

Urban Environmental Indicators

Nitrogen dioxide levels in Dublin
How we assessed them
What the results showed
Next steps

EPA report 2019



Environmental Protection Agency

The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

The work of the EPA can be divided into three main areas:

Regulation: *We implement effective regulation and environmental compliance systems to deliver good environmental outcomes and target those who don't comply.*

Knowledge: *We provide high quality, targeted and timely environmental data, information and assessment to inform decision making at all levels.*

Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

Our Responsibilities

LICENSING

We regulate the following activities so that they do not endanger human health or harm the environment:

- waste facilities (e.g. landfills, incinerators, waste transfer stations);
- large scale industrial activities (e.g. pharmaceutical, cement manufacturing, power plants);
- intensive agriculture (e.g. pigs, poultry);
- the contained use and controlled release of Genetically Modified Organisms (GMOs);
- sources of ionising radiation (e.g. x-ray and radiotherapy equipment, industrial sources);
- large petrol storage facilities;
- waste water discharges;
- dumping at sea activities.

NATIONAL ENVIRONMENTAL ENFORCEMENT

- Conducting an annual programme of audits and inspections of EPA licensed facilities.
- Overseeing local authorities' environmental protection responsibilities.
- Supervising the supply of drinking water by public water suppliers.
- Working with local authorities and other agencies to tackle environmental crime by co-ordinating a national enforcement network, targeting offenders and overseeing remediation.
- Enforcing Regulations such as Waste Electrical and Electronic Equipment (WEEE), Restriction of Hazardous Substances (RoHS) and substances that deplete the ozone layer.
- Prosecuting those who flout environmental law and damage the environment.

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- Monitoring and reporting on the quality of rivers, lakes, transitional and coastal waters of Ireland and groundwaters; measuring water levels and river flows.
- National coordination and oversight of the Water Framework Directive.
- Monitoring and reporting on Bathing Water Quality.

MONITORING, ANALYSING AND REPORTING ON THE ENVIRONMENT

- Monitoring air quality and implementing the EU Clean Air for Europe (CAFÉ) Directive.
- Independent reporting to inform decision making by national and local government (e.g. *periodic reporting on the State of Ireland's Environment and Indicator Reports*).

REGULATING IRELAND'S GREENHOUSE GAS EMISSIONS

- Preparing Ireland's greenhouse gas inventories and projections.
- Implementing the Emissions Trading Directive, for over 100 of the largest producers of carbon dioxide in Ireland.

ENVIRONMENTAL RESEARCH AND DEVELOPMENT

- Funding environmental research to identify pressures, inform policy and provide solutions in the areas of climate, water and sustainability.

STRATEGIC ENVIRONMENTAL ASSESSMENT

- Assessing the impact of proposed plans and programmes on the Irish environment (e.g. *major development plans*).

RADIOLOGICAL PROTECTION

- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

GUIDANCE, ACCESSIBLE INFORMATION AND EDUCATION

- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making (e.g. *My Local Environment, Radon Maps*).
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

AWARENESS RAISING AND BEHAVIOURAL CHANGE

- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

MANAGEMENT AND STRUCTURE OF THE EPA

The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:

- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

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ENVIRONMENTAL PROTECTION AGENCY

An Ghníomhaireacht um Chaomhnú Comhshaoil
PO Box 3000, Johnstown Castle, Co. Wexford, Ireland

Telephone: +353 53 916 0600 Fax: +353 53 916 0699

LoCall: 1890 33 55 99 Email: info@epa.ie

Website: www.epa.ie

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EXECUTIVE SUMMARY

Nitrogen dioxide (NO₂) is an air pollutant associated with urban areas. It is strongly linked with traffic emissions. High levels affect our lung health. In previous EPA annual air quality reports, we have noted NO₂ levels in urban areas approaching the EU limit value. This publication provides new evidence on levels in Dublin. It looks at the main findings from assessments of NO₂ levels using techniques that allow us to look at a wider area, beyond the national monitoring stations. It also suggests some next steps. Our findings represent an early warning of potential exceedances of EU limit values in Dublin – long-term exposure to these levels of NO₂ is a cause of concern for people’s health and action needs to be taken now to address these findings.

Three main findings

1. **Highest levels of NO₂ are at locations with heavier traffic.** This clearly shows the impact traffic has on the levels of NO₂ in areas close to busy roads in Dublin.
2. **There are many areas where NO₂ is problematic** – In particular places, NO₂ levels were high suggesting they may be over the EU limit. Some of these areas include:
 - certain city centre streets,
 - the M50 motorway, and
 - the entrance to and exit from the Dublin Port Tunnel.
3. **Levels of NO₂ are well within the EU limits in many residential areas** – Away from busy roads the levels of NO₂ drop significantly and are well beneath the recommended EU limits in many residential areas

Next steps

The results of this assessment are an early warning – they signal the need for strong, co-ordinated action by all the relevant authorities to improve air quality in Dublin.

In order to improve the availability of real-time air quality data to the public, EPA is setting up new permanent monitoring stations in partnership with Dublin City Council and Trinity College Dublin. In Dublin this includes locations identified by this work as having the highest levels of NO₂. One near Heuston Station is already running and a second one is being installed on Pearse St.

If further monitoring confirms that the EU limit values of NO₂ have been exceeded, local authorities in Dublin and its suburbs will be legally required to prepare **air quality action plans** to address the causes and provide solutions in the affected areas. The measures adopted by other European cities have included promoting the greater use of cycling, walking and public transport, low emission zones and moving to cleaner modes of public transport. Implementation of the Government’s recently published Climate Action Plan will also have benefits for air quality – EPA is recommending that the proposed actions on road transport be progressed as soon as possible to improve air quality in the city.

ABOUT THIS REPORT

This report informs you about levels of nitrogen dioxide (NO₂) in Dublin city and suburbs.

But what is NO₂ and why does it matter? NO₂ is an air pollutant that is closely associated with traffic-related pollution in urban areas. It contributes to the formation of smog, and high levels of NO₂ affect people's health, particularly their lung health.

NO₂ levels can vary dramatically

The levels of nitrogen dioxide in cities and towns can vary dramatically over a short distance (a few metres), with the highest concentrations within 10 metres of the road side. Nitrogen dioxide is strongly linked with traffic emissions. The levels decrease significantly the further away you are from roads. The levels of nitrogen dioxide also vary depending on factors like:

- how much traffic there is,
- ages of vehicles,
- types of vehicles (diesel engines are associated with higher levels of NO₂ than petrol engines),
- speed of vehicles
- width of streets and their buildings,
- weather conditions.

How did we assess NO₂ levels across Dublin

As part of the National Ambient Air Quality Monitoring Programme (2017-2022) – a programme to provide increased access to air quality information – new methods and equipment to assess air quality are being used. In conjunction with the existing monitoring network in the Dublin area, we used **two additional methods** to provide more information.

1. Method 1: **diffusion tube sampling** – a technique to measure NO₂ using plastic diffusion tubes. This allowed us to sample air at more locations than are in the national network.
2. Method 2: **dispersion modelling** – a technique to produce a map of citywide NO₂ levels

More detailed information on both these methods are available in Appendix 1.

HOW EFFECTIVE ARE THE METHODS WE USED?

These methods we used are useful, but they are '**indicative**' only. This means that they only give us an **estimate** of longer-term average nitrogen dioxide concentrations. The results from the national air quality monitoring network are obtained using the European Committee for Standardisation's approved methods (reference methods) – this method accurately and precisely measures EU yearly limits of NO₂. We are expanding the number of these monitoring stations in Dublin.

Nitrogen Dioxide assessment results and what they mean

We used diffusion tube sampling in two phases to understand levels near traffic sites in the city centre. In phase 1 we placed diffusion tubes close to existing reference stations to compare their levels. Once we were satisfied with tube performance, we expanded the number of sampling sites to include heavily trafficked locations (Phase 2). This is important as it helps us to understand the results over both phases, in particular why the 2017 results show significantly higher levels of NO₂.

Diffusion tube sampling

Phase 1

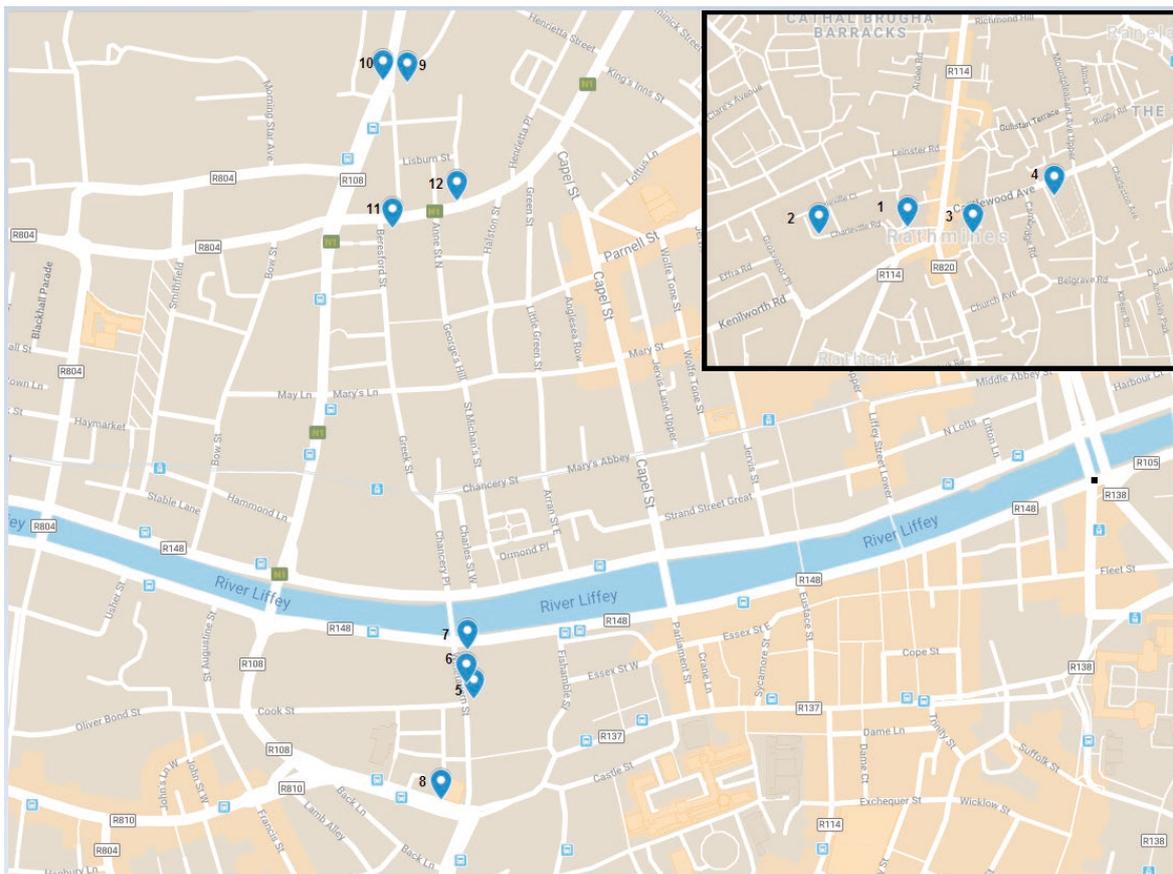
Figure 1 shows the 12 diffusion tube **sampling locations** used in 2016. The samples were taken at:

- road side locations, which would be expected to have higher levels of nitrogen dioxide, and
- suburban background sites like Rathmines, which would be expected to have lower levels.

For the 2016 results (Figure 2), the yearly average concentrations ranged from 19 ug/m³ (Castlewood Place, Dublin 6) to 49 ug/m³ (Wood Quay, Dublin 2). Any value over 40 ug/m³ indicates a likely breach of the EU standard.

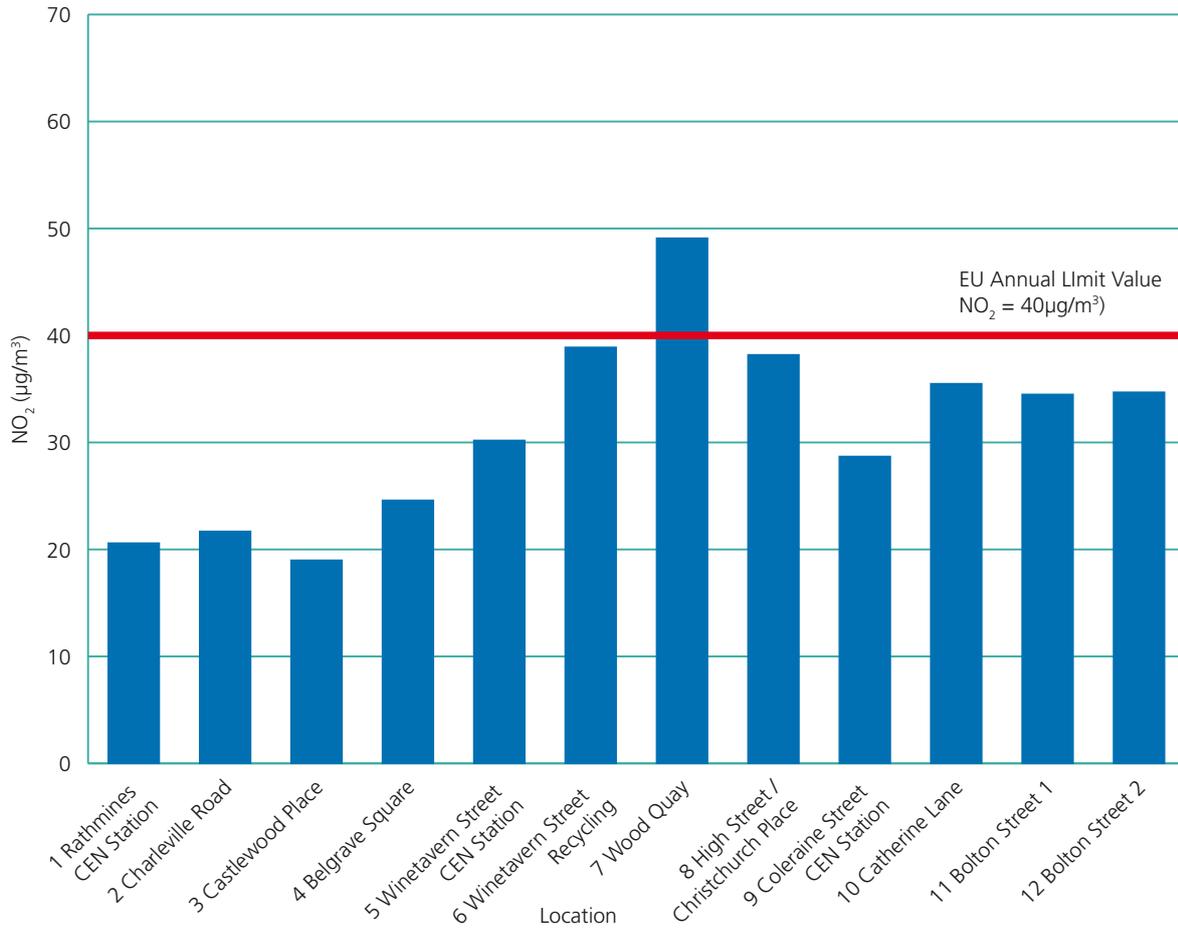
In general, we recorded lower levels of nitrogen dioxide at Rathmines (the suburban background location as you see in the first bar in Figure 4 below – 20 ug/m³). However, we recorded higher levels at the urban centre locations with heavy traffic such as Wood Quay and Winetavern Street.

Figure 1: Sample locations 2016



- | | |
|-------------------------------------|-----------------------------------|
| 1. Rathmines | 7. Wood Quay |
| 2. Charleville Road | 8. High Street/Christchurch Place |
| 3. Castlewood Place | 9. Coleraine Street (CEN Station) |
| 4. Belgrave Square | 10. Catherine Lane |
| 5. Wintetavern Street (CEN Station) | 11. Bolton Street 1 |
| 6. Wintetavern Street (Recycling) | 12. Bolton Street 2 |

Figure 2: Nitrogen dioxide diffusion tube results 2016

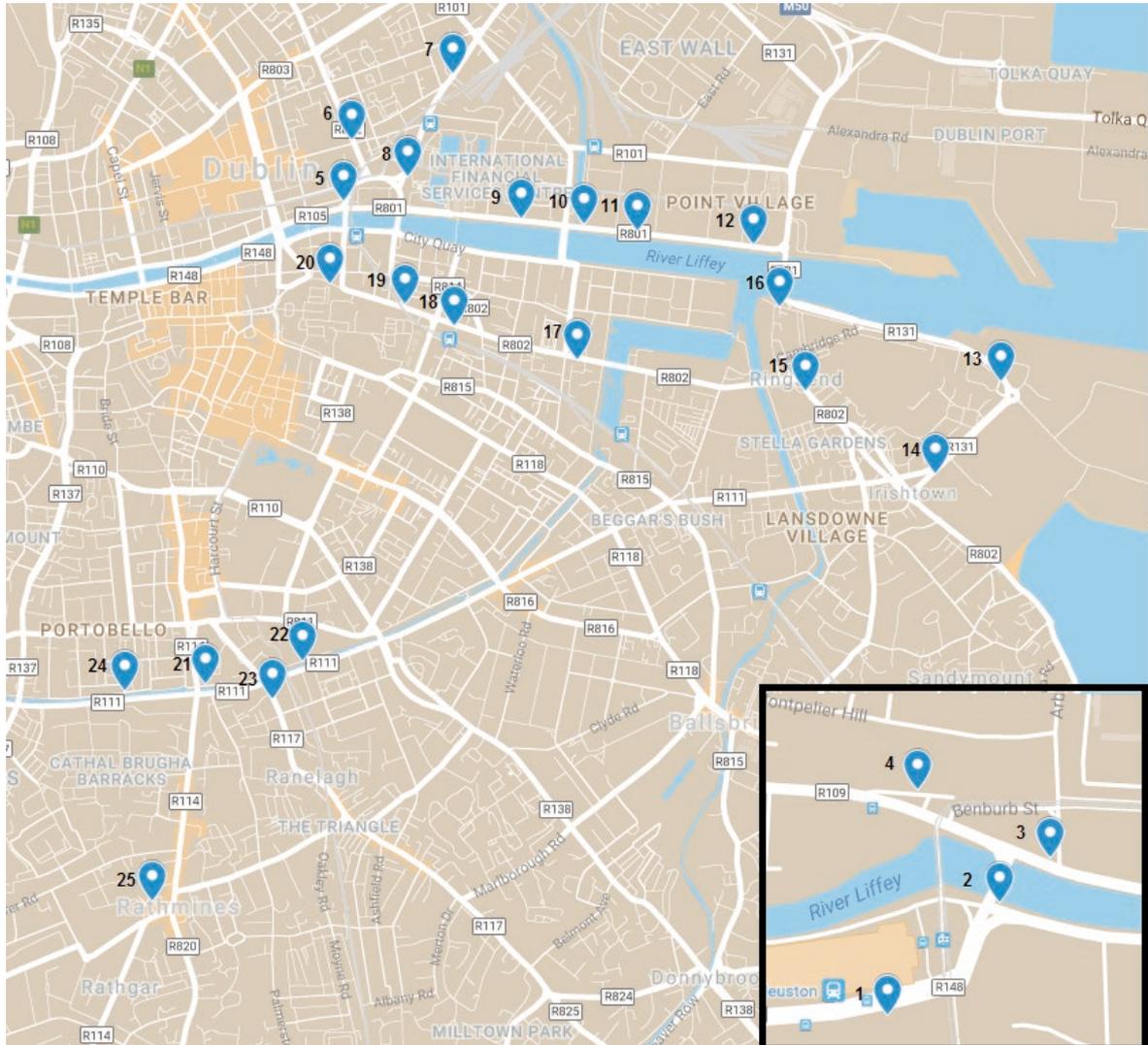


Phase 2

Figure 3 shows the 25 sampling locations used in 2017. For the 2017 results from these locations, the yearly average concentrations of NO₂ ranged **from**:

- 17 µg/m³ (Wynnefield Road, Dublin 6) – Point 25 on the map, to
- 64 µg/m³ (Pearse Street, Dublin 2) – Point 20.

Figure 3: Sample locations in 2017



- | | | |
|--------------------------|---------------------------------|----------------------|
| 1. Dr Steevens' Hospital | 10. North Wall Quay 2 | 19. Pearse Street 3 |
| 2. Victoria Quay | 11. North Wall Quay 3 | 20. Pearse Street 4 |
| 3. Wolfe Tone Quay | 12. North Wall Quay 4 | 21. Charlemont Mall |
| 4. Benburb Street | 13. 13 Pigeon House Road | 22. Charlemont Place |
| 5. Old Abbey Street | 14. Sean Moore Road | 23. Ranelagh Road |
| 6. Gardiner Street Lower | 15. Ringsend Fitzwilliam Street | 24. Kingsland Parade |
| 7. Amiens Street North | 16. York Street | 25. Wynnefield Road |
| 8. Amiens Street South | 17. Pearse Street 1 | |
| 9. North Wall Quay 1 | 18. Pearse Street 2 | |

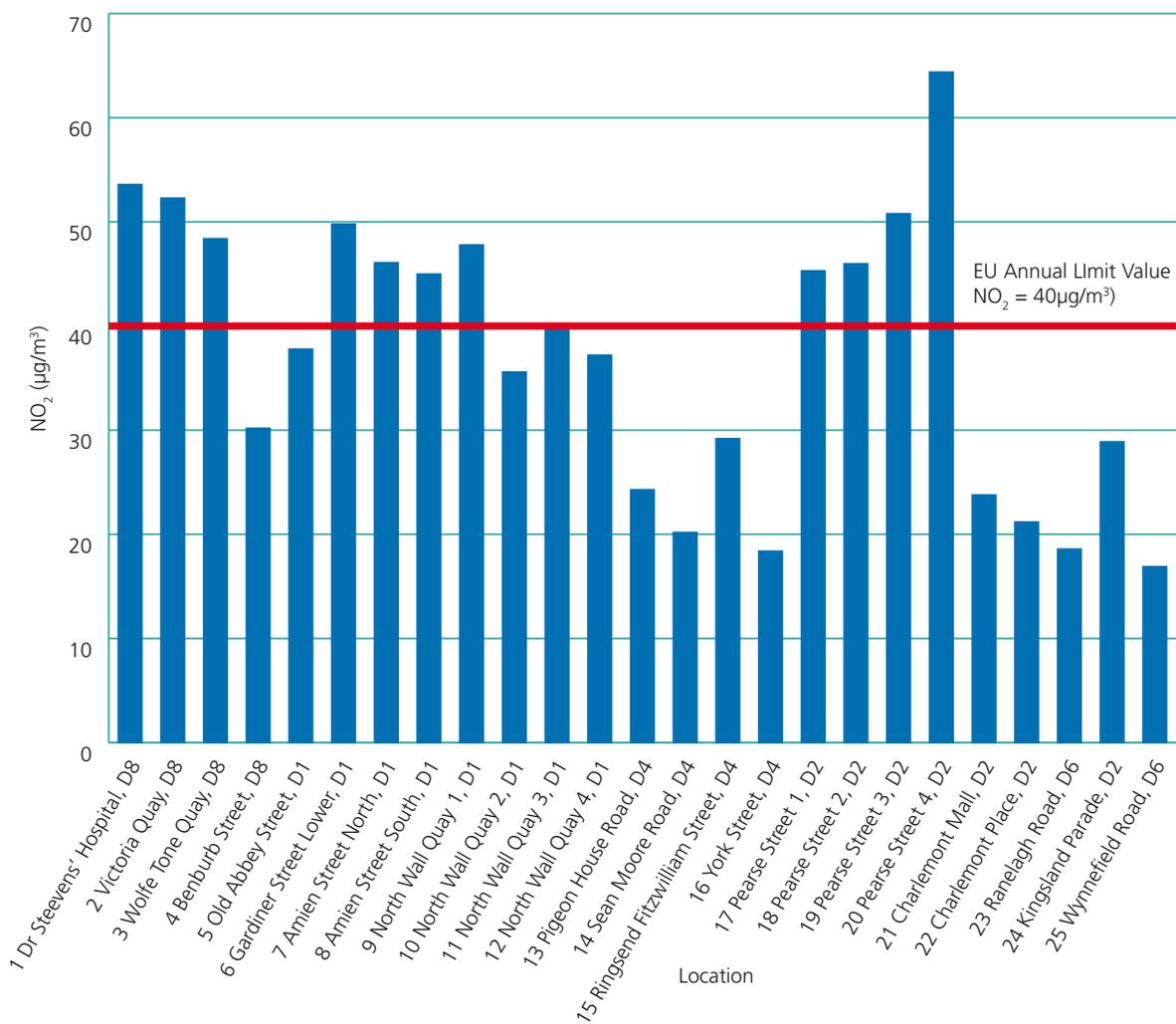
In Figure 4 you can see the concentrations of NO₂ observed. The urban centre locations and traffic classified sites showed higher levels.

Eleven locations showed an indicative value higher than the yearly NO₂ limit value.

They are the sites that have lines over the red line. For example, you can see that:

- the highest blue bar in Figure 4 is location 20, Pearse Street 4, where it reaches over 60 µg/m³ of NO₂, and
- the lowest concentrations were in location 25, Wynnefield Road (Rathmines – the suburban background location), and locations 21-24 in Ranelagh.

Figure 4: Nitrogen dioxide tube results 2017



Dispersion modelling

The dispersion modelling assessment involved using computational modelling to produce a city wide map. The results gained from the diffusion tube assessment along with data from the Dublin area air quality monitoring stations were used in a computational modelling assessment of NO₂ across the city. This activity was carried out in 2018 and formed part of a wider European assessment which focused on 2015 as a reference year.

Below (Figure 5) you can see a map of the yearly average nitrogen dioxide concentrations across the entire study area for Dublin, while Figure 6 illustrates levels for the city centre streets above the EU limits of 40 µg/m³.

EU limits of NO₂ are 40 micrograms per cubic metre (40 µg/m³) for the yearly average.

While the map shows that the majority of the city is well below the yearly EU limits for NO₂ (40 µg/m³), there are some areas which show modelled exceedances above this limit. The areas that exceeded the limit are in yellow and red and include areas:

- around the M50,
- in the city centre, and
- around the exits/entrance to the Dublin port tunnel.

On the M50, the highest concentrations are within 10 metres of the motorway edge, with levels falling to background concentrations around a distance of 50 to 75 metres.

Several of the city centre streets displayed modelled levels over the yearly limit value (40 µg/m³) for nitrogen dioxide.

Figure 5: Modelled annual average NO₂ concentrations for Dublin. The EU limit value is 40ug/m³

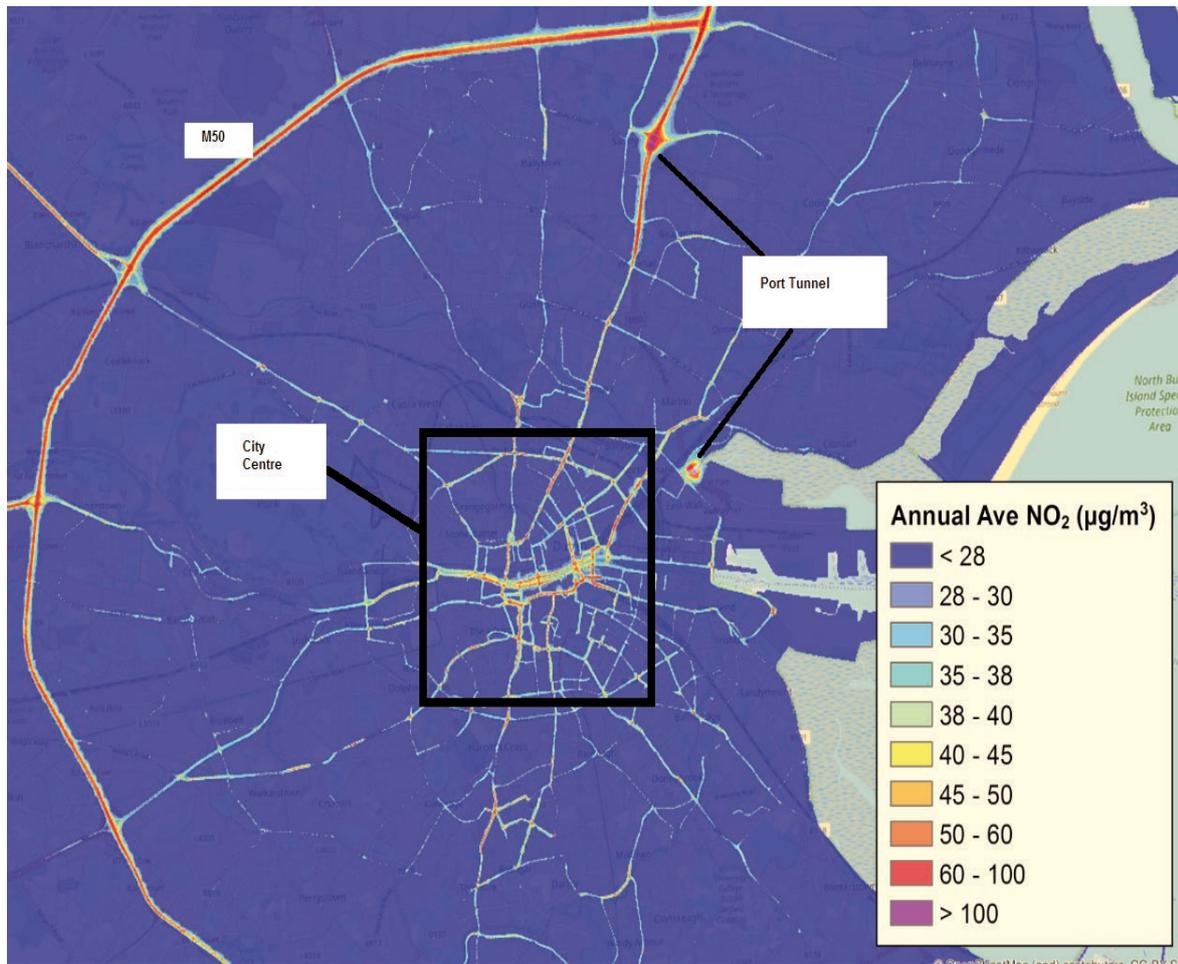


Figure 6: Modelled annual average NO_2 concentrations in Dublin city centre. The EU limit value is $40\mu\text{g}/\text{m}^3$



Modelling levels of other pollutants

The same method was used to study particulate matter levels in the air. The dispersion model results for this pollutant confirmed what our monitoring network has been showing – levels of fine particulates in Dublin comply with the EU particulate matter limits but in many places exceed the guideline levels set by the World Health Organization.

More information on both methods used can be obtained in Appendix 1.

CONCLUSIONS

Areas that may exceed EU NO₂ limits highlighted

Both the methods we used – diffusion tubes and the dispersion modelling – highlighted areas of Dublin city and its suburbs where the EU annual limit value (40 ug/m³) for the air pollutant NO₂ have been indicatively exceeded. This is worrying for our health and signals a need for strong, co-ordinated action. The relevant authorities and agencies need to act on these results and address levels of NO₂ in Dublin.

Highest levels at urban traffic locations

Concentrations of NO₂ were highest at urban traffic locations. This clearly shows the impact traffic on busy roads has on NO₂ levels in areas close by.

Many areas where NO₂ is problematic

Diffusion tubes results mainly found high NO₂ levels beside busy roads in the city centre.

The dispersion modelled concentrations of NO₂ were high:

- on the M50 motorway,
- in certain city centre streets, and
- at the entrance to and exit from the Dublin Port Tunnel.

Away from busy roads, NO₂ levels are low

The results also tell us that nitrogen dioxide is not a problem in large areas of the city away from the busier roads with heavier traffic.

Informing national monitoring network

The EPA is using both of the studies (tube sampling and dispersion modelling) to help expand the national monitoring network as part of the National Ambient Air Quality Monitoring Programme 2017-2022. Similar studies are also ongoing in other Irish cities.

Next steps

What happens if we confirm levels are exceeded?

EPA's annual air quality reports have previously flagged NO₂ as being potentially problematic and stated that we were approaching the EU limit value in urban areas. This assessment provides a further early warning of potential exceedances in Dublin and is a call for co-ordinated action.

If further assessments confirm that the levels of NO₂ have been exceeded, local authorities in Dublin and its suburbs under EU legislation will be legally required to prepare **air quality action plans** to address the causes and provide solutions in the affected areas. The results will be informed by the readings of NO₂ from reference air monitoring stations.

What can be done to improve NO₂ levels?

Examples of the **measures** other European cities use to tackle exceedances of nitrogen dioxide include:

- promoting the use of alternatives to the private car such as public transport, carpooling, cycling and walking;
- moving to cleaner modes of public transport;
- expanding the re-charging network for electric vehicles, and
- establishing low-emissions zones (areas that promote the use of environmentally-friendly vehicles over non-environmentally-friendly ones).

Implementation of the Government's recently published 2019 **Climate Action Plan** will also have benefits for air quality. The actions in relation to road transport should be progressed immediately to improve air quality in the city.

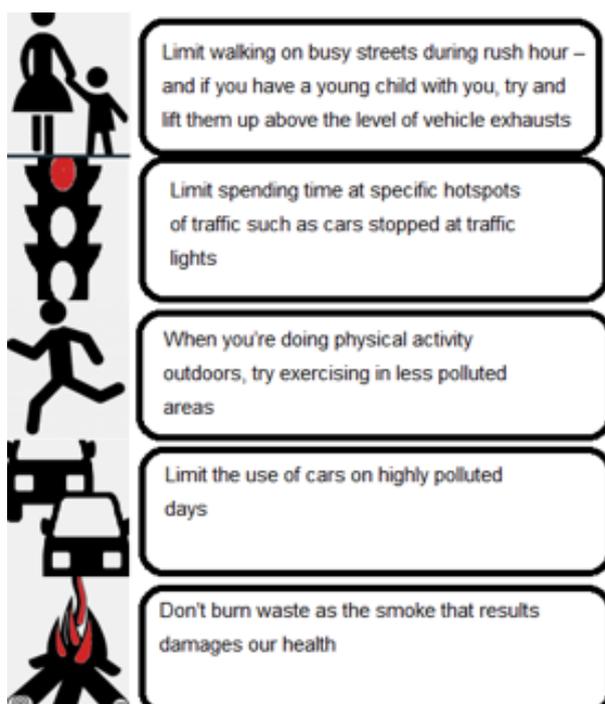
The Government's first **National Clean Air Strategy** is currently under development, the EPA looks forward to its publication to address key pollution sources including transport for NO₂. This is expected to lead the way on policy change to improve the air that we breathe.

We all have a role in play in improving the quality of the air we breathe. Our home heating and transport choices directly influence the level of pollution in the air around us. Consider switching to cleaner forms of transport and using public transport. Where public transport options are limited, consider carpooling as a means to commute.

How can I limit breathing polluted air?

The infographic below provides some practical ways to limit breathing of polluted air.

Figure 7: ways to reduce breathing polluted air (Source World Health Organization)



What further assessments are being done?

EPA is expanding the national network of monitoring stations. **A new air monitoring station has already been set up at St John's Road West** (near Heuston Station) – **an area with high NO₂ levels. The initial results from 2019 for this station support the results of the NO₂ diffusion tube and modelling studies – they show levels in this location are likely to exceed the European annual limit value for NO₂.** We are also at an advanced stage of planning another air monitoring station in Pearse Street. This new station will focus on traffic emissions on this street, which is a hotspot for NO₂.

We will continue modelling and using diffusion tubes in **other Irish urban areas**. We will use the results from these assessments to identify suitable places to put new urban monitoring stations. This is being done as part of the National Ambient Air Quality Monitoring Programme (2017-2022).

We have also planned research studies looking at **real-world emissions** including road traffic and shipping. Real-world emissions tests are tests that measure the pollutants a car produces while being driven on real roads as opposed to being tested in a lab. Results from these studies will help further improve the dispersion modelling.

How to get involved

We are planning a large project involving members of the public and schools in 2020. The aim of the project is to measure levels of NO₂ in the cities of Dublin and Cork. If you would be interested in taking part in this project watch out for announcements on [@EPAAirQuality](#) and on our website www.airquality.ie

FURTHER INFORMATION

For further information about NO₂, please visit www.airquality.ie

Follow us on twitter: [@EPAAirQuality](#)

APPENDIX 1 – ASSESSMENT METHODS

‘diffusion tube sampling’



Figure 1a: Diffusion tube attached to a wall

Diffusion tube sampling is an inexpensive way of sampling NO₂ levels **within a locality**. The tubes are plastic and contain a chemical that absorbs nitrogen dioxide directly from air. We measure the level of NO₂ absorbed to work out how much there is in the air. You can see a picture of a diffusion tube in Figure 1a.

‘dispersion modelling’



Figure 2a: Computer map of levels of NO₂ on the M50

Dispersion modelling is a computer-based program that works out how pollutants like NO₂ mix in the air when released from sources like cars, trucks, and so on. The program uses **detailed data** (see below) and mathematical calculations to indicate levels of NO₂. The program produces a graphic like the one you see here on the left of a section of the M50.

- High levels of NO₂ are shown in the yellow and red – near the M50.
- Low levels of NO₂ are shown in blue to green areas – areas a greater distance from the M50.

How we measure NO₂

We measure NO₂ in **micrograms per cubic metre** – µg/m³. High levels are 40 µg/m³ or over and low levels are under this level.

Data we used

The type of data we input into the computer to ‘model’ NO₂ levels includes:

- weather information,
- information on emissions from industry and traffic and others,
- street and building layout information, and
- air quality data from rural areas (for comparative purposes).

What we produced

Through dispersion modelling, we produced **a map** of nitrogen dioxide levels for the area were studied. The map makes it easy for us to see NO₂ levels and where they are higher than they should be. The map is like the one above and also **uses different colours to show different levels**.

How we evaluated the model

The EPA and CERC evaluated the dispersion modelling method using the FAIRMODE community verification tool (DELTA Benchmarking). This indicated that the model is fit for purpose.

Where we got our data

The modelled method used, relies heavily on having access to good quality data, particularly for emissions from traffic like petrol and diesel. We got detailed traffic data (like volume of traffic) from the transport department of Dublin City Council. We made reasonable assumptions on the nature of traffic speeds.

The 2015 study using the modelling method was an **initial** modelling exercise on Dublin air quality. We can achieve further improvements using this method by having additional information on:

traffic in Dublin, and

emissions from shipping in Dublin's Ports

Need to assess how well indications using the modelling method match measured levels

When using the dispersion model, we must remember that its indications of NO₂ levels need to be checked against actual measured levels. In this instance, we checked against measured readings of NO₂ from air monitoring stations in Dublin for the area studied – 5 in all.

Overall, we found that the dispersion model performs well, but there may be some local areas where it does not fully represent the situation. That is why we plan to continue to use tube sampling along with dispersion modelling.

Who we worked with on this method

We worked with Cambridge Environmental Research Consultants (CERC). CERC used a computer system called ADMS URBAN model.

The dispersion modelling method is expensive, but it is helpful as it gives us a wider indication of NO₂ levels across the city than measuring using tube sampling. The study was completed in 2018 as part of a wider European project focussing on air quality in 2015.

An Gníomhaireacht um Chaomhnú Comhshaoil

Tá an Gníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaoil a chaomhnú agus a fheabhsú mar shócmhainn luachmhar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaoil a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truailithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: Déanaimid córais éifeachtacha rialaithe agus comhlionta comhshaoil a chur i bhfeidhm chun torthaí maíthe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.

Eolas: Soláthraimid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spríodchírithé agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.

Tacaíocht: Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaoil atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaoil inbhuanaithe.

Ár bhFreagrachtaí

CEADÚNÚ

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaoil:

- saoráidí dramhaíola (*m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola*);
- gníomhaíochtaí tionsclaíoch ar scála mór (*m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta*);
- an diantalmhaíocht (*m.sh. muca, éanlaith*);
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaíthe (*OGM*);
- foinsí radaíochta ianúcháin (*m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíochta*);
- áiseanna móra stórála peitрил;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

FORFHEIDHMIÚ NÁISIÚNTA I LEITH CÚRSAÍ COMHSHAOIL

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdarás áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhírú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúcháin.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a idíonn an ciseal ózón.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaoil.

BAINISTÍOCHT UISCE

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uisce idirchriosacha agus cósta na hÉireann, agus screamhuisc; leibhéal uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

MONATÓIREACHT, ANAILÍS AGUS TUAIRISCIÚ AR AN GCOMHSHAOIL

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil (*m.sh. tuairisciú tréimhsiúil ar staid Chomhshaoil na hÉireann agus Tuarscálacha ar Tháscairí*).

RIALÚ ASTAÍOCHTAÍ NA NGÁS CEAPTHA TEASA IN ÉIRINN

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

TAIGHDE AGUS FORBAIRT COMHSHAOIL

- Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

MEASÚNACHT STRAITÉISEACH TIMPEALLACHTA

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaoil in Éirinn (*m.sh. mórphleananna forbartha*).

COSAINN RAIDEOLAÍOCH

- Monatóireacht a dhéanamh ar leibhéal radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíochta.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

TREOIR, FAISNÉIS INROCHTANA AGUS OIDEACHAS

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaoil ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaoil (*m.sh. Timpeall an Tí, léarscáileanna radóin*).
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

MÚSCAILT FEASACHTA AGUS ATHRÚ IOMPRÁIOCHTA

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

BAINISTÍOCHT AGUS STRUCTÚR NA GNÍOMHAIREACHTA UM CHAOMHNÚ COMHSHAOIL

Tá an gníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltáí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair inné agus le comhairle a chur ar an mBord.

ENVIRONMENTAL PROTECTION AGENCY

An Ghníomhaireacht um Chaomhnú Comhshaoil
PO Box 3000, Johnstown Castle, Co. Wexford, Ireland

Telephone: +353 53 916 0600 Fax: +353 53 916 0699
Email: info@epa.ie Website: www.epa.ie
LoCall 1890 33 55 99

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