presented an opportunity to improve air quality.

"We've seen much more walking, cycling, people working from home and not having those long car journeys to work. Clearly that has had an impact."

Free transport

Luxembourg has become the first country in the world to make all public transport free of charge. The policy is part of a plan by the centre left governing coalition to reduce traffic.

[BBC February 29, 2020]

PM2.5 & the virus

Medway has unusually unhealthy air especially small particles of grit or dust known as PM2.5 (or very small particulate matter). It's the small stuff that kills you. We come close to the top of a league table of areas that top the chart of places with above WHO danger levels of PM2.5. So far, so bad.

What we now learn from a Harvard University study is that areas with high PM2.5 have an excess mortality of 8% from the virus. Given that almost everyone knows someone who has died from the virus 8% is staggering.

<https://blog.ucsusa.org/cecilia-moura/numbers-that-take-your-breath-away-covid-19-air-pollution-and-equity>

Chatham had a fantastic tram network from about 1903. This spread to most of the rest of what is now Medway a few years later. But the local bus company took over the tram network and shut it down by 1931.

The trams were lumbering great things that moved slowly and had to stick to the tracks. They took much of the workforce to and from Chatham Dockyard. They were the arteries that made this area work.

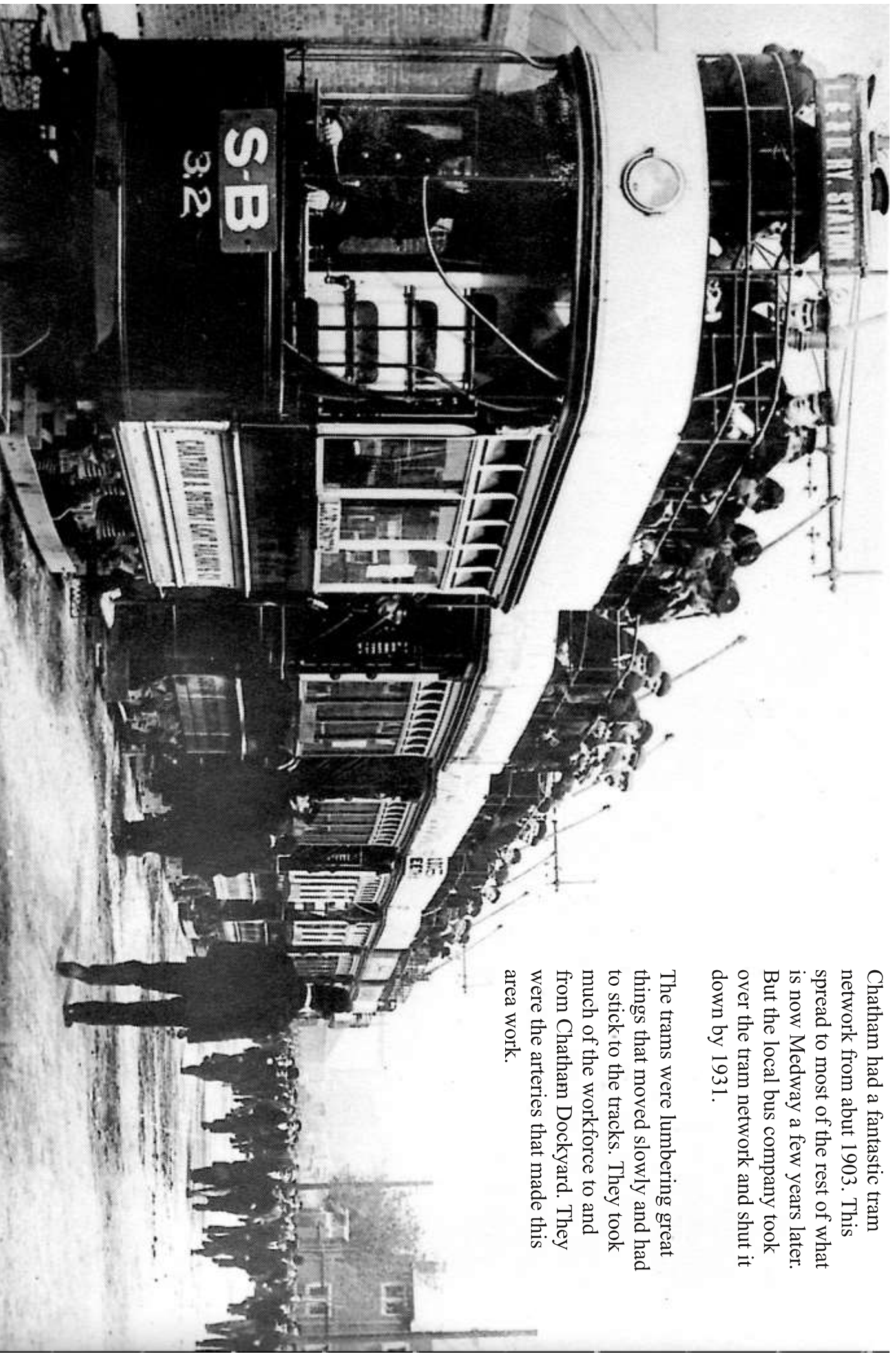


Table 1 Comparison of the benefits of reducing PM_{2.5} by 10 µg/m³ (equivalent to eliminating man-made PM_{2.5} in 2005), the elimination of motor vehicle traffic accidents and the elimination of exposure to passive smoking (EPUK, 2011)

	Reduction in PM _{2.5}	Elimination of road traffic accidents	Elimination of passive smoking
Expected gain in life expectancy	7-8 months	1-3 months	2-3 months
Estimated equivalent gain in life years in England and Wales from 2005-2110 for the whole population (including people born during that time)	39,058,000	8,126,000	13,194,000

Air Quality Action Plan 2015

Medway Council



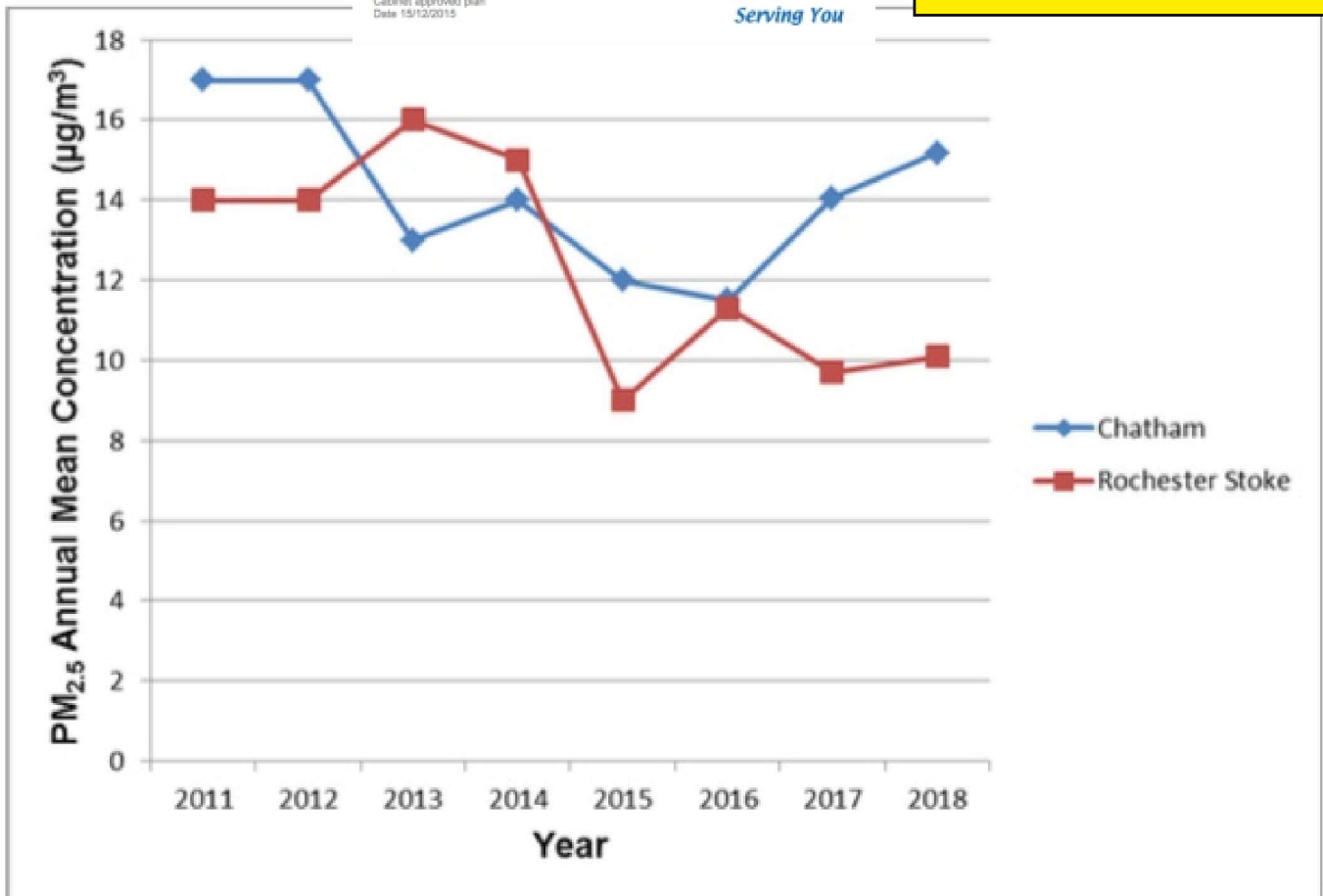
The graph below comes from the Medway annual status report, the latest I can find on the council website. The table above comes from the council's air quality action plan Medway is one of the worst performing areas when it comes to PM2.5 in the air, in the bottom four in the south east. The World Health Organisation safety limit is 10 but according to the graph below we are closer to 15 in Chatham. There is no mention of the WHO in the report.

The Medway Air Quality Action Plan says: "It has been estimated that poor air quality in the UK causes more than 50,000 deaths per year, and probably causes more mortality and morbidity than passive smoking, road traffic accidents or obesity. "Particulate air pollution alone in the UK has been estimated to reduce the life expectancy of every person by an average of 7-8 months, with estimated equivalent health costs of up to £20 billion each year. "Table 1.2 (above) compares the benefits of eliminating man-made PM2.5 against the elimination of road traffic accidents and exposure to passive smoking."

Report for Medway Council



Cabinet approved plan
Date 15/12/2015



How to save your own life!

Extraordinary things have happened because of the virus.

Incomprehensible amounts of money have been thrown about with fresh initiatives seemingly launched almost daily at one stage. Yet the gains to be made from eliminating PM2.5 are far greater than those offered by the lockdown or the shutdown of our shops and industry.

According to a Medway Council report eliminating PM2.5 could give every one of us an extra 7-8 months of life. Spread across the whole of England and Wales that's an incredible 40 million years. Since Covid 19 tends to strike the elderly and infirm 40m years is vastly more than the

death toll from the virus. So far (at the beginning of August 2020), it's killed 46,413 people in the UK. Even if the average victim was going to live an extra decade that's still less than half a million years. Half a million compared to 40 million! And PM2.5 keeps killing, year after year. According to Professor Sir David Spiegelhalter the number of years of life lost as a result of the virus might be considerably less than half a million.

He looked at people aged over 80 and found that 10% would die in the next 12 months. People over 80 who got the virus also had a 10% chance of dying. In other words the overall mortality rate was zero.

One in four of virus deaths also had diabetes. Diabetes UK says 500 people die each

week in the UK from diabetes irrespective of the virus. That's 25,000 a year.

The issue is more than the number of deaths caused by bad air: it's also the reduction in life quality caused by pulmonary and cardiovascular diseases. People age and get sicker quicker because of PM2.5.

Yet our life has been designed around the car. Our town centres are made to serve it. This means many people who are unable through disability, poor health or poverty to own a car, have little or no access to our centres.

They don't go out as much as they might. They get sicker earlier and require social care because they can not look after themselves.

So much life is lost because of the car. This is not freedom but the opposite.

I don't want your money or your votes. What I want is for you to be afraid about something that is really out to get you, personally. Bad air quality.

If half the fear generated by the virus could be transferred to getting rid of air pollution all our lives could be immeasurably improved.

It can be done.

Technology allows the creation of a new type of urban environment that guarantees mobility for all without air pollution. A new kind of tram network that operates 24 hours a day and has stops no more than 200 metres away from every household.

But it is not going to happen all the time most people have never even heard of PM2.5. Get angry and live a longer, healthier life.



Jonathan Brind in front of an amazing Medway Council graph that shows PM2.5 levels have been above the danger limit set by the World Health Organisation since at least 2011.

Killing You Softly was created by a small team of concerned Medway residents with help from some internationally recognised experts. Music was by the fabulous Swedish based duo We Ghosts.

Bronach Rae Photographer
Simon Mills Photographer/The voice
Jonathan Brind Camera/ sound/ editing
Roger Tooth Camera/ sound
Genevieve Tullberg First reader

Contributors: Alan LeGrys, Timothy Mitchell (Professor of Middle Eastern Studies, Columbia University), Waseem Zaffar (Birmingham City Cabinet Member for Transport) & Jacob West of the British Heart Foundation.

'Broken Sky' written and performed by We Ghosts.

Film Clips: The Cruel Sea & Hyundai promotional video.

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TO VIEW THE VIDEO ON YOUTUBE
<https://youtu.be/TkBGVR-XoKI>