BREATHE

NE1 BRIEFING ON AIR QUALITY CONSULTATION - APRIL 2019

BRIEFINGS TOOK PLACE ON:

25TH APRIL – NEWCASTLE BUILDING SOCIETY

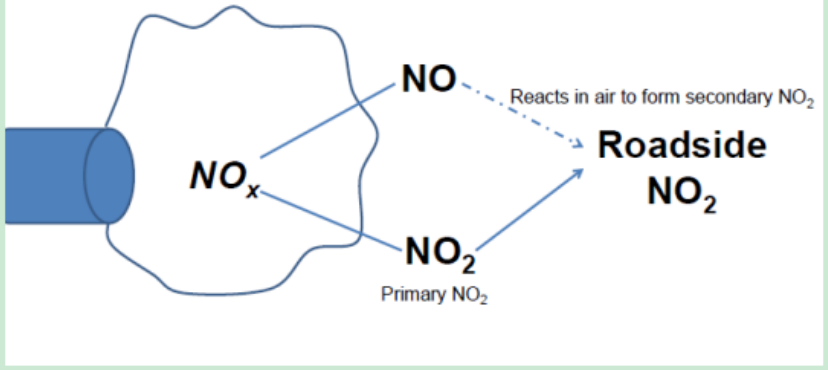
29TH APRIL – MALDRON HOTEL

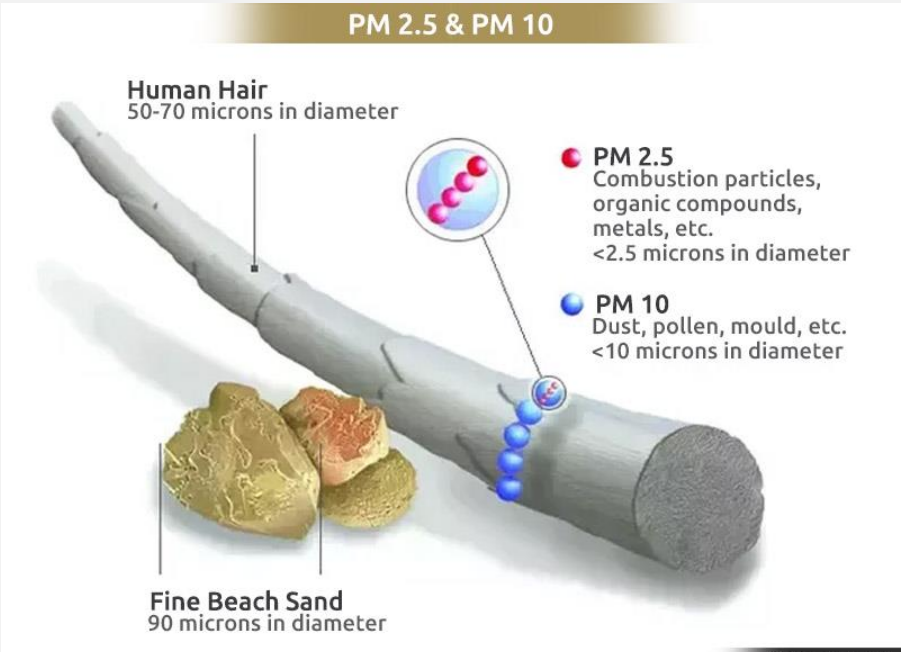
KEY POINTS

- Government has given us a legal direction to do this work, and despite the hugely significant decisions we face, they have given us very tight timescales. Our legal obligations require us to deliver measures based on their efficacy, *cost or unpopularity are not lawful reasons for excluding effective measures."*
- We have not yet taken a decision on what measures to implement and your involvement in the consultation is really important. It will enable us to get more information on potential impacts so that we can best represent the public, and the people and businesses of our area, in our ongoing discussions with government and other stakeholders.
- This is a serious public health issue, we have a duty both legally and morally to do something about it. Doing nothing is not an option.

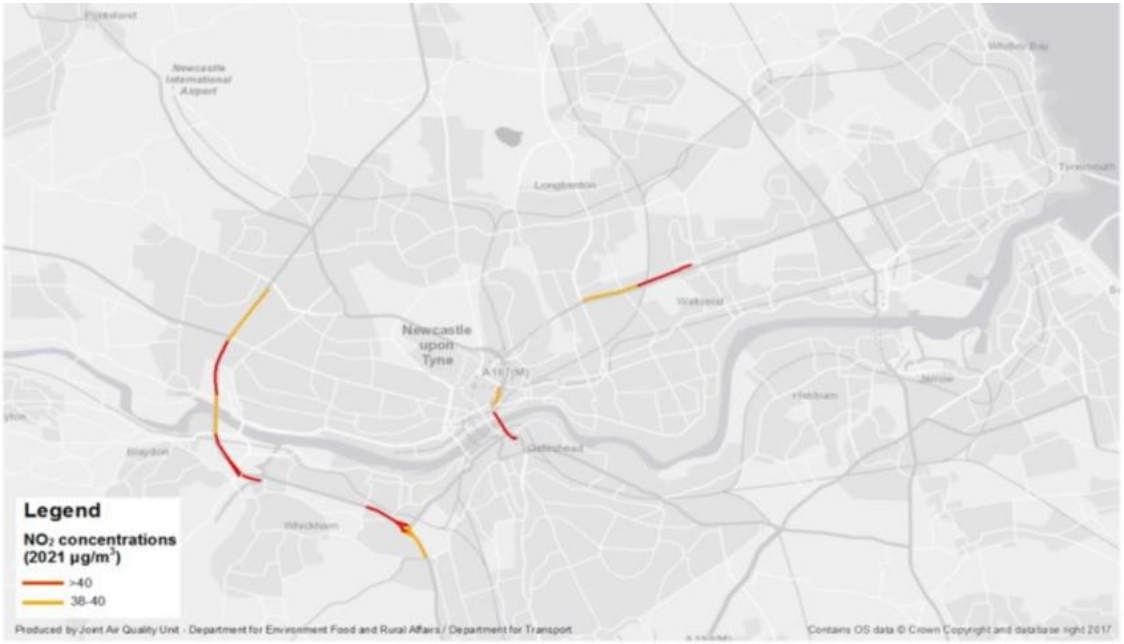
WHAT ARE WE TALKING ABOUT RE 'AIR QUALITY'?

- Particles (known as PM, typically PM_{10} and $PM_{2.5}$)
- Nitrogen Dioxide (NO_2)
- Ozone (O_3)
- Sulphur Dioxide (SO_2)
- Polycyclic Aromatic Hydrocarbons (PAH)
- Benzene (C_6H_6)
- 1,3-butadiene (C_4H_6)
- Carbon Monoxide (CO)
- Lead
- The UK meets EU limits on Benzene, Carbon Monoxide, Lead, Butadiene, PAH, Sulphur
- **Attention recently has been primarily on NO_2 and PM**





THE CONTEXT FOR DECISIONS, WHY NOW?



Newcastle are subject to a legal direction (Environmental Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2017) from the Secretary of State for Defra. This requires that we:

Must undertake a feasibility study (business case) by the end of 2018 to identify the option that will deliver compliance with legal limits for NO_2 in the area for which authorities are responsible, in the shortest possible time. This must be tested against a Charging Clean Air Zone.

OVERVIEW – LEGAL BACKGROUND

- The EU typically drives action to improve Air Quality – The Ambient Air Quality Directive (2008/50/EC) sets legally binding limits for concentrations in outdoor areas;
- This was made into UK law through the Air Quality Standards Regulations 2010;
- The UK is in contravention of the EU ambient Air Quality Directive and has been for some time for NO_2;
- Almost all the nationwide zones failed the **annual mean limit value** of 40 micrograms per cubic metre;
- Many other EU countries are also in violation, typically more industrialised ones, and are pursuing similar policies;
- DEFRA have lost three High Court actions from an NGO (ClientEarth) who argued that they were not ensuring compliance fast enough and needed a new plan;
- The most relevant case required that a new national plan must be in place by the end of July 2017 and action taken in the **'shortest possible time'**;
- Despite attempts by government to delay publication of the plan (given it was a General Election), the national plan was published and devolved responsibility for action to local authorities.

OVERVIEW - BACKGROUND

In this area, the three authorities are subject to a legal direction (Environmental Act 1995 (Feasibility Study for Nitrogen Dioxide Compliance) Air Quality Direction 2017) from the Secretary of State for Defra. This requires that the authorities:

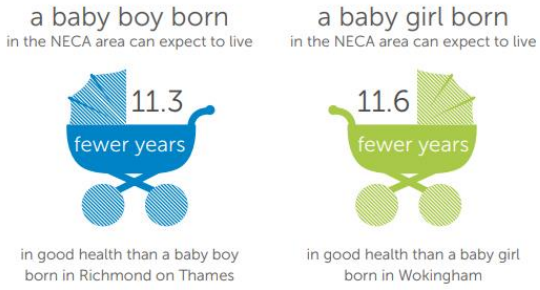
Undertake […], a Feasibility Study in accordance with the HM Treasury's Green Book approach, to identify the option which will deliver compliance with legal limits for nitrogen dioxide in the area for which the authority is responsible, in the shortest possible time.

And that:

Clean Air Zones (CAZs) that include charging are the measure that can be modelled nationally to provide the benchmark for achieving statutory NO_2 limit values in towns and cities in the shortest possible time. Government will place legal duties on relevant local authorities in England requiring them to develop and implement a plan designed to deliver compliance in the shortest possible time and will work closely with each of them to ensure that it does so. In particular, while local authorities are encouraged to consider alternative approaches, any alternative will need to deliver compliance as quickly as a charging CAZ.

HEALTH

- North East has poorer health than England, shorter life expectancy and healthy life expectancy.
- Major causes include cancer, and cardio-vascular and respiratory disease
- Our main concern is the long-term harm caused by air pollution and traffic
- Air quality responsible for equivalent of 368 deaths in 3 LAs each year
- Reducing this burden requires significant change in behaviour and the environment
- By comparison, road traffic collisions are responsible for an average of 11 per year across the three authorities



Healthy life expectancy along the Newcastle Metro for adults aged 55

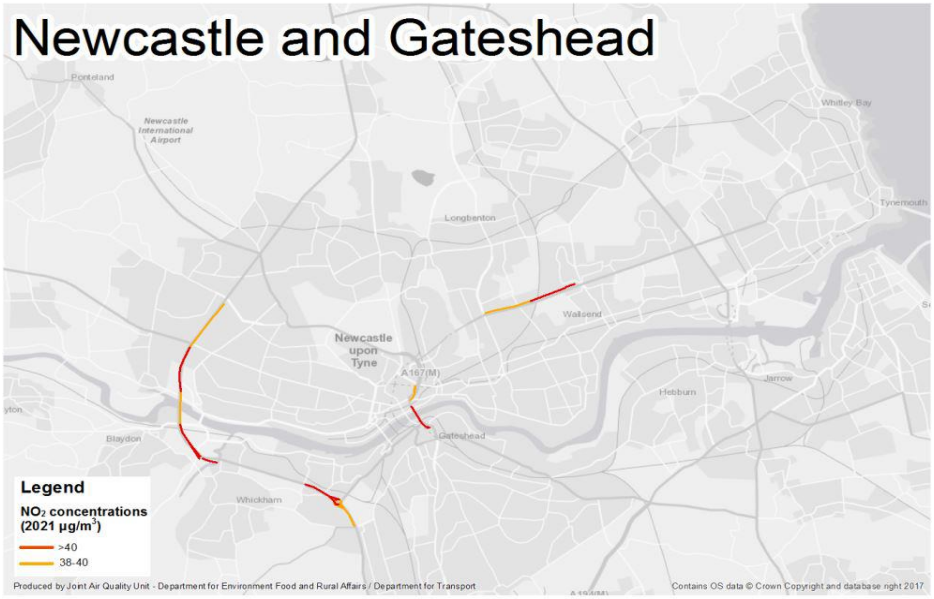
SUMMARY OF PART 1

- Doing nothing is not an option – major public health issue in the Tyneside area and beyond.
- Failure to take action or produce a plan would leave any authority open to Judicial Review or further legal action from UK Government or other NGOs.
- UK Government and our understanding of High Court findings are clear that *shortest possible time* overrides any other concerns, including value for money or negative alternative impacts.
- There may be alternative strategies which lead to compliance but unless these deliver compliance ***as quickly as*** a Charging Clean Air Zone, they will not be acceptable.

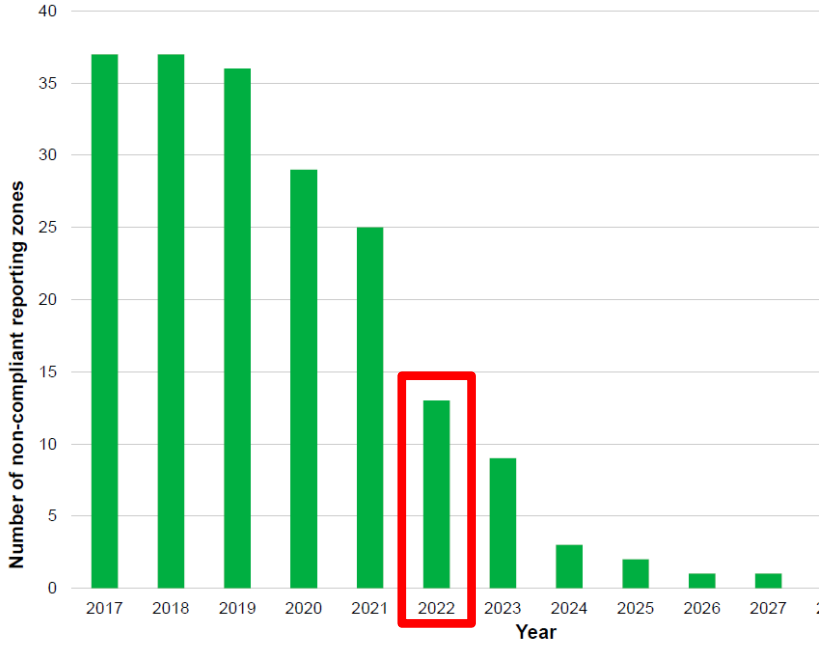
PART TWO

- Government's focus is on certain roads, our politicians have been clear in their direction that we should consider wider areas, not just the three named by govt.

Their plan indicated our roads would come into compliance by 2022 (just outside the target of 2021)

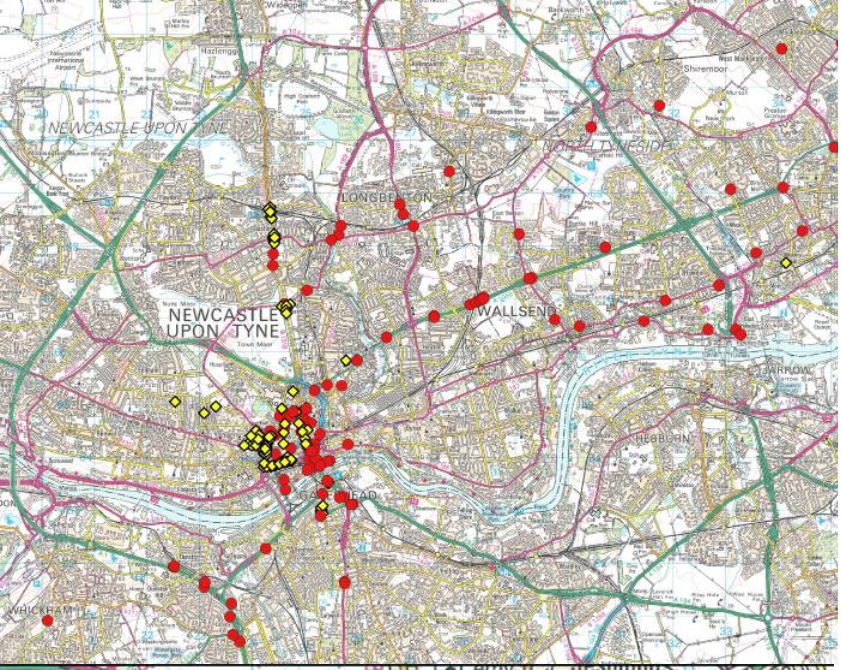


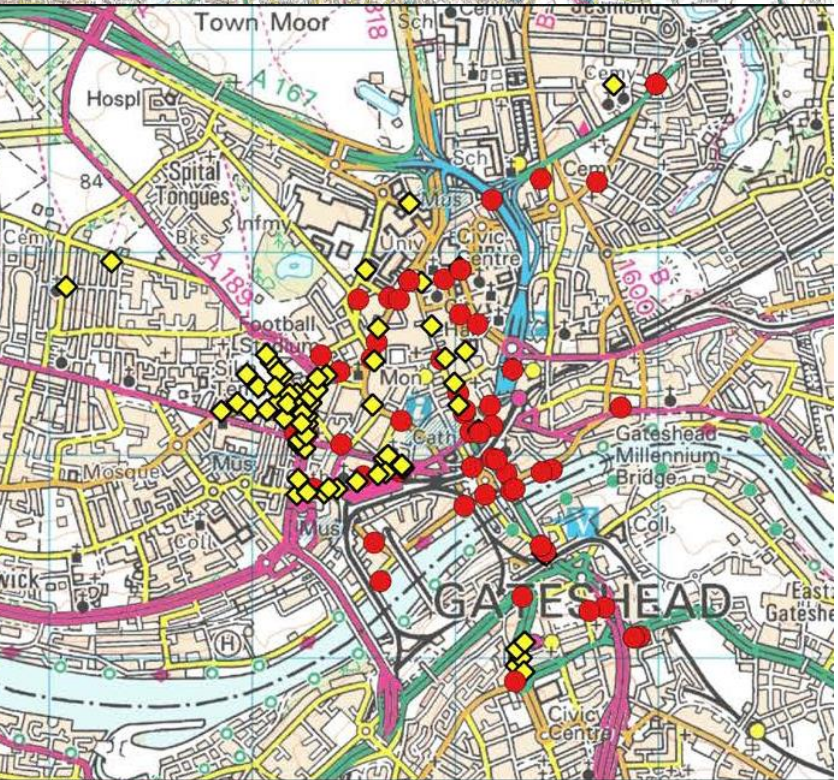
Includes portions of the A1, Tyne Bridge and Coast Road



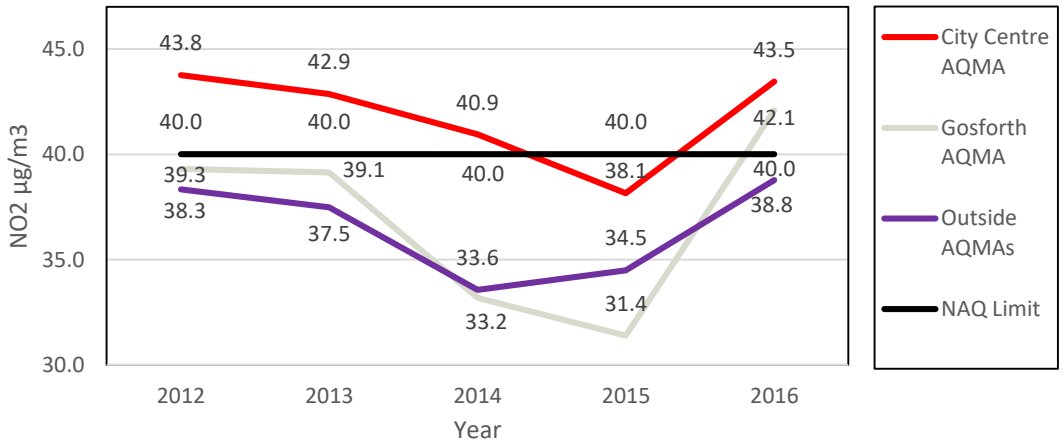
Tyneside authorities modelled to reach compliance between 2021 and 2022

TYNESIDE AIR QUALITY



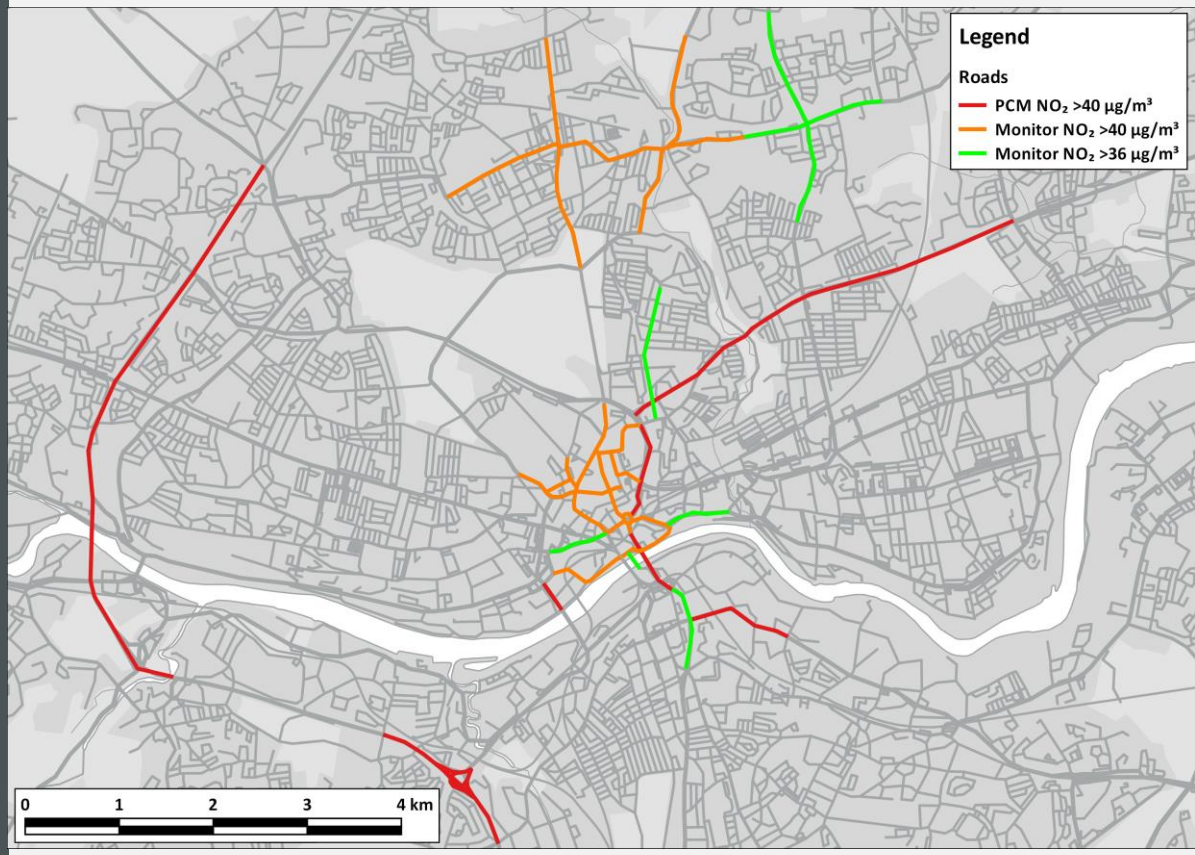


- Tyneside has a comprehensive network of air quality monitors (in red dots opposite), supplemented by those of the Newcastle Urban Observatory from Newcastle University (yellow dots).
- These monitors do not show the same levels of exceedance modelled by Defra but there are other areas in exceedance.
- Tyneside has 3 AQMAs (1 Gateshead, 2 Newcastle) with persistent exceedances for NO2



AIR QUALITY INITIAL LOCAL ASSESSMENT

- Monitoring data from both 2016 and 2017 were analysed and at each site, the higher concentration was used.
- Air Quality Consultants identified cluster locations which were explored further. Cluster locations were:
- A1(M);
- A1058;
- Newcastle City Centre;
- Tyne Bridge; and
- North Newcastle.



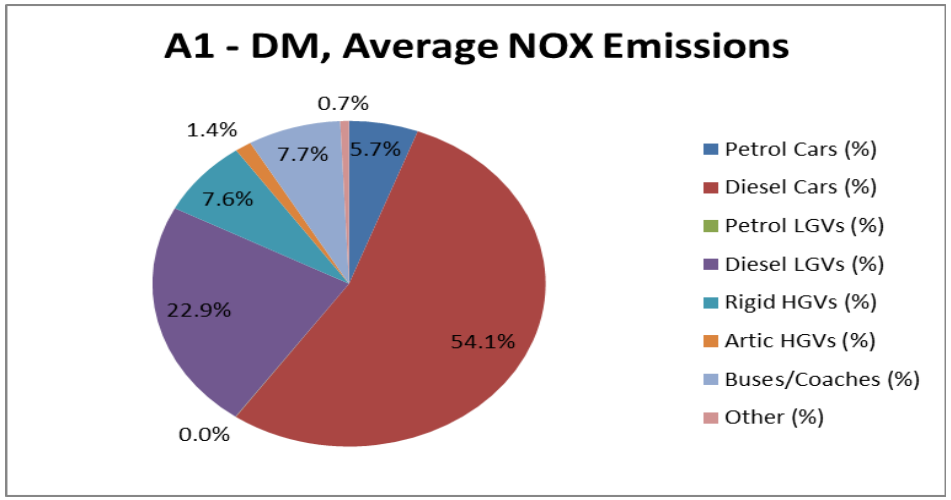
Mode	Mode Split (%) by Local Authority			
	Gateshead	Newcastle upon Tyne	North Tyneside	England & Wales
Driving a car or van	57.4	47.6	57.5	57.0
On foot	9.2	13.4	8.3	10.7
Bus, minibus or coach	15.4	18.6	9.1	7.5
Passenger in car/van	6.5	5.8	6.3	5.0
Work at home	3.1	3.3	3.4	5.4
Metro/Underground	4.7	5.4	9.0	4.1
Bicycle	1.5	2.8	2.5	3.0
Train	0.8	1.2	1.5	5.3
(data: 2011 Census Journey to Work)				

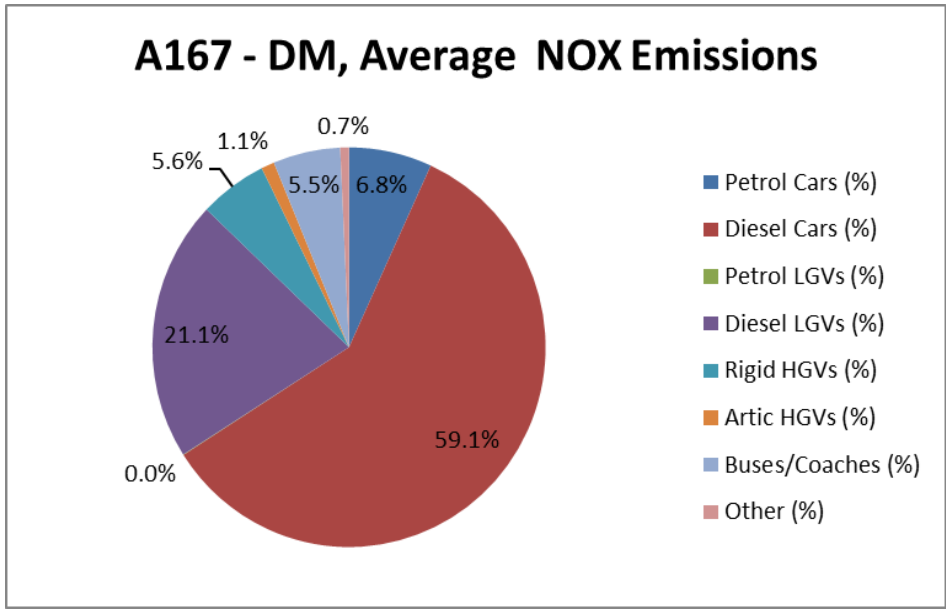
Area	Emissions by Vehicle Type (%)					
	Petrol Cars	Diesel Cars	Diesel LGVs	Rigid HGVs	Artic HGVs	Bus/ Coaches
A1	4.9	44.7	42.2	3.9	0.6	2.4
A1058	7.4	53.3	28.0	2.8	0.5	6.9
Tyne Bridge	6.6	46.8	31.9	5.0	0.9	7.7
	6.6	46.8	31.9	5.0	0.9	7.7
	6.6	46.8	31.9	5.0	0.9	7.7
	6.4	45.6	32.0	5.9	1.1	8.0
Newcastle City Centre	6.0	47.7	26.4	9.1	2.0	6.9
	6.0	47.7	26.4	9.1	2.0	6.9
	6.2	50.2	30.6	7.9	1.8	2.6
	2.8	23.1	15.8	4.6	1.0	51.8
	2.4	19.5	5.8	2.5	0.6	68.3
	6.0	47.7	26.4	9.1	2.0	6.9
North Newcastle	6.2	50.4	13.8	3.8	0.9	24.0
	7.8	59.9	25.0	4.2	0.9	1.2

WHERE'S THE POLLUTION FROM

- Road transport is the major contributor to NO_2 emissions.
- No other single major sources of NOx have been identified within Tyne and Wear.
- The largest contributor at most locations are diesel cars, followed by diesel LGVs.
- There are locations where buses are the highest contributor, typically in the central urban area of Newcastle
- The amount of diesel cars that are private use, compared to hackney carriage or Private Hire Vehicle is currently unknown.

WHAT IS THE DATA TELLING US?





In 2021:

- Just over 2/3 of the Nitrogen Dioxide on the A167(M) Central Motorway is from cars (proportion of which is taxis / private hire is unknown); and
- Relatively small amounts are from HGVs and buses

(Similar numbers for the A1)

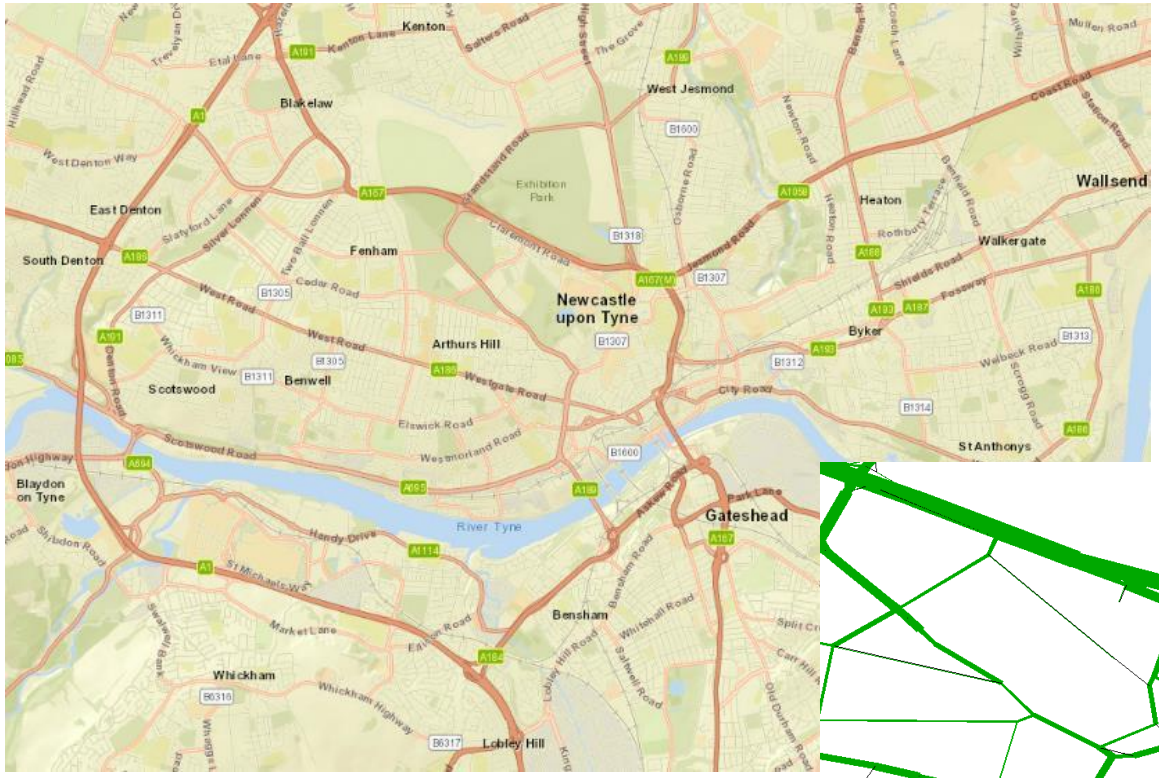
CHARGING CLEAN AIR ZONE "CLASSES"

CAZ class	Vehicles included
A	Buses, coaches and taxis
B	Buses, coaches, taxis and heavy goods vehicles (HGVs)
C	Buses, coaches, taxis, HGVs and light goods vehicles (LGVs)
D	Buses, coaches, taxis, HGVs, LGVs, cars, motorcycles and mopeds[I]

Vehicle type	Compliant Euro standards
Cars and taxis	Euro 6 diesel / Euro 4-6 petrol
LGVs	Euro 6 diesel / Euro 4-6 petrol
HGVs, buses and coaches	Euro VI diesel
Motorcycles and mopeds [I]	Euro 3 diesel / petrol

Standard	New car registrations from
Euro 1	31 December 1992
Euro 2	01 January 1997
Euro 3	01 January 2001
Euro 4	01 January 2006
Euro 5	01 January 2011
Euro 6	01 September 2015

EXISTING DISTRIBUTION OF TRAFFIC



Each trip is a person making a choice. Represented by the thickness of lines. Choices can be influenced, but in order to influence it we need to consider that a ‘stick’ is required as well as the ‘carrot’.

CRITERIA FOR ASSESSING POTENTIAL SHORTLIST MEASURES

Primary criteria:

Are schemes deliverable within the timescale (before the end of 2020) and will they have an impact on improving air quality.

Secondary objectives:

- To deliver a scheme that improves public health in the Tyneside Authority areas in the shortest possible time.
- To deliver a scheme that enables future economic growth and sustains jobs and communities in the Tyneside Authority areas.
- To deliver a scheme that promotes a fairer society and does not detrimentally impact vulnerable populations in the Tyneside Authority areas.

WHAT DID WE TEST?

A number of different options were tested in our transport and air quality models. These included:

- Do Minimum – only committed investment and schemes
- Non-charging measures – all deliverable measures that do not involve financial charging
- Charging Clean Air Zone Class B 'Outer' – a Class B charge in an area between the A1 & A19
- Charging Clean Air Zone Class B 'Inner' – a Class B charge focused on Newcastle & Gateshead Town / City Centres stretching onto the A1058
- Charging Clean Air Zone Class C 'Inner' – Class C charge focused on Newcastle & Gateshead Town / City Centres stretching onto the A1058
- Charging Clean Air Zone Class D 'Inner' – Class D charge focused on Newcastle & Gateshead Town / City Centres stretching onto the A1058

WHAT IS THE DATA TELLING US?

- Based on our modelled outputs, we currently believe that no form of Charging Clean Air Zone, as tested in the current model, ensures compliance on the Central Motorway in Newcastle in the target year of 2021.
- Even with a Class D Clean Air Zone, there remain exceedances in Newcastle City Centre. This is due to the constrained traffic flow in the area and the fact roads handle through traffic as well as access for bus stations, car parks and freight delivery locations.
- Our model shows that the Class D Charging Clean Air Zone would reduce overall traffic on the Central Motorway by 9%, and non-compliant traffic by 70%.
- Our modelling shows that both the CAZ D and the Low Emission Zone plus tolls would deliver compliance on all roads (including the A1) in 2023.

CLEAN AIR ZONE

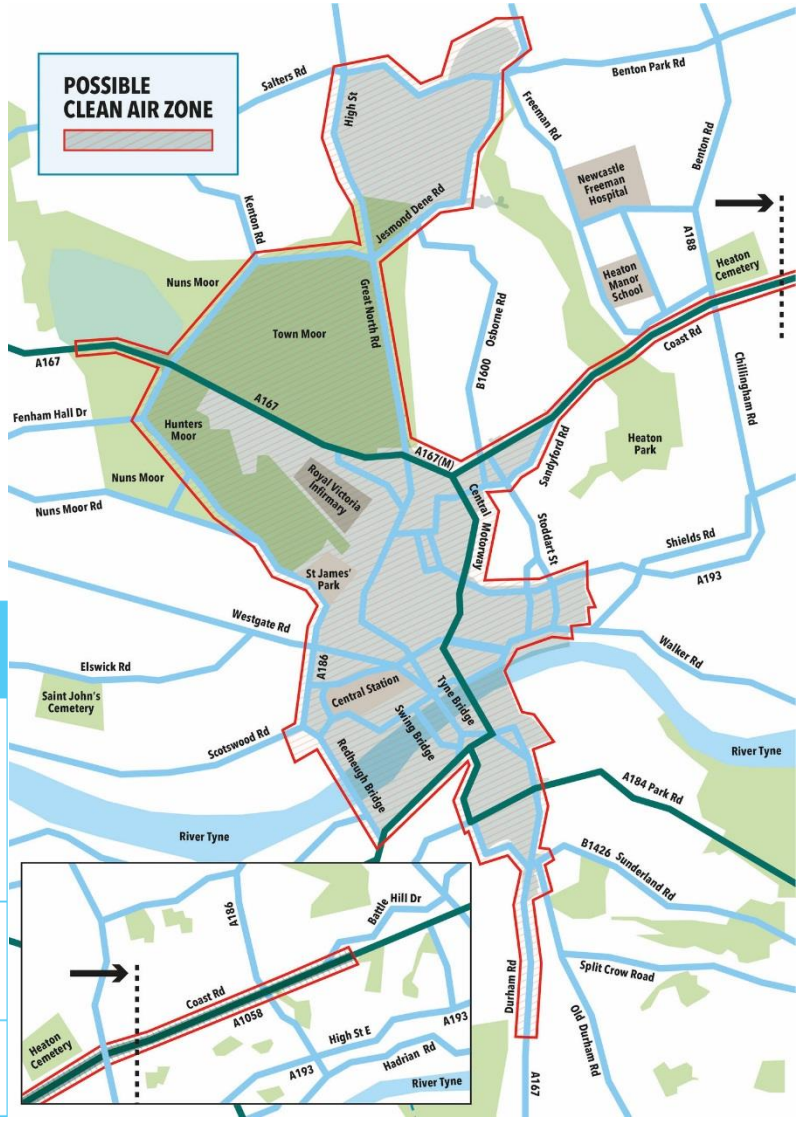
The legal order we have been given by government means that we have to consider a charging Clean Air Zone (CAZ).

We have tested different levels of charging CAZ to try to predict the likely impact they would have on traffic and air quality.

Our tests indicate that lower levels of CAZ, which target fewer types of vehicle, would not achieve improvement quickly enough. A class D charging CAZ is the most likely CAZ option to achieve the required improvement.

The CAZ Class D would apply to:

	Type of vehicle	Vehicle registration date required to meet minimum emissions standard	Name of minimum emissions standard
	Cars, including taxis	Diesel – after September 2015 Petrol – generally after 2005, although cars that meet the standard have been available since 2001	Diesel – Euro 6 Petrol – Euro 4
	Vans (LGVs)	Diesel – after September 2016 Petrol – after January 2006	Diesel – Euro 6 Petrol – Euro 4
	HGVs, buses and coaches	After 2014	Euro VI



LOW EMISSION ZONE AND TOLLS

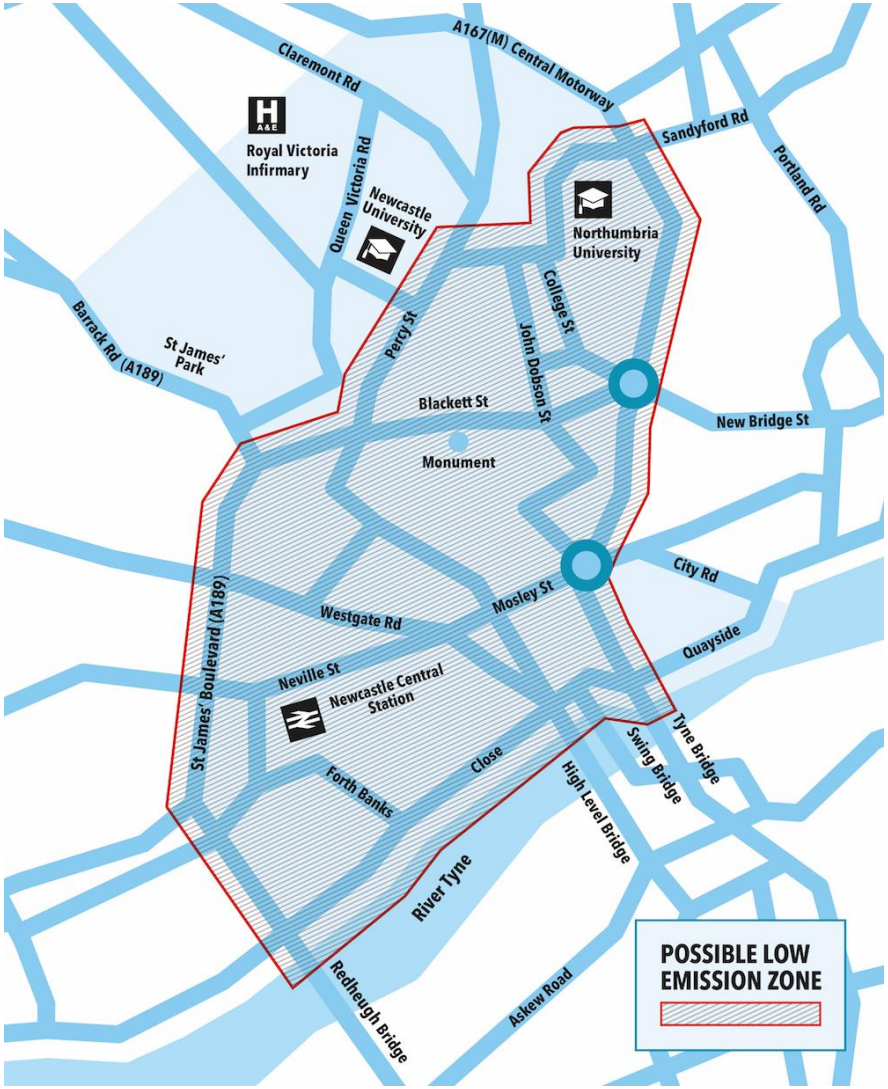
An alternative charging option would be to introduce tolls for vehicles to cross the Tyne using city centre bridges. This would need to be introduced alongside a Low Emission Zone (LEZ) covering Newcastle city centre.

Under a LEZ, certain vehicles that do not meet minimum emissions standards would be banned from entering or moving within the proposed area. Banned vehicles which enter the Low Emission Zone would be fined.

The tolls would apply to all lorries, vans and cars.
Buses, taxis and ultra-low emission vehicles would not have to pay tolls.

A Low Emission Zone would **only** apply to:

	Type of vehicle	Vehicle registration date required to meet minimum emissions standard	Name of minimum emissions standard
	Taxis	Diesel – after September 2015 Petrol – generally after 2005, although cars that meet the standard have been available since 2001	Diesel – Euro 6 Petrol – Euro 4
	Lorries and buses	After 2014	Euro VI



IMPACTS ON PEOPLE

All charging options will also have some impacts on households through costs.

A summary of the expected negative impacts on people are as follows:

Costs to upgrade vehicles or pay the charge will be more challenging for lower income households. Lower income householders are also more likely to own older cars.

Public transport and taxi operators may pass on some of the additional costs for driving in the area to the consumer. They may do this by increasing their fares and such an approach would disproportionately impact on lower income householders.

Public transport and taxi operators may decide to stop operating certain services if the cost of the CAZ makes the service no longer viable.

A summary of the expected positive impacts on people are as follows:

Overall improvement in air quality and therefore health. Particularly over time, i.e. the health impacts ten years from now, of introducing a charge now, are significant.

More walking, cycling and use of public transport.

IMPACTS ON BUSINESSES

The extent to which businesses will be affected by a charging option will depend on the type of business, its location, size and price sensitivity. The majority of the actions that businesses can take in order to meet the new regulations will incur a cost.

A summary of the expected impacts on businesses are as follows:

Businesses inside the proposed Clean Air Zone/ Low Emission Zone are likely to be the most impacted.

Costs to upgrade vehicles or pay the charge will be more challenging for small local businesses who are more likely to travel locally and less likely to be able to afford upgrade costs.

Large businesses or operators are more likely to use cleaner vehicles in the CAZ / LEZ and use their dirtier vehicles elsewhere.

Businesses outside of the CAZ may choose to re-route, causing longer journey times and increased operating costs.

FINANCIAL SUPPORT FOR PEOPLE AND BUSINESSES

We are asking for people's views on how we could support them through the process.

Ideas we are promoting include:

- Grants / leases / loans for upgrades to non-compliant heavy goods vehicles / vans / taxi and private hire vehicles / cars
- Incentives to help people switch to public transport such as subsidies for public transport tickets
- A grace period during which drivers of certain vehicles (for example taxi drivers) would not face charges when measures first come into effect
- Exemptions / discounts for certain vehicles
- A public behaviour change campaign that incorporates engagement with businesses and schools to look at implementing new working practices and ways to get around. This is particularly important given that the larger reduction we can see in single occupancy car trips, particularly in peak hours, the better the area's transport network will function and the cleaner our air will be;

PUBLIC CONSULTATION

The Tyneside Air Quality Public Consultation is running for 11 weeks from 6 March 2019 until 17 May 2019. The consultation explores longer term investment, charging options for improving air quality, potential additional measures to accelerate compliance and financial support or exemptions for people and businesses.

A public consultation website (including the questionnaire) is available on **www.breathe-cleanair.com.** The web site and specific email account (contact@breathe-cleanair.com) is the primary source of information during the consultation period.

The central method for collecting consultation responses is an online questionnaire with accompanying background document that sets out information and supporting evidence to help participants formulate their responses.

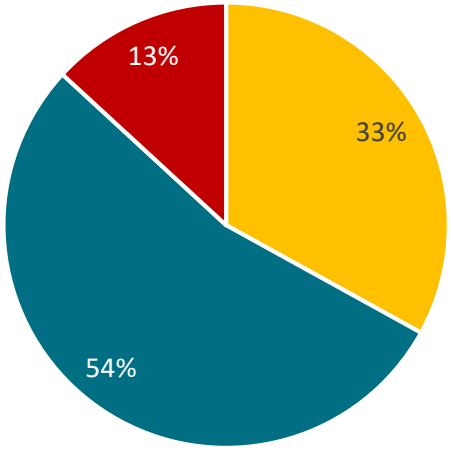
Physical copies of both documents are also be available, including an 'easy read' version, in libraries and appropriate public buildings and on request.

The feedback from the public consultation will be published on **www.breathe-cleanair.com** in Summer 2019. The responses will be used to inform the Final Business Case for the Tyneside Air Quality Feasibility Study which will be submitted to government for approval later in 2019.

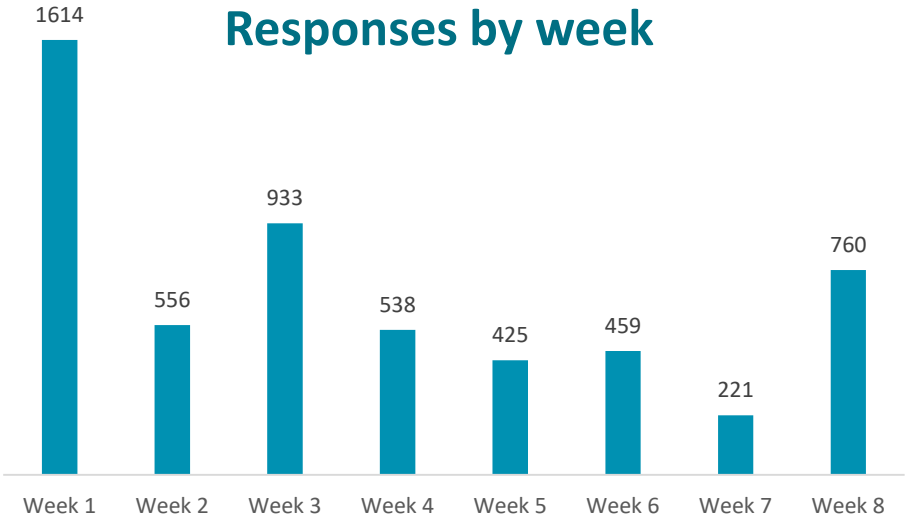
INITIAL FEEDBACK

A summary of public consultation metrics as of 29 April 2019 are shown in the following graphics.

5,506
completed responses



Responses by week

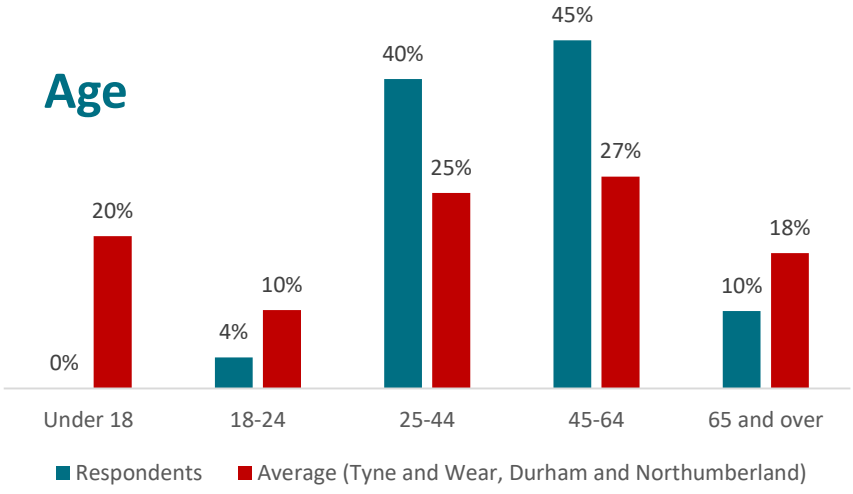


25 minutes
average time taken

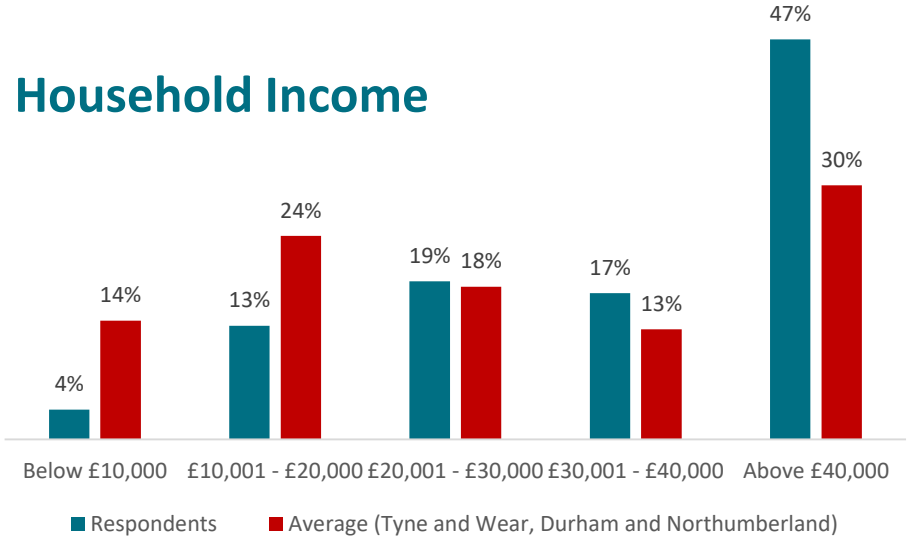
INITIAL FEEDBACK

A summary of public consultation respondent demographics as of 29 April 2019 are shown in the following graphics.

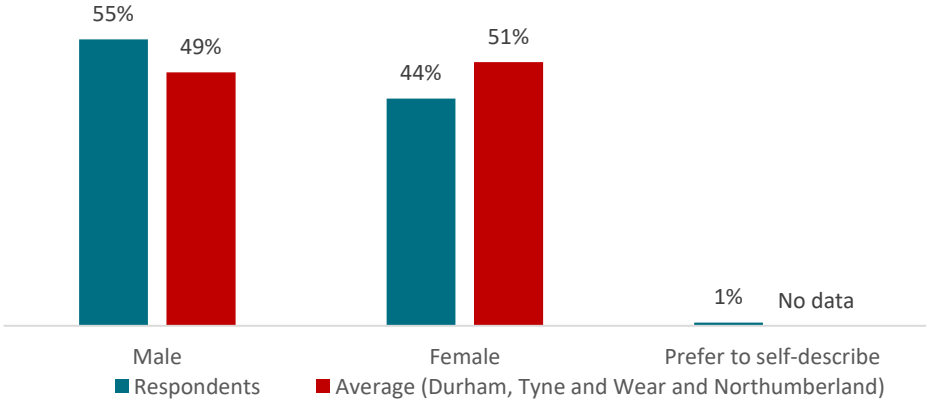
Age



Household Income



Gender



20 %

of respondents have a health problem or disability

7% of people living in Tyne and Wear, Durham and Northumberland have a disability living allowance

95 %

of respondents are White British

94% of people living in Tyne and Wear, Durham and Northumberland are White British.

STAKEHOLDER CONSULTATION

Targeted engagement has taken place in the following ways:

- Discussion with retail 'taskforce' created by NE1 and Intu to engage with us on the issue. Initial breakfast briefing took place with a follow up session organised for early April. We have committed to involving this group throughout the process.
- Initial presentation given to Developing Consensus (property and development group) before Christmas, main item for discussion at March 29 meeting.
- Discussion with legal representative from Samuel Phillips with a view to organising a 'professional services' stakeholder group to be engaged throughout the process (meeting 11th April).
- We have also made contact with the Federation for Small Businesses and North East Chamber of Commerce seeking meetings and discussions with their membership.
- Discussion with bus operators about their involvement and further engagement needed.
- Initial discussion with the North East Freight Partnership and we are attending two further focused sessions with freight operators to help support them.
- Discussion with the Newcastle Transport Forum and ongoing discussions with Elders Council, Youth Council, Disability Forum and meetings with Taxi Forums in Newcatle and North Tyneside.

INITIAL FEEDBACK FROM STAKEHOLDERS

- The public reaction has generally acknowledged there is an issue with traffic, congestion and air quality but has also generally sought to blame councils for their actions to 'create' this problem while there is significant use of language focused on this being another 'tax'.
- Taxi drivers have fed back that they want local authorities to protect them and not just do what government says. Also quite detailed feedback about how and when drivers would consider upgrading their vehicles.
- Freight and bus operators have been clear they have been upgrading vehicles and will continue to do so. They see themselves as part of the solution but note that enforcing such measures imminently on them will create significant issues for them and their economic viability. It's felt this would be exacerbated if the source of most of the problems from road transport was not addressed.
- One key piece of feedback from the retail community has been to clearly note the perceived dangers of this work while also seeking clarity and transparency of where surplus revenue would be focused, noting that investment should be put into infrastructure and / or business rate relief (if legal) to help mitigate the impact.

WIDER NARRATIVE AND CONTEXT

- In order to contextualise the measures required to address air quality in the shortest possible time, the authorities intend to utilise the public conversation and consultation as a means to garner views on the best ways to transform intracity connectivity and seek support for funding to deliver such measures.
- They include:
  - Transforming Newcastle City Centre to improve sustainable travel options by bus, Metro, foot or bike and investing in public realm
  - Significant investment in cycling infrastructure, particularly to public transport interchanges
  - Large investment in Intelligent Transport Systems to improve traffic flow and public transport priority on key corridors
  - Consideration of measures such as Workplace Parking Levy
- And in the longer term:
  - New Metro stations
  - New and improved Park and Ride and Metro extensions
  - Removal of major road infrastructure that acts as barriers to movement