

RETHINKING SOUTH WARRINGTON'S FUTURE (RSWF)

Respondent Number 0443

Submission to the September 2022 Public Inquiry on
the Warrington Draft Local Plan

MATTER 13 – OTHER POLICIES **AIR QUALITY**

The right to breathe clean air is a fundamental human right. We **all** have to breathe to live regardless of where we live and regardless of socio-economic status. Poor quality air will inevitably have a greater impact on vulnerable communities, the elderly, the young and those yet to be born. Therefore, it is the singular most important issue that the Borough Council and the Local Plan should address. The impact of Warrington being a car dependant town and the lack of effective, innovative transport infrastructure means the health of Warrington's population is at risk – it is a public health issue.

Air Quality Data

Unfortunately, despite this and Warrington Borough Council declaring a 'climate emergency' in 2019, air quality seems to be an 'add-on', an 'after thought' to the Local Plan. Warrington's Air Quality Action Plan (AQAP) 2017 - 2022 begins with: 'The Council recognises that air pollution is an important determinant of health and that it affects the most vulnerable in our society in particular.' However, although WBC may 'recognise' that fact, little has been done in terms of recording relevant air pollution data. Without accurate and relevant data, RSWF would contend that Warrington has no real idea of the true level of air pollution in the town despite their unsubstantiated assertion that 'The majority of Warrington has good air quality.' (AQAP p2). The AQAP was signed off in 2018 and can hardly be considered as being up to date. It is accurate and relevant data that should inform the AQAP and as up to date data is hard to come by, neither the Local Plan nor LTP4 are sound or justified. In addition, there is little evidence of working together with neighbouring Local Authorities to develop a coherent plan and, as a consequence, we would contend that neither policy has been positively prepared.

In Decarbonising Transport: A Better, Greener Britain, it is stated that people are being poisoned by the very air they breathe. The AQAP states that 'Warrington has good air quality' and Air Quality Management Areas (AQMAs) have been set up 'where necessary'. The primary focus is in measuring the motorways (M56, M6 and M62) and the main arterial routes into the town. In addition, there are monitors in Selby Street, Parker Street, & Chester Road. All these monitors, with the exception of Selby Street, monitor NO₂. The DEFRA definition of NO₂ in Concentrations of nitrogen oxide (updated April 2022) states that 'Nitrogen dioxide (NO₂) is a gas mainly produced during the combustion of fossil fuels.' NO₂ must not exceed 40ug/m³ and there should be no more than 18 exceedances in the hourly mean limit value... in a single year.' Although, NO₂ levels appear to have reduced, there has

been an increase in PM10 and PM2.5 It is these particulates that cause the most damage to human health.

WBC online monitoring data site is impossible to access and is not user-friendly. Worryingly, the site says that the monitoring site in Selby Street is closed! As a consequence, I was unable to obtain accurate PM2.5 data for Selby Street.

RSWF contends that WBC hasn't enough monitors in Warrington to obtain accurate real-time data and it has been left to Stockton Heath Parish Council to provide their own monitor and to provide WBC with data. There are 20 non-automatic monitoring sites throughout the town (2020 Air Quality Annual Status Report) (ASR) but the 2020 information recorded is no longer relevant. This is lamentable.

It should be noted that only approximately 1.8% of Warrington's population live in AQMAs. The Local Plan indicates that there will be significant additional housing in Warrington (figure? 18,900) and this will exponentially increase the number of cars in Warrington. WBC's ASR 2020 states that 'the Local Plan growth, and associated increases in traffic, has been assessed for air quality as part of the AQAP'. Where is this evidence? It also concludes that nitrogen dioxide levels are expected to improve due to the increased uptake in low emission vehicles but that PM2.5 concentration will ... "remain of concern'. 'Low emission vehicles' implies a greater uptake of expensive electric cars which tend to be heavier and contribute more significantly to non-exhaust emissions.

Transport remains one of the largest sources of air pollution in the UK' (Decarbonising Transport: A Better, Greener Britain p27). LTP4 talks about bringing about a culture change that reduces people's need to travel by car, reducing traffic congestions, maintaining and improving all transport infrastructure. These are laudable aims. WBC must build on its 'Active Travel' initiatives and moving towards a fully electric bus fleet is only part of the answer. The target of moving towards zero emissions will only ever be achieved by providing Warrington residents on the outskirts of the town with plausible, affordable and accessible multi-modal options. WBC must work with other parties and other authorities to enable this to happen and RSWF contends that this appears not to have happened. This failure to cooperate with other parties, therefore, means that the Local Plan has not been positively prepared.

In addition, RSWF contends that this lack of easily available, understandable information means that there is a lack of transparency. It is transparency and information which empower local communities to engage with issues that directly affect their health and well-being.

Non-Exhaust Emissions

Non-Exhaust Emissions (NEEs) are comprised of brake wear, tyre wear and road dust resuspension. They are emissions of particulate matter known as PM2.5 and PM10. These emissions contribute to the total ambient particulate matter and are detrimental to human health. In September 2021, the World Health Organisation, updated the guidelines for measuring air pollution and states that exposure to poor air pollution over years/decades can reduce a person's life expectancy. The Air Quality Expert Group prepared a report for DEFRA in 2019 which states that 'the

most effective mitigation strategies are to reduce the overall level of volume of traffic levels.” The LTP4 and the Local Plan go some way to attempting to address the issue in terms of active travel and both talk about buses and trams, however, there has been little attempt to engage with knowledgeable local groups such as Trams for Warrington which have plausible plans for an integrated inter-modal public transport system. Steel on steel modes of transport such as trams are innovative and forward-thinking transport modes which can help drive a shift towards significantly reducing air pollution and a move towards a local low carbon economy. Coventry which is currently developing a ‘whole system’ approach incorporating a number of interlinked strategies, is a case in point.

The Local Plan and LTP4 perpetuate the old New Town model of town planning insofar as too many current developments both in North and South Warrington are difficult to reach without a car. Households have 2,3 and 4 cars to maintain their lifestyle and to access work. This is a major contributing factor to poor air quality in the town. In particular, the South East Urban Extension of 4,200 houses is not sustainable as there is currently no credible transport infrastructure. Active travel initiatives will make little difference and as people become older or ill, they will become increasingly cut off. An additional 4,200 dwellings will mean at least a further 1,000 cars on the road on an increasingly gridlocked road network as previous New Town roads were never built. It is inevitable, therefore, that the SWUE will be another huge contributor of poor air quality in Warrington.

In September 2021, the World Health Organisation has significantly updated its guidelines for ambient (outdoor air pollution), reducing NO2 emissions from 40 to 10 – a 75% reduction and halving the guideline for PM2.5. See table below:

WHO 2021 air pollution guidelines and comparison with WHO 2005 guidelines

POLLUTANT	AVERAGING TIME	WHO 2021 AIR QUALITY GUIDELINE	WHO 2005 AIR QUALITY GUIDELINE
PM _{2.5} (µg/m ³)	Annual	5	10
	24-hour	15	25
PM ₁₀ (µg/m ³)	Annual	15	20
	24-hour	45	50
O ₃ (µg/m ³)	Peak season	60	N/A
	8-hour	100	100
NO ₂ (µg/m ³)	Annual	10	40
	24-hour	25	N/A
	1-hour	200	200

POLLUTANT	AVERAGING TIME	WHO 2021 AIR QUALITY GUIDELINE	WHO 2005 AIR QUALITY GUIDELINE
SO ₂ (µg/m ³)	24-hour	40	20
	10-minute	500	500
CO (mg/m ³)	24-hour	4	N/A
	8-hour	10	N/A
	1-hour	35	N/A
	15-minute	100	N/A

Source: Breeze Technologies
24.09.2021

Stockton Heath Parish Council's yearly report to 31st July 2022 shows that the 12 months average of the 24 hours average are as follows:

NO2	19.1	WHO guideline 10
PM 2.5	7.7	WHO guideline 5
PM 10	11.7	WHO guideline 15

Whilst WHO recommendations are guidelines, the UK government is currently consulting on them and is due to make recommendations in October 2022. RSWF believe that WBC must anticipate these reductions in Local Plan and LTP4. In 2018 Warrington was named as one of the top 5 cities in the UK which exceeded 10 µg/m³ for PM2.5. As yet, we fear that little progress has been made.

WBC should be aware that a top EU court advisor has said that individuals should have the right to take their government (and Local Authorities?) to task and demand compensation for harm they suffer. Client Earth's lawyers say that 'the revised law should include a clear legal framework to clarify how people can hold their governments accountable for damage wrought on their lives by illegal air pollution.' This is now the future direction of travel when effective air pollution measures are not put in place.

Although the current NPPF is 'light' on air pollution and its effects and possible mitigations, the revised NPPF is expected to place a much higher emphasis on air pollution and its' consequences.

The risk to life and the right to health are established concepts within the human rights' legal framework (Air Quality News 2022).

Air Pollution and its impact of health

Recent scientific studies are now providing evidence of the harmful effects on human health from air pollution. The death of a 9 year old child, Ella Kissi-Debra, was the first to be unambiguously linked with exposure to air pollution. Asthma Care estimate that 3.3million in the UK could be affected by air pollution.

In China, studies are being carried out on the impact of fine particulate matter on the respiratory system and scientists believe that air pollution indirectly causes structural changes in the lungs causing lung tumours.

Britain has the worst death rate for lung conditions in Western Europe and air pollution is linked to 36,000 premature deaths each year (The Times 28.02.22)

The Times (27.7.22) reports a landmark study supporting the theory that air pollution links to dementia. The Committee on the Medical Effects of Air Pollution has given official recognition that air pollution damages the brain.

A connection between autism and air pollution is also being made. Researchers writing in the Current Environment Health Reports journal note a decade of studies linking air pollution, place of residence and socio-economic status as causal risk factors. Studies in China discovered that exposure to fine particulates, NEEs and industrial emissions increase the risk of developing autism spectrum disorder by as much as 78%. Even small amounts of exposure to air pollution might play a role in delayed developmental learning. It is becoming accepted that environmental factors have a role to play in the likelihood of ASD developing in utero.

97% of UK schools exceed safe air pollution levels. Schools where monitors for NO2 and PM2.5 have been installed showed that 35 out of 36 schools exceeded daily norms. To safeguard our children's health, mental and educational wellbeing air quality monitors must be installed in all Warrington schools.

Long term exposure to air pollution is now also being linked to a heightened autoimmune disease risk. Research published on line in RMD Open found a high risk of developing rheumatoid arthritis, connective tissue and inflammatory bowel disease. Overall, long term exposure to air pollution showed a 40% higher risk of rheumatoid arthritis, 20% higher risk of inflammatory bowel disease and a 15% higher risk of connection tissue disease. (RMD Open – March 2022)

In addition, studies are making a link between air pollution and covid-19. Air pollution is an important persistent risk factor for cardiovascular and respiratory health (Science of the Total Environment, Jesse D Berman and Keita Ebisu May 2020).

The US Environmental Agency has used air quality and medical data to determine that there is a direct link between air pollution and an increased risk of heart attacks, cardiovascular disease, high blood pressure and high cholesterol. (www.epa.gov/sciencematters/linking-air-pollution-and-hear-disease 30/03/22). The British Heart Foundation supports these conclusions: 'Air pollution is harmful to your heart and circulatory system' (www.bhf.org.uk/informationsupport/risk-factors/air-pollution)

There appears to be a significant gap in data pertaining to air pollution emanating from the Walton Crematorium. Although monitoring NO₂ and NO emissions is not required by the regulator (DEFRA), that should not be an excuse for ignoring its contribution to Warrington's air quality. '245kg of CO₂ and 500kg of NO_x is thought to be emitted per 75-minute cremation when gas is the combustion fuel' (Promessa 2019: Champ Funeral Services 2016, Daily Echo 2019). In addition, there are extra emissions from the cadaver and coffin.

THERE ARE NO MINIMUM SAFE AMOUNTS OF AIR POLLUTION AND AIR POLLUTION AFFECTS HUMAN HEALTH

The resulting impact on NHS and Care resources is immense. The Local Plan and LTP4 must, therefore, place a greater emphasis on immediate and long-term solutions to the air pollution problem and Warrington's car dependency and lack of effective transport infrastructure.

The Western Link

The Mott Macdonald Full Build Out Scenario (September 2021) states that the key impact will be felt at both ends i.e A56 Chester Road, Walton and A57 Great Sankey. It acknowledges that the southern terminal suffers from an acute weight of traffic along the A56 and forecasts that 'the WWL would not be able to operate satisfactorily with the queuing and forecast delay in the FBO2036DS scenario.' Analysis shows that there will be 'significantly more trips loaded onto the network ... in the immediate vicinity of WWL.'

The report states that the forecast increased traffic at the Walton end could push traffic back into the town centre and inner Warrington. The added engineering infrastructure to make WWL work at the Great Sankey end will challenge the scheme in terms of cost, deliverability and viability. RSWF contends that the WWL would, in all likelihood, increase traffic from the both motorways (M5 and M62) and from traffic avoiding the Mersey Gateway tolls. There would be an increase in HGVs accessing Peel Port.

In addition, forecast traffic flows (Table 7) indicates that traffic would re-route back through town. All this would have a profoundly negative impact in terms of traffic volume and therefore air pollution in Walton, Stockton Heath, Great Sankey and the town centre. The rationale and key objective of WWL is to reduce traffic through the town centre – not increase it.

Mott Macdonald's report is damning about the Western link and the obvious conclusion from the report is that the Western Link would result in increasing air pollution in Walton, the town centre and Great Sankey. Should WWL go ahead, it is worth noting that the Walton Lea Partnership in Walton which supports vulnerable adults with learning difficulties and which abuts Walton Crematorium will be sandwiched between two highly significant producers of pollution.

Air Pollution and Biodiversity

Biodiversity is undoubtedly affected by poor air pollution. Scientists from Reading and Birmingham have found that where there were up to 70% fewer pollinators, up to 90% fewer flower visits and an overall reduction of up to 31% where common ground level air pollutants (NEEs and ozone) were present. Manchester Mosses Conservation Area is likely to be significantly and adversely affected by an increase in diffuse air pollution. Whilst the site supports degraded bog it is still capable of regeneration. Peat captures carbon and is significant in helping to slow climate change.

Conclusion

Although, Air Quality has not been a primary focus in the current NPPF there should be a greater emphasis on it when it is re-drafted. In failing to take account of this and the impact of air pollution from various sources, the Local Plan is not robust and based on up-to-date evidence in respect of its own data and in terms of scientific research. RSWF contends that the points above clearly demonstrate that air quality must be the core principle underpinning all policies pertaining to the future of the town. If the Plan fails to do this then Warrington will not be able to respond to the damaging impact that a short-sighted Local Plan LTP4 will wreak upon the town's health. As it stands, the Plan is not consistent with achieving sustainable development. It is not justified as it is not based on 'a robust and evidence base' as there is little evidence of research on Air Quality in the Plan. If WBC fails to take cognisance of WHO guidelines and the fact that moves are afoot to enable individuals to take governments (and Local Authorities) to court for compensation where harm from poor air quality can be proved, then WBC is laying itself open to future legal challenges. The Plan must be future-proofed to take account of impending changes to the NPPF.