Cork City Council recently carried out a survey on air quality.

This was an online survey and was open to the public from 1pm on the 23rd June to 5pm on the 10th July 2020.

The survey was publicised on Cork City Council's website and social media accounts and was also distributed via email to the following groups:

- Cork City Council's Strategic Policy Committee members
- Transport and Mobility Forum
- Tidy towns
- Fáilte Ireland
- Cork Business Association
- HSE, Healthy Cities
- SMART Cities
- Cork Environmental Forum
- Cork City Public Participation Forum
- Strategic Planning and Economic Development
- Irish Business Against Litter

Overall, there was a very positive response to the survey. There was a total of 744 responses. The responses will feed into the Air Quality Strategy for Cork City, a draft of which is due for public consultation in quarter 4, 2020.

We wish to thank all those who participated in the survey.

What follows is a breakdown of responses for each question asked:

1. Do you live, study, work or visit Cork City?

Live	565
Work	473
Study	68
Visitor	63
Did Not Answer	3

2. Are you responding as an individual or on behalf of an group or organization ?

Individual	730
Group	14
Did Not Answer	0

3. Do you consider yourself and/or those close to you to be personally affected by Cork's air quality

Yes	579
No	165
Did Not Answer	0



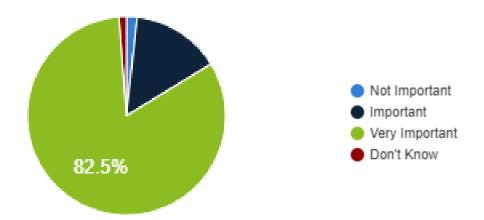
If Yes, in what way?

Those who responded gave the following reasons as to how they are personally affected by air quality:

- **Traffic volume and emissions**. Breathing traffic fumes as a cyclist/pedestrian. Burning sensation in lungs when traffic is busy.
- **Health issues,** in particular respiratory illnesses, linked to poor air quality. Health issues are exacerbated during the winter months when there are more vehicles on the road and fires lit and in particular if weather conditions are calm.
- Open fires and burning rubbish.
- The **odour/smell** from diesel fumes and exhaust emissions along with that produced from home fires (especially in wintertime and moreover on still nights).
- Effects of air quality on the **Quality of life**, such as not being able to go outdoors; not being able to enjoy outdoor exercise; having to close windows to escape air pollution.
- Emissions from industry.
- A small number of people noting better air quality while travel restrictions were in place during Covid19.
- A number mention Cork had recorded the worst air quality in Europe last winter.

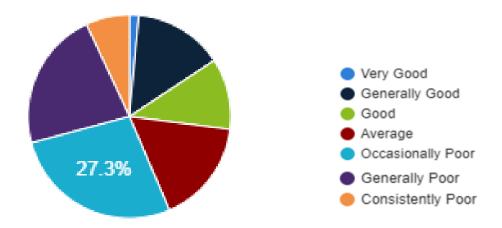
4. How important do you think the issue of air quality is in Cork City?

Very Important	614	82.5%
Important	108	14.5%
Not Important	13	1.7%
Don't Know	9	1.2%
Did Not Answer	0	



5. How would you rate air quality in Cork City

Occasionally Poor	203	27.3%
Generally Poor	165	22.2%
Average	123	16.5%
Generally Good	106	14.2%
Good	84	11.3%
Consistently Poor	52	7.0%
Very Good	11	1.5%
Did Not Answer	0	0



6. How important do you think the effects of the following environmental issues are in Cork City?

	Very Important	Important	Not Important	Don't Know
Green Spaces	627	106	6	5
Traffic Congestion	619	106	16	3
Air Pollution	607	116	15	6
Global Warming/Climate Change	594	129	17	4
Drinking Water Quality	562	150	21	11
Single Use Plastics	502	210	26	6
Littering	499	226	16	3

7. Which of the following indicators would you deem important indicators of air quality

	Important	Not Important
Health Effects (e.g. asthma incidences)	736	8
Residues (Dust)	688	56
Smell and Taste	683	61
Visual (Haze)	670	74

Other (please specify)

The Other category included comments on the following subject matters:

- Scientific measurement and reporting dominates the response to this
 question (monitoring units, purple air reports, AQI, EPA measurements)
- Suspended particles (visible on net curtains, on people's faces, levels of suspended particulate matter)
- Wildlife (presence of air quality sensitive lichens, effects on flora and fauna)
- Many using this category to voice concerns regarding traffic (idling, congestion, associated smells/fumes and health implications).
- **Health** is mentioned (adults and children with asthma presenting with blue lips because of air pollution) and mortality rates linked to Air Quality is mentioned.
- The affects Air Quality has on COVID 19.

8. Which of the following forms of air pollution are you most concerned about

Motor Vehicle Emissions	612	23.5%
Traffic Congestion	610	23.5%
Burning of solid fuels in households	464	17.8%
Vehicle Idling	461	17.7%
Industrial/Manufacturing	321	12.3%
Construction	132	5.1%
Did Not Answer	0	0

Other (Please Specify)

People used the Other category to raise concerns involving:

- Burning of rubbish and coal fires
- Vehicle idling
- Lack of green spaces
- Chemical plants, proposed incinerator
- Use of pesticides
- Dust/fumes from train station
- Dust/smell from the Tivoli Docks
- Fuel from aircraft
- Fumes from restaurant flues

9. Do you believe there is a link between air quality and climate change?

Yes	584
Maybe	101
Don't Know	42
No	17
Did Not Answer	0

The comments made relating to Question 9 are as follows:

Since Covid 19 has started and airplane traffic, vehicular traffic and business have temporarily ceased, I noticed that Cork City is smelling cleaner, the air is fresher. Buildings look cleaner.

Motor traffic definitely isn't helping climate change!

100%. From my time working as a planner in London, the improvement of air quality through means such traffic reduction, tree planting, Sustainable Urban Drainage, noise reduction and the overarching Healthy Streets approach were inextricably linked.

It's tangible, visible and sensory. Everybody can see it and knows what it is. If nobody ever thought there was too much exhaust fumes when they walked anywhere near the city, or sat on the Link in traffic, or noticed there were no trees around for miles, and barely any public parks for people to visit, if none of these issues were blatant, then maybe people could pretend there was no link between all of these clear and visible effects, that we can actually see and taste, but unfortunately here we are and we can see it plain as day. It's embarrassing for Cork that we are in this position, in an island like Ireland, where every other day we see and hear online of the council mowing and chopping down vast areas of trees for no reason at all. It harms us, our skin, our health, our lungs, the air, the harmless and endangered wildlife, everything. It all adds up to climate change.

Traffic congestion along the quays

The burning of fossil fuels adds to climate change and poor air quality but it's the CO2 that specifically adds to climate change and nitrogen oxide particles that add to poor air quality so there is a difference, for example diesel cars are relatively efficient with CO2 but really bad for air quality. Just because the air quality of a city is good, it doesn't mean the city isn't contributing to climate change

It's scientific fact

The link is obvious - read the science. The burning processes that produce air pollution also produce excess CO2.

It's not a belief, it based on scientific evidence so it's knowledge.

Some of the same pollutants that impact climate also impact air quality and human health directly. Also, processes leading to air quality issues, such as burning fossil fuels and building with concrete, also impact climate.

Respect for the environment should precede monetary influence.

Nitrogen emissions from traffic and methane emissions from garbage and sewers are directly related to the climate disaster. Ireland has some of the highest nitrogen and methane emissions per capita.

Climate change is related to emissions and emissions are related to pollution and pollution is related to air quality so it is important to address all issues around pollution and climate change

There are now indisputable links between air quality and climate change, all the respected scientists are now saying the same thing.

The science is clear....there is no longer any doubt.

Question.....would we knowingly be allowed to drink dirty water? Then why should we breath dirty air?

What exactly do you think « belief » has to do with it?

Fossil fuel burning causes climate change

Air quality is affected by human activity of all kinds that has led increasingly to influencing global climate. Clearing by burning of large areas of vegetation especially forests e.g. Amazon basin, use of petrochemicals etc. have affected agricultural activities. The increasing populations to be supported have led to clearance of marginal lands, not ideally suited to crops.

I hope you're asking this question to survey the population's knowledge, not sow doubt. Many of the same fossil fuels that produce CO2 that contribute to global warming also produce particulates and NOx and SOx that contribute to bad air quality, fossil cars (especially unfiltered diesel) and solid fuel (coal, peat, and insufficiently dried and burned wood)

Summers have become wetter and colder.

10. Do you agree or disagree with the following statements

	Agree	Disagree	No Opinion
The government should do more to implement programmes and promote a better environment	729	9	6
Improving the environment is the responsibility of every citizen	702	22	20
Air pollution is out of my control and I can't do anything to change it	57	641	46
I do not know what I can do to help improve air quality	152	555	37
I know where to access information to find out ways to contribute to a cleaner environment	434	241	69
I am actively involved in cleaning up the environment.	395	244	105

If you are actively involved in cleaning up the environment, please tell us in what way(s)

I take personal responsibility...but I would like to find out more about how to get involved.

I don't use my car where possible. I would cycle more if it were safer. Unfortunately there's a lack of proper cycling infrastructure in Cork especially along Lower Glanmire Rd. I was cycling along here to work near Little Island but I have now started to use my car again due to it being unsafe with more traffic on the road post Covid.

Teaching children at primary level

I have an electric car and I consciously make an effort to be better for the environment whenever I can by recycling, eating less meat, active travel etc

I cycle and walk in preference to driving. I also recycle, reuse, repair, repurpose to the maximum; compost garden and kitchen waste; deliberately *do not* litter - ever - and try to minimise electricity, gas and water use. I try to leave as small an environmental footprint as possible.

PhD environmental scientist. Also volunteer with local groups

I clean a beach. It's my favourite beach and we got engaged there too. I take away the litter when we go there, usually every couple of weeks. I might get 1 black bag, or more, especially in summer. I pick up the litter anywhere else I walk too, but I'd specifically go to the beach to

clean it once in a while. The kids enjoy playing while I'm doing it.

Personally I recycle most of what I use and walk in preference to driving.

I'm in the Clean Coast Group and we clean the beaches every month.

I cycle and walk everywhere and use public transport. If we use the car its for journeys with more than one passenger. We clean plastic and rubbish from the beaches we visit. We have lots of pollinator friendly plants. We do our best to recycle properly.

I report regularly incidences of Air Pollution when I see them. (Responses vary...little consistency)

I always use smokeless fuels and have even reduced the usage of these.

I have an up to date gas boiler and clean it annually. (I reduced my usage of gas by 50% in the past two years)

I use public transport and walk a lot more.

I was involved in the campaign in Mahon 1992-1995 to Ban the sale of bituminous coal. Smog levels in the area went down by 2/3rd. I have been involved in the campaign to reduce pollution levels from the factories in the Harbour and have opposed the toxic incinerator.

Profession as sustainable designer

Improving BER house rating, minimising use of scarce resources, recycling as much as currently possible, growing some of own food, walking when/ where possible, using public transport

Personal behaviour (cycling where possible, avoiding cars), litter picking, water conservation at home, low meat diet are some of things.

Personal behaviour is important but insufficient to fully address environment and climate change issues. It should not be promoted at the expense of local authority initiatives.

11. Which of the following would you consider doing to improve your local environment

Avoid using the car for short trips	624	15.7%
Use Public transport	537	13.5%
Consider using an alternative fuel vehicle such as electric or	535	13.5%
hybrid		
Carry out home improvements to increase energy efficiency	534	13.5%
(e.g. wall cavity insulation)		
Install renewable energy home heating systems	504	12.7%
Switch off your engine if you are caught in a traffic jam	492	12.4%
Switch from solid fuel heating	370	9.3%
Use a park and ride system	352	8.9%
None of the above	16	0.4%
Did Not Answer	0	



12. Please tell us what prevents you from doing these things now (e.g. time constraints, cost, distance to travel, other practicalities etc.)

18 people commented on Question 12. The main themes can be summarised as follows:

- **Cycle infrastructure** (lack of infrastructure, concerns for road safety, aggressive behaviour from drivers, poor public realm).
- **Public transport** (limited public transport options, poor access to park and ride, infrequent and unreliable bus service)
- Lack of enforcement (illegal parking, cars parked in bike lanes, no regard for bus lanes)
- Cost of hybrid vehicles
- Home improvements are costly. The benefit of getting work done is outweighed by the cost.

13. Cork City Council has recently updated its website to include information on air quality and has links to real time air quality information. Were you aware of the website update?

Yes	107
No	637
Did Not Answer	0

14. Do you think that developing an Air Quality Strategy is good for the city?

Yes	711
No	3
Partly	19
Don't Know	11
Did Not Answer	0

15. Cork City Council's approach to tackling air quality will be as follows: measure the air quality in the city, reduce air pollution where possible, maintain good / enhanced air quality and improve air quality further. Do you agree with this approach?

Yes	658
No	86
Did Not Answer	0

16. What, if any, improvements can be made to the overall approach

19 comments were made and can be summarised as follows:

Enforcement

- Enforce policies (e.g. bike/bus lanes used by cars),
- Follow through with plans to provide infrastructure,
- > Be bolder with targets to reduce emissions
 - (Cork City Centre and inner neighbourhoods should be designated Ultra Low Emission Zone as in UK cities, Fining of polluters: road side checks measuring exhaust gases on vehicles, closure of the harbour to mooring ships not connecting to the public power grid, Scrapping of all combustion vehicles and tools owned by the City and County, ban on combustion vehicles employed for public transport and ban on contractors using combustion methods), No public contracts to waste handlers, gardeners, landscapers, road sweepers etc. using combustion engines in Cork.
 - No subsidies for any combustion method like for example switching from oil to gas in the home heating sector.
 - Zero support of any type of combustion.
 - Using the harbour to load rubbish to be exported must be banned: easy with existing pollution regulations.
 - Builders creating dust must be fined, any building equipment powered by combustion engines must be banned.
- Lack of commitment from local authority

• Public Engagement and Promotion

- Publish results
- > Encourage public engagement by informing them of actions
- Promote by introducing schemes such as Free journeys when you recycle plastic bottles. Encourage walking. E-bikes. Greening the city. Stricter testing and controls. Promote e-cars bring back free charging. Promote solar, wind and hydropower. Improve energy efficiency of homes. Promote waste reduction. No burning of fields. Stop cutting grass and hedgerows. Plant on city rooftops. Free fruit trees planted.

Transport

- Reduce vehicles by promoting, improving and making more accessible public transport, walking and cycle infrastructure
- Make public transport cheaper to use

Cork City Council webpage -

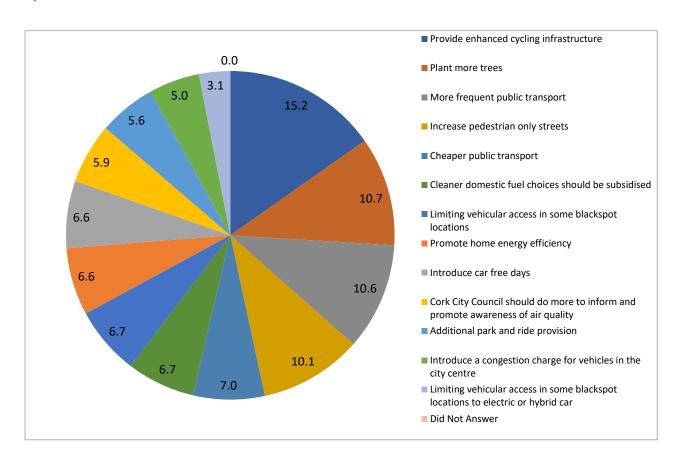
- Include links to Met Eireann on webpage
- A lack of rigorous air quality testing

Green Space

- Plant more trees
- More green spaces.

17. In your opinion what are the 3 most important measures that should be taken to address air quality in Cork

Provide enhanced cycling infrastructure	524	15.2%
Plant more trees	369	10.7%
More frequent public transport	363	10.6%
Increase pedestrian only streets	347	10.1%
Cheaper public transport	242	7.0%
Cleaner domestic fuel choices should be subsidised	231	6.7%
Limiting vehicular access in some blackspot locations	231	6.7%
Promote home energy efficiency	228	6.6%
Introduce car free days	228	6.6%
Cork City Council should do more to inform and promote awareness	204	5.9%
of air quality		
Additional park and ride provision	193	5.6%
Introduce a congestion charge for vehicles in the city centre	172	5.0%
Limiting vehicular access in some blackspot locations to electric or	106	3.1%
hybrid car		



18. Do you have any other further comments to make about improving air quality in Cork City

16 comments were made and they are as follows:

You forgot one important measure above - stop cars parking in cycling lanes and bus lanes! All bus lanes should also be 24hrs. If they can be bus lanes during peak hours surely cars don't need to be in the off peak.

Introduce resident parking charges throughout CCC administration area as in CMATS. Expedite Park and Rides and gradually re-purpose available on-street spaces. Low Emission Zones. Establish "right tree, right place" policy to reduce air pollution.

Use existing powers to enforce against smoky fuel and illegal parking.

Prioritise public realm and pedestrian environment. Roll out of 30km Zones to reduce emissions. School Striders & Anti-idling campaigns. Learn from established best practice elsewhere. No better time than right now in fight against COVID 19 - a respiratory disease.

I have been directly affected by living directly over a restaurant and endured two and a half years of not being able to open my windows because of the smell of deep fat frying. This restaurant had flies at street level. It has since burned down which meant I had to spend 6 weeks in alternative accommodation because of extensive smoke damage to my home, which is really an example of just how bad the damage air pollution can be.

Everything on the list above should be done ideally

Light rail like luas is also a good option

Cork City was supposed to be a "smoke free" zone years ago, with the move away from smoky coal products. The past winter has shown the commitment to that status was a lie. The level of air pollution from domestic heating and traffic we had to endure for weeks was a disgrace, and an indictment of Cork City Council for failing to enact policies that put people and their health first. For a healthy city and population we need a healthy environment. Ever increasing traffic - which Cork City Council seems to favour - and failure to end solid fuel heating are not compatible with that.

Please ensure this programme is properly resources and funded. We need to reduce emissions both for direct effects of public health but also long term sustainability regarding climate change. These issues will cost much more in the long run than preventive measures like improving air quality now. Go raibh maith agat

Surely the answer to 17 above should be decided by research to determine the 3 most significant modifiable contributors to poor air quality?

All of the above would be great if they were implemented and monitored.

Fine polluters, establish a clean air squad with legal empowerment backed by lawyers. Use the legal system.

Power grids - micro grids - solar panels. People generate electricity locally and they are not relying on a central power grid. Stop burning fossil fuels. Windmills for businesses and homes. Look at what the Netherlands are doing with their doughnut model to mend post coronavirus economy.

Target the polluters directly......and quickly.....identify pollution enforcement legislative failures and seek government changes.

Set up a permanent pollution inspectorate with powers of enforcement.

Close off the Marina and other streets permanently to car and commercial traffic.

More Bus lanes.

Car free days in some communities.

I hope you surprise me but you're hedging your commitment here and frankly I don't trust you

Difficult to choose the 3 most effective from above. More Park & Ride & trees, cheaper public transport, limit vehicular access to black spots all valid. MOST IMPORTANT: enforce regulations adopted. Curtailment of Patrick St afternoon access was a joke...

I've limited my answers to traffic only. International evidence suggests that a mix of measures that disincentivizes/punishes the polluting activity (i.e. car traffic) and incentivizes/makes easier the non-polluting activity (e.g. public transport, cycling) will work best. Survey evidence also suggests travellers are less motivated by the cost of mobility and more motivated by the convenience of mobility. Public transport will have to be more convenient (e.g. more frequent) to be a better alternative

Provide multi storey carparks in the city and outskirts and get satellite busses to transport public into city centre otherwise city centre business is going to die.

Or else get rid of business in the city centre and convert it to city living, it might encourage business to come back.