Clean Air Zone FAQs

Why a Clean Air Zone?

What is a Clean Air Zone? / What is the aim of a CAZ?

A Clean Air Zone (CAZ) is an area of a city where targeted action is taken to improve air quality through discouraging the most polluting vehicles from entering the 'zone'.

Clean Air Zones do not ban or prevent any vehicle from entering the 'zone'. However, whilst no vehicle will be 'banned' those vehicles that do not meet minimum engine standards would need to pay a daily charge for entering the 'zone'. No charge or levy will be applied to any vehicle that is compliant with the Clean Air Zones standards – essentially newer, cleaner vehicles will be unaffected by these plans.

The Department for Food and Rural Affairs (DEFRA) plans for a Clean Air Zone are based on identifying a geographical area that will enforce a minimum engine and emissions standard for vehicles. This is designed to encourage the use of 'cleaner' lower emission vehicles in areas where we are at risk of not meeting air quality standards as embedded in UK law. A Clean Air Zone will be designed to influence fleet operators to replace vehicles with newer, cleaner models in order to avoid paying a charge for entering the zone. This will reduce emissions and improve air quality in those areas.

Why does Leeds have to implement a CAZ?

DEFRA carried out a national assessment of air quality based on the requirements of the EU Directive on air quality. As a result of this, in December 2015 DEFRA published their updated air quality action plan that named Leeds, along with Nottingham, Birmingham, Derby, Southampton, and London as places in the UK that will be not be compliant with nitrogen dioxide targets by 2020. DEFRA's model calculated that parts of the Inner Ring Road between the city centre and Armley Gyratory would be non-compliant by 2020, as well as near St Peter's Street, Leeds city centre.

DEFRA plans outlined the intent to legislate for the introduction of Clean Air Zones (CAZ), rather than leave their introduction to the discretion of the affected local councils. These CAZ would be chargeable, with non-compliant vehicles therefore having to pay a charge upon entering the zone.

Following legal action by non-governmental organisation Client Earth, the government has lost two successive trials at the supreme court resulting in a verdict that previous plans to tackle air quality were illegal on the basis that:

- Best effort was not being made to meet air quality standards as soon as possible
- Over-optimistic pollution modelling had been used, which produced inaccurate representations of air quality in towns and cities.

A revised National Air Quality Plan was produced in May 2017, identifying 29 cities that have the greatest air quality problems. All of the core cities were included within this number, with the exception of Liverpool. The plan places greater responsibility for reaching compliance upon local authorities than previously. The original five cities, including Leeds, that were named must deliver

their Clean Air Zones (CAZ) by the end of 2019. The remainder of the cities have to deliver by the end of 2020.

What are the national guidelines on limits of pollutants?

There are no absolutely safe levels of the main pollutants of concern, however, guideline targets have been established as national air quality objectives and European Directive limits. These targets are summarised below:

Pollutant	*Sources*	*Targets*
Nitrogen dioxide (NO_2)	Key source: vehicles with internal combustion engines. Diesel engines typically produce more NO2 than petrol, although industry standards are reducing emissions.	Annual mean: 40µg/m^3
		Hourly: 200 micrograms per cubic metre (µg/m^3) – not to be exceeded more than 18 times per year.
Particulate matter (PM10) – particulate matter 10 micrometres or less in diameter	Produced by a variety of sources, in particular road transport and other combustion sources. Also occurs as a result of chemical reactions of other pollutants in the atmosphere	Annual mean: 40 µg/m^3
		24 hour average mean: 50 µg/m^3 – not to exceed more than 35 times per year
Particulate matter (PM2.5) – particulate matter 2.5 micrometres or less in diameter	Produced by a variety of sources, in particular road transport and other combustion sources. Also occurs as a result of chemical reactions of other pollutants in the atmosphere	Additional target to meet annual mean of 10 µg/m^3 WHO target by 2030
		Annual mean: 25µg/m^3

Where does the pollution in the city come from?

Air pollution originates from a range of sources, both natural and man-made. Natural background air pollution derives from weather phenomena, where storms can pick up tiny dust particles (particulate matter) transporting them vast distances and if severe can have a significant impact on health by affecting the respiratory system. However, under normal circumstances, the bulk of emissions come from man-made sources such as power stations, industry, construction and our road networks.

The key air pollutant of concern in Leeds is nitrogen dioxide (NO_2), the most significant source of this is transport. Urban air pollution typically increases as traffic flow and volume increases; this can lead to particular areas of concern or 'hot spots'. Weather also impacts significantly on NO_2 concentrations, with windless, foggy days allowing an accumulation of air pollutants.

While air quality in the majority of Leeds, its suburbs and surrounding rural areas achieve the objectives contained in the UK Air Quality Regulations, there are hotspots forecasted by DEFRA to be non-compliant with national legislation by 2020. Additional local areas of concern in residential areas are named Air Quality Management Areas (AQMAs). Leeds currently has six declared AQMAs.

What impact does air pollution have on health?

There is now categorical evidence that long-term exposure to everyday air pollutants contributes to cardiovascular disease (including heart diseases and stroke), lung cancer, and respiratory disease (including asthma and chronic bronchitis).

Research carried out by Imperial College London showed that there were higher concentrations of particulate matter and nitrogen dioxide in the most deprived 20% neighbourhoods in England – meaning the effects of poor air pollution are disproportionately affecting those in our most deprived communities.

Would a face mask help protect me against pollutants?

According to the British Lung Foundation - "*At the moment there's very little evidence to recommend the use of face masks. Sophisticated masks with active charcoal filters can help filter out nitrogen dioxide, but these don't keep out the smallest particulate matter which is most damaging to your health*."

What is the cost to NHS for Air Pollution?

Air quality related deaths are the 3rd largest killer after cardio vascular dieses and cancer. The cost of this is estimated to be around £11 billion to NHS based on research done by the British Lung Foundation.

What is the cost to the wider UK economy of Air Pollution? (information may be available from the British Lung Foundation)

Air pollution causes a considerable burden of death and disability annually and according to Alison Cook from the British Lung Foundation, the effects of Air Pollution cost the UK treasury £27 billion per year.

What are the Government doing?

The Department for Environment, Food and Rural Affairs (DEFRA) issued the initial Air Quality Plans on behalf of the Government which required certain city councils in the United Kingdom to implement a Clean Air Zone in order to bring them within the regulatory limits of Nitrogen Dioxide and Particulate Matter. DEFRA maintains a large network of monitoring stations across the country all of which feed into a database which help us to have a wider understanding of pollution levels across the country.

With regards to funding, the Government has made £290 million available to promote the uptake of more environmentally friendly modes of transport. £150 million is being put towards research in electric and low emission buses which up until now, have failed to attract the required investment to make batteries big and efficient enough to prove the business case for buying electric rather than diesel buses. £80 million of this funding is also being awarded through grants for local authorities

and businesses to install charging points for electric vehicles in order to increase their viability as alternatives to other, more polluting vehicles.

What are Leeds City Council doing?

Leeds City Council are undertaking various measures in order to aid with and abide by the proposals for the creation of a Clean Air Zone. One of our key actions is that we are currently investing in and upgrading our own fleet of vehicles in order to increase the number of electric and ultra-low emission vehicles in the city. This will not only reduce the emissions emitted by Leeds City Council, but will also prevent our fleet vehicles from being subject to any charges imposed upon certain vehicles which do not meet engine regulatory standards – meaning tax payers' money can be spent elsewhere.

The Council is also undertaking work in order to help those likely to be affected by the potential implementation of a Clean Air Zone. We have sponsored and organised events such as the Green Fleet event which showcased various electric and ultra-low emission vehicles to fleet operators in Leeds, and provided advice on how best to convert to more environmentally friendly vehicles. We are also looking into the potential for funding schemes to help taxi and private hire vehicle drivers in the city, in order to try offset some of the initial costs of upgrading cars to ones which are compliant with regulatory standards.

The Council is currently undertaking an extensive amount of research, modelling and consultation that is required in order to assess the impact of any potential Clean Air Zone. We are committed to implementing a scheme that works from an environmental perspective, but also for the people of Leeds. Looking for the right balance therefore, is of paramount importance.

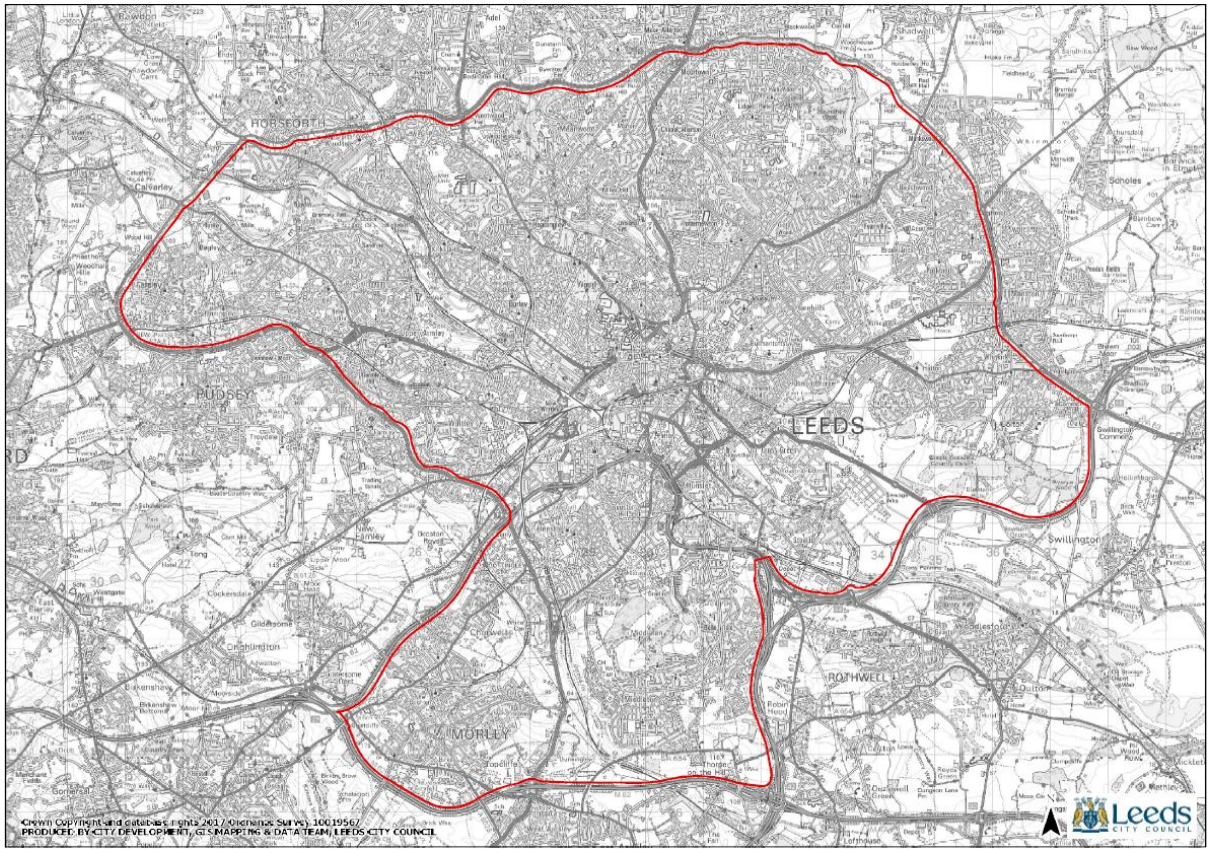
The requirement for a Clean Air Zone relates to EU regulations. How does Brexit change things?

The UK remains a full member of the EU and is required to negotiate, implement and apply that legislation until we leave. The Great Repeal Bill transposed all EU law existing at the time of Brexit into domestic law. Furthermore, since the Brexit vote, laws have been passed within the UK which mirrored all EU regulations on the subject matter of air quality.

It is also noteworthy that in 2010, long before the Brexit vote, the UK enshrined all EU Air Quality laws into UK law.

If a Clean Air Zone is required, where will it be?

Under the current proposals, the Clean Air Zone will follow the boundary of the outer ring road, down to the M621 in the south of the city. The map below demonstrates the specifics of where this will be. It is worth noting that vehicles travelling on the outer ring road and the M621 themselves will not be subject to charging – it is only when they leave these highways to travel within the Clean Air Zone that they will be subject to charging.



When will it be introduced?

A CAZ in Leeds is likely to be introduced by late 2019 in line with the national framework guidelines.

The timetable below indicates Leeds' plans for a Clean Air Solution:

Activity	**Timescale**
Executive Board (outline solution)	December 2017
Consultation initiation – Stage 1	January 2nd 2018
Workshops/Drop-in sessions and other consultation initiatives	January & February 2018
Consultation close – Stage 1	March 2nd 2018
Report published	
Executive Board (final proposal)	
Formal consultation initiation – Stage 2 (if required)	
Workshops/Drop-in sessions and other consultation initiatives	

Consultation close – Stage 2	
Final business case and scheme presented to government	September 2018
Scheme approval	September 2018
Clean Air Zone Infrastructure Implementation	October 2018 for 12 months
Clean Air Zone Charging Begins	Late 2019

Who is paying for the Clean Air Zone?

Central government.

What are additional measures and who will pay? / Will there be other measures to improve air quality as well as the CAZ?

There are a number of additional measures which Leeds City Council is currently investigating in order to off-set the effects of poor air quality. These include encouraging further use of public transport and cycling networks in order to get more vehicles off the road. Leeds City Council is promoting the uptake of ultra-low emission vehicles and electric vehicles both in our own fleet (which will soon have the largest ULEV fleet of any local authority in the United Kingdom) but also with organisations across the whole of Leeds to cut the level of emissions coming from our roads. The funding for these additional measures is expected to largely come from central government.

How does a Clean Air Zone operate?

Will the CAZ operate 24hrs all year round?

Current systems in London which work on a similar basis have been in operation 24 hours a day, 365 days a year. The system that is implemented in Leeds will be based on the results of the modelling which has been undertaken based on different potential scenarios. The solution which is implemented must be shown to bring Leeds within regulatory standards on levels of NO_2, and this could require 24 hour operation all year round.

Where does the money go?

Any money collected as part of the charging system for the Clean Air Zone in Leeds will go to Leeds City Council. Government regulations however dictate that this cannot be used as an extra source of income for local authorities. The money therefore can only be used to administrate the Clean Air Zone, and any income levels which go beyond this basic cost is warranted to be spent on further initiatives to improve air quality within the city, such as investing in public transport and other environmentally friendly projects.

How does the CAZ improve/impact carbon emissions and PM2.5?

The implementation of a Clean Air Zone, while aimed at reducing levels of Nitrogen Dioxide in the atmosphere – would also have a positive impact on levels of Carbon Dioxide and PM2.5. This is due to the fact that a Clean Air Zone targets those vehicles which have higher Nitrogen Oxides emissions, and these tend to be older vehicles with engines which are less environmentally friendly. By encouraging operators and drivers to change these vehicles to newer models of diesel, petrol, hybrid or electric vehicles, they will also be choosing cars which have to meet stricter environmental regulations on Carbon Dioxide emissions and PM 2.5, meaning they are also affected despite not being the main focus of the Clean Air Zone's remit.

What if the proposed measures don't help? Then what?

There is a very limited chance that this will happen. Leeds City Council have been utilising sophisticated modelling technology for a number of months in order to test the potential outcomes of different scenarios. The recommendations put forward by the Council therefore, are based on the results of these tests proving that the suggested actions will bring those areas of Leeds currently breaching regulatory limits of NO_2, down to levels accepted by the law.

In the case that these measures do not work, then Leeds City Council will have to investigate taking further action in order to protect the health of the people of Leeds. This could vary from increasing the classification of the Clean Air Zone by including more categories of vehicle, lobbying government for further funding for integrated public transport networks, or looking into alternative measures to prevent high-emission vehicles from polluting the air in Leeds.

Won't a Clean Air Zone mean traffic will build up in other areas, how will this be managed?

The modelling process that has been used by Leeds City Council was designed to take into account any potential 'spill-over' or displacement as a result of implementing a Clean Air Zone. The current proposals had minimal displacement when compared with other potential solutions.

It is worth noting that any implementation of a Clean Air Zone will work in-tandem with the wider Transport Strategy for Leeds, and with the cooperation of Highways England in order to best avert unreasonable levels of traffic displacement.

Has this been done elsewhere/how has this worked in London?

In 2008 London introduced a Low Emission Zone which operates alongside and separately of the congestion charge. It was aimed at encouraging owners and operators of the most polluting heavy diesel vehicles to become more environmentally friendly. It operates 24 hours a day 365 days a year, and has a scale of charges according to vehicle type ranging from £100.00 to £200.00 should they enter this zone. The scheme operates within the majority of Greater London, with all roads included being marketed by sign postage, including those leading into the Low Emission Zone in order to warn drivers.

Plans released by the Mayor of London have recently stated that these measures were not going far enough, and that more had to be done in the capital in order to tackle air quality. This has led to plans for the further imposition of an Ultra-Low Emissions Zone in Central London, which will be applied to all vehicles travelling within the zone which have engines below a certain classification.

Which vehicles will be charged?

Which vehicles will be affected by the CAZ? / What are the CAZ access restriction emissions standards?

DEFRA aim to ensure that only the cleanest vehicles are encouraged to enter Clean Air Zones, with vehicle standards to be based around 'Euro standards'. The below table details the various CAZ classification options, and the Euro standard each vehicle type must meet to enter the CAZ zone without being charged. Vehicles which do not meet these standards will be charged to enter the Clean Air Zone in line with the class of Zone in place. Petrol vehicles have lower NO_2 emissions, hence an older vehicle Euro IV petrol vehicle emits similar NO_2 emissions to a newer Euro VI diesel vehicle – Table 2 shows the year different Euro standards were introduced.

Table 1: CAZ Classifications

Classification	**Vehicle Type**	**Euro Category**	
A	Bus	Euro VI	
	Coach	Euro VI	
	Taxi & Private Hire	Euro VI (diesel)	Euro IV (petrol)
B	Bus	Euro VI	
	Coach	Euro VI	
	HGV	Euro VI	
	Taxi & Private Hire	Euro VI (diesel)	Euro IV (petrol)
C	Bus	Euro VI	
	Coach	Euro VI	
	HGV	Euro VI	
	Large Van	Euro VI (diesel)	Euro IV (petrol)
	Minibus	Euro VI (diesel)	Euro IV (petrol)
	LGV	Euro VI (diesel)	Euro IV (petrol)
	Taxi & Private Hire	Euro VI (diesel)	Euro IV (petrol)
D	Bus	Euro VI	
	Coach	Euro VI	

	HGV	Euro VI	
	Large Van (1305-3500kg)	Euro VI (diesel)	Euro IV (petrol)
	Minibus	Euro VI (diesel)	Euro IV (petrol)
	LGV (up to 1305kg)	Euro VI (diesel)	Euro IV (petrol)
	Taxi & Private Hire	Euro VI (diesel)	Euro IV (petrol)
	Private cars	Euro VI (diesel)	Euro IV (petrol)
	Motorcycles and mopeds (optional)	Euro 3	

The following table shows the different Euro categories that apply to all new petrol and diesel vehicles.

Table 2: Car and LGV Euro standards

Emissions standard	Applied to new passenger car approvals from:	Applied to most new registrations from:
Euro 1	1 July 1992	31 December 1992
Euro 2	1 January 1996	1 January 1997
Euro 3	1 January 2000	1 January 2001
Euro 4	1 January 2005	1 January 2006
Euro 5	1 September 2009	1 January 2011
Euro 6	1 September 2014	1 September 2015*

*Some Euro V vehicles still registered from 1 September 2015 – 1 September 2016. All new registrations from 1 September 2016 are Euro VI

Table 3: HGV Euro standards

Emissions standard	Applied to new HGVs from:
Euro 1	1992
Euro 2	1995

Euro 3	1999
Euro 4	2005
Euro 5	2008
Euro 6	2013

*For a definite evaluation of which Euro-standard any engine is, it is always the most accurate to contact the manufacturer.

Who will be affected by the Clean Air Zone?

Under the current proposals, all buses and HGVs which are below either Euro 4 petrol engines or Euro 6 diesel engine standard will be affected by the Clean Air Zone. Any above this, including petrol-hybrid and electric vehicles will be exempt.

For taxi and private hire vehicles, those vehicles which will be exempt from the Clean Air Zone charge is currently subject to feedback from the consultation. It will either follow the same rules as buses and HGVs, or Taxi and Private Hire vehicles will have to upgrade to petrol-hybrid or electric as a minimum standard. Drivers and operators should note that out of town vehicles will also be required to meet the Clean Air Zone engine standards or will also be charged. Leeds City Council in working closely with DEFRA to develop a national database of Taxi and Private Hire vehicles in order to allow this to happen.

Is Liquefied Petroleum Gas (LPG) included?

We cannot yet confirm whether LPGs would not be charged currently. The results and feedback from the consultation process will help shape policy towards this particular vehicle type.

Why are private cars not included?

During the formulation phase of creating plans for a Clean Air Zone, Leeds City Council looked into and modelled various different scenarios. The idea was always primarily to achieve compliance with national regulatory frameworks on levels of Nitrogen Dioxide, but also balance the large impact this would have on various sectors of the population. Some of these scenarios did include charging private cars. While this would have inevitably had the best environmental impact as it would affect the most vehicles and encourage the most change, we had to be mindful of the incredibly costly impact this would have on some of the most deprived areas of Leeds.

The proposed solution we have come up with will bring the city within lawful limits of nitrogen dioxide which was the primary consideration, whilst avoiding putting excessive financial strain on certain vulnerable citizens of Leeds.

How will historical vehicles be affected by the Clean Air Zone?

All vehicles with historic tax class (over 40 years old) will be exempt from Clean Air Zone charging, in line with central government policy.

How much will the charge for vehicles entering the Clean Air Zone be?

At this stage a charge has not been established. DEFRA has advised that these will be set as part of an evidence based assessment in line with national guidelines set by Government. As a result of having no direct guidance, we have been modelling our Clean Air Zone plans as having the charges currently used in London, which are £12.50 per day for cars and £100 per day for buses and HGVs. This charge is not fixed, and may be revised following consultation.

DEFRA have issued guidance that a CAZ should not be developed as a revenue stream for local authorities, and that the charge levied should be sufficient to meet the costs of enforcing, administering and maintaining the scheme. DEFRA also state that the charge should also be set at a level that will be sufficient to influence enough owners of currently 'non-compliant' vehicle to replace their vehicles with a lower emission alternative – thereby delivering a 90% compliance with the scheme.

Which vehicles are exempt?

All private vehicles and LGVs are exempt in line with the classification of the Clean Air Zone. Buses, Coaches and HGVs which are at least Euro VI standard diesel, Euro IV standard petrol or later, petrol-hybrid or electric will be exempt.

For Taxi and Private Hire, all Wheelchair Accessible Vehicles will be exempt, as will all petrol-hybrid and electric vehicles. Whether or not Euro VI standard diesel and Euro IV standard petrol or later will be exempt is subject to the consultation process.

Financial Support Measures

What if I live in the Clean Air Zone – will I qualify for a discount, if so for how long?

It is worth noting here that not all residents within the Clean Air Zone will be subject to a Clean Air Zone charge as private cars are not subject to charging. It applies only to Buses, Coaches, HGVs and Taxi and Private Hire vehicles.
As the consultation opens however, we will be looking into providing potential exemptions or discounts for those businesses/citizens of Leeds who may struggle with the imposition of a Clean Air Zone charge. The specifics of any exemptions or discounts however are subject to need, and would be formulated based on responses and data collected through the consultation process.

Will businesses be supported to change fleet/funding schemes available?

We are working hard to get funding from central government in order to help those affected by the implementation of a Clean Air Zone. Sunset periods/exemptions are possible if it is deemed that we would still meet the required Air Quality improvements should they be enacted. Where the priorities are, and who will receive aid packages will be subject to feedback from the consultation process.

Secondary Effects of the Clean Air Zone

Will a Clean Air Zone charge on buses and taxis just push up fares?

These are proposals at the moment, and we want to hear and capture all these views as part of our consultation. Any feedback will go towards helping formulating final plans.
We are however already working closely with bus operators, who are making significant investment in their fleets and we will be working closely with taxis and private hire going forward to make support packages available to help them upgrade vehicles. We hope that with the support packages we aim to provide to these sectors, the fare increases will be minimal if existent at all.

More Information

How do the results of personal monitors compare with official monitoring results? (might be good to get a quote from someone at the university) *pending

Where can I find out more?

The Clean Air Zone proposal will be considered at Executive Board in December 2017. The paper will be available at the below link:

http://democracy.leeds.gov.uk/mgCommitteeDetails.aspx?ID=102

Following Executive Board, an extensive public consultation exercise will take place, with further information on LCC's proposal available on the Leeds City Council website.

How can I have my say/get involved?

A formal consultation process opens on 2nd January 2018 and is open for 2 months until the 2rd March. This will be followed by a second consultation which will occur after the local elections in May. We invite and encourage as many people as possible to take part and have their say.