Rossendale BOROUGH COUNCIL

ITEM NO. C5

Subject:	Air Quality and Climate Change Strategy 2019		**Status:**	For Publication	
Report to:	Cabinet		**Date:**	27th November 2019	
Report of:	Public Protection Manager		**Portfolio Holder:**	Communities and Customers	
Key Decision:	☐ Forward Plan ☒		General Exception ☐	Special Urgency ☐	
Equality Impact Assessment:	Required:		No	Attached:	No
Biodiversity Impact Assessment	Required:		No	Attached:	No
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1.	**RECOMMENDATION**
1.1	That approval is given to commence a formal consultation exercise in relation to the draft Air Quality and Climate Change Strategy.

2. PURPOSE OF REPORT

2.1 To inform members of the draft Air Quality and Climate Change Strategy and to seek approval to commence a consultation exercise.

3. CORPORATE PRIORITIES

3.1 The matters discussed in this report impact directly on the following corporate priorities:

- **A clean and green Rossendale:** our priority is to keep Rossendale clean and green for all of Rossendale's residents and visitors, and to take available opportunities to recycle and use energy from renewable sources more efficiently.
- **A proud, healthy and vibrant Rossendale:** our priority is to ensure that we are creating and maintaining a healthy and vibrant place for people to live and visit.

4. RISK ASSESSMENT IMPLICATIONS

4.1 The Councils declaration of a Climate Emergency highlights the need to address the long term impact on our communities of poor air quality and climate change. To tackle existing and emerging issues, it is imperative that we have strong and focused strategies and polices in place. Failure to adopt the strategy will have serious implications on our ability to achieve this.

5. BACKGROUND AND OPTIONS

CLIMATE CHANGE STRATEGY

5.1 In May 2019 a motion was passed by Government declaring a climate change emergency and since then many local authorities including Rossendale have followed suit. The Climate Change Act 2008 required the UK to reduce its carbon emissions by at least 80% by 2050. In May 2019, the Committee on Climate Change recommended a new emissions target for the UK: net-zero greenhouse gases by 2050. This was made a statutory target in June through the Climate Change Act (2050 Target Amendment) Order 2019.

5.2 As a local authority, the Borough Council has an important role to play in both the way it manages its own assets and operations and in helping residents and businesses to capture the opportunities and benefits of action on climate change. This can include saving money on energy bills, generating income from renewable energy, attracting new jobs and investment in 'green' industries, supporting new sources of energy, managing local flood-risk and water scarcity and protecting our natural environment.

5.3 The Council has already implemented policies and initiatives which help to adapt to and mitigate the impacts of climate change. These include energy efficiency improvements to the council offices through the installation of solar panels to generate electricity, and the successful joint bid with neighbouring authorities to install electric vehicle charge points across the borough.

5.4 However, the Council has no overall strategy for carbon reduction either for itself or in influencing the wider community, businesses and stakeholders, and no cohesive vision for achieving these targets. The adoption of a Climate Change Strategy will set out the corporate commitments of how we plan to achieve the target of reducing carbon, and introduce and action plan of how we are going to do this.

A copy of the draft strategy is attached at Appendix 1

To ensure that the opinions and comments are sought for as wide a range of stakeholders as possible, it is proposed to carry out a 4 week consultation before adoption of the strategy and include relevant comments within the document.

COMMENTS FROM STATUTORY OFFICERS:

6. SECTION 151 OFFICER

6.1 Any future financial implications arising will have to be assessed separately as part of the Council's budget setting and resource allocations.

7. MONITORING OFFICER

7.1 All legal implications are covered in the body of the report.

8. POLICY IMPLICATIONS AND CONSULTATION CARRIED OUT

8.1 4 week consultation period including publication on the council's website.

9. CONCLUSION

9.1 Work to identify air quality problems and tackle Climate Change will continue to be a priority for the Council's Public Protection Unit. However success in improving the air that we breathe relies on action by a wide range of organisations and individuals. The adoption of a Climate Change Strategy will provide long term direction in reducing the impact of poor air quality and climate change across the borough and help achieve our carbon reduction targets.

No background papers

Rossendale
BOROUGH COUNCIL

Local Air Quality and Climate Change Strategy

2020-2030

Foreword

We are pleased to introduce Rossendale's Air Quality and Climate Change Strategy for 2020-2030. This plan shows our clear commitment to improving air quality and the specific actions that we will take to achieve our ambition for cleaner air across our borough.

Evidence shows that air pollution is the top environmental risk to human health in the UK, and the fourth greatest threat to public health after cancer, heart disease and obesity. We recognise that improvements in air quality will benefit the health and economy of Rossendale and this is reflected within the Councils corporate priorities of;

A Clean and Green Rossendale;

A connected and successful Rossendale that welcomes sustainable growth;

A proud, healthy and vibrant Rossendale.

We are keen to ensure that there is a process in place to continually improve air quality across the borough, hence the development of this Strategy.

Air quality is a cross cutting issue which has implications for a number of areas including health, the environment and transport. This Local Air Quality Strategy sets out the case for action and outlines the measures that will be taken over the next ten years within Rossendale in order to improve air quality and reduce population exposure to the pollutants recognised as being the most harmful to human health.

In addition, we all have a duty to act on climate change and by having a strong policy to cut emissions, this also has associated health, wellbeing and economic benefits.

The Council therefore commits to:

- Declare a 'climate emergency' that requires urgent action
- Make the council's activities net-zero carbon by 2030
- Achieve 100% clean energy, across the Council's full range of functions by 2030

- Proactively promote the need for businesses across Rossendale to take steps to be net-zero carbon by 2030

- Writing to government asking them to bring forward new funding and devolved powers to help make the zero-carbon target a reality

- Create a new Climate change champion who will support the relevant Portfolio Holder and Leader of the Council in delivery of the commitments

- Assigning a lead officer to deliver councils commitments

This strategy would be worthless without the cooperation of a number of partners and we recognise that tackling air quality means working with our residents and other stakeholder's. Delivery against the action plans will be formally reviewed every year, within the local, regional and national context.

This strategy sets out a clear and compelling vision, with real evidence based actions. We believe that this strategy is fundamental to protecting and improving air quality across the borough.

Cllr……

Cllr……..

Section 1 – Introduction

1.1 What is air pollution?

Everyone is exposed to air pollution to some extent. Air pollutants are generated by a mixture of natural and man-made processes and are released into the air, where they can travel long distances and combine with each other to create different pollutants. Pollutants from other parts of the UK, and elsewhere in the world, as well as local sources can build up into high local concentrations of pollution in an area.

External air pollution

Road traffic emissions are the key source of local air pollutants in Rossendale. Locations with high traffic volumes and congestion are subject to the greatest amount of air pollution. As a consequence, those who live near these roads are at increased risk of ill health and early death. Congestion results in higher pollutant emissions, as emissions from vehicles are high when travelling at slow speeds. The dispersion of air pollution is another factor in determining areas of poor air quality; in narrow high-sided streets the dispersal of pollution can be limited resulting in high pollutant concentrations.

Vehicles are sometimes regarded as the sole cause of pollution; however there are many other sources of harmful emissions including biomass, domestic wood burning, agriculture and industry. Cleaner technologies and simple changes in individual behaviour will therefore contribute to improved air quality for everyone.

Internal air pollution

People spend up to 90% of their lives indoors and 60% of that time at home. Children and people with respiratory conditions are particularly susceptible to health problems caused by poor indoor air quality. Outdoor pollutants enter through windows or gaps in the building structure and are a significant contributor to indoor air quality. There are a number of sources of indoor air pollutants that can harm health including:

• CO, NO2 and particulates from domestic appliances (boilers, heaters, fires, stoves and ovens), which burn carbon containing fuels (coal, coke, gas, kerosene and wood)

• Volatile Organic Compounds (VOCs) from cleaning and personal care products, building materials and household consumer products (paints, carpets, laminate furniture, cleaning products, air fresheners, polishing)

•environmental tobacco smoke and second hand smoke

1.2 Types of pollution

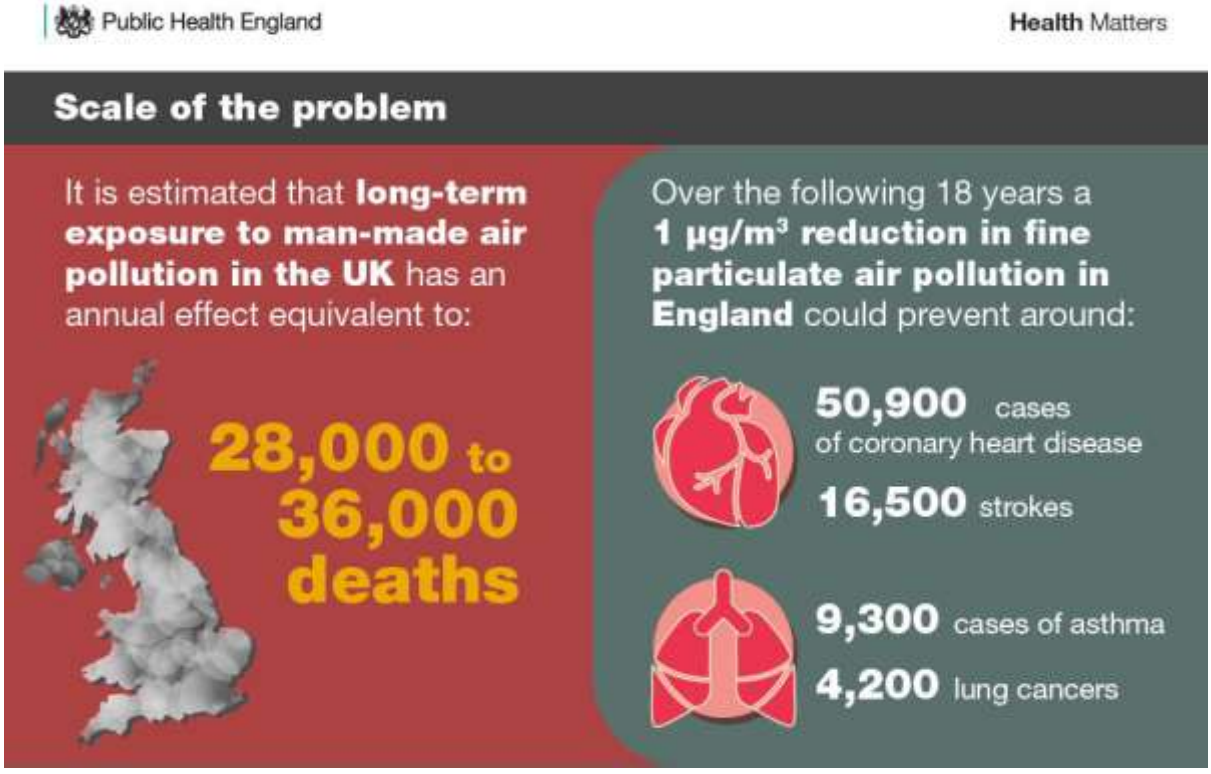
There are many pollutants that can impact on health; the major air pollutants in the UK are:

- particulate matter (PM)
- nitrogen dioxide (NO2)
- ammonia (NH3)
- sulphur dioxide (SO2)
- non-methane volatile organic compounds (NMVOCs)
- ozone (O3)

Of these, the main pollutants of concern in the UK are particulate matter, nitrogen dioxide, and ozone. Unlike the other primary pollutants listed above, ozone cannot be managed locally, and its formation is often as a result of emissions from other countries. As ozone can only be successfully tackled by national and international action it is not included within this strategy.

This strategy will therefore focus on actions to reduce the primary air pollutants; particulate matter (PM) and nitrogen dioxide (NO2) which are both major components of urban air pollution. Currently, there is no clear evidence of a safe level of exposure below which there is no risk of adverse health effects; indeed only a small fraction of deaths are due to exceedances of air quality standards.

Even slight reductions of PM or NO2 concentrations below air quality standards are likely to bring additional health benefits, as demonstrated by the figure below (PHE, 2018).



Air quality measurements are typically reported in terms of daily or annual mean concentrations of particles per cubic metre of air volume (m3).

1.3 Particulate Matter (PM)

PM is a generic term used to describe a complex mixture of solid and liquid particles of varying size, shape, and composition. The major components of PM are sulphate, nitrates, ammonia, sodium chloride, black carbon, mineral dust and water. Some particles are emitted directly (primary PM); others are formed in the atmosphere through chemical reactions (secondary PM). The composition of PM varies greatly and depends on many factors, such as geographical location, emission sources and weather.

Most PM emissions are caused by road traffic, with exhaust emissions, tyre and brake wear and dust from road surfaces being the main sources. Construction sites, with high volumes of dust and emissions from machinery are also major sources of local PM pollution, along with accidental fires and burning of waste and vegetation

PM is often classified according to its size and referred to as:

- coarse particles (PM10; particles that are less than 10 microns (µm) in diameter)
- fine particles (PM2.5; particles that are less than 2.5 µm in diameter)
- ultrafine particles (PM0.1; particles that are less than 0.1 µm in diameter)

The size of particles and the duration of exposure are key determinants of potential adverse health effects. Particles larger than 10 µm are mainly deposited in the nose or throat, whereas particles smaller than 10 µm pose the greatest risk because they can be drawn deeper into the lung. The strongest evidence for effects on health is associated with fine particles (PM2.5).

1.4 Nitrogen Dioxide (NO2)

NO2 is a gas that is produced along with nitric oxide (NO) by combustion processes. Together with nitrous oxide (N20), they are often referred to as oxides of nitrogen (NOx).

NO2 is primarily a secondary pollutant produced by the oxidation of NO by ground level ozone. Nitric oxide is produced by the reaction of nitrogen and oxygen in the combustion process.

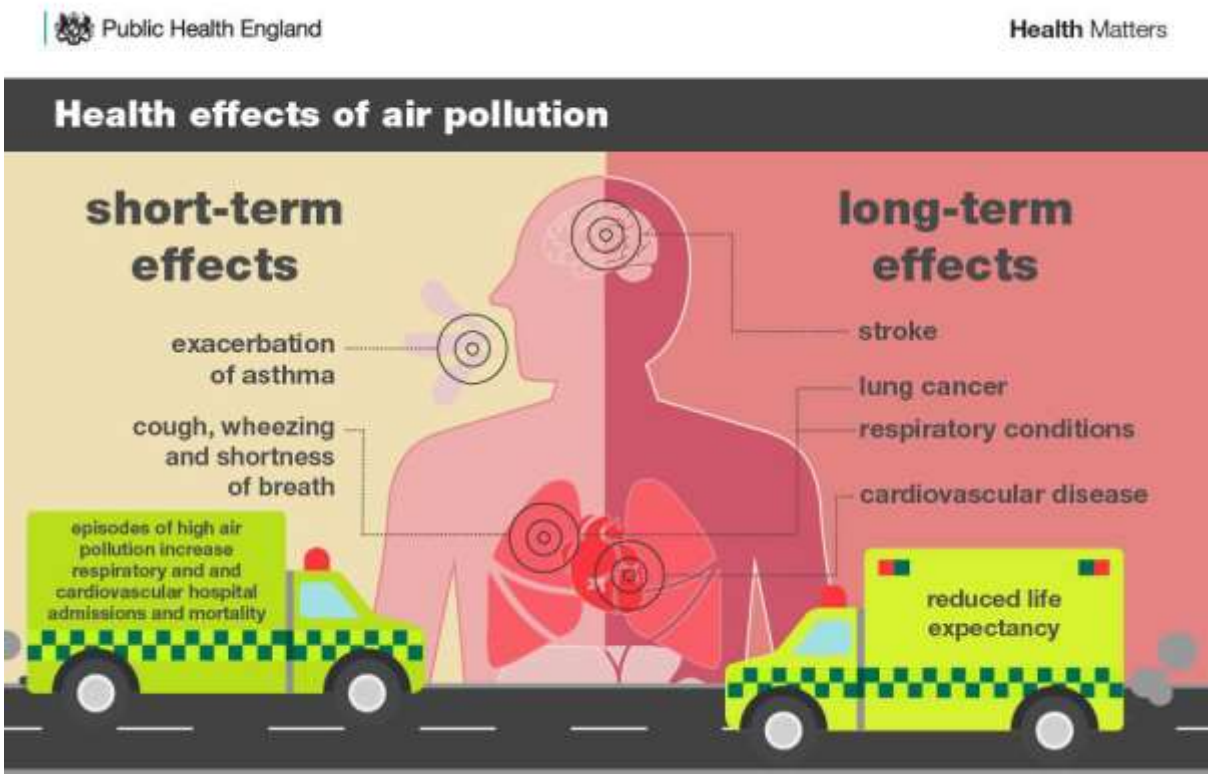
It is estimated that 80% of NOx emissions in areas where the UK is exceeding NO2 limits are due to transport, with the largest source being emissions from diesel light duty vehicles (cars and vans). The major source of NO2 in Rossendale is vehicle emissions from exhausts in urban areas. Other sources include power generation, industrial processes, and domestic heating.

Section 2 – Impact on Health

2.1 Poor air quality is recognised as a significant public health issue, disproportionately affecting those who live in more deprived and congested areas, and those who are more vulnerable to the effects such as children, older people, and those with existing medical conditions.

When air pollutants enter the body, they can have effects on various organs increasing the risk of some cancers and cardiovascular disease, and potentially exacerbating existing conditions, such as respiratory disorders. Recent research has concluded that children's lung development can be permanently stunted by as much as 5% from diesel air pollution. Emerging evidence suggests that air pollution may be linked to dementia and cognitive decline, as well as early life effects such as low birth weight.

The known health effects of air pollution are summarised in the figure below (PHE, 2018).

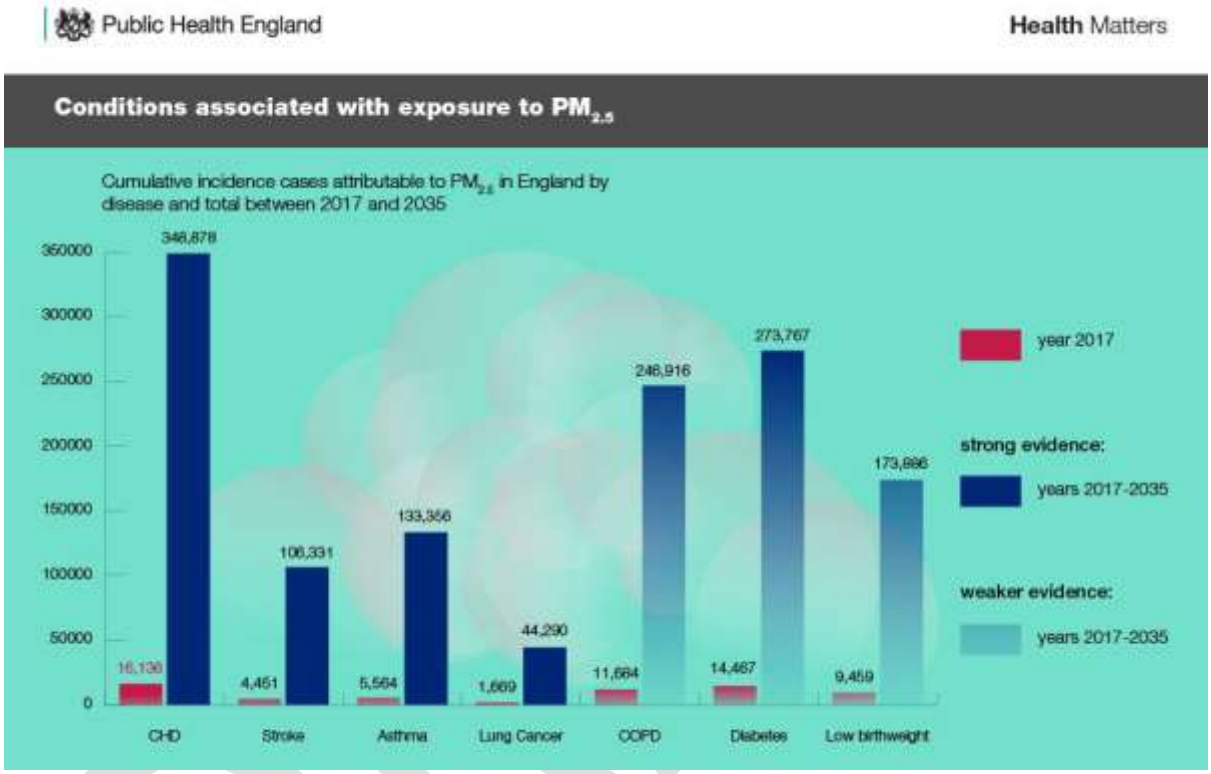


2.2 Health Impacts of Particulate Matter (PM)

Of particular concern to health is particulate matter. Particles with a diameter of 10 microns or less, (≤ PM10) can penetrate and lodge deep inside the lungs, however, the even more health-damaging particles are those with a diameter of 2.5 microns or less, (≤ PM2.5).

PM2.5 can penetrate the lung barrier and enter the blood system. Chronic exposure to particles contributes to the risk of developing cardiovascular and respiratory diseases, as well as of lung cancer.

The figure below (PHE, 2018) shows the health conditions associated with exposure to PM2.5. The number of cases shown is the national picture, and is shown here simply as an indication of potential conditions in Rossendale



2.3 Health Impacts of Nitrogen Dioxide (NO2)

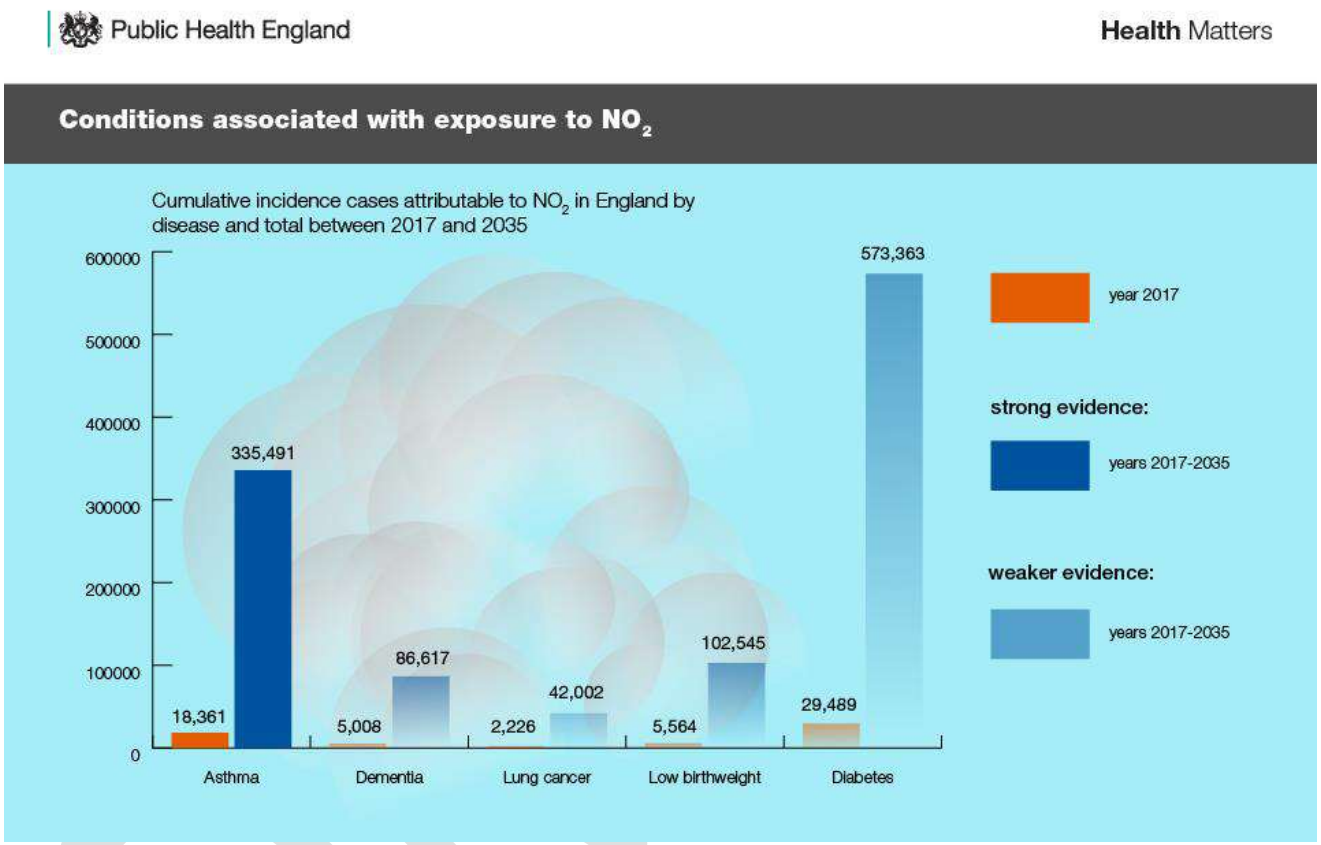
Nitrogen dioxide (NO2) can irritate the lungs and lower resistance to respiratory infections such as influenza. Continued or frequent exposure to high concentrations may cause an increased incidence of acute respiratory illness in children.

Short-term exposure to NO2, particularly at high concentrations, is a respiratory irritant that can cause inflammation of the airways leading to coughing, production of mucus and shortness of breath.

At high concentrations NO2 causes inflammation of the airways and long-term exposure can affect lung function and respiratory symptoms, including asthma. Studies have shown associations of NO2 in outdoor air with reduced lung development, and respiratory infections in early childhood and effects on lung function in adulthood. The World Health Organisation and the Department for Environment, Food and Rural Affairs (DEFRA) guideline

values of 40 µg/m3 (annual mean), were set to protect the public from the health effects of NO2.

The figure below (PHE, 2018), shows the health conditions associated with exposure to NO2. The number of cases shown is the national picture, and is shown here simply as an indication of potential conditions in Rossendale.



Section 3 - Aims and Objectives of the Air Quality and Climate Change Strategy

An Air Quality Strategy (AQCS) is designed to be a high level document, which is aimed at informing policy and direction across a wide range of council services, to assist in ensuring air quality is considered in all relevant decisions to ensure air quality is improved where possible.

3.1 The aim of the AQCS is to provide a strategic framework to deliver local air quality improvements within Rossendale. It can support the achievement of the air quality objectives and raise air quality as an issue for consideration within a wide range of local government and regional frameworks.

3.2 It is important to reduce, where possible, public exposure to certain pollutants as far as possible, even where levels are below the air quality objectives, for example, for fine

particulate matter, where there are currently no known safe levels for exposure. By establishing a strategic framework which drives air quality considerations to the heart of Council policies, procedures and decisions, this will ensure that Rossendale is well placed to maintain good air quality and secure future improvements across the borough.

3.3 The objectives of developing and implementing an AQCS are to:

- Ensure Rossendale maintains the best possible air quality conditions across the borough.
- Improve air quality within existing Air Quality Management Area's (AQMAs), and prevent further deterioration even in those areas where air quality is currently below the objective.
- Promote greater consistency across a range of policy areas, both Rossendale and Lancashire County Councils for the achievement of improved local air quality, including Spatial Planning, Development Control, Transport Planning, Economic Development, Housing, Environmental Protection and Public Health. This will ensure air quality is addressed in a multi-disciplinary way across the different departments of the Council.
- Provide a link to wider initiatives across the Council, which could have an impact on air quality.
- Raise and maintain the profile of air quality and ensure it remains high on the agenda.
- Highlight, and educate stakeholders about the link between air quality and the risks to human health as well as to the wider local environment and biodiversity.
- Raise the profile of air quality amongst the local communities across Rossendale
- Encourage greater co-operation and collaboration with neighbouring local authorities, local business, industry and residents.
- Provide the first point of contact and source of information relating to local air quality.

Section 4 - Air Quality across Rossendale

4.1 The national Air Quality Strategy provides the policy framework for air quality management and assessment in the UK.

It sets out air quality objectives for key air pollutants, which are designed to protect human health and the environment. It also sets out how the different sectors, industry, transport and local government, can contribute to achieving the air quality objectives.

Local authorities play an essential role in this context.

The national AQS also sets out the Local Air Quality Management function, which requires all local authorities to review and assess air quality annually.

The purpose being to identify those areas in the borough, which are either exceeding or likely to exceed the objectives.

If any areas of concern are identified the Council must declare an AQMA and prepare an Air Quality Action Plan (AQAP), which identifies appropriate measures that will be introduced to reduce the level of pollutants as much as possible.

Air quality across Rossendale is generally good, although there are 2 AQMAs across the borough, which have been declared for levels of nitrogen dioxide which relates to traffic levels and congestion.

Where these AQMA's are, along with the action plans to tackle these can be found at;

https://www.rossendale.gov.uk/info/210168/environment/10763/air_quality_in_rossendale

Section 5-Strategic Commitments

5.1 Rossendale Borough Council has identified a range of Strategic commitments. These commitments reflect the need to achieve the national air quality objectives, whilst working to improve general air quality conditions throughout the local authority area.

5.2 We will engage at every possible opportunity to improve air quality through the transport and spatial planning processes and through wider policy initiatives, such as climate change and health improvement programmes.

5.3 We will work with Government departments and its agencies to contribute locally to the delivery of both this strategy and the national Air Quality Strategy. This will mainly be through the Local Air Quality Management regime as set out within this strategy. Through this commitment, we will work towards achieving the national air quality objectives and will;

- continue to monitor local air quality across the borough
- produce Annual Status Report published on the Council's website
- make air quality monitoring data available on the Council's website
- review monitoring sites to make sure they are relevant to exposure
- Participate in local and regional networks in order to pursue improved air quality and the consistent implementation of Local Air Quality Management both locally and nationally.
- regularly review the AQAP to ensure that the identified measures will achieve relevant improvements in air quality;
- Reduce pollutant emissions (including greenhouse gases) from Rossendale Council's own estates and vehicle fleets.

5.4 Spatial Planning and Air Quality and Climate Change

In relation to spatial planning and air quality the following strategic commitments are outlined:

- Ensure that air quality is considered as a material planning consideration within the Development Control process. To assist with this process the Council implement relevant Best Practice Guides and Supplementary Planning Documentation to assist developers in understanding what is expected to ensure air quality is appropriately considered.
    - Ensure suitable electric charging facilities are included in all commercial and residential planning applications across the borough.
    - Require that a suitable Environmental Impact Assessment is undertaken to accurately assess the impact proposed developments will have on local air quality and guidance on when this will be appropriate will be set out in the supplementary Planning Document and Best Practice Guidance.
    - Where deteriorations in air quality are predicted due to any developments, suitable mitigation measure will be applied.
    - Ensure air quality is properly considered within all relevant planning policy processes.
    - Where appropriate developers should contribute to meeting the aims of the various actions set out in the Air Quality Action Plan in a manner proportionate with residual emissions. Examples of this could be through a formula based on proxy criteria such as the size of the development or car parking spaces.

5.5 Transport and Air Quality and Climate Change

In relation to transport and air quality the following strategic commitments are outlined:

- As road transportation is the primary source of air pollutant, appropriate measures must be applied to significantly reduce emissions due to road traffic.
- Ensure that systems are put in place to make sure that vehicles comply with emission standards.
- Promote the use of electric vehicles and other low emission technology for both commercial and domestic use vehicles and the installation of a suitable charging infrastructure across the borough.
- Ensure that vehicle idling is tackled and managed via anti-idling campaigns and enforcement.
- Ensure this strategy is incorporated in to the Local Transport Plan and there is a consistent approach, which reduces the need to travel and reliance on the use of private vehicles and more specifically reduce the use of vehicle for short journeys

- Work with the highways authority to improve air quality within AQMAs, whilst ensuring air quality does not deteriorate in other areas across the road network.
- When the opportunity arises, work with freight operators and other businesses to establish appropriate transport routes, delivery routines and driver practices to minimise congestion and pollution.
- Ensure there is a regular contact between transport planners and providers and air quality professionals, relating to air quality information, traffic information and any proposed new roads.
- Promote electric taxis and buses.
- Support work to reduce emissions from the Council's vehicle fleet including any contractors and strive to use ULEV's where possible
- Promote opportunities for active travel (i.e. walking and cycling).

5.6 Climate Change and Energy Management

In relation to Climate Change and Energy Management the following strategic commitments are outlined:

- Work to support the climate change initiatives ongoing in Rossendale and Lancashire.
- Prioritise climate change initiatives and actions, which are mutually beneficial to air quality
- Support the promotion of energy efficiency measures across the borough and within the Council's estate including solar, wind and other sources of renewable energy.
- Assess and better understand the impact of air pollution on our natural environment/biodiversity and the role of the local authority in reducing harmful impacts
- Explore the opportunities for mitigating climate change locally.

5.7 Health and Education

In relation to Health and Education the following strategic commitments are outlined:

- Increase public understanding of air quality and its effects upon health.
- Work with Public Health colleagues to investigate the links between poor air quality (i.e. in AQMAs) and health.
- keep the public informed of work relating to Local Air Quality Management, primarily through the Council's website
- Encourage the local community to become involved in improving air quality and take action to reduce their contributions to local air quality and carbon dioxide emissions.
- Using interactive packages to work with schools to raise awareness.

5.8 Commercial and Domestic Sources

In relation to Commercial and Domestic Sources the following strategic commitments are outlined:

- Work closely with the Environment Agency where any 'Part A1' installation is likely to have a detrimental effect on air quality.
- Ensure all 'Part A2' installations, which are regulated by the Council are compliant with the conditions of their Permit.
- Provide advice on the control of air polluting emissions and ensure that all relevant legislation is enforced for the control of emissions from industrial sources.

5.9 Communications

Communication with the public in a timely and effective manner is essential to ensuring delivery of the aspirations outlined within this strategy

- Communicate what the Council is doing/will be doing to tackle air pollution through a variety of mediums**.**
- Promote a greater understanding of the relationship between indoor air pollution and health, with a focus on wood burners in the winter months
- Communicate long term actions/policies from the Clean Air Strategy including successful interventions
- Support Clean Air Day Campaign – to encourage people to change behaviours to reduce air pollution.
- Communicate benefits of ULEV's to encourage use of electric vehicles

Section 6-Monitoring Success

6.1 The effectiveness of this Strategy will be monitored periodically to ensure the aims and objectives are being progressed. Indicators can be used to monitor the effectiveness of a strategy, and these should be clear and transparent.

6.2 Actions to improve air quality need to be implemented by a range of internal and external stakeholders. Communication and collaboration is the key to ensuring measures arising from this strategy are implemented. To assist with this, input from the stakeholders identified in this report will be required to ensure implementation of this strategy remains an active and on-going process. Specific actions will be implemented through the Air Quality Action Plan which will be monitored and reviewed annually, in conjunction with the Air Quality Reported submitted to Defra

6.3 The continual development of this strategy for Rossendale signifies recognition that improving local air quality is the responsibility of a wide range of stakeholders and professions. Although environmental protection professionals are tasked with the

monitoring and assessment of air quality, the actions and measures necessary to improve air quality remains with a wider range of professionals and stakeholders. These actions will be coordinated and prioritised by environmental protection professionals who are also tasked with reporting on the effects of the implemented measures to the Government.

Indicators used to measure success of the strategy will include;

6.4 Air Quality Monitoring

Rossendale has a network of nitrogen dioxide monitoring sites, which will be used to directly report on trends in air pollution concentrations. This measure will provide a long term indication of overall air quality across Rossendale and will help to identify areas which maybe exceeding the objectives.

6.5 Future AQMAs declared

An indicator of the number of AQMAs is also included in the strategy. This will keep track not only of improvements in areas where issues have been identified, but will also track any deteriorations in areas where air quality is currently acceptable.

6.6 Assessing New developments

In order to ensure that new developments do not cause any significant worsening of air quality, there is an indicator to ensure all relevant new developments (roads, residential, commercial, industrial etc.) have an air quality impact assessment submitted as part of the planning application stage

6.7 Raising public awareness

Public awareness is important to ensure individuals and businesses have the relevant information to be able to make informed decisions regarding the impact of their actions on air quality. As such, air quality will be promoted to schools, resident groups, through awareness days and attending meetings to ensure appropriate information is made available.