Comhairle Contae County Council

# DÚN LAOGHAIRE RATHDOWN

# NOVEMBER MONTHLY MANAGEMENT REPORT

## 29 October – 30 November 2021

Comhairle Contae County Council

# COVID-19

Dlr is continuing to follow public health advice and limit the number of staff attending the workplace.

The November Council meeting was held on the 8th November 2021 as a hybrid style meeting, within the Council Chamber. Members attended the meeting both physically and remotely.

Due to concern around increased numbers of infection and the advice to limit interactions, the meeting to consider the Annual Budget 2022 held on the 29th November was held fully remote.

Updates on services effected, by department, are detailed below:

**Libraries**
All dlr Library spaces remain open at this time as part of a gradual and measured resumption of onsite library services in line with Government guidelines. These include: re-introduction of designated PC Spaces for internet access, some seating and Study Spaces on a phased basis/
The continuation of these library services is dependent on the most up to date public health advice and may be subject to revision at short notice.

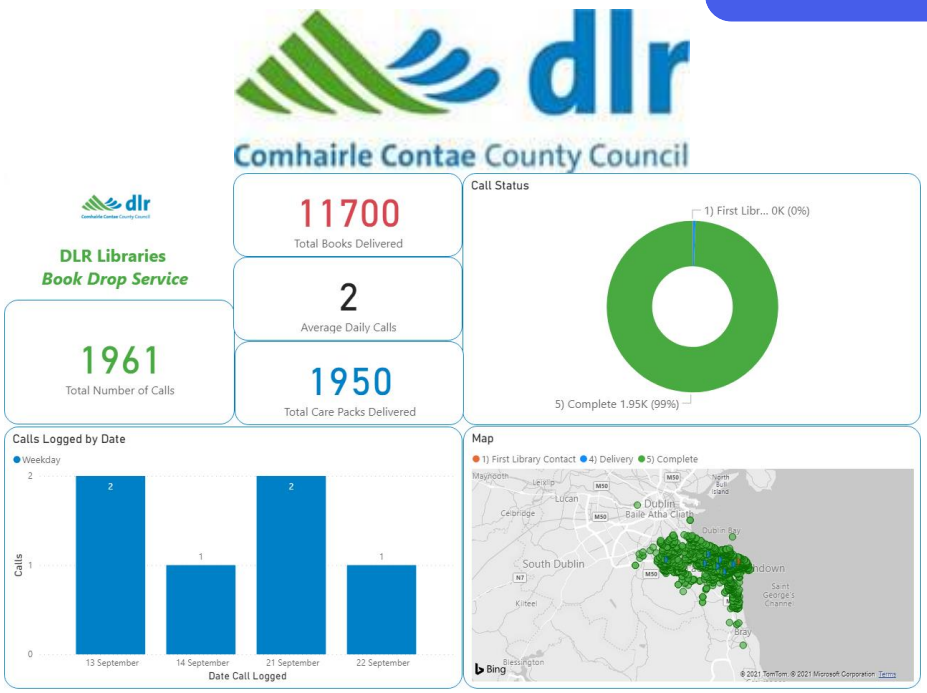
In addition to our ongoing programme of events online, a gradual and measured return to indoor events will begin following the latest Govt. announcement on 19 October.
We're hopeful that some in-person book clubs for adults can begin to resume safely in our library spaces shortly, in line with public health guidelines.

Following the announcement of public health measures that came into place on Friday 22 October, we will continue to take steps individually and collectively to keep the risk of the spread of Covid-19 under control, in particular by:

- acting fast, isolating and getting tested if we have symptoms
- wearing our face coverings where appropriate
- making sure that indoor spaces are well-ventilated
- maintaining adequate social distancing whenever appropriate
- covering our coughs and sneezes and keeping our hands clean

https://www.gov.ie/en/publication/83946-public-health-measures-that-will-come-into-place-in-october/

**Book Drop Service**
The number of calls to the Book Drop Service remains low at present. For those members of our community unable to visit their local dlr Library in person, staff in dlr LexIcon remain available to deal with requests for books. A selection of books are boxed and then delivered safely to homes. For further information about this service, please contact dlr LexIcon staff by phone on 01 280 1147 or email dlrlexiconlib@dlrcoco.ie




**Community Facilities**
Community Facilities have continued to operate for essential services during restrictions. From the 20th September activities were permitted to move indoors and managers and Boards of Management of facilities have continued to work closely with groups who provide leisure, educational, sports and cultural services to return safely to indoor settings.

The Community response to Covid-19 is being led and coordinated by **Dún Laoghaire-Rathdown County Council** in collaboration with a wide-range of stakeholders in the Community Response Forum, supported by a wide range of community and volunteer groups.

- The Community Response Forum is meeting every two months at present to support in coordinating the provision of a multi-agency response to the individuals in the community that are negatively impacted arising from the measures implemented by the Government to stem the spread of Covid 19. The last meeting was held on 27 October. The next meeting is scheduled for 12 January.
- Data for the community call helpline ceased being collected at the end of October. The service had dealt with in excess of 4,500 calls since its inception.

**Health & Wellbeing Initiatives**
Against the background of the Covid Restrictions, it was necessary to develop a range of initiatives to support health and wellbeing in our communities. The priority was to encourage communities to keep fit and active, stay connected and support them in looking after their mental health. Initiatives were rolled out across Libraries, Sports and Physical Fitness, Arts, Heritage and Biodiversity. The Council also partnered with Making Connections, that primarily looks after the elderly, in delivering a range of individual initiatives, in the community to help isolated individuals to connect with their neighbours.

**Keep Well Campaign 2021**
The Keep Well campaign was a national campaign which the government was promoting to help people stay well during the pandemic. The Campaign was focused on 5 themes: Staying Connected, Switching Off and Being Creative, Managing your Mood, Keeping Active and Eating Well. The campaign is now being wound down, as restrictions ease.

A dedicated Keep Well page was set up on the Council's website to support the national campaign: https://www.dlrcoco.ie/en/keep-well-campaign-2021

**Heritage**
Launch of Decade of Centenaries publications/exhibition replanned to take place within Covid guidelines

**Municipal Services**
All sections are working closely with the Gardaí to assist in social distancing in public areas, including parks, open spaces, beaches, harbours and piers.

Water Services: all essential services continue to be provided, including water supply, drainage services including surface water management and flood management. All essential repairs, operat ional and maintenance works are continuing, routine and other works have resumed.

Road Maintenance: the level of activity is at normal service with the majority of outdoor staff in operation. All operations including emergency repairs and upkeep, winter maintenance, responses to Gardaí and traffic accidents continue to be dealt with, and Road Resurfacing & Footpath upgrade programmes are in progress. Road Maintenance staff continue to operate primarily from satellite depots and mobile welfare units to maximize social distancing.

The Roads Control unit continues to grant and manage road opening licenses and permits for developers and utility services, including electricity, water, gas and telecommunications. The unit are also coordinating the processing and granting of Section 254 applications for above ground telecommunications infrastructure.

Cleansing/Street cleaning: All services are operating at full capacity, including litter removal, cleanups, street sweeping/cleansing, litter bin emptying and recycling centres. Outdoor staff continue to operate on staggered roster systems to maximise separation of staff and maintain social distancing measures.

Traffic: During the Covid 19 pandemic, the Council carried out several interventions to improve facilities for pedestrians and cyclists. This included the provision of cycle lane protection at several junctions and routes and the provision of wider footpaths using bollards and cones to facilitate physical distancing in towns and villages.

In July, as part of a Stimulus package, the Government announced total package of just over €100m to support sustainable mobility. As part of this, about €9.0 million was allocated to Dún Laoghaire Rathdown County Council for 65 schemes. This funding was used for such interventions as cycle lane protection schemes, improved footpaths and road surfaces, and improved cycle links though parks.

Beaches/Harbours/Piers: All services have resumed.

**Local Enterprise Office and Economic Development Unit**
The Local Enterprise Office continues to offer grant and training supports to businesses impacted by Covid 19. A webpage has been setup for the specialised LEO Covid supports which contains details of all the government supports for businesses in these difficult times.

In addition to helping companies adopt best practices in dealing with crisis, the Local Enterprise Office (LEO) is continuing to provide a full range of training supports, details of which are available here. A new initiative has been launched to provide support in the areas of Financial Understanding, Leadership and Lean thinking.

The Fáilte Ireland Outdoor Dining Scheme was introduced in April 2021 to provide funding to individual businesses to introduce or expand their outdoor seating. The Scheme closed

on October 8 2021, and provided €350,000 in funding to support over 160 dlr businesses in the hospitality sector.

The Economic Development Unit has been involved in a number of significant initiatives aimed at increasing footfall in the county's towns and villages, including the Dún Laoghaire Anseo street art programme and the Summer Streets initiative. The trial pedestrianisation of George's Street Lower in Dún Laoghaire finished on September 30th. An extensive consultation with residents and businesses has taken place, and this will be used, along with relevant footfall and spending data, to conduct a comprehensive analysis of the trial.

**Infrastructure and Climate Change**
The Directorate is continuing its work on certain elements of Covid19 interventions and Active travel programme.

- The Directorate continues to respond to environmental, waste and litter pollution incidents, as needed, and such incidents are recorded and managed as usual through the Civic Hub and the CRM system.
- The Council's waste recycling facilities remain open (at Ballyogan, Eden Park and Shanganagh) with social distancing and other HSE recommended protocols in place and the Council-operated Bring Banks continue to be serviced and made available for use by the public.
- Property Management continues to offer a full service.
- The Capital Projects Team continue to progress capital projects through design stages. Some delays are encountered with Covid restrictions on the construction sectors and associated services.

**Forward Planning Infrastructure**

- The Directorate continue to engage with applicants, their representatives and other state agencies as part of on-line systems to include tele / video conferencing to facilitate workshops and reporting in the assessment of the Cherrywood Planning Scheme.
- Work continues in progressing the project designs and tender documentation of the Cherrywood Urban Regeneration Development Fund (URFD) - Parks, Greenways and Attenuation project, as well as the Cherrywood LIHAF project for the Druid's Glen Road.

**Architectural Services**
All areas fully operational.

**Housing**
The Housing Department continues to provide a full range of services with additional health and safety restrictions in place due to Covid-19. In some cases, additional supports are being provided as required. Given the need to limit access to some homes due to COVID-19, it is not always possible to carry out some services such as minor maintenance requests.

**Finance**
Rates: The Government had previously announced a waiver of commercial rates for the first 9 months of 2021. We have credited a total of €26,944,528, to customers' accounts in respect of waivers to 30th September 2021. The 9 months waiver has been applied to customers' accounts and customers have been informed of their revised balances.

On the 12th October 2021, the Government announced a targeted waiver scheme for quarter 4. Over €60 million is being provided nationally to extend the commercial rates waiver for the quarter targeted at the hospitality, arts and certain tourism related

sectors. We are currently working on identifying the commercial rate customers who qualify for the targeted waiver scheme.

As part of the Business Support Grant for 2021, we have applied the grant to commercial rate customer accounts who had signed up to pay by Direct Debit. The scheme provides for graduated grant payments dependent on the level of rates with the grant varying from 4% to 10% of the 2017 rates bill. The maximum Grant ranges from €300 to €800 depending on the 2017 Rate Band.

The Council continues to work in partnership with businesses who are experiencing difficulty paying their rates. Payment plans are entered into which are mutually acceptable to the business and the Council.

Accounts Payable: Accounts payable are continuing to work to ensure suppliers are paid as quickly as possible to assist with their cash flow requirements.

Financial Management: The impact of Covid-19 on the Council's financial position has seen a deterioration in our cash position as we await receipt of approximately €25m. rates waiver support in respect of the first 9 months of 2021.

Budgets and cash flow continue to be monitored closely.

**Planning**

- The Planning Department is operating in accordance with the revised time frames set out by the Ministerial Orders. The Orders disregard the period from the 29 March 2020 to the 23 May 2020 (inclusive), 56 days/8 weeks, when calculating statutory timeframes.
- The Planning Counter is fully operational; customers are advised to pre-arrange an appointment to facilitate adherence to current Covid 19 guidelines and encouraged to utilize our online services.

**Circulars and Relevant Documents**

Planning and Development during the Covid 19 Emergency Circular PL 02/2020
https://www.dropbox.com/sh/4v03i3z3flprs9i/AAA9a0nV_0rE8rLp5_kgxBuCa?dl=0

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A/Director: Leonora Earls

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A/Director: Aidan Blighe

**Finance and Economic Development** ..... 23

Director: Helena Cunningham

**Housing ***

Director: Catherine Keenan

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Director: Mary Henchy

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Director: Anne Devine

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County Architect: Andrée Dargan

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Director: Therese Langan

*Included in Quarterly Management Report

**Draft Dublin Region Air Quality Plan 2021 and attachment to this report.**

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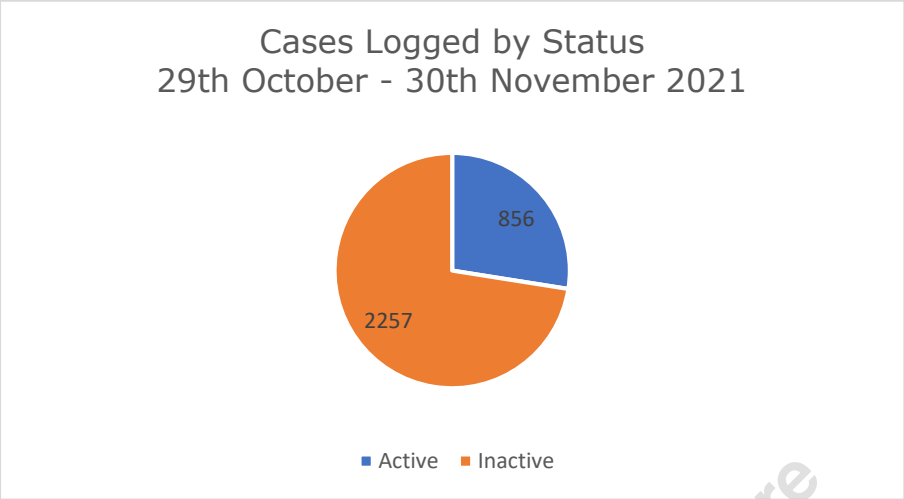
**Corporate Affairs**

**Civic Hub Stats:**

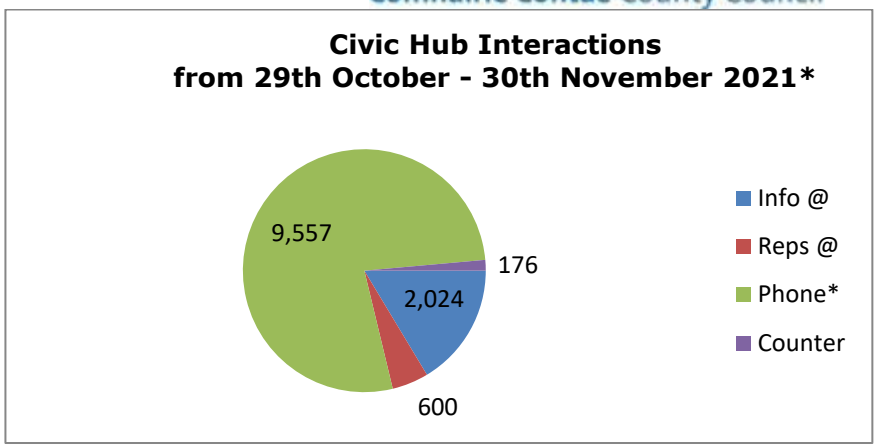



Cases logged from 29th October – 30th November 2021

| | |
|---|---|
| Open | 856 |
| Closed | 2257 |

**Cases Logged from 29th October – 30th November 2021, by Section:**

| Section/Dept | Open | Closed | Total |
|---|---|---|---|
| Architects | 5 | 7 | 12 |
| Ballyogan Depot | 2 | 1 | 3 |
| CoCo | 4 | 4 | 8 |
| Comms & Civic Hub | 26 | 662 | 688 |
| Community | 4 | 3 | 7 |
| Corporate Services | 2 | 2 | 4 |
| dlrcoco | 7 | 1 | 8 |
| Enterprise | 1 | 1 | 2 |
| Environment | 141 | 580 | 721 |
| Finance | 23 | 203 | 226 |
| Housing | 57 | 98 | 155 |
| HR | 1 | | 1 |
| Libraries | 1 | 2 | 3 |
| Parks | 265 | 147 | 412 |
| Planning | 3 | 14 | 17 |
| Property | 10 | 7 | 17 |
| Transportation | 290 | 448 | 738 |
| Waste Enforcement | 8 | 62 | 70 |
| Water Services | 6 | 15 | 21 |
| **Grand Total** | **856** | **2257** | **3113** |




* Pie chart excludes abandoned calls

**Civic Hub Activities:**

**Cases logged from 29th October – 30th November 2021**

| **Phone Statistics** | Answered Directly | Transferred to overflow |
|---|---|---|
| | 8,447 | 1,110 |

| **Emails received** | Info@ | Reps@ | Total Emails |
|---|---|---|---|
| | 2,024 | 600 | 2,624 |

| **Counter Interactions** | Civic Hub | Appointments | Total |
|---|---|---|---|
| | 145 | 31 | 176 |

**Website Activity – page views (October 29th-November 30th)**

| **Website** | **Page Views** |
|---|---|
| Dlrcoco.ie | 219,888 |
| Dlrevents.ie | 6,776 |
| dlrLibraries | 54,722 |

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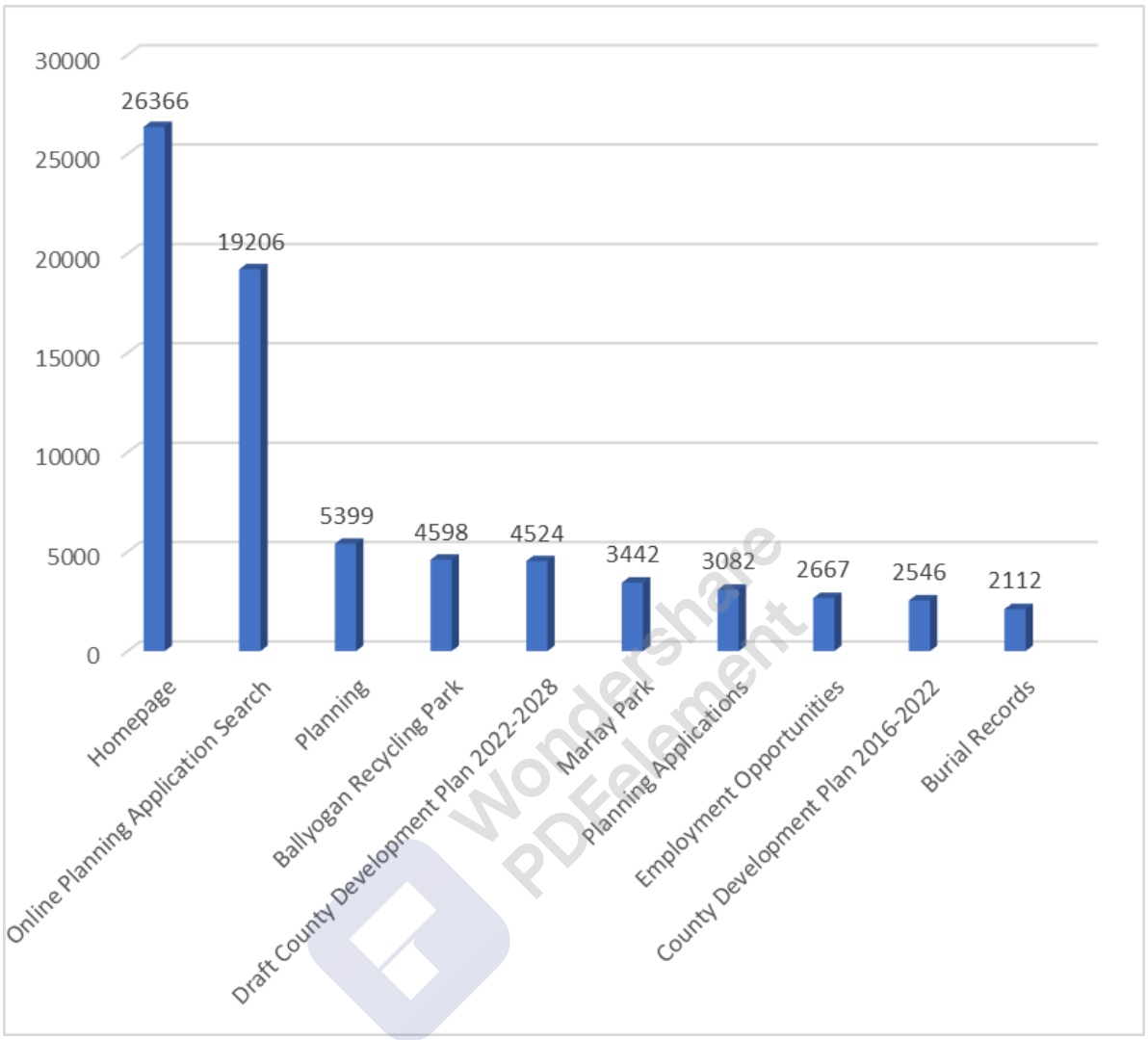
**Top Pages**



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## Social Media Activity – November 2021

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Reporting Period**<br>Oct 29, 2021 - Nov 30, 2021 | **70,350**<br>↗0.6% | **417**<br>↘39.3% | **1,106**<br>↘24.2% | **1,467,051**<br>↘22.2% | **42,568**<br>↘45.4% | **2.9%**<br>↘29.8% | **23,092**<br>↗23.9% |
| **Compare to**<br>Sep 26, 2021 - Oct 28, 2021 | **69,907** | **687** | **1,459** | **1,885,574** | **77,983** | **4.1%** | **18,638** |
| **@DLR_Libraries** | 8,481 | 38 | 108 | 130,308 | 4,076 | 3.1% | 1,490 |
| **@dlrArts** | 2,778 | 23 | 76 | 33,479 | 848 | 2.5% | 58 |
| **@dlrcc** | 18,219 | 101 | 296 | 501,625 | 10,817 | 2.2% | 12,127 |
| **@dlrheritage** | 3,874 | -2 | 4 | 5,650 | 244 | 4.3% | 3 |
| **@leo_dlr** | 5,565 | 12 | 35 | 10,160 | 239 | 2.4% | 6 |
| **dlrcoco.ie** | 5,111 | 154 | 243 | 219,798 | 2,638 | 1.2% | 4,450 |
| **dlrevents** | 10,982 | 58 | 29 | 64,694 | 4,026 | 6.2% | 78 |
| **Dún Laoghaire-Rathdown County Council** | 12,665 | 31 | 283 | 477,344 | 18,806 | 3.9% | 4,455 |
| **Dún Laoghaire-Rathdown Sports Partnership** | 2,675 | 2 | 32 | 23,993 | 874 | 3.6% | 425 |

### Press Queries

16 press queries were received between the 29th of October and 30th of November.

### Freedom of Information

There were 12 FOI Requests received in November.

Comhairle Contae County Council

# Municipal Services

## 1. Road Maintenance Management Report - November 2021

| Ref. | Programme Type | STATUS | | | | Comment |
|---|---|---|---|---|---|---|
| | | Design Stage | Tendered | On site | Complete | |
| **RRP Major** | **Road Resurfacing Programme - Major Works** | | | | | |
| 1 | Ballinteer Avenue | | | | ✓ | |
| 2 | Meadowmount Estate | | ✓ | | | Possibly start in Dec |
| 3 | Roebuck Road | | | ✓ | | |
| 4 | The Park Estate Cabinteely | ✓ | | | | |
| 5 | Claremont Road | | | | ✓ | |
| 6 | Ballinclea Road | | | | ✓ | |
| 7 | Corrig Road | | | | ✓ | |
| 8 | Ashlawn Estate | ✓ | | | | |
| 9 | Saval Park Road | | | | ✓ | |
| 10 | Glenageary Road Upper | ✓ | | | | |
| 11 | Barnhill Road | ✓ | | | | |
| | | | | | | |
| **RRP Minor** | **Road Resurfacing Programme - Minor Works ('Patching')** | | | | | |
| 1 | Stillorgan Road (old N11) | | | | ✓ | |
| 2 | Upper Kilmacud Road | | | | ✓ | |
| 3 | Ticknock Road Edges | | | | ✓ | |
| 4 | Ballyedmunduff Road Edges | | | | ✓ | |
| 5 | Heidelberg | | | | ✓ | |
| 6 | Sandyford Village | ✓ | | | | |
| 7 | Wyckham By-pass Roundabout | | | | ✓ | |
| 8 | Georges Place | | | | ✓ | |
| 9 | Patricks Square | | | | ✓ | |
| 10 | Monkstown Farm | | ✓ | | | |
| 11 | Georges Street Lower | | ✓ | | | |
| 12 | Barnaslingan Lane | ✓ | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 13 | Shanganagh Terrace | | | | ✓ | |
| 14 | Dublin Road (from old Conn Ave north to Circe K) | | | | ✓ | |
| 15 | Rochestown Avenue | | | | ✓ | |
| 16 | Proby Square (North, into Lindenvale) | | | | ✓ | |
| | | | | | | |
| **FP** | **Footpath Upgrade Programme** | | | | | |
| 1 | Pine Valley | | | | ✓ | |
| 2 | Sandyford Business District | ✓ | | | | |
| 3 | Kerrymount Ave | ✓ | | | | |
| 4 | Cabinteely Close | | | | ✓ | |
| 5 | Eden Park/Slieve Rua/Dale Road | | | | ✓ | |
| 6 | The Park, Cabinteely | | ✓ | | | possibly start early Dec |
| 7 | Sweetbriar Lane | | | | ✓ | |
| 8 | St Lukes Milltown | | | | ✓ | |
| 9 | Dún Laoghaire Town | | ✓ | | | |
| 10 | Blackrock Town | | | | ✓ | |
| 11 | Dalkey Village | | | | ✓ | |
| 12 | Ashlawn Park (Part of) | ✓ | | | | |
| 13 | Wynberg Park (Part of) | | | | ✓ | |
| 14 | Watsons Estate | ✓ | | | | |
| 15 | Glenavon Park | ✓ | | | | |
| 16 | Eaton Brae | | | | ✓ | |
| | | | | | | |
| **BSP** | **Bridges & Structure Programmes** | | | | | |
| 1 | Blue Light Wall Repair | | | | ✓ | |
| 2 | Glenalua Wall Repair | | | | ✓ | |
| | | | | | | |
| **DGRP** | **Drainage / Gully Repair Programme** | | | | | |
| 1 | End of Old Bray Road, Cabinteely | | | | ✓ | |
| 2 | Whitethorn Road, Clonskeagh | ✓ | | | | possibly start early Dec |
| 3 | Woodside Road | ✓ | | | | |
| 4 | Beech Lawn, Dundrum | | | | ✓ | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 5 | N11 at The Rise & Trees Road Lower | ✓ | | | | |
| 6 | Clonkeen Road (At South Park) | | | | ✓ | |
| 7 | Woodbine Park | | | ✓ | | |
| 8 | Seafield Road Killiney | | | | ✓ | |
| 9 | Ruby Hall | ✓ | | | | possibly start early Dec |
| 10 | Quinns Road | ✓ | | | | |
| 11 | Stillorgan Park Road | | | | ✓ | |
| 12 | Ulverton Road | | | ✓ | | |
| 13 | Carysfort Ave/Convent Rd | | | ✓ | | |
| | | | | | | |
| **NRP** | **National Roads Programme** | | | | | |
| 1 | N31 Crofton Road | ✓ | | | | |
| 2 | N11-N31, 3-Year Resurfacing Programme | | | ✓ | | |
| | | | | | | |
| **AWP** | **Accessibility Works Programme** | | | | | |
| 1 | Loreto Park | | | | ✓ | |
| 2 | Mulvey Park (Part of) | ✓ | | | | |
| 3 | Mt Albany Estate | | | ✓ | | |
| 4 | Cloister Estate | | | | ✓ | |
| 5 | Glenageary Park | ✓ | | | | to be included in Parks Entrance proposed works |
| | | | | | | |
| **CMP** | **Cycleway Maintenance Programme** | | | | | |
| 1 | Brehonfield Road | | | | ✓ | |
| 2 | Kill Lane (sections from Foxrock to Deansgrange jnct) | | | | ✓ | |
| 3 | Baker's Corner's junction | | | | ✓ | |
| 4 | Rochestown Avenue | | | | ✓ | |
| | | | | | | |
| **EMP** | **Estate Management Programme** | | | | | |
| 1 | Kilcross Estate | | | | ✓ | |
| 2 | Rathsallagh Estate | | | | ✓ | |
| | | | | | | |
| **TICP** | **Taking in Charge Programme*** | | | | | |
| 1 | The Rise Mount Merrion | ✓ | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Foxrock Wood - Beech Park Laneway | | ✓ | | | |
| | **Subject to investigation and clarification of ownership, assessment of works and costs needed to bring these roads/laneways up to taking in charge standard, and no commitment can be made at this stage as completing such works would be dependent on available funding and resources.* | | | | | |
| | | | | | | |
| | | | | | | |

## 2. Traffic & Road Safety

| | Preliminary Design Stage | Public Consultation | Detailed Design Stage | Tendered | On site | Complete | Comment |
|---|---|---|---|---|---|---|---|
| **NTA STMG Schemes 2021 – Schemes being progressed by Traffic & Road Safety Section** | | | | | | | |
| Brewery Road Junction (Brewery Road/St Brigid's, Church Road) | | | ✓ | | | | The scheme is currently on hold in the context of the Bus Connects proposals |
| Sandyford to Clonskeagh (UCD to Ashtons) | | | | ✓ | | | Tenders process underway for the appointment of a Contractor |
| Stillorgan Park Road to Carysfort Ave | | ✓ | | | | | A public consultation report was brought to the Dún Laoghaire Area Committee meeting on November 22, 2021 and noted by members. |
| Sandyford Business District Cycle Routes | | ✓ | | | | | A public consultation report will be brought to the December Dundrum Area Committee meeting. |
| Sandyford Cycle Route (Roebuck Road to UCD) | ✓ | | | | | | An engineering consultant has been appointed to carry out the design of the scheme and the preliminary design is currently being prepared. |
| Newtownpark Avenue, Blackrock | | | | | ✓ | | Improvements works are nearly complete on Newtownpark Avenue approaching the N11 |
| Leopardstown Road Cycle Lane Improvements | ✓ | | | | | | Documents to be prepared for appointment of design consultant in 2022 |
| Nutgrove Avenue - Phase 3 | ✓ | | | | | | Documents to be prepared for appointment of design consultant in 2022 |
| Selected Green Schools Walkability Audits Infrastructure | | | | | ✓ | | Works are nearly complete on Castlepark Road, Albert Road and at the Glenageary Dart Station |
| Cycle Parking Development | | | | | ✓ | | 135 stands have been installed in 2021 so far (270 spaces) with more due to installed in early December.<br><br>Cycle and scooter parking have been delivered to schools in the County. |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Roebuck Road (Fosters Avenue to Goatstown Road) | | | | ✓ | | | Works on junctions nearly completed. |
| Protected Cycle Facilities | | | | | ✓ | | Cycle protection works have been completed on Johnstown Road and works on Blackthorn Drive to take place in December. |
| New Pedestrian and Cycle entrance to Belfield on N11 at Nova UCD | | | | | ✓ | | Scheme 98% complete. Waiting on installation of granite cladding and new gates at Nova UCD. Estimated completion December 2021. |
| Wyattville Road (Phase 2) | | | ✓ | | | | Detailed design and preparation of tender documents ongoing. RFT to be sent out in December |
| Churchtown Road Lower (pedestrian improvements | ✓ | | | | | | Due to go to tender for construction shortly |
| Junction Improvements – west side of the County | | | | | ✓ | | Junction improvements have been completed at Rosemont, Dundrum and Farreboley, Windy Arbour |
| Stepaside Village and cycle scheme | ✓ | | | | | | In the process of appointing a consultant to carry out a preliminary design |
| **Covid 19 and July Stimulus Packed funded schemes –** Contractual Liability. | | | | | | | |
| 2020 Covid Measures and 2020 July Stimulus Package | | | | ✓ | | | Outstanding works from 2020 active travel schemes ongoing. |

**Stillorgan Village Movement Framework Plan**
Phase 3 – Lower Kilmacud Road from Kilmacud Croke's GAA Club to the N11. Design works are ongoing with a new road layout being examined to provide additional public realm benefits. Design being discussed in tandem with Developers of Leisureplex site.

**Road Safety, Cycling and Sustainable Travel**
Public consultation report on the Stillorgan Park Road was brought to the Dún Laoghaire Area Committee meeting on November 22, 2021.

Staff attended a webinar on the review of Bike Week 2021 on November 29.

Dlr in partnership with Dublin City Council, Fingal and South Dublin County Council, An Garda Síochána, the Road Safety Authority, and the Dublin Cycling Campaign took part in a road safety campaign encouraging cyclists to 'Light up Your Bike'. This was attended by

An Cathaoirleach Cllr Lettie McCarthy as well as the other Dublin Counties' Cathaoirleachs and Dublin City's Lord Mayor.

Provided road safety goodies for Dundrum Library bike clinic event with the co-operation of AGS on 27/11/2021.

**Deputations**
Traffic section met with the Sandycove Residents via Teams on the 23rd of Nov at 1730hrs.

**Traffic Advisory Group (TAG)**
TAG Area 1 meeting took place on Tuesday 9th November. A total of 37 items were discussed.

**Bus Connects**
The Core Bus Corridor (CBC) schemes are progressing through Final Design stage and planning applications are being prepared. A Preliminary Business Case for the overall BusConnects Dublin Programme has been submitted to the Department of Transport for its review and for Government decision in accordance with the Public Spending Code governing capital projects. Assuming a positive determination of the Preliminary Business Case, the NTA intends to submit planning applications for approval to An Bord Pleanála as quickly as is feasible thereafter. Statutory Planning Application documentation for the Clongriffin to City Centre CBC Scheme is being finalized and is expected to be the first CBC planning application to be lodged with ABP. It is anticipated at this stage that the Blackrock to Merrion CBC planning application will be submitted to ABP in Q1 of 2022.

The submission of the planning applications to ABP triggers a formal statutory public consultation process in respect of each of the stand-alone Core Bus Corridor schemes, with submissions to be made directly to An Bord Pleanála for their consideration. During this process, the finalised Environmental Impact Assessment Reports, inclusive of traffic impact analyses, will be published and available for inspection (including online) and purchase. The public will then have the formal opportunity to have their views heard and considered by An Bord Pleanála as part of the statutory consultation process to inform An Bord Pleanála's assessment of each of the stand-alone Core Bus Corridor schemes.

**Dundrum ABTA - Area Based Transport Assessment**
Work on this project is progressing and the ABTAs Stages 1 & 2 are now largely completed with work now underway on Stage 3 – Options Assessment & Development.

**Dundrum – Bus Interchange Project**
Initial discussions have commenced with the NTA on this project which aims to address the need for improvements to bus interchange facilities in Dundrum to cater for the planned service increases under the BusConnects New Dublin Area Bus Network. Meetings/workshops are ongoing to progress this work and a multi-disciplinary group from the Council is in place to assist.

**Dún Laoghaire - Bus Interchange Project**
Similar to the Dundrum Bus Interchange Project, the NTA have commenced discussions with DLRCC to address the need for improvements to bus facilities in Dún Laoghaire to cater for the planned service increases under the BusConnects New Dublin Area Bus Network. Meetings/workshops are ongoing to progress this work and a multi-disciplinary group from the Council is in place to assist.

**Old Conna ABTA - Area Based Transport Assessment**
Work on this project had been put on hold pending further engagement with the NTA regarding the review of the Transport Strategy for the GDA and the transport infrastructural requirements to support new development areas in the southeast of the county. It is now anticipated that work on this project will recommence in December 2021

**New Bus Stops to Serve Planned BusConnects Orbital Bus Services**
The Traffic Section has been liaising with the NTA on the location and design of new bus stops throughout the county, required to support planned new bus services being

introduced by the NTA over the next two years. It is anticipated that bus stop approval notices for the new stops will be issued to the NTA in December 2021.

## 3.Water & Drainage

**Drainage and Flood Alleviation**
Engineering and Environmental Consultants were appointed in Dec 2019 for Flood Risk Management works on the **Deansgrange Stream**. This is a 4-to-5-year project. Activities completed to date include additional survey work, CCTV surveys, a Constraints study, Hydrological analysis, and hydraulic modelling. Initial Public Consultation is now complete. Optioneering, environmental surveys and engagement with key stakeholders are underway. A Ground Investigation contract is complete and the report is awaited.

Engineering and Environmental Consultants have also been appointed for Flood Risk Management Works on the **Carrickmines/Shanganagh Rivers**. This is a 5+ year project. Data gathering is underway. A Flow/Rainfall Survey commenced on site in February and is now complete. An initial topographical Survey has been completed. Early damage/benefits assessments are underway to ensure a cost beneficial scheme is achievable. An initial public engagement commenced in early October following short briefing sessions with Councillors. A Hydrology/Hydraulic report is nearing completion.

Drainage Section is working closely with the OPW as they commence the update process of the published flood maps as required by the EU Floods Directive. Hydraulic modelling of the Dundrum Slang Stream is complete. Flood maps have been completed and will be uploaded shortly by the OPW to their website.

The Monkstown environs flood risk mapping project is underway. Initial data gathering work a topographical survey have been completed. A flow/rainfall survey and CCTV survey will commence shortly.

## 4.Roads Control Unit

**Reinstatement works**
Roads Control Unit is continuing to carry out the permanent reinstatement works throughout the administration area of Dún Laoghaire-Rathdown County Council DLRCC according to the current service level agreement (SLA) between Irish Water and DLRCC.

| |
|---|
| 630 no. locations reported, additional 25 no. confirmed |
| 409 no. locations reported in 2021, fully completed and certified |
| 509 no. location reported in 2020 and fully completed and certified in 2021 |

**Restoration works**

| Ref. | Programme Type | STATUS |
|---|---|---|
| **RCRP** | **Roads Control Restoration Programme 2021** | |
| | Mariner's Court | Restoration works fully Completed.<br>Road Marking items are agreed to be provided by Council Traffic Section. |

## 5.Cleansing, Beaches & Coastal Protection Section Statistics:

| Cleansing & Beaches Stats | May 2021 | June 2021 | July 2021 | August 2021 | Sept 2021 | October 2021 |
|---|---|---|---|---|---|---|
| Weight of Rubbish Collected from Streets/Beaches (tonnes) | 347 | 364 | 318 | 217 | 283 | 342 |
| Clean-Ups Assisted | 67 | 50 | 60 | 53 | 67 | 58 |
| Animal Removals from Public Spaces | 20 | 40 | 27 | 19 | 23 | 21 |
| Bathing Water Samples Taken | 18 | 41 | 43 | 40 | 32 | 18 |
| Gullies Cleaned | 1487 | 1440 | 1204 | 729 | 1251 | 0 |
| Dumping Incidents Managed | 53 | 32 | 30 | 56 | 42 | 45 |
| Bathing Water Pollution Incidents Detected | 0 | 2 | 1 | 0 | 1 | 0 |
| Reported Overflows from Drainage Network to Bathing Water | 11 | 0 | 21 | 10 | 4 | 13 |
| Street Bin Collections | 6285 | 6709 | 6742 | 6417 | 5703 | 5456 |

* Statistics available up to the end of October 2021.

### Cleansing, Beaches & Coastal Protection Updates

- Workforce have continued operating on staggered roster arrangements to maintain social distancing requirements.
- Arup are continuing to progress planning & design for longer term remediation measures at Coliemore Harbour.
- Annual weeding contract significantly complete. Only skeleton crews remaining to close out contract.
- N11 weeding, sweeping and gully cleaning operations are complete. Plans are being put in place to complete similar work on Church Road and Wyatville Road.
- Sweeping and Cleaning operations will be extended to the first 3 weekends of December in order to tackle the high volume of CRM requests.
- Slipway reinstatement works are complete in Seapoint.
- Access reinstatement drawings have been received for the 40 Foot. Internal Stakeholder reviews will be held next.
- Bicycle stand removal and alterations project on Vico Road/Whiterock has been issued for tender.
- Staff training is progressing on Safe Pass card holders and training is being scheduled for gully cleaning operators.
- 2022 Blue Flag applications for Seapoint and Killiney must be submitted in December.

## 6.Relevant Statistics

There were 3043 Fixed charge notices/fines issued between 29th October and 30th November 2021 a breakdown of which is as follows:

| Violation | No. of Tickets Issued |
|---|---|
| Vehicle committing an offence contrary to Pay & Display/Permit Parking Area Regulations | 1326 |
| Vehicle committing an offence contrary to Pay & Display Parking Regulations | 448 |
| Parking a vehicle on a footway | 321 |
| Parking a non-goods vehicle in a goods vehicle loading bay | 312 |
| Parking a vehicle on a roadway with less than 3 lanes where there is a continuous white line | 105 |
| Parking a vehicle on a double yellow line | 93 |
| OVERSTAYING 3 HOUR PARKING LIMIT | 81 |
| Parking or stopping a vehicle in a disabled person`s parking bay | 73 |
| Vehicle committing an offence contrary to Pay & Display / Permit Parking Area Regulations | 72 |
| Parking a vehicle in a taxi stand | 58 |
| Parking a goods vehicle in a loading bay for over 30mins | 55 |
| Parking a vehicle within a stopping place or stand or bus stop | 28 |
| Parking a vehicle on a cycle track | 10 |
| Parking a vehicle within 5 meters of a road junction | 10 |
| Parking a vehicle on a single yellow line during a prohibited time | 9 |
| Parking a vehicle on a grass margin | 7 |
| Parking in a bay reserved for Car Club Vehicles | 6 |
| OVERSTAYING 1 HOUR PARKING LIMIT | 5 |
| Parking or stopping a vehicle on a clearway | 5 |
| Parking a vehicle obstructing other traffic | 4 |
| Parking Electric Vehicle Only Bay | 3 |
| Electric vehicle in an electric vehicle bay but not charging | 2 |
| OVERSTAYING 2 HOUR PARKING LIMIT | 2 |
| Parking a vehicle at a no parking sign at a time prohibited | 2 |
| Parking or stopping a vehicle at a school entrance | 2 |
| Parking a vehicle interfering with other traffic | 1 |
| Parking a vehicle within 15 meters approach side of traffic lights | 1 |
| Parking a vehicle within 15 meters of pedestrian crossing (approach side) or 5 meters on the other side | 1 |
| Parking a vehicle within 5 meters of exit side of traffic lights | 1 |
| **Total no. of tickets issued between 29th October and 30th November 2021** | **3043** |

There were no convictions secured in the District Court all matters were adjourned to a date in January 2022.

**Public Lighting**
Work continues on the replacement of the old lights with LED lighting which is more energy efficient, gives less maintenance and improved service. General maintenance including upgrading of brackets, columns and Networks is also on-going.

**Public Lighting Maintenance**

| | |
|---|---|
| Number of repairs carried out in Oct 2021: | 396 |
| Percentage of lights out at the end of Oct 2021: | 0.7% |
| Pole replacement carried out in Oct 2021: | 15 |
| Bracket replacements: | 304 |
| Tree trimming: | 3 |
| ESBN Connections/ Requests: | 8 |
| LED Upgrades: | 215 |

**LED Upgrading Program**
A list of these can be found on www.dlrcoco.ie

**Planning and Building Control**

| | |
|---|---|
| Applications analysed | 59 |
| Inspections completed | 4 |

**Requests**
Light requested by stakeholders (completed)

| | |
|---|---|
| Additions: | 3 |
| Alterations: | 18 |
| Legal requests: | 4 |

**Road Opening Licences October (29 October – 30 November 2021)**

| Road Opening Licences<br>29th October – 30th November 2021<br>Maproad Roadworks Licensing MRL System | |
|---|---|
| Application Submitted | 238 |
| Application Granted | 201 |

**Road Closures and Street Furniture, Filming Locations and Event Signage**
In November 2021 there were:1 Application for film location

## 7.Dún Laoghaire Harbour

**COVID-19 Measures**
All services have resumed throughout the Harbour in line with Government guidelines

**Drive-in Covid Test Centre**
Randox Travel Health Care have opened a temporary drive-in COVID-19 test centre in the HSS compound on a trial basis for 3 months. The tests can be booked on-line for those requiring them for work or essential travel. The centre opened for business on Monday 22nd February. Randox have agreed an extension to the end of 2021.

**Projects:**

**National Watersports Campus**

DLRCC in partnership with Irish Sailing and the Irish Underwater Council have been approved in principle for Stream 1 grant funding for the development of a National Watersports Campus. We have responded to requests for additional information and are now finalising the grant process and agreements with the project partners.

**Berth 2 Fenders**

A project to replace the Berth 2 fenders has been given approval to proceed to procurement stage. RPS Group have been appointed to carry out the design and procurement for this project. This project was tendered, and Sorensen Construction have been appointed to deliver the project. We are awaiting Foreshore consent to proceed to works on site.

**West Pier Survey**

Malachy Walshe & Partners have been appointed to carry out a full condition survey of the West Pier and to report on the prioritisation of any repair works deemed necessary. This report has been received and will assist in prioritising repairs to the West Pier as funding becomes available.

**Traders Wharf**

Grant funding was successfully applied for (from the Department of Agriculture, Food and the Marine) for the installation of power and water points along Traders Wharf for the Dún Laoghaire Fishing fleet. This project has been tendered and Linham Construction have been appointed to deliver the project. This project is almost complete.

**Ferry Terminal**

Planning permission was granted for the ferry terminal project on the 7th February 2020. A planning appeal was lodged to An Bord Pleanála. An Bord Pleanála have now granted permission for the development.

A business briefing on the ferry terminal proposal was delivered to the elected members by Hilary Haydon on the 25th of February 2020. This matter will be brought to Area Committees and full Council in the coming months for disposal pursuant to Section 183 of the Local Government Act 2001.

**Dún Laoghaire Harbour and Town Studies**

These studies have now been delivered and will be published online following the completion of the latest CDP consultation on 9th December.

**Cruise Ship Business**

There has been an increase in Cruise Ship Tender bookings for Dún Laoghaire Harbour in 2022. We are currently formulating plans for how to receive and welcome these Tender calls throughout next year.

Comhairle Contae County Council

# Finance and Economic Development

## Local Enterprise Office and Economic Development Unit

| Approvals for Financial Assistance Year to Date | | |
|---|---|---|
| | Total approved Jan-Nov 2021 | Enterprise Ireland target November 2021 |
| Feasibility Study | 21 | 14 |
| Business Priming | 14 | 11 |
| Business Expansion | 13 | 9 |
| Technical Assistance for Micro Exporters | 11 | 9 |
| Trading Online Vouchers | 235 | 138 |
| Microfinance Ireland * | 8 | 22 |
| **Total Approvals** | **302** | |

*Approved by MFI

| Job creation as a result of direct financial assistance | |
|---|---|
| | November 2021 |
| No of jobs created | 44 |

| Clients assisted in LEO activities Year to Date for 2021 | Total Jan-Nov 2021 |
|---|---|
| Number of applications for Financial Assistance | 294 |
| Clients attending Networking Events | 613 |
| Clients commencing training and attending workshops or seminars | 1,715 |
| Clients commencing mentoring assignments | 199 |
| Clients attending Business Advice clinics | 296 |
| Clients participating in Leadership Management Programmes | 80 |
| **Total No of Clients Assisted** | **3,197** |

| DLR Economic Development Supports | Total Jan-Nov 2021 |
|---|---|
| Vacant Commercial Premises Scheme | 5 |
| Shop Front Improvement Scheme | 43 |
| Business Promotion Grants | 3 |
| Outdoor Dining Scheme[2] | 166 |

Note 2: The Outdoor Dining Scheme was introduced on April 12th 2021 and replaced the Council's Street Furniture Grant. The Scheme closed to applications on October 8th 2021.

Comhairle Contae County Council

**Enterprise Promotion activities in November 2021**

| | |
|---|---|
| **DLR Enterprise News** | **LEO DLR – Enterprise News November 2021**<br>(sent 28/10/21) Open rate 43%, 2607 recipients<br>**LEO DLR – Enterprise News November 2021 10th Nov**<br>(sent 09/11/21) Open rate 43%, 2610 recipients<br>**LEO DLR – Upcoming Training for December**<br>(sent 22/11/21) Open rate 43%, 2615 recipients<br>Open rate Industry average 11% |
| **One-to-One Business Advice Sessions** | Remote Sessions throughout November |
| **Link Network Meeting** | 2nd November |
| **Trading Online Voucher Information Seminar** | 11th November |
| **TikTok for Small Business Workshop** | 12th November |
| **Enterprising Women Network Meeting** | 16th November |

| **Social Media Analysis: November 2021** | | | | |
|---|---|---|---|---|
| **Facebook** | **No of followers** | **No of New followers** | **No of posts** | **Impressions** |
| LEO dlr | 2,001 | 21 | 24 | 1,200 |
| **Twitter** | **No of followers** | **No of New followers** | **No of posts** | **Impressions** |
| LEO dlr | 5,567 | 14 | 33 | 10,100 |

## Tourism Development

The Covid situation continues to have a very serious impact on the tourism sector and their ability to trade.

**DLR Tourism Kiosk**
The tourism kiosk is operating at full capacity. Visitor numbers are low mid week but weekends are busy.

**Killiney Beach Water Sports Facilities**
A meeting with Fáilte Ireland took place and Compliance Phase 2 has now been completed. This project now has approval to proceed to Part 8 Planning.

**Destination Towns Project**
A new Lighting Bauble is now in place located outside the Tourism Kiosk at the Metals. Interpretative Signage for the new Coastal Trails has been developed. This will now go to tender for manufacture and installation.

The lighting of The Maritime Museum has been completed and the contractor is now on site at the Battery on the East Pier. Work on lighting St Michael's Church Bell Tower will commence in the new year.

**Smart Tourism Forum**
The Dublin Smart Tourism forum is exploring various opportunities to access data to measure tourism flow and impact. Meetings have been held with Mastercard, 3 Mobile and the City of London as part of this process.

**Tourism Friendly Cities (URBACT)**
Our Local Action Plan is currently being developed. The project committee will meet in early December to discuss and agree the content.

**Joyce Tower Project**
Meetings have been held with the OPW and Fáilte Ireland regarding the transfer of the Joyce Tower and the Joyce Collection to DLRCC.

**Tourism Promotion**
Our social media advertising and promotion of events and tourism products continued in November.

| **Social Media Analysis: November 2021** | | | | |
|---|---|---|---|---|
| **Facebook** | **No of followers** | **No of New followers** | **No of posts** | **Impressions** |
| dlr Tourism | 7,222 | 158 | 12 | 319,658 |
| **Twitter** | **No of followers** | **No of New followers** | **No of posts** | **Impressions** |
| dlr Tourism | 3,669 | 24 | 15 | 13,000 |

Comhairle Contae County Council

## SUMMARY OF RATES DEBTORS TO 31/10/21

| | Balance at 01/01/2021 € | | Balance at 31/10/21 | | Current year debit € | | Arrears >1 year |
|---|---|---|---|---|---|---|---|
| RATES | 19,133,314 | | 34,145,926 | | 31,956,760 | | 2,189,166 |

## DLR CAPITAL ACCOUNT
## INCOME & EXPENDITURE SUMMARY BY SERVICE DIVISION TO 31/10/2021

| | SERVICE DIVISION | Balance at 01/01/2021 € | Expenditure YTD € | Income YTD € | Balance at 31/10/2021 € |
|---|---|---|---|---|---|
| A | Total Housing & Building | -13,013,648 | 38,422,573 | -37,286,962 | -11,878,037 |
| B | Total Road Transport & Safety | -6,890,505 | 17,453,777 | -15,910,766 | -5,347,493 |
| C | Total Water Services | -2,309,719 | 886,056 | -490,030 | -1,913,693 |
| D | Total Development Management | -116,460,990 | 4,981,067 | -23,640,792 | -135,120,714 |
| E | Total Environmental Services | -1,537,685 | 27,820 | -382,580 | -1,892,445 |
| F | Total Recreation & Amenity | -13,255,266 | 5,897,357 | -4,461,077 | -11,818,986 |
| G | Total Agriculture, Education, Health&Safety | -4,738,072 | 446,989 | -459,221 | -4,750,304 |
| H | Total Miscellaneous Services | -24,870,872 | 2,230,365 | -2,344,676 | -24,985,183 |
| | Grand Total | -183,076,756 | 70,346,005 | -84,976,104 | -197,706,855 |

Comhairle Contae County Council

## DLR REVENUE ACCOUNT

## INCOME & EXPENDITURE SUMMARY BY SERVICE DIVISION TO 31/10/2021

83.33%

| | | EXPENDITURE | | |
|---|---|---|---|---|
| | SERVICE DIVISION | Expenditure € | Adopted Full Year Budget € | Exp as % of Budget |
| A | Housing & Building | 43,850,017 | 52,266,800 | 83.90% |
| B | Road Transport & Safety | 25,365,886 | 33,534,600 | 75.64% |
| C | Water Services | 10,325,445 | 12,722,200 | 81.16% |
| D | Development Management | 21,528,106 | 28,826,300 | 74.68% |
| E | Environmental Services | 27,246,798 | 32,172,200 | 84.69% |
| F | Recreation & Amenity | 27,341,704 | 33,995,500 | 80.43% |
| G | Agriculture, Education, Health & Welfare | 4,218,692 | 4,376,900 | 96.39% |
| H | Miscellaneous Services | 37,925,485 | 13,454,700 | 281.88% |
| | **Total Expenditure** | **197,802,132** | **211,349,200** | **93.59%** |

| | | INCOME | | |
|---|---|---|---|---|
| | SERVICE DIVISION | Income € | Adopted Full year Budget € | Inc as % of Budget |
| A | Housing & Building | 37,126,635 | 45,772,800 | 81.11% |
| B | Road Transport & Safety | 11,257,997 | 14,719,000 | 76.49% |
| C | Water Services | 6,786,712 | 8,750,900 | 77.55% |
| D | Development Management | 7,909,222 | 11,073,300 | 71.43% |
| E | Environmental Services | 4,576,469 | 5,576,700 | 82.06% |
| F | Recreation & Amenity | 3,773,518 | 4,916,300 | 76.76% |
| G | Agriculture, Education, Health & Welfare | 2,604,485 | 3,026,000 | 86.07% |
| H | Miscellaneous Services | 33,093,716 | 7,297,500 | 453.49% |
| | **Sub Total** | **107,128,753** | **101,132,500** | **105.93%** |
| | | | | |
| LPT | Local Property Tax | 15,528,080 | 18,633,700 | 83.33% |
| RA | Rates | 76,695,171 | 91,583,000 | 83.74% |
| | **Total Income** | **199,352,005** | **211,349,200** | **94.32%** |
| | **Balance as at 31/10/2021** | **€1,549,872** | **Surplus** | |

Comhairle Contae County Council

# Planning

**SECTION 49 – SUPPLEMENTARY DEVELOPMENT CONTRIBUTION SCHEME for EXTENSION OF LUAS LINE B1 – SANDYFORD TO CHERRYWOOD**

DLR have been notified by TII that the current rates of supplementary development levies for the extension of LUAS Line B1 will remain unchanged for 2022 as per below;

| | |
|---|---|
| **Residential** | €351,774 per ha (gross site) |
| **Commercial** | €802,047 per ha (gross site) |

**Planning Applications - monthly statistics 29th October – 30th November 2021**

| | Outline Permission | Permission | Total |
|---|---|---|---|
| New application Received* | 0 | 177 | 177 |
| Decision Deferred | 0 | 35 | 35 |
| Decision to Grant** | 0 | 90 | 90 |
| Decision to Refuse** | 0 | 20 | 20 |
| Issued within 2 months or 8 weeks | 0 | 82 | 82 |
| Invalid Applications | 0 | 23 | 23 |

**Includes 22 Applications for Retention*
***Split decisions; Grant Permission & Refuse Permission (inc. For Retention) are entered in as a decision under both "Decision to Grant" and "Decision to Refuse".*
*4 no. Split Decisions (to Grant and Refuse)*

**Strategic Housing Development (SHD) Applications:**
Planning Applications received under section 4 of the P&D (Housing) & Residential Tenancies Act 2016

| Case No | Applicant's Name & Brief Description of Development | Date Application Received | Last Day for Submissions/ Observations | Application Website | Due to be decided by ABP |
|---|---|---|---|---|---|
| ABP 31182621 | Lands at Knockrabo, Mount Anville Road, Goatstown, Dublin 14<br>Knockrabo Investments DAC<br>227 no. apartments and associated site works | 29/10/2021 | 02/12/2021 | www.knockraboshd.com | 28/02/2022 |
| ABP 31207021 | Ted Castles site and Dun Leary House, Old Dun Leary Road, Cumberland Street and Dun Leary<br>Hill, Dun Laoghaire, Co. Dublin<br>Ted Living Limited<br>146 no. units (34 no. studio apartment units, 77 no. 1 bed apartment units and 35 no. 2 bed<br>apartment units), | 26/11/2021 | 10/01/2022 | www.tedcastlesliving.ie | 28/03/2022 |

https://www.pleanala.ie/getattachment/7e5978f6-673a-47ea-8cb3-772fbbd926fb/Current-Applications-26-08-2021.pdf?lang=en-IE

**Planning Counter Figures**

| | |
|---|---|
| Customers Served | 275 |

**Building Control**

| | |
|---|---|
| Fire Safety Certs applications received* | 26 |
| Fire Safety Certs applications Granted * | 21 |
| Fire Safety Certs applications Refused/Withdrawn/Invalid * | 0/0/0 |
| Disability Access Cert Applications Received ** | 13 |
| Disability Access Cert Applications Granted / Refused** | 12/0/0 |
| Commencement Notices Validated | 52 |
| 7 Day Notices received | 8 |
| Completion Certs Validated | 15 |

*Includes FSCs, Reg Certs, 7 Day Notices & Rev Fire Certs
**Includes DACs, Dispensation/ Relaxation

**Draft Dublin Region Air Quality Plan 2021**

The four Dublin Local Authorities (Dún Laoghaire-Rathdown County Council, Dublin City Council, Fingal County Council and South Dublin County Council) have prepared a Draft Dublin Region Air Quality Plan, to reduce levels of Nitrogen Dioxide ($NO_2$) in ambient air in Dublin.

The Draft Dublin Region Air Quality Plan has been prepared in response to an exceedance of the annual limit value for nitrogen dioxide ($NO_2$), at one of the air quality monitoring stations in Dublin – St. Johns Road West, Dublin 8, in 2019. All other pollutants measured were within EU limit values.

The Plan must be submitted to, and considered by the Department of the Environment, Climate and Communications and the Environmental Protection Agency (EPA). The Plan will then be submitted to the European Commission for approval. Under the Air Quality Standards Regulations 2011 (S.I.180/2011), the Plan must be submitted to the European Commission no later than the end of December 2021, being two years following the exceedance being reported.

Public Consultation on the Draft Plan was undertaken for a four (4) week period from Monday 18th October up to and including Monday 15th November 2021. This process was managed by Dublin City Council, on behalf of the Dublin local authorities.

A total of 219 public submissions were received, with 32 submitted from the Dún Laoghaire-Rathdown County Council area. A review of the submissions has been undertaken and proposed amendments arising from public consultation, are included in the Draft Plan.

The table below sets out the range of themes and issues raised in the submissions received:

| **Theme** | **Issues raised** |
|---|---|
| 10/15/20 Minute Cities approach | There was general (though not widespread) support for the adaption of the 10/15/20 Minute Cities approach. The points raised included the need to:<br>• Transform cities and towns to make it less likely to need cars;<br>• Increase efforts to populate the city between the canals; and<br>• Reduce the amount of derelict land and empty properties that could provide accommodation.<br><br>One suggestion addressed the adoption of superblocks as a form of urban development, whereby residential blocks are larger than those traditionally built. These developments also give priority to pedestrians and cyclists. Such developments are taking place in other European cities, including Barcelona. |
| Parking Controls and Standards | *Enforcement of parking and traffic laws*<br>A number of respondents highlighted their dissatisfaction with the level of enforcement of current speeding and parking laws, by enforcement bodies and their desire for further measures in this respect, including the establishment |

| | |
|---|---|
| | of a new enforcement body. Some respondents indicated that they did not wish to see any further speed limits imposed. Other submissions suggested that parking charges be used as a deterrent to car usage. |
| Active Travel | A number of submissions raised issues including the need for increased active travel choices, access for all and addressing disability in active travel, improving public transport and the need to reduce / ban the use of the private car.<br><br>*Improved Cycling Infrastructure*<br>A consistent theme in the majority of responses was the desire to see significant improvement in cycling infrastructure including protected cycle ways, improved cycle facilities and overall promotion and prioritisation of active travel relative to car usage.<br><br>Specific suggestions included, extending the Bike to Work Scheme to include cargo bikes to facilitate creche and school drop offs, create more convenient exits routes from cul-de-sacs for cyclists, improve bike parking - safe and sheltered, bike lockers, for example.<br><br>*Public Transport/Vehicles*<br>It was suggested that trialling free transport during off-peak hours and free public transport for under 18 year olds on public transport be introduced.<br><br>A number of respondents indicated they would wish to see an increase in the number and frequency of buses, including more school buses with segregated routes for public transport, more park and ride facilities; reduce national speed limits; and prohibit diesel vehicles from entering the city centre. |
| Electric Vehicles and EV charging Infrastructure | Submission suggestions included electrifying public and private buses, promoting taxi scrappage scheme to encourage greater uptake, and more support for promoting EV for commercial vehicles.<br><br>Other submissions also suggested that EVs should be regarded as secondary and supplementary to active travel and public transport strategies.<br><br>There was broad support for expanding the EV charging infrastructure and a suggestion that new house builds should have charging points incorporated, where possible. |
| Clean air zones/ low emission zones/congestion charging | There were a wide range of different opinions received in respect of the potential introduction of clean air zones/ low emission zones/congestion charging. These ranged from the point of view that air quality was satisfactory, that no interventions were required, and any move to introduce any charges was a stealth tax on motorists. It was also submitted that immediate action was required to exclude all non-EV private cars from the city centre entirely. In planning, consider location of schools relative to main roads. |

| | |
|---|---|
| | It was also suggested to plant more trees and increase urban greening. |
| Remote working | Remote working as a choice for those who are in a position to avail of it was favoured by most respondents. Amongst the suggestions received were to stagger work start and finish times and promoting commuter belt workspaces/ hubs. |
| Increased air quality monitoring | Submissions stated the need for increasing the number of air quality monitoring stations, in the Dublin region and the deployment of low cost sensors. There were suggestions on the need for roadside testing and improved real-time $NO_2$ monitoring, across Dublin. One suggestion received addressed aligning traffic data collected, more closely with air quality monitoring data. |
| Citizen Engagement | The submissions received encompassed a very comprehensive range of issues and suggestions including:<br>• Research the best ways to engage and inform the public;<br>• Empower community and citizen change and action;<br>• Economically nudge people and organisations to lower emissions;<br>• Get younger citizens and students involved;<br>• Enhancing political and public awareness;<br>• Consideration of Citizens Assembly findings;<br>• Provide air quality signage and real-time displays;<br>• Use easily understood data;<br>• Use robust and well-tested messaging; and<br>• Communication of local active travel projects that displace car parking etc.<br><br>On the other hand, the effectiveness of awareness campaigns in changing public behaviour was queried by a number of respondents.<br><br>*Smart Cities link up*<br>There were a number of queries requesting more linkages between Smart Cities initiatives and air quality monitoring activities. |
| Research | *Role of Universities in Air Quality and Transport Research*<br><br>Submissions on these issues included:<br>• Highlighting the exemplar role of universities in air quality research and leading by example;<br>• Need for dedicated PhD funding;<br>• Data collection and analysis;<br>• Lessons learned from on-site / campus projects;<br>• Importance of STEM degrees (Science, Technology, Engineering, and Mathematics); and<br>• The need for research grants, bursaries, placement programmes, linking with European ERASMUS programmes and international best practice, and graduate employment opportunities.<br><br>With regard to transport research, the issues raised included engaging expertise in the areas of sustainable |

| | |
|---|---|
| | transport/smart cities, to devise action plans and transport modelling and emissions from heavy rail.<br><br>With regard to Air Quality and Health Impact the issues raised included the need for compelling research on the effect of air quality on health/quality of life; research on urban planting, research into $NO_2$ removal and the public dissemination of health research findings. |
| Taxation and fiscal measures to address air quality | There was a very diverse range of views on these matters and many respondents were not in favour of any introduction of taxes or other similar measures. The point was made by many respondents that lack of alternative modes of transport to private car usage. was a major impediment in making other choices. A number of submissions raised issues related to researching the costs incurred by reduced air quality by sector and vehicle type, and related vehicle taxation. |
| Other issues raised in Submissions | Staffing & Resources, Social inclusion, Driver Behaviour: Vehicle idling and using "rat runs", World Health Organisations (WHO) Air Quality Guidelines 2021. There were a number of issues raised which are outside the scope of the Plan, including solid fuel burning, noise, social inclusion, emissions from the Dublin Waste to Energy Plant, public sector parking etc. |

The Final Draft Dublin Region Air Quality Plan, including proposed amendments, will be submitted for consideration to the Department of the Environment, Climate and Communications and the Environmental Protection Agency (EPA), in advance of submission to the European Commission, who approve the Plan, in accordance with the EU Directive 2008/50/EC on ambient air quality and cleaner air for Europe (also referred to as the CAFÉ Directive).

It is noted that the Department of the Environment, Climate and Communications is currently working to finalise Ireland's first National Clean Air Strategy. The Strategy will identify and promote the integrated measures and actions across Government, that are required to reduce air pollution and promote cleaner air, while delivering on wider national objectives.

A copy of the Draft Dublin Region Air Quality Plan, is included with this Report. The Draft Plan is being finalised following Public Consultation, remaining amendments are editorial in nature and not material changes to the Draft Plan.

**Update on Former Operations Depot site at Mount Anville and Discussions with the Department of Education and Skills**

The council executive is currently reviewing several options in relation to the future development of the Former Operations Depot site in Mount Anville, which includes options on a collaborative design with the Department of Education and Skills. To inform the executive on the most advantageous option for development, it was considered necessary to undertake various ground investigation surveys to establish ground conditions at the site. Ground Investigations Ireland Ltd. have been appointed to undertake these surveys on the council's behalf and these investigations will be concluded in the coming weeks,

following which a review of the results will be undertaken by a structural engineer to advise on the suitable options for development of the site going forward.

In the meantime, the Department of Education and Skills have advised that they have an urgent requirement for interim/temporary accommodation for Gaelscoil Laighean ahead of next September 2022. The DES have requested the executive to consider locating the interim accommodation on the proposed permanent school site in the Mount Anville Depot, to accommodate Gaelscoil Laighean from September 2022. It is understood that the school are delaying their enrolment process for 2022 until they receive more clarity on their planned location for September 2022. The DES acknowledge that any arrangement cannot be finalised until the matter has been considered and decided upon by the elected members of Dún Laoghaire–Rathdown County Council, but DES has requested the council to consider the possibility of allowing interim school accommodation on the site, as a matter of urgency.

**Environmental Enforcement Section - Waste Enforcement, Air, Noise**

Complaints received 42
Complaints closed 47

**Litter and Waste Fines**

| November 2021 | Number | Comment |
|---|---|---|
| Litter Fines issued (Litter Pollution Act/Litter Byelaws) | 67 | |
| Presentation of Waste (Waste Byelaws) fines | 13 | |
| Legal proceedings initiated. | 6 | |
| Cases opened (Dumping/Litter) | 159 | Litter Section |
| Cases closed (Dumping/Litter) | 155 | Litter Section |

**Energy**
dlr successfully completed the surveillance audit for ISO 50001: 2018 Energy Management System with no non-conformities and a couple of Opportunities for Improvement.

**Design**
dlr architects was presented with the 2020 Universal Design Award at the Royal Institute of Architects of Ireland (RIAI) conference on 3 November 2021 for the Housing project at Rochestown House, Phase 3, Sallynoggin.

https://universaldesign.ie/news-events/news/riai-building-for-all-universal-design-awards-2020-and-2021.html

https://twitter.com/CEUD_NDA/status/1458488758211387404

Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

**Conservation**

| | |
|---|---|
| Planning Applications | 15 |
| SHD Applications | 2 |
| Section 5 Declarations | 2 |
| Section 57 Declarations | 2 |
| BHIS Grant Scheme | Projects completed, payments made, and recoupment claim to Department of Housing, Local Government and Heritage made 26 November |

**Dangerous Buildings**

| | |
|---|---|
| Dangerous | 0 |
| Potentially Dangerous | 8 |
| Not Dangerous | 1 |
| **Total** | **9** |

Comhairle Contae County Council

# Community and Cultural Development

**Local Policing Fora**
A meeting of the Central Dun Laoghaire Local Policing Forum took place on the 5th November and the Ballybrack/Loughlinstown/Shankill Local Policing Forum met on the 16th November.

**Joint Policing Committee**
A Joint Policing Committee meeting took place on 23rd November on MS Teams. It included a presentation by Chief Superintendent Nyland on current policing issues. An update was provided by Cllr Hanafin on the study commissioned by DLRCC into Assessment of Need for Provision of Domestic Violence Refuge in the DLR area.

**LCDC**
A meeting of the LCDC took place on the 24th November.

**Community Activities Fund 2021**
This national grant scheme was launched on 11th November and €284,216 is allocated to the DLR area. This scheme is funded by the Department of Rural and Community Development and will be administered by the LCDC. Applications to be submitted through the DLR online grants system with a closing date of the 18th of February 2022.

**Network of Community Facilities**
Network of Community Facilities meeting took place on 16th November on Zoom. The focus of the meeting was future planning for 2022 and the goals and aims for the network going forward. We are continuing to work with a facilitator to support emerging leaders who will take a more active role in managing and guiding the network.

**Dlr Comhairle na nÓg**
Dlr Comhairle na nÓg held their 2021 AGM on 10th November. A total of 55 young people from 12 Secondary Schools across the county attended and participated in the AGM. Recruitment of new members will take place between now and year end.

**REFOHCUS Project**
The REFOHCUS Project is a project set up for the inclusion of local communities in a conversation about Science Education in the context of the COVID-19 pandemic and Ireland's response to it. UCD in partnership with Dun Laoghaire Rathdown County Council held their fifth REFOHCUS webinar and panel discussion on 10th November. Guest speaker was Ida Milne, European History Lecturer and the discussion focused on Past and Future Pandemics.

**Age Friendly & Social Inclusion update:**
- The High Security Lock's Scheme for people aged 65+ is completed and 184 homes received security upgrades and 298 high security anti-snap locks were fitted during October and November. Total budget spent: €25,000
- Age Friendly Ireland, Housing & Public Realm Training for DLR County Council staff took place online on the 16th November with 43 staff members participating.
- Consultations continue with all stakeholders in the drafting of the new dlr Age Friendly Strategy, 2022 – 2027.
- The dlr Age Friendly magazine is currently being designed and 20,000 free copies will be printed and dispersed around the county in December, which will include information, resources, creative writing and activities aimed at older citizens in the county, funded by Creative Ireland, Healthy Ireland and dlr Libraries Services, Age Friendly Programme & Community budgets.

- The dlr Age Friendly Alliance continue to meet quarterly and the next meeting takes place on the 8th December 2021.
- The Community Time Machine Project, funded by Age Friendly Ireland and organised by the Neighbourhood Network is taking place currently in dlr with older and younger people working together creatively to create a time capsule for their community.

**Community Response to COVID-19:**

- The Community Response Forum is meeting every two months at present to support in coordinating the provision of a multi-agency response to the individuals in the community that are negatively impacted arising from the measures implemented by the Government to stem the spread of Covid 19. The last meeting was held on 27 October. The next meeting is scheduled for 12 January.
- Data for the community call helpline ceased being collected at the end of October. The service had dealt with in excess of 4,500 calls since its inception.

## Cultural Development

**Arts**

**Musicians in Residence**

Trumpeter Darren Cornish Moore performed with renowned organist Malcolm Proud in the Studio, dlr LexIcon on Friday 5th November. This concert showcased the material developed during his Residency.
https://www.dlrcoco.ie/en/music-development/musician-residence-darren-cornish-moore

**Writer in Residence**

Poet in Residence Jessica Traynor continued to work in dlr LexIcon. Her poetry book club had its inaugural meeting in November.
https://www.dlrcoco.ie/en/artist-residencies/writer-residence

**Arts Grants 2022**

Applications opened for arts grants for 2022. The annual grant scheme ensures grants are available to provide financial assistance to individual artists, arts groups and arts organisations engaged in arts projects or events at local or county level and to support the professional development and arts practice of individual artists, arts groups and organisations. There are also Arts Access Grants available for older persons and Community Arts Grants for small scale community arts events.

**Visual Art Commission**

50 submissions were received applying to exhibit in the Municipal Gallery in dlr LexIcon in 2022 and 2023 under the Visual Art Commision scheme which is funded by the Arts Council.

**Municipal Gallery Programme**

*A Mobile Living Thing*, a new exhibition by locally based artist Brian Fay, opened to the public on 2 October. The focus of this exhibition is a response to four small paintings by Irish artist Mainie Jellett in the Dun Laoghaire-Rathdown County Collection. Brian Fay has made a series of new drawings that respond to the physical properties of these works as they slowly age, and to the life of Jellett herself.
https://www.dlrcoco.ie/en/municipal-gallery-dlr-lexicon/brian-fay-mobile-living-thing

**Gallery Learning Programme Online**

Our online Gallery Learning Programme is available to make sure that everyone can still have lots of opportunities to get creative at home. The programme is jam packed full of live talks, conversations, demonstrations and art making workshops. The emphasis is on

learning together as we all try out new things. This November we hosted a panel discussion about Maine Jellett, booked to capacity at 70 and a critic-fiction workshop which was also fully booked.
https://www.dlrcoco.ie/en/arts/whats-latest-news

**Public Art Coordinator**
Following a successful application to the Arts Council Specialist Staffing Scheme the Arts Office is currently seeking applications for the post of Public Art Coordinator. This new 3-year contract position supports the development, management and co-ordination of a public art programme, procured following Dun Laoghaire-Rathdown County Council's Public Art Policy.

https://www.dlrcoco.ie/en/current-vacancies/employment-opportunities

**Primary Arts Programme**
dlr Arts Office with support from Blackrock Education Centre are supporting 7 primary schools in the County to host an artist in residence this academic term. This can be online or in person, depending on the Public Health Guidelines.

**Libraries**
All dlr Library spaces remain open at this time as part of a gradual and measured resumption of onsite library services in line with Government guidelines. These include: re-introduction of designated PC Spaces for internet access, some seating and Study Spaces on a phased basis/
The continuation of these library services is dependent on the most up to date public health advice and may be subject to revision at short notice.

In addition to our ongoing programme of events online, a gradual and measured return to indoor events will begin following the latest Govt. announcement on 19 October.
We're hopeful that some in-person book clubs for adults can begin to resume safely in our library spaces shortly, in line with public health guidelines.

Following the announcement of public health measures that came into place on Friday 22 October, we will continue to take steps individually and collectively to keep the risk of the spread of Covid-19 under control, in particular by:

- acting fast, isolating and getting tested if we have symptoms
- wearing our face coverings where appropriate
- making sure that indoor spaces are well-ventilated
- maintaining adequate social distancing whenever appropriate
- covering our coughs and sneezes and keeping our hands clean

https://www.gov.ie/en/publication/83946-public-health-measures-that-will-come-into-place-in-october/

**Book Drop Service**
The number of calls to the Book Drop Service remains low at present. For those members of our community unable to visit their local dlr Library in person, staff in dlr LexIcon remain available to deal with requests for books. A selection of books are boxed and then delivered safely to homes. For further information about this service, please contact dlr LexIcon staff by phone on 01 280 1147 or email dlrlexiconlib@dlrcoco.ie

## dlr Libraries Online

**Online Resources - (use BorrowBox image)**
We have lots of resources/services available on our website. You can:

- download eBooks and eAudiobooks from **BorrowBox** and **Overdrive** and read them on your tablet, laptop or smartphone.

**Tumblebooks** is an online collection of e-books for children. You can use your computer, tablet, or mobile phone. All you need is an Internet connection. There are no downloads - books are streamed right to your device at the click of a button.

- read magazines and newspapers online with **Overdrive** and **Pressreader**
- take an online course with **Universal Class**

With over 400 courses, Universal Class is committed to providing the highest quality online training. Over 300,000 students around the world have benefited from Universal Class' unique instructional technologies. Courses are available in accounting, business, psychology, exercise and fitness, entrepreneurship, arts and music, home and garden care, cooking, computers and technology, health and medicine, writing skills, law and legal …plus 100s more!

- learn a language online with **Transparent Language Online**

With over 100 languages to choose from – learn at home, in the library or on the go!

- stream or download music to your device with **Freegal**
- listen to a podcast with **DLR Soundcloud**
- watch an exhibition on your tablet, laptop or pc

***You just need your library card number and your PIN, and it's all free!***
Visit: https://libraries.dlrcoco.ie/online-library

**National "Drop In" Campaign for Libraries**
On 15 November, Libraries Development section of the LGMA launched the national "Drop In" media campaign. Public Libraries all around the country are inviting people to drop in and explore their local library - both in person and online! In DLR, whether you used to visit regularly, or you've never been, we're urging everyone to **#DropIn** and discover/be reminded what's on offer in dlr Libraries online and safely in-person.

**Opening of Stillorgan Village Library**
On 2nd November, the new premises housing the temporary Stillorgan Library Hub opened in the Stillorgan Shopping Centre. The Hub will deliver all core library services, including books, a designated children's section with incorporated sensory elements, study spaces, PCs, printing/copying/scanning service and daily newspapers. It's located in Unit J on the 1st floor of the Shopping Centre.

**Acorn tablets for lending – age-friendly initiative**
Over the last 18 months, we've all had to rely a lot more on technology to stay connected, and to access goods and services. But those without access to devices, or those who do not have the skills to use them, can find themselves increasingly excluded from society. The ACORN tablet project hopes to help bridge the digital divide by providing age-friendly, easy to use technology. The ACORN tablet was designed with the older person in mind, and the principle behind the tablet is to provide more accessible options for those with little or no computer or smart device experience.
The home screen is clear and easy to navigate with four main options:

- Calendar – to help you keep track of appointments, birthdays or social events
- Explore – this option provides access to websites and apps
- Talk – allows the user to make calls and send/receive messages and emails
- Camera – the tablet has a two-way camera where photographs can be stored and shared

We have purchased ACORN tablets for every nursing home and daycare centre in the County, and 6 tablets will shortly be available for lending to all library members via Deansgrange and Stillorgan Libraries. Library staff members recently ran a trial with DLR's Older People's Council (OPC) and the feedback was very positive.

**Reading Pens**
As part of our ongoing commitment to improving accessibility within dlr Libraries, we recently purchased new pen scanners for each dlr branch library. These are lightweight, pocket-sized devices that you run across a page and they read the text aloud to you. At present, the Pens can read text in English, French and Spanish. The Pens can be used by those who have difficulty reading, those with dyslexia or those looking to hear the written word while they read. The in-built dictionary allows you to simply pass the Pen across a word and it instantly displays the definition and reads it aloud. It can also be used as a scanner for capturing lines of text and uploading to a PC or Mac, making it ideal for students, teachers and others to capture essential information. We are looking to make the pens available for trialling and lending in the New Year.

***Events for Adults***
In addition to our ongoing programme of events online, a gradual and measured return to indoor events and activities will continue in line with LGMA Guidelines on Group Activities and Events which was received by library staff at the end of November 2021.

***Online events & activities***
***dlr Library Voices:* Brian O'Donovan in conversation with Irish Times journalist Simon Carswell**
dlr Library Voices present Brian O'Donovan in conversation with Irish Times journalist Simon Carswell
From the start of his stint as RTÉ's Washington Correspondent in 2017, Brian O'Donovan's lively and authoritative reporting of a tumultuous period in American life has been must-watch TV. Four Years in the Cauldron is his account of four busy years working in the US. He draws a compelling picture, full of telling colour and detail, of covering its fractured politics. He also provides a visceral sense of what it's like living in a country shaped by guns, God, far-fetched conspiracy theories and the running sore of racism. Four Years in the Cauldron is the riveting story of a nation at a crucial crossroads.

**Murder One – Murder in the Library**
dlr Libraries were delighted to partner with Murder One, Ireland's International Crime Writing Festival for Murder in The Library, a series of 4 online events on Monday evenings in November. Featured crime writers included Jane Casey, Adele Parks and Val McDermid plus former State Pathologist Dr Marie Cassidy.

**Winter Warmers programme**
November saw the return of our Winter Warmers series of live online events which will run during November and December. Events included 4 sessions of **Gentle Yoga** with the ever-popular Sally Dunne. We also held textile crafting workshops hosted by **Olannmor**.

**Self Esteem and Well-being for our young people with Dyslexia –** a talk by the Dyslexia Association of Ireland (2 November)
The final talk in our popular 4-part series for parents and guardians took place in early November.

**In the aftermath of a pandemic** –a talk with Dr. Harry Barry (4 November)
This talk covered the significant physical and psychological impacts of the pandemic especially following periods of Lockdown. The importance of self-care and emotional resilience skills in learning to cope with these many challenges. The impact of trauma on those affected and the role of post-traumatic stress for many. The reality of grief and loss, not only of loved ones but also of a way of life.

**Health Literacy talks –** with homebirth midwife Aleanbh Cox (9, 11 & 16 November)
A series of 3 hour-long online talks to discuss some common themes for pregnancy and beyond. Themes discussed included **Preparing to Breastfeed**, **Hypnobirthing** and **Early days with a Newborn**.

**Clubs & Groups**
Our popular online monthly Book Club with Mary Burnham took place on the last Wednesday of November at 7.30pm with a Zoom discussion of *The Hired Man*, by Aminatta Forna. Members can call in to collect the chosen titles or continue to download them from our e-book platforms Overdrive and Borrowbox.

Blackrock Library book club for adults meets monthly on the last Thursday of the month. Two book clubs operated from dlr LexIcon continue to meet online every month, as does the dlr Staff book club.

**500 Word Writing Challenge with Mary Burnham** (September to December 2021)
Each month the group is given a prompt word and the challenge is to write 500 words with that in mind. They meet online on the second Wednesday of each month at 7.30pm.

**Deansgrange Writers' Group**
This group continue to meet monthly online.

***In-person events & activities***

**Monday morning music with Tim Thurston**
(Studio Theatre, dlr LexIcon, 22 & 29 November)

We were delighted to welcome Tim and a live audience back to the Studio Theatre in dlr LexIcon for 4 sessions, 2 during November and December. Tim will share music he has enjoyed during the last few years during various Lockdowns – and some Christmas music too.

**Speranza: Oscar's Mama**: a talk by Christoper Fitz-Simon
(Studio Theatre, dlr LexIcon, 23 November) Exhibition tie-in.

An illustrated talk on Jane Francesca Elgee, later Mrs William Wilde, later still Lady Wilde, who was born in Wexford 200 years ago. A poet who wrote inflammatory patriotic verse for The Nation newspaper, she was better known in the world of literature during their lifetimes than her now much more celebrated son – upon whose life she cast such an extraordinary spell.

**My Grandfather and Oscar Wilde**: a talk by Anne Makower
(Studio Theatre, dlr LexIcon 30 November) Exhibition tie-in.

Anne's grandfather Stanley Makower was a writer/journalist. His most celebrated novel was *The Mirror of Music* and he was a regular contributor to The Yellow Book. Both were illustrated by Aubrey Beardsley. Anne will also discuss the correspondence between her grandfather and Oscar Wilde who was highly enthusiastic about *The Mirror of Music*.

***Onsite Exhibition Programme***

**20 Cómic: 20 years of Injuve Comic Awards**
**9 November 2021 – 7 January 2022 (dlr LexIcon)**
Cómic 20 shows 40 works by 20 Spanish artists (1998-2018) and each artist is represented by two pieces of art, of which one is an early work and the other a more recent one. The

artists have been selected from the Injuve Comic Award, open to artists below the age of thirty. Further details here. With thanks to the Instituto Cervantes Dublin.
*Curated by Gerardo Vilches: Instituto Cervantes Dublin*

**All Right on the Night**
**22 Oct 2021 – 31 Jan 2022 (dlr LexIcon)**
This fascinating exhibition celebrates the work of Anne Makower and Christopher Fitz-Simon in theatre, opera, television and radio. Both worked in RTÉ as producers for many years.

**Popular Posters 2014-2021**
**30 September – 30 November 2021 (dlr LexIcon)**
This vibrant exhibition showcases seven years of poster design at dlr LexIcon. Enjoy a visual feast featuring a selection from over 120 exhibitions hosted at dlr LexIcon, also posters highlighting residencies, author events, publications and music events. dlr Libraries would like to thank all the graphic designers who have worked with us during this time and we would like to invite graphic design and visual communication students to come and see this exhibition.

*For information on all our **online exhibitions**, please visit*
*https://libraries.dlrcoco.ie/events-and-news/exhibitions*

***Events for Children***

***Online events & activities***
**Wonderfest 2021**
dlr Libraries were delighted to support WonderFest 2021, an online children's book festival that aims to celebrate and promote Irish books. It was set up in 2020 and is run by a team of Irish children's writers and illustrators. WonderFest 2021 took place from 17 - 21 November with a range of events for schools, families and a strand called 'WonderFest Inspires' which featured webinars and masterclasses for new and emerging children's writers. With over 20 events, guests included Oliver Jeffers, Niamh Sharkey, Eoin Colfer, Muireann Ní Chíobháin, Chris Haughton, Judi Curtin, Derek Landy, Ashwin Chacko and Tarsila Kruse.

**STEAM events - Science Week 2021**
Science Week 2021 took place from the 7-14 November.
We hosted some great online events for local schoolchildren and Zoomed into classrooms for Science workshops including CSI workshops and Kite Making sessions with Anyone for Science and Camouflage in the Animal world with Science Wows and Dublin Zoo.
We also added a selection of videos to our Science Week playlist on the dlr YouTube channel.

**Blackrock Library Online Junior Bookclub**
Online via Zoom. Suitable for ages 9-12yrs
They meet on Zoom every month to discuss their latest book club choice. Copies of the chosen book are available to collect from Blackrock Library.

**Little Library Book Bags**
The second phase of the national Little Library Book Bag initiative has been launched. In this phase, First 5 Little Library book bags are available for **Early Learning Centre** and **School-Age Childcare** services in each County. The initiative supports ELC and SAC services to further develop little libraries in their settings with quality book titles in English and Irish. We're inviting local ELCs and other childcare services in the County to come and collect their book bags.

**Tik Tok**
dlr Libraries launched our presence on TikTok in November 2021. The platform is one of the fastest-growing in the world. It allows users to create short videos with music, filters, and some other features. Sometimes funny, sometimes embarrassing, but always entertaining - TikTok is easy to use, so that anyone can easily create content. We look forward to bringing you many short form videos, letting you know what events, services or new initiatives we have to offer in a visually exciting way, so follow us!

## Parks

**DlrCoCo Markets:**
During the month of November, we received 8 market applications. These applications fell under the following categories:

- 6 Christmas market for Dún Laoghaire Saturday and Sunday (Non-food/craft)
- 1 Permanent for Dun Laoghaire Sunday (Non-food/Craft)
- 1 Seasonal for Dún Laoghaire Sunday (Artist)

**Biodiversity:**

- Biodiversity Event wintering bird outing cancelled due to poor weather.
- EU Funded Interreg project - *Green Infrastructure Decision Support for Ecosystem Services* – continues.
- DLR Hedgerow Survey Report and Maps completed.
- DLR Badger study draft delayed now due in mid December
- DLR Important Birds datasets gathered, report due Feb 2022
- DLR Ecological Network Maps completed
- Presentation to Management Team of Invasive Species actions
- Collaboration with the Community Foundation for Ireland on Biodiversity grants for communities
- Biosphere Partnership meeting and final drafts of swatches for Biodiversity of Biosphere
- DLR Biodiversity Officer representing DLR on the National Biodiversity Forum
- DLR Biodiversity Officer attended the National All Ireland Pollinator Plan Forum meeting 2021 with updates on the progress
- Submission of all NBAP Biodiversity grant reports for the NPWS web portal

Pollinator study by TCD commenced

**Heritage**

- Heritage Team planning workshop, follow up for Jan to focus on Heritage Plan implementation
- Heritage input to signage projects
- Drafting of new Heritage Forum make up, planning of Heritage Plan Launch for Jan
- Application and receipt of Geological Survey Ireland 2022 funding (€10K) for adaptation of publication of 2014 County Geological Audit of dlr into an accessible *dlr County Geoheritage Guide*, digital content, themed pdf downloads/infographics for social media, leaflets and scripts for two guided walks - aligns with 7 actions of the County Heritage Plan
- Launch of dlr Community Heritage Grant 2022
- Appointment of DMW Creative for Interpretation planning/design for Williamstown Martello Tower (100% CMF funded by Dept of Housing, LG and Heritage)
- Meetings on site with relevant agencies, landowner and local group in relation to access to the Brennanstown Dolmen on foot of Council motion – report in preparation for Jan Council meeting
- Provision of content for dlr Age-Friendly Annual
- Voiceover contribution to dlr Events "walking in a winter wonderland"

- Progression of Casement publication to coincide with statue launch
- Progression of Illustrating Cherrywood timelapse project for early 2022 launch
- Progression of Augmented Reality historic photo project (Creative Ireland funded)
- Progression of Ulysses Centenary programme with dlr Tourism and Friends of James Joyce Tower

Progression of 2021 Decade of Centenaries programme with dlr Historian in Residence - Outdoor Treaty exhibition at Moran Park "*Dún Laoghaire - Gateway to Independence*"

- (launch Dec 6th), *Big Houses of Dún Laoghaire + Cottages in Livery* exhibition/book launch at Lexicon (launch Dec 9th), three online talks and second Big House Book Club planned for January
- Progression of Community Archaeologist programme (to include guided walks, volunteer training, resource packs, webinar, short videos, new interpretive panels) – dlr launch planned when resource pack/videos ready
- In collaboration with dlr Tourism - progression of Fáilte Ireland-funded Dún Laoghaire Pier historic trail
- Ongoing liaison and advice to internal dlr sections, citizens and community groups

**Sports Development**

**dlr Leisure:**
Set up and completed the following activities in November;

1. Sandyford youth group (10-14 age mixed group)
2. Sandyford girls group only (10 -14 age)
3. Boylan Centre mixed group (15 + age)
4. New Boylan Centre group added mixed group (12-14 age)
5. Ballaly Family resource Centre mixed group (10 -12 age)
6. New Ballaly group added in November mixed (12-14 age)
7. Ballyogan Family resource Centre mixed (10-12 age)
8. Dun Laoghaire youth group mixed (12-14 age)
9. Cois cairn boys' group (10-12 age)
10. Ballybrack boys' group (10-14 age)
11. Loughlinstown community rooms girls group (10-14 age)
12. Carmona services 2 groups (18 + age)
13. Lakelands special needs group added in November for archery (18+ age)
14. St Joseph's school after activity programme mixed (10-12 age)
15. St Oliver Plunket's sports programme (10-12 age)
16. Continuing to work with Keith from Loughlinstown Community Rooms and running a healthy eating programme for all groups.

All activities for the above groups consisted of multi-sport sessions ranging from Basketball, football, volleyball, pickleball, mini archery, archery.

**Other activities**

- Dlr Leisure are continuing to assist the sports partnership with the Men on the Move programme.
- Met with STAG (Southside travellers' group) about setting up programmes for their groups.
- Contacted Holy child Secondary school in relation to starting programmes in January.
- Met with Agata from St Tiernan's school Dundrum about confirming sport programme for January.
- Met with Chris who is a garda youth justice worker about setting up sporting programmes for his group in January.
- Met Thomas Reck from Nutgrove about confirming programmes for January.

- Met with Monkstown Boxing club in relation to establishing a network to help with programmes for our groups.
- Met with Sallynoggin youth group about setting up programmes in January.

**Leinster Rugby**

**Schools**
Jonathan Sharkey (Leinster Rugby CRO DLR)
Primary Schools x 7 – 348 males & 321 females
Secondary Schools x 1 – 45 males & 64 females

Emily McKeown (Leinster Rugby WDO DLR)
Primary schools x 3 – 91 males & 227 females
Secondary schools x 3 – 310 females

Andrew Egan (Leinster Rugby CCRO – Old Wesley RFC)
Primary Schools x 5 – 195 males & 96 females

**Rugby Clubs**
DLSP FC U8s – Tackle session – 16 males – JS
DLSP FC U8s – Passing session – 20 males – JS
DLSP FC U11s – Tackle & ruck session – 20 males – JS
Stillorgan Rathfarnham RFC – training session – 12 females – EMcK
Leinster Rugby "Met Touch" tournament hosted in Seapoint RC for 1st & 2nd year female students – 720 players (200 from the DLR area) – EMcK & WDO team
Old Wesley RFC played their first ever youth rugby game against Blackrock College RFC – AE
Old Wesley RFC weekly training mini & youth – 13 females – AE
Old Wesley RFC weekly training U7s – 10 males & 2 females - AE

**DLR Rugby Schools (Development schools & Vision 22 schools)**
**Development schools**
Round 2 of the division 3A took place this month:
JCT hosted in St Mary's RFC – 4 DLR schools took part – De La Salle College, St Benildus College, Oatlands College & Newpark School

- ***Oatlands College have progressed to the cup***
- ***Newpark School have progressed to the shield***

SCT hosted in Westmanstown RFC – 2 DLR schools took part – Oatlands College & Clonkeen College

- ***Oatlands College have progressed to the cup***
- ***Clonkeen College have progressed to the shield – first year taking part at senior level***

De La Salle College JCT – Tackle & ruck session – 19 males – JS
Stepaside Educate Together Secondary School – Coach observation – 2 coaches – JS
Clonkeen College – Line-out session – 12 males (seniors) – JS
Stepaside Educate Together Secondary School – Tackle session – 8 males & 1 female (seniors) – JS
Woodbrook College – Line-out basics – 12 males (seniors) – JS
***Woodbrook are working to form a 7s team & have invited the local development rugby schools to form a senior's schools league run by the schools supported by Leinster Rugby***

**Leinster Rugby & DLR sports partnership CLUE program**
The CLUE program will be run in the following 5 schools in DLR:

- De La Salle College (completed) - JS
- Ballinteer Community School (two classes are in progress & the third class is starting in 2022) - JS
- Cabinteely Community School (starting in 2022) - JS
- Holy Child Community School (starting in 2022) - EMcK
- St Tiernan's Community School (starting in 2022) - JS

**FAI:**
FAI November 21
Futsal in the Yard Primary School Programme
600 participants

Coach Education
2PDP 1s - 50 coaches
1 7v7 workshop - 24 coaches
Club visits ongoing

Child Welfare
2 Safeguarding 1 courses- 60 participants

Late Night League
Dundrum -40 youth taking part

Girls Emerging Talent
50+ girls from 11 to 15
Player ID ongoing

Girls UEFA Disney programme
30 girls from 5-8 years participated over 10 weeks in St Joseph's AFC
To date 6 girls have followed on and joined St Joseph's academy

**Leinster Cricket:**

- Sessions continue in schools with sessions delivered in the following schools
- Our Lady's Girls Nat school 4 sessions (121 girls)
- Muslim National school 12 sessions (81 girls and 88 boys)
- Kilternan National school 6 sessions (50 Girls and 53 Boys)
- St. Mary's woodside National school 8 sessions (25 girls and 32 Boys)
- St. Anne's Shankill 12 Sessions (57 girls and 62 boys)

- Continued planning for next year's Leprechaun cup softball competition.

- Continued planning and liaison with DLR CoCo and local cricket clubs regarding development of Shanganagh Park. Dalkey Archives cricket club will now be using the pitch midweek for Taverners matches (social matches played generally by older members of cricket community and those interested in playing cricket for fun).

- Continued liaison with both Sandyford CC and DLRCC to help them provide junior sections for the 2022 season

**Sports Partnership:**

- **Staffing** – Sports Inclusion Disability Officer role to be filled due to staff member leaving. Another 3 externally funded positions awaiting advertising.

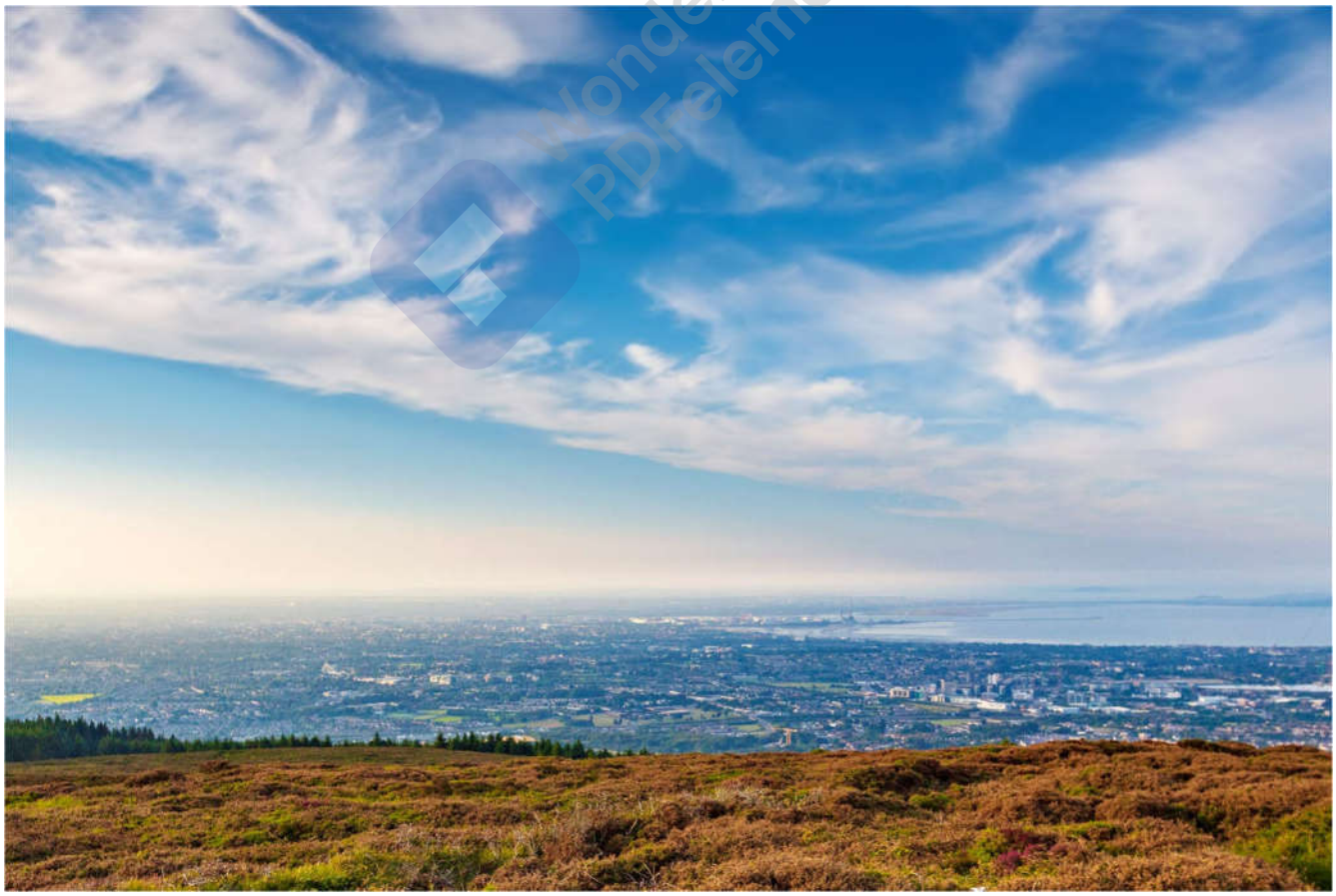
- **COVID-19 Club Small Grants Scheme** – initial 75% of grants paid to the successful 16 clubs under Round 2. Have applied to Sport Ireland for Round 3 funding for 2022.
- **Club Participation Grants Scheme** – 2021 scheme is open in line with DLRCOCO grants programme. Closing off 2020 scheme for end of year receipts/reports.
- **Governance** – DLR Sports Partnership have registered our compliance with The Governance Code with Sport Ireland following 18 months of detailed work.
- **Lets Get Back Campaign** – continuing to support this national Sport Ireland campaign to encourage and promote that it is safe to return to sport and activity.
- **Skipping Introduction Programme** – completed delivery of this fun physical literacy initiative to 1,270 pupils across 12 schools.
- **Active Dublin** – Presentations on the initiative made to both Area Committees, the Community SPC and the LCDC. National Lead Officer now in place and a marketing company secured to develop communications and marketing.
- **Men On the Move** – 2nd programme of the year ongoing. 25 middle-aged men taking part and based in Ballyogan (also sessions delivered online).
- **Older Adult Activity Classes** – weekly Strength & Balance programme continuing in Balally Resource Centre with Siel Bleu (24 participants).
- **Walking Programmes** – new weekly programme in Dun Laoghaire with Southside Partnership (15 participants). Marlay walking group continuing.
- **Swimmin Women** – delivering new programme with Swim Ireland that utilises aquatic exercise to enhance quality of life during menopause (20 women).
- **Get Going Get Rowing** – currently delivering through Rowing Ireland to girls in DEIS secondary schools across the County.
- **Woodlands For Health** – delivering second community based programme with weekly walks for adults experiencing mental health difficulties (27 participants).
- **Inclusive Bike Fleet** – free hire service for bikes suitable for older adults and people with disabilities. Interest is still high with approx. 60 bookings a month.
- **Poolpod** – this fully accessible hoist to be installed in dlr Leisure Loughlinstown in late early December. 50% Sports Partnership funding and 50% DLRCOCO.
- **Wheelchair Roundabout** – newly installed in Cabinteely Park to go with the inclusive swing and improve accessibility for children who are wheelchair users.
- **Urban Outdoor Adventure Project** – completed delivery of taster activities for teenagers on the autism spectrum. Orienteering, rockclimbing and kayaking.
- **Ballyogan Sports & Activity Hub** – Steering Group meetings and partner work continuing. Supporting local schools and developing activity programmes for young people in the area.
- **Women In Sport Leadership Programme** – new 8-week leadership programme open to female coaches/administrators/volunteers in DLR.
- **Child Safeguarding** – delivered 2 x courses in November (24 attendees),
- **Coaching Teenage Girls** – new Sport Ireland Coaching workshop designed to support coaches of girls 12-17yrs. 3 workshops in November (40 participants).

Dublin City Council, Fingal County Council, South Dublin County Council and Dun Laoghaire-Rathdown County Council

# Dublin Region Air Quality Plan 2021

Air Quality Plan to improve Nitrogen Dioxide levels in Dublin Region





Comhairle Cathrach Bhaile Átha Cliath Dublin City Council

Comhairle Contae Fhine Gall Fingal County Council

Comhairle Contae Átha Cliath Theas South Dublin County Council

dlr Comhairle Contae County Council

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# 1.0 Introduction – Setting the context

## 1.1 Why is this air quality plan for nitrogen dioxide for Dublin necessary and what is its purpose?

Ireland as an EU member state is obliged to implement EU Directive 2008/50/EC on ambient air quality and cleaner air for Europe (also referred to as the CAFÉ Directive). One element of the implementation of this Directive involves carrying out air quality monitoring for a number of specified air pollutants at a network of air quality monitoring stations throughout the country. These requirements were transposed into national legislation in Ireland by the Ai1498r Quality Standards Regulations 2011 (S.I.180/2011).

In 2019, there was an exceedance of the annual permissible limit value for one of these pollutants – nitrogen dioxide - at one monitoring station in Dublin. There were no other exceedances recorded elsewhere for nitrogen dioxide or any other specified air pollutant during 2019.

Under the national legislation, if this occurs the relevant local authorities are obliged to prepare an air quality plan to identify the root causes and formulate measures to address the exceedance of that pollutant for submission to the EU within two years of the exceedance being reported. For the purposes of air quality assessment and management in Ireland, the country is divided into a number of zones, one of which is *Agglomeration A - the Dublin Conurbation*. This consists of the functional areas of Dublin City Council, South Dublin County Council, Dun Laoghaire – Rathdown County Council and most of Fingal County Council. For the purposes of readability of this plan, the term *Dublin Region* will be used in the text to describe this legally defined area. For the purposes of air quality management, this zone would be classified as a city.

The reasoning behind the legal obligation for the four local authorities preparing this plan together include:

- The root causes for an exceedance of the permissible limit for a given pollutant at one location may be influenced by regional as well as local factors.
- It is crucial that measures taken to address an exceedance in one location do not inadvertently displace the burden of pollution elsewhere.

This last point in particularly relevant in this instance as nitrogen dioxide is an air pollutant primarily associated with transport emissions. Therefore, the purpose of this plan is to address reducing nitrogen dioxide emissions from transport in the Dublin region.

## 1.2 Arrangement and layout of this air quality plan for nitrogen dioxide

One of the legal obligations under the Air Quality Standards Regulations 2011 on local authorities in preparing this air quality plan is to ensure that it is “clear, comprehensible and accessible”.

Therefore the flow of this plan is to firstly give an overview of the reasons for and purpose of preparing this plan (see above); then give the a contextual overview of the area covered by the plan in terms of physical geography , demography population and climate.

The plan will then describe the policies and legislation dealing with air quality in Ireland and then address the origin, occurrence and health impacts of nitrogen dioxide.

It will also deal with relevant transport and land use plans. It will then describe the emissions and dispersion modelling carried out for this plan and from this elaborate the proposed measures and actions required to achieve the target of bringing nitrogen dioxide levels back into compliance with legal limit values.

## 1.3 Overview of the Dublin region Geographic and Population Profile

The Dublin Region occupies an area of 922 square kilometres and is situated on the east coast of Ireland on the River Liffey, which discharges into Dublin Bay and the Irish Sea. The area of Agglomeration A - the Dublin Conurbation, which is the subject of this Plan, is 637 square kilometres. The area around St. John’s Road West, where the recorded exceedance of nitrogen dioxide occurred in 2019 is situated in the west of Dublin City. The road in question is highly trafficked and serves as a feeder route to two motor ways (M50 and M4). There is a main railway station immediately to the north of the air quality station and the area is a hub for national and urban bus services as well as the a taxi rank serving the railway station (see local map below fig.1,1) .

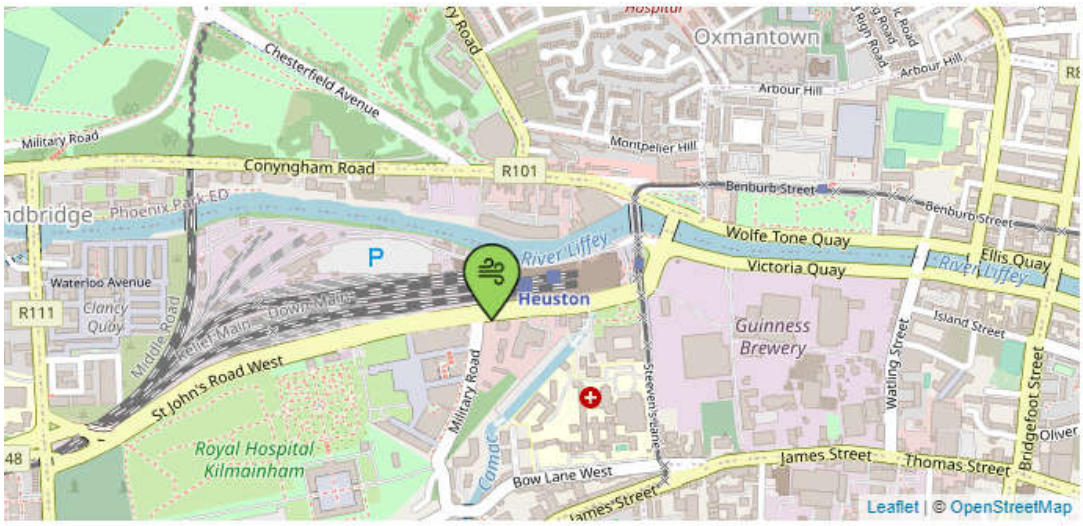
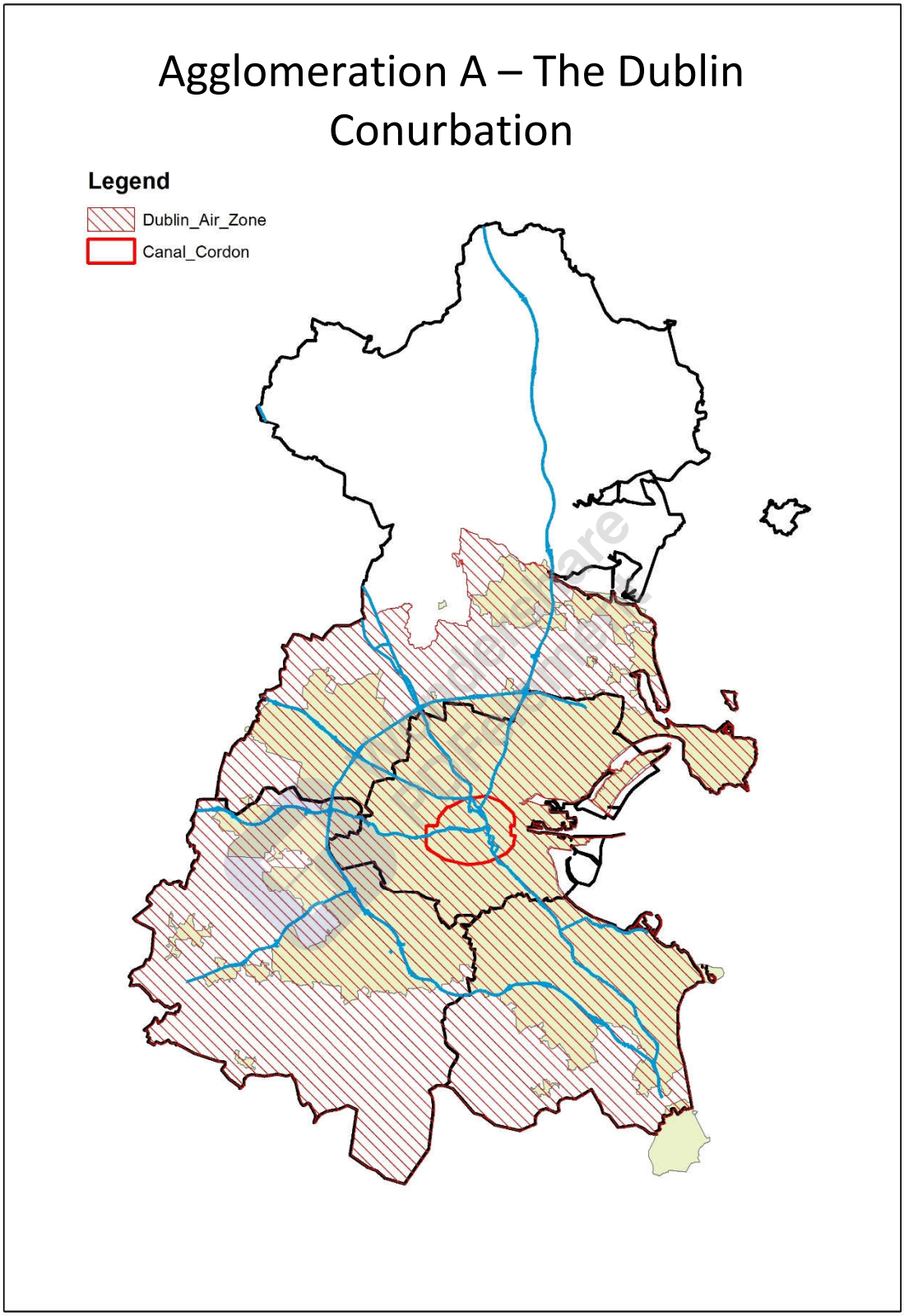



Figure 1.1 Local Map around Saint John's Road West Air Monitor

The region is a relatively low-lying area with rich pastures to the west and north of the city. In addition to the River Liffey, two other major rivers run through the region and include the River Tolka from the northwest and the River Dodder from the southwest. The latter rises in the Wicklow Mountains that together with the smaller Dublin Mountains are located to the south west of Dublin City. The highest peaks in the Dublin Mountains extend to around 750metres, where those in the Wicklow Mountains extend to above 1000 metres in places. The mountains are known to have an influencing effect on the weather in Dublin, primarily reducing precipitation that falls extensively over the mountain ranges. In addition, the region also contains two canals linking the city centre to the River Shannon in the Midlands. The map below shows the extent of Agglomeration A - the Dublin Conurbation relative to the overall region.




In terms of Information on the type of targets requiring protection in the zone, these are addressed in

Chapter 8 - Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) Screening

The population of the Region was 1,347,359 in the 2016 census that represented approximately 28% of the State's population.

The overall Dublin Region consists of four local authority administrative areas - Dublin City Council, Dun Laoghaire Rathdown, Fingal County, and South Dublin County. With the exception of Dublin City, each of the county administrative areas has a mix of rural and urban Electoral Districts. The population of each of these functional areas as determined in the 2016 Census is as follows:

| **Area** | **2016 Population** |
|---|---|
| Dublin City | 554,554 |
| Dún Laoghaire-Rathdown | 218,018 |
| Fingal | *296,020* (161,548 inside the Dublin Region) |
| South Dublin | 278,767 |

Of the above, 110,000 people live within the canal cordon formed by the Grand and Royal Canals. It should also be noted that the population living in the Electoral Areas where (or adjacent) the exceedance at St. John Rd West was recorded is 29,423 persons. (CSO Census Data 2016)
Dublin is both a vibrant and a historic region, whose heritage is complemented by being a major centre for multinational operations Information and communications technology; it has also seen significant ongoing transport and urban renewal activities over the past decade.

The Region includes an International Airport and two main seaports, one of which is the largest in the State.

As the population of Ireland increased by 3.8% between 2011 and 2016, the largest increase was at a regional level – with Dublin at 5.8% followed by the Mid-East region at 5.3%

In 2016, 28.3% of the population of Ireland lived in Dublin while 14.5% lived in the Mid-East. Thus, just under 43% of all Irish people lived in the Dublin or the Mid-East regions in 2016. Recently published data by the Central Statistics Office indicate that while the national population topped over 5 million people for the first time in over 150 years, population growth in Dublin has now actually levelled out.

## Climate of the Dublin region

The climate of a region and day-to-day changes in weather profoundly influence air quality in that region. Weather determines how quickly pollutants are dispersed, diluted or blown by the wind from their source. Conversely, pollutants can also be trapped close to the ground. If wind speeds are weak

and the air close to the ground cools down this can result in warm air moving over it. This creates an "inversion" condition that keeps pollutants close to the surface. Such inversions typically occur on clear, dry, still nights.

Poor air quality can also result from high temperatures. In hot, sunny weather, photochemical smog can form through complex chemical reactions involving a range of air pollutants such as nitrogen oxides, ozone, and volatile organic compounds. Air pollution can also be washed out by rain, fog or snow.

The climate of Dublin is oceanic (due to the influences of the Atlantic Ocean), cool and humid throughout the year. Consequently, it does not experience the extremes of temperature experienced by many other countries at similar latitude.

The average temperature ranges from 5 °C in January and February to 15.5 °C in July and August. While Dublin is on the drier coast of the island of Ireland total precipitation does amount on average to a total 750 millimetres per year. This means that certain amounts of air pollutants are washed out of the atmosphere in the course of a year. The table below demonstrates the typical variation seen in terms of temperature and rainfall in Dublin over the course of a year.

Table: 1.1 Dublin - Average temperatures Dublin - Average precipitation

| Month | Min (°C) | Max (°C) | Mean (°C) | Millimetres | Days of rain |
|---|---|---|---|---|---|
| **January** | 2 | 8 | 5 | 65 | 13 |
| **February** | 2 | 8 | 5 | 50 | 10 |
| **March** | 3 | 10 | 6.5 | 55 | 11 |
| **April** | 5 | 12 | 8.5 | 55 | 11 |
| **May** | 7 | 15 | 11 | 60 | 11 |
| **June** | 10 | 18 | 14 | 65 | 10 |
| **July** | 12 | 20 | 16 | 55 | 11 |
| **August** | 12 | 19 | 15.5 | 75 | 12 |
| **September** | 10 | 17 | 13.5 | 60 | 10 |
| **October** | 7 | 14 | 10.5 | 80 | 12 |
| **November** | 5 | 10 | 7.5 | 75 | 12 |
| **December** | 3 | 8 | 5.5 | 75 | 13 |
| **Year** | 6.5 | 13.3 | 9.9 | 760 | 135 |

Source: Climates to travel - World climate guide

# 2.0 Air Quality Assessment and Management in Ireland under the CAFÉ Directive

## 2.1 Air Quality Assessment in Ireland

### Overview

The European Commission originally launched the Clean Air for Europe (CAFE) programme in 2001, with the aim of reviewing the EU's air quality policies and assessing progress towards attainment of the EU's long-term air quality objectives. Amongst a number of milestones in this ongoing programme was the adoption by the Member States of the EU Directive 2008/50/EC on ambient air quality and cleaner air for Europe (the CAFÉ Directive)

The provisions of this Directive were transposed into Irish law by The Air Quality Standards Regulations SI 180 of 2011. These regulations established the Environmental Protection Agency (EPA) as the competent authority for assessing air quality in Ireland.

The regulations stipulate the:

- Air quality standards to be met in common by all Member States.
- Requirements for national networks of air quality monitoring stations
- Establishment of distinct air quality zones for assessing and managing air quality
- Requirement for short- term action plans in the event of certain kinds of acute exceedances of permitted limit values
- Requirement for Air Quality Plans to be made to bring air quality into compliance in the event of more exceedances.

The Environmental Protection Agency as the competent authority, in cooperation with a number of partners, (such as some local authorities and third level institutes) operate the National Ambient Air Monitoring Programme (NAAMP). This programme includes a national network air quality monitoring stations, reporting data on a continuous, real-time basis. The raw data on air quality gathered is open to public access on a number of platforms including https://airquality.ie/. This data is subject to rigorous quality control and assurance. Following this process the final air quality data for the previous calendar year is reported on an annual basis to the EU Commission (usually in the third quarter of the year). If any exceedances of mandatory limits are recorded during a calendar year this triggers a process under the CAFÉ Directive whereby a member State has to prepare an action plan to address such exceedances.

As well as the national monitoring stations network, there are a growing number of “local” air quality monitoring stations. These utilise lower cost monitoring equipment that give a rapid indication of air quality in a locality.

In addition to the national and local monitoring network, the EPA (again in conjunction with some partners) also carry out indicative air quality monitoring campaigns (i.e. using basic low cost sensors over a period of time varying from several months to a year) to identify potential air quality “hot spots” where it may be necessary to establish permanent monitoring stations.

As last reported by the EPA that there are 95 monitoring stations (national and local combined) in Ireland. In 2019 alone there were 24 new stations established (9 national and 15 local) and further expansion is ongoing. The map below shows the general geographical spread nationally of these monitoring stations.

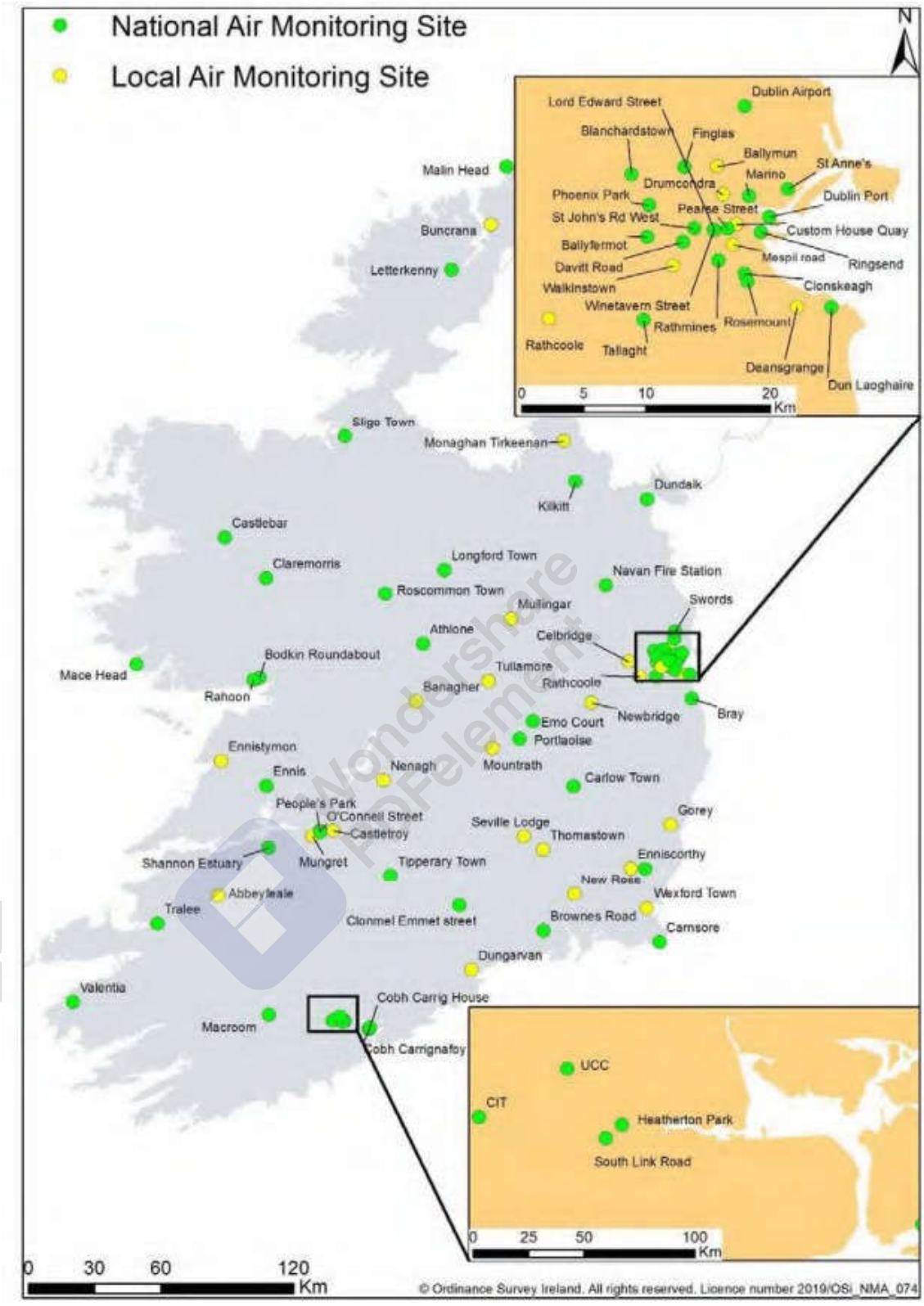



**Figure: 2.1 National Ambient Air Quality Monitoring Network in Ireland 2020**

***(Source -EPA – Air Quality in Ireland 2019)***

## 2.2 Air Quality Standards under the CAFÉ Directive

Each of the pollutants monitored in the national network in Ireland have associated EU legal limit values assigned to them, which if exceeded, require action to be taken by the relevant authorities. These legal limit values are focused on the protection of human health and are based on the World Health Organisation Air Quality Guidelines Global Update 2005. It should be noted that the World Health Organisation issued revised air quality guidelines in 2021, and these are under consideration by the European Union in terms of formulating future clean air directives (see 2.3 for more detail).

Before setting out the air quality standard for nitrogen dioxide, a very brief overview of the monitoring method is useful to explain the context.

Each nitrogen dioxide analyser in the network continuously monitors nitrogen dioxide levels in the air and every hour it calculates the one-hour average concentration of that pollutant.

Therefore in a complete calendar year, there would be a maximum 8760 one-hour results (i.e. the number of hours in a calendar year). In practice, there is some tolerance (10%) built in to allow for analyser servicing, calibrations and unscheduled stoppages (power cuts or breakdowns)

**The first legal limit value** stipulates that a concentration of 200 micrograms per cubic metre should not be exceeded more than 18 times in a calendar year. In other words, no more than 18 of all the one-hour values recorded in a calendar year may exceed this level. This first limit value is important if there are short episodes of very high nitrogen dioxide levels over a number of days. In practice, these kinds of pollution episodes have not been experienced in Ireland.

**The second legal limit value** stipulates that the average of all the one hourly results in a calendar year must not exceed 40 micrograms per cubic metre. This limit value is focused on the long-term exposure to nitrogen dioxide, and is of relevance to the air quality picture in Ireland.

Apart from nitrogen dioxide, there is a range of other air pollutants monitored under the CAFÉ Directive. While these are not the subject of this plan, for the sake of completeness they are listed below:

Sulphur dioxide, Carbon monoxide, Ozone, Polycyclic Aromatic Hydrocarbons, Particulates (PM10 and PM2.5), and dioxins. As stated previously in this plan, the levels of these pollutants are within legal limit values in Ireland.

## 2.3 Health Effects of Nitrogen dioxide

The EU air quality standards above are based on the criteria for the protection of human health set down in the World Health Organisation Air Quality Guidelines Global Update 2005.

The World Health Organisation issued New WHO Global Air Quality Guidelines (AQGs) on 22 September 2021 see more here. These new guidelines recommend new air quality levels to protect the health of populations, by reducing levels of key air pollutants, some of which also contribute to climate change. The goal of the guideline is for all countries to achieve recommended air quality levels. Conscious that this will be a difficult task for many countries and regions struggling with high air pollution levels, WHO has proposed interim targets to facilitate stepwise improvement in air quality and thus gradual, but meaningful, health benefits for the population.

It has been signaled in 2021 by the European Commission that closer alignment of the EU air quality standards with improving scientific knowledge including these latest findings of the World Health Organization (WHO) are a priority action.

**Nitrogen dioxide and general health effects**

One of the group of air pollutants of concern are nitrogen oxide gases (or NOx for short) and from a human health perspective, one of that group - nitrogen dioxide is the one of most concern as it has been demonstrated to be associated with number of health effects including

1.1.1 increased inflammation of the airways;
1.1.2 Worsened cough and wheezing;
1.1.3 Reduced lung function;
1.1.4 Increased asthma attacks including a likely cause asthma in children
1.1.5 Greater likelihood of emergency department and hospital admissions.

Nitrogen dioxide can also react with other chemicals in the air to form other pollutants such as particulate matter and ozone.

## 2.4 Nitrogen dioxide and health in Ireland

Longer exposures to elevated concentrations of nitrogen dioxide may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as

well as young children and older adults have increased sensitivity to its effects and are generally at greater risk for the health effects of nitrogen dioxide. Asthma is of particular importance in the Irish context. The Asthma Society of Ireland in its 2019 report has estimated:

- That 1 in 13 people in Ireland have asthma.
- Asthma affects at least 1 in 5 Irish children at some stage of their life
- There are 2.4 million asthma GP consultations in Ireland annually.

Recent EPA sponsored research in Ireland among over 50's found an association between local air pollution and asthma among older adults at relatively low concentrations of NITROGEN DIOXIDE. The study drew its sample from the Irish Longitudinal Study on Ageing (TILDA) and used estimated levels of ambient pollution i.e. local nitrogen dioxide concentrations at each participant's residential address. The results found a positive association between local air pollution generally and the probability of suffering from asthma for a large representative sample of older adults in Ireland.

Another study by Quintyne et al (2019) used routine available data to examine the relationship between poor air quality and hospital admissions due to cardiovascular and respiratory diseases in Dublin City & County between 2014 and 2018. The study findings indicated significant rises in admissions with change in AQIH from good to very poor for asthma, chronic obstructive airways disease and heart failure.

A number of other Irish health studies on the relationship between nitrogen dioxide and health are either ongoing or planned, and these provide a valuable benchmark not only in terms of estimating current health burdens but will also in terms of assessing the effectiveness of interventions that will be introduced over time.

## 2.5 The Air Quality Index for Health (AQIH) for Ireland

This index was devised by the Environmental Protection Agency in collaboration with the Health Service Executive and is accessible at www.airquality.ie where it is an integral element of how air quality monitoring data is presented to the public.

The Air Quality Index for Health (AQIH) is essentially a map of Ireland, showing the colour/number coded air quality (ranging from green for "good" to red for "poor) at each monitoring station so a viewer can quickly see what air quality is like in their area. The index has specific health advice for those who are more sensitive to air pollution – for example, people with heart or lung conditions. The advice

includes guidance to the public on what to do if air quality is poor in their area.

## 2.6 Air Quality Management in Ireland

### Overview

This section of the plan will provide an over view of the administrative arrangements and policies in place in Ireland regarding air quality management. There is also a wider European Union dimension to some of these polices which will also be addressed.

### Role of national government and agencies

**The Department of the Environment, Climate and Communications (DECC)** is the government department charged with the protection of the natural environment and its impact on the health and wellbeing of citizens. It creates policies and measures to prevent and minimise activities that cause environmental damage such as air, water and land pollution.

**The Environmental Protection Agency (EPA)** as stated earlier, is the competent authority for all matters dealt with in the Air Quality Standards Regulations 2011. The EPA also have wider enforcement powers including oversight of the performance of local authorities of their statutory functions in relation to environmental protection under the Air Pollution Act 1987 and the Environmental Protection Agency Act 1992.

### Role of local authorities

**Local authorities** are the enforcement agencies for the Air Pollution Act 1987, which covers a wide range of matters including addressing air pollution incidents, regulating sales of solid fuels, issuing permits for specified facilities and preparation of air quality plans. A number are also engaged in air quality monitoring under the auspices of the EPA.

## 2.7 EU Level Polices relevant to air quality

### 2013 Clean Air for Europe

This further iteration of the original Clean Air for Europe (CAFE) programme 2001 provides for national emission reduction targets set in the National Emission Ceilings Directive for the main transboundary air pollutants: sulphur oxides, nitrogen oxides, ammonia, volatile organic compounds and particulate matter. It also addresses emission standards for the main sources of pollution, from motor vehicles and ships to power generation and industry. These standards are defined at EU level in legislative acts targeting industrial emissions, emissions from power plants, vehicles and fuels, as well as the energy

performance of products.

### Fit for 55 – European Green Deal

In July 2021, the European Commission adopted a package of proposals to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. Achieving these emission reductions in the next decade is crucial to Europe becoming the world's first climate-neutral continent by 2050 and making the European Green Deal a reality. With these proposals, the Commission is presenting the legislative tools to deliver on the targets agreed in the European Climate Law and fundamentally transform the EU economy and society for a fair, green and prosperous future.

## 2.7.1 National Level Policies relevant to air quality

### National Clean Air Strategy

The Department of the Environment, Climate and Communications (DECC) is developing a national Clean Air Strategy with the aim of promoting clean air policies to enhance and protect air quality. The National Clean Air Strategy will set out a framework for how all government departments can work to reduce air pollution and promote cleaner air. It will work alongside other plans, such as the National Air Pollution Control Programme and the National Energy and Climate Plan, to tackle the key challenges of air pollution. These include:

- Transport emissions, especially road transport emissions of Nitrogen Oxide (NOx) and fine particulate matter (PM 2.5)
- Emissions from industry, agriculture, and shipping
- The persistent problem of "smoky" emissions from burning solid fuel in home, it is anticipated this

Strategy will be published in 2021.

### Climate Action Plan 2019 and the Climate Action Act 2021

Given the sources involved, there is an obvious synergy between developing measures to address ambient nitrogen dioxide levels and addressing the wider climate action and carbon reduction agenda. While The **Climate Action Plan 2019** deals with a wider range of issues (of which air quality is but one) , it does sets out an ambitious course of action for each sector within Ireland to achieve the targets needed to adhere to the Paris Agreement. For the transport sector, the target is a reduction of 45- 50%

in transport related emissions by 2030, with a significant reduction expected in the latter half of the decade. This will require a significant modal shift from car to public transport and active travel, as well as a significant uptake of electric vehicles and increased use of biofuels.

Action 81 of the Plan is of particular relevance to this plan as it commits to: *Develop a regulatory framework on low emission zones and parking pricing policies, and provide local authorities with the power to restrict access to certain parts of a city or a town to zero emission vehicles only. Examine the role of demand management measures in Irish cities, including low emission zones and parking pricing policies."*

**The Climate Action and Low Carbon Development (Amendment) Act 2021** was signed into law on 23 July 2021. Amongst a wide range of measures, this Act provides a statutory basis for:

- The approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050
- Carbon budgets and a sectoral emissions ceiling to apply to different sectors of the economy;
- Local authority climate action plans
- Local authorities shall, when making development plans, to take account of their climate action plans

### 2.7.2 Regional level measures and policies

Dublin Regional Air Quality Management Plan for improvement in levels of nitrogen dioxide in ambient air quality.

In September 2010, the Environmental Protection Agency informed the City and County Managers in the Dublin Region that an exceedance of nitrogen dioxide levels had occurred at the Winetavern Street monitoring station during 2009. Accordingly, the four local authorities prepared a plan to address these matters, which was submitted to the Environmental Protection Agency in 2011. In the intervening decade, nitrogen dioxide levels recorded at the monitoring stations in the Dublin region were within EU limit values up to the exceedance recorded in 2019.

## 2.8 Air Quality Assessment in the Dublin Region – Practice and Results

While an overview of general air quality assessment in Ireland has been addressed earlier in this Chapter, the specific practice of air quality monitoring in Dublin and the knowledge gained from that is central to the narrative in this plan.

Local authorities in the Dublin region have carried out air quality monitoring since 1973. The knowledge gained from that monitoring was instrumental in providing the evidence base that led to the introduction of the bituminous coal ban in Dublin in 1990. Following the establishment of the Environmental Protection Agency in 1992, these authorities have worked closely with the EPA in developing and expanding the national monitoring network in the Dublin region as well as developing local monitoring networks.

Under the National Ambient Air Monitoring Programme (NAAMP), the following national monitoring stations have been established in the Dublin region:

Table: 2.1 Monitor Locations and Pollutant Measured

| No. | Location | Pollutants Monitored |
|---|---|---|
| 1 | Ballyfermot Library – Dublin 10 | Particulate (PM10 &2.5), Nitrogen dioxide |
| | Blanchardstown – Dublin 15 | Particulate (PM10 &2.5), Nitrogen dioxide |
| 3 | -Davitt Rd Inchicore Dublin 8 | Particulate (PM10 &2.5), Nitrogen dioxide |
| 4 | Dublin Airport Swords Co Dublin | Particulate (PM10 &2.5), Nitrogen dioxide, Ozone, Sulphur dioxide |
| 5 | Dublin Port – Dublin 1 | Particulate (PM10 &2.5), Nitrogen dioxide, Sulphur dioxide |
| 6 | Dun Laoghaire Co Dublin | Particulate (PM10 &2.5), Nitrogen dioxide |
| 7 | Pearse St Dublin 2 | Nitrogen dioxide. Ozone |
| 8 | Ringsend Dublin 4 | Particulate (PM10 &2.5), Nitrogen dioxide, Sulphur dioxide |
| 9 | Rathmines Dublin 6 | Particulate (PM10 &2.5), Nitrogen dioxide, Sulphur dioxide , Ozone |
| 10 | St Johns Rd West D8 | Particulate (PM10 &2.5), Nitrogen dioxide |
| 11 | Swords Co Dublin | Nitrogen dioxide, Ozone |
| 12 | Tallaght Dublin 4 | Particulate (PM10 &2.5), Nitrogen dioxide |
| 13 | Winetavern St Dublin 8 | Nitrogen dioxide, Sulphur dioxide, Carbon monoxide, Particulate (PM10) |
| 14 | Phoenix Park | Particulate (PM10 &2.5) |
| 15 | Marino | Particulate (PM10 &2.5) |
| 16 | St. Anne's Park | Particulate (PM10 &2.5) |
| 17 | Finglas | Particulate (PM10 &2.5) |
| 18 | Clonskeagh | Particulate (PM10 &2.5), Ozone |

The geographic distribution of these monitoring stations can be seen on the map below – this can be viewed in more detail here.

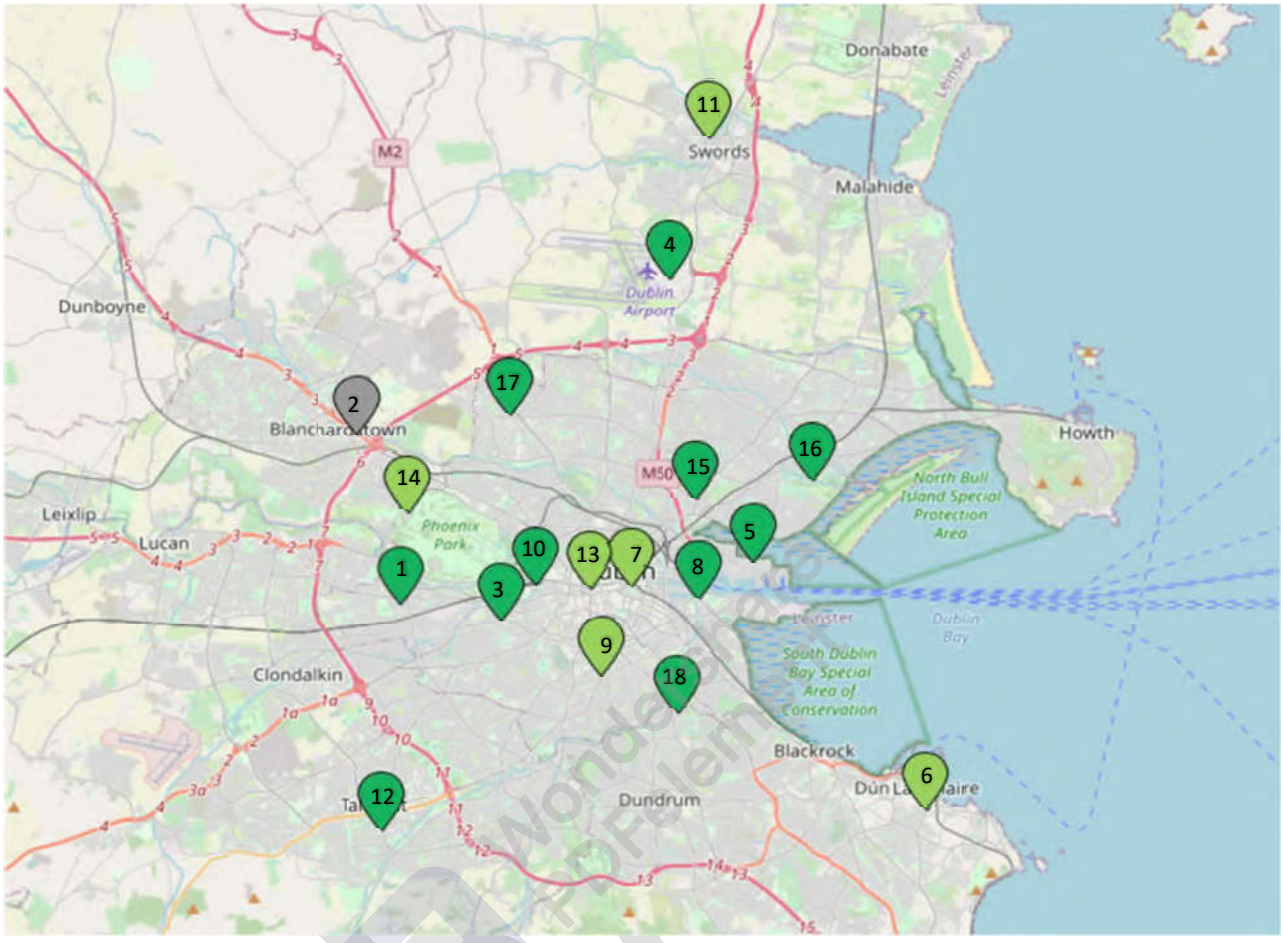



Figure: 2.2 Map of Monitoring Station Locations in Dublin Region

## 2.9 Nitrogen dioxide monitoring results in Dublin 2011-2019

The levels of nitrogen dioxide in an urban area can vary dramatically over a short distance (a few metres), with the highest concentrations within 10 metres of the roadside. As stated previously, nitrogen dioxide pollution is strongly linked with traffic emissions and the levels decrease significantly with distance from the road carriageway. Levels of nitrogen dioxide also vary depending on factors such as:

- Traffic volume and density
- Ages of vehicles
- Vehicle fuel (diesel vehicles are associated with higher levels of NITROGEN DIOXIDE than petrol engines)
- Speed of vehicles
- Width of streets and their buildings
- Weather conditions

In the context of the Dublin region, The Graph/Chart below illustrates the annual average nitrogen dioxide levels as measured during the period 2011-2019. There are individual graphs/charts provided for each station in the Appendices to this plan. As can be seen, while levels at all stations have been below the legal limit value of 40 micrograms per cubic metres over the period, there is the one exceedance at St. Johns Rd. West for 2019 - which was the first calendar year of monitoring at that location. However, the significance of this exceedance and the reasons for establishing an air quality monitoring station at this location are central to the ongoing efforts of assessing and managing nitrogen dioxide levels in the Dublin region.

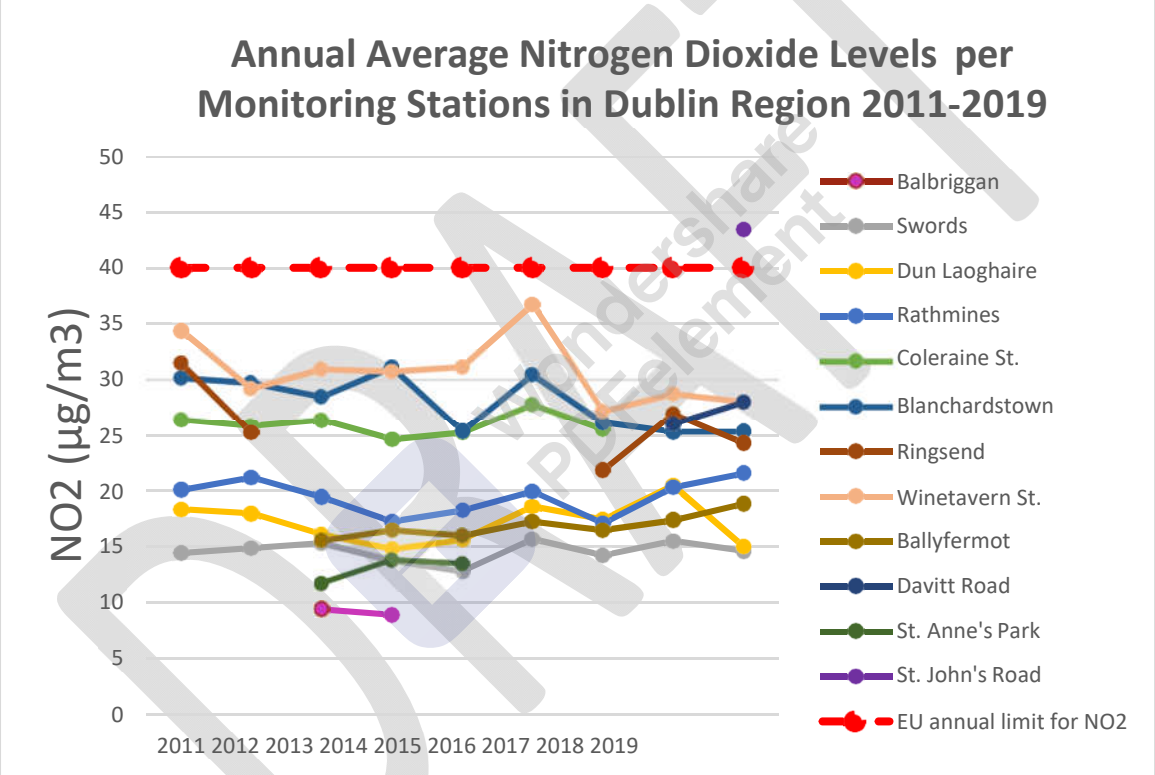



Figure: 2.3 Annual Average Nitrogen Dioxide Levels

| | Years | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Stations** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** |
| **Balbriggan** | | | 9.38 | 8.90 | | | | | |
| **Swords** | 14.41 | 14.86 | 15.31 | 13.78 | 12.80 | 15.67 | 14.22 | 15.51 | 14.60 |
| **Dun Laoghaire** | 18.33 | 17.98 | 16.07 | 14.80 | 15.61 | 18.59 | 17.44 | 20.47 | 15.01 |
| **Rathmines** | 20.10 | 21.20 | 19.45 | 17.26 | 18.27 | 19.95 | 17.10 | 20.32 | 21.58 |
| **Coleraine St.** | 26.45 | 25.85 | 26.42 | 24.63 | 25.27 | 27.79 | 25.55 | | |
| **Blanchardstown** | 30.14 | 29.71 | 28.47 | 31.11 | 25.37 | 30.43 | 26.17 | 25.31 | 25.31 |
| **Ringsend** | 31.47 | 25.25 | | | | | 21.86 | 26.96 | 24.32 |
| **Winetavern St.** | 34.36 | 29.21 | 30.91 | 30.73 | 31.12 | 36.71 | 27.20 | 28.75 | 28.02 |
| **Ballyfermot** | | | 15.5 | 16.5 | 16.0 | 17.3 | 16.5 | 17.4 | 18.8 |
| **Davitt Road** | | | | | | | | 26.05 | 28.02 |
| **St. Anne's Park** | | | 11.75 | 13.80 | 13.50 | | | | |
| **St. John's Road** | | | | | | | | | 43.43 |

Table: 2.2 Annual Average Nitrogen Dioxide levels across monitoring stations

## 2.10 St. Johns Rd West 2019 results

The data behind the exceedance of the EU limit value for nitrogen dioxide recorded at the St John's Road West site in 2019 is worth further analysis. The actual average nitrogen dioxide concentration measured at the site for the year was 43 micrograms per cubic metre. This level of air pollution is wholly consistent with the levels of heavy traffic passing this monitoring station. It should be stated in this instance for nitrogen dioxide the pollution is not imported from other regions. The Figure below shows the average nitrogen dioxide concentrations by hour of day observed there over the entirety of 2019. The classic pattern of pollution levels matching commuter traffic flow can be seen between two peaks in pollutant levels- one during the morning and one during the evening rush hours. Also of note is the quite high baseline level of nitrogen dioxide, which suggest quite consistent traffic volumes in this area. It should be noted that annual nitrogen dioxide levels at St. John's Rd. West were below 40 micrograms per cubic metre for 2020 and 2021 (to date) –see Appendix A. Nitrogen dioxide levels at other locations also remain below 40 micrograms per cubic metre at other monitoring locations for the same period.

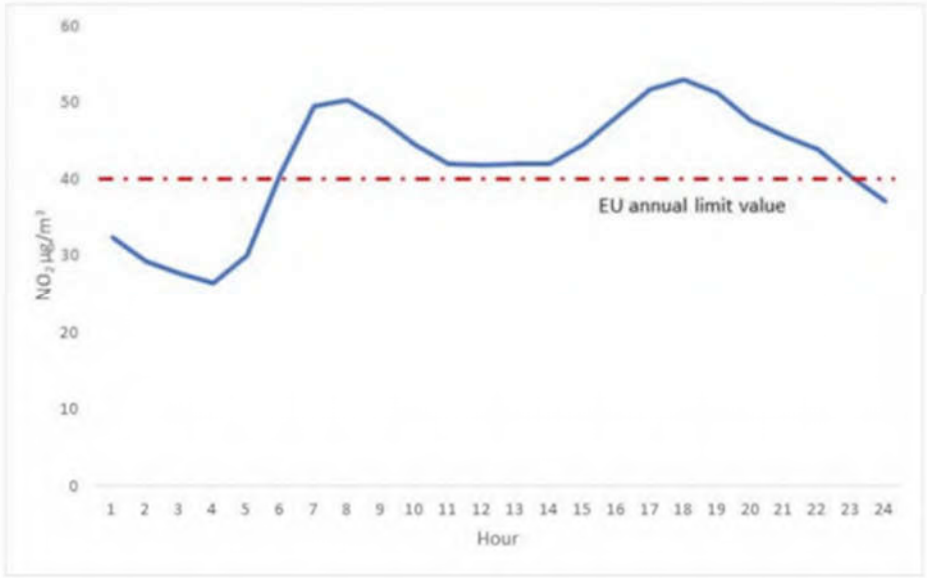



Figure: 2.4 Average $NO_2$ concentrations by hour of day as St. John's Road West in 2019

## 2.11 The EPA Urban Environmental Indicators: Nitrogen dioxide levels in Dublin

### Report 2019

The reasons behind establishing an air quality station at St. John's Rd West, and other locations, can be traced back to work carried out by the EPA (in collaboration with Dublin City Council) during 2016 and 2017, which was subsequently published in their **Urban Environmental Indicators: Nitrogen dioxide levels in Dublin** Report 2019

This work was prompted by observation by the EPA in annual air quality reports, that nitrogen dioxide levels in urban areas have been steadily increasing and at times in some locations approached the EU limit value.

As part of the National Ambient Air Monitoring Programme, novel approaches and equipment to assess air quality are utilised to complement the national monitoring network. One of these approaches involved carrying out diffusion tube surveys in two phases during 2016 and 2017 in Dublin to investigate nitrogen dioxide levels near both traffic sites and at suburban background sites.

These diffusion tube surveys involve installing plastic tubes mounted vertically on walls or similar structures that contain a chemical that absorbs nitrogen dioxide directly from the air, which can be taken to a laboratory and analysed. They are a relatively inexpensive form of indicative sampling but only give an estimate of longer-term average nitrogen dioxide concentrations.

The national reference stations on the other hand use highly sophisticated methods to provide accurate, continuous and precisely measured nitrogen dioxide concentrations in the field.

In Phase 1, diffusion tubes were sited at 12 locations close to existing reference stations to compare their levels. Once satisfied with tube performance the numbers of sampling sites were expanded to include in phase 2 a number of heavily trafficked locations.

In Phase 2, 25 locations were used during 2017. Of these 11 locations indicated a potential breach of EU limit values. In general, concentrations of nitrogen dioxide were highest at urban traffic locations, clearly showing the impact of traffic on busy roads from nitrogen dioxide. The report also utilised mathematical modelling to predict nitrogen dioxide levels across the rest of the Dublin region.

The three key findings of the Urban Environmental Indicators Report were as follows;

1. Highest levels of nitrogen dioxide are at locations with heavier traffic. This clearly shows the impact traffic has on the levels of nitrogen dioxide in areas close to busy roads in Dublin.

2. There are many areas where nitrogen dioxide is problematic – In some locations, the NO2 levels were high which indicates an increased risk that EU limits could be exceeded. Some areas of concern include:

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

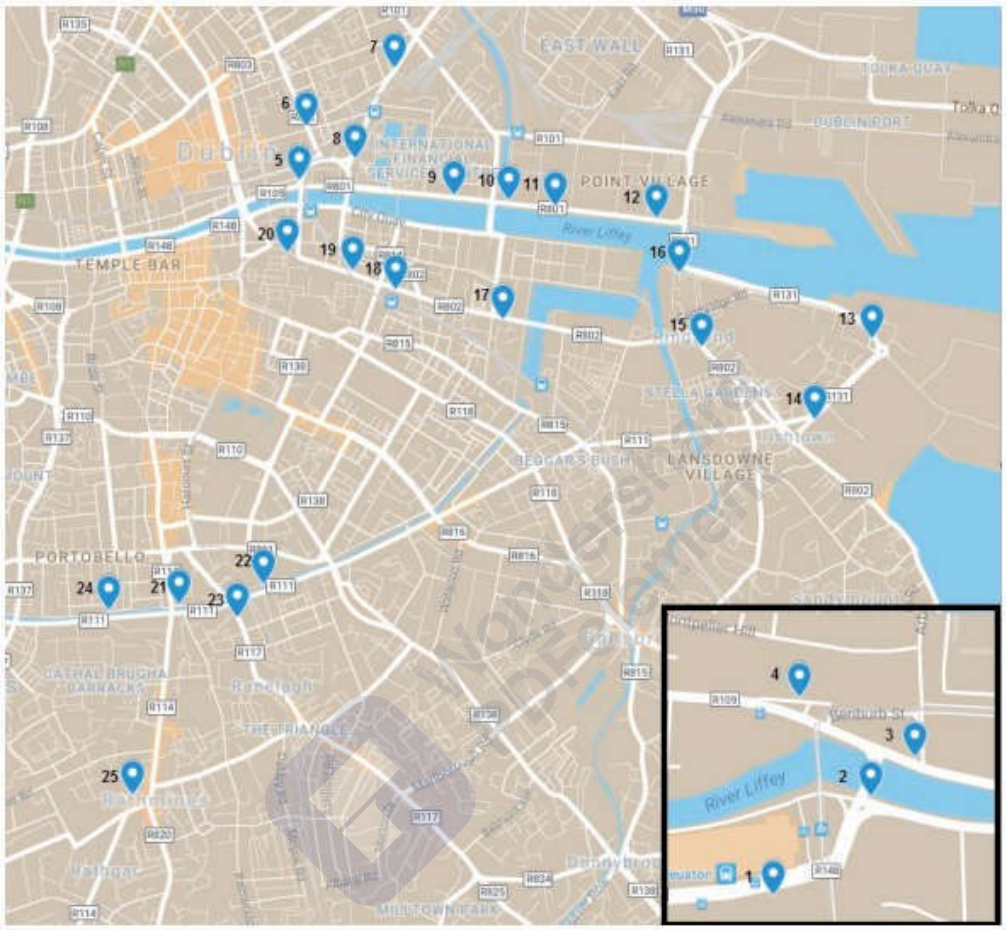
3. Levels of nitrogen dioxide are well within the EU limits in many residential areas – Away from busy roads the levels of nitrogen dioxide drop significantly and are well beneath the recommended EU limits in many residential areas.

As a direct consequence of these diffusion tube studies, nitrogen dioxide monitoring stations were subsequently established at St John's Road West (commenced first full year of monitoring in 2019), Pearse Street (commenced first full year of monitoring in 2020) and Dublin Port (commencing first full year of monitoring in 2020). It is worth noting that the measured exceedance at St. Johns Rd. West in 2019 confirmed the predicted exceedance presented in the EPA's Urban Environmental Indicators Report. This in turn led to the necessity to prepare this plan and underlines the importance and value of such studies.

The two figures below indicate

i. the geographic spread of the diffusion tubes deployed in Dublin during 2017

ii. the results obtained




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

Figure 2.5: Location of diffusion tube sampling sites (2017)

With respect to the results below, it should be noted that the diffusion tubes were dispersed in groups (or clumps) in close proximity to each in different locations. Therefore, as might be expected, the results for each location in each group would be broadly similar. In deciding where to subsequently locate a national reference air quality monitoring station in a given general area (i.e. around St. Johns

Rd. West or Pearse St., due regard to the siting criteria in the Air Quality Standards Regulations 2011 was necessary.

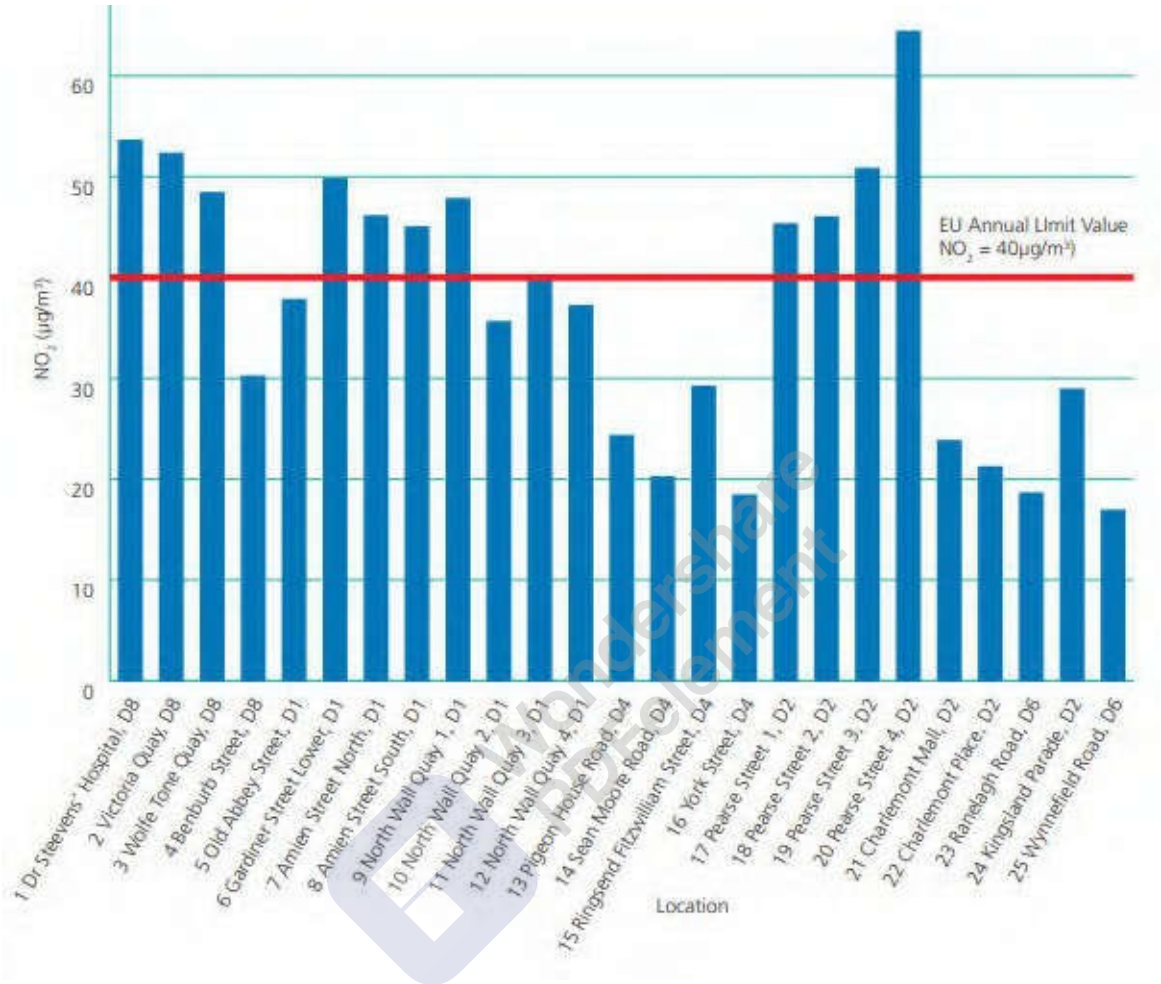



Figure 2.6: Nitrogen dioxide diffusion tube results (2017)

## 2.12 Follow Up Steps - Urban Transport Related Air Pollutants (UTRAP) Working Group.

The Environmental Protection Agency formally informed the European Commission on 30 September 2020 of the exceedance recorded at St. John Rd West for 2019, and outlined the procedure that would be followed to address this matter. It is crucial to make clear at this juncture, that as a direct result of the findings of the *EPA Urban Environmental Indicators: Nitrogen dioxide levels in Dublin Report,* the Department of the Environment, Climate and Communications (DECC) and the Department of Transport (DoT) established the Urban Transport-Related Air Pollution (UTRAP) Working Group in late 2019. Further information on UTRAP can be found at: https://www.gov.ie/en/publication/3f634-urban-transport-related-air-pollution-utrap-working-group/

The UTRAP group includes representatives from the Department of Health, Department of Finance, Department of Public Expenditure and Reform, National Transport Authority, Transport Infrastructure Ireland, Environment Protection Agency, Dublin City Council, South Dublin County Council, Dublin Bus, Bus Eireann, Health Services Executive, Road Safety Authority and the Climate Action Regional Office.

The Terms of Reference or UTRAP are as follows:

1. Enhance awareness of clean air legislation and its requirements generally, and specifically in relation to nitrogen dioxide and other transport related air pollutants, amongst relevant stakeholder organisations;
2. Provide a forum to enhance understanding of the causes and the health and environmental impacts of nitrogen dioxide air pollution and other transport related air pollutants in conurbations;
3. Identify developments that may impact on nitrogen dioxide levels and other transport related air pollutants in conurbations, e.g. evolving technical standards, and quantify the impact under likely future scenarios;
4. Identify examples of best practice in combatting nitrogen dioxide air pollution and other transport related air pollutants in conurbations, particularly road traffic-related air pollution, assess applicability and any barriers to their implementation in an Irish context;
5. Consider a range of options for potential measures and any associated actions and supports required to facilitate their effective uptake to address nitrogen dioxide and other air pollution; identify measures most suitable to Ireland and appropriate implementation bodies; and
6. Present the final UTRAP recommendations to both Ministers for consideration by Government.

An interim progress report has been issued and the UTRAP group will issue a final report later in 2021. This report will detail the final suite of recommendations designed to support a decrease in nitrogen dioxide levels in the urban environment and set out a timeline for implementation. The group will continue to meet to support the implementation phase. The development of the Dublin Regional Air Quality Plan is an essential element in informing the conclusions of UTRAP in these matters.

This initiative of establishing UTRAP is a clear recognition that addressing nitrogen dioxide levels in the Dublin region involves multiple stakeholders, each playing their respective roles to the full.
The Dublin local authorities are a crucial element in preparing this plan for this purpose, have key roles in

its implementation, and as will be borne out by the measures proposed, are equally reliant on the collaboration of all the stakeholders to achieve shared goals.

# 3.0 Sources of NOx Emissions

## 3.1 Introduction

Many areas of activity impact on air quality, power plants, industry, gas and oil boilers, however in relation to urban areas it is largely transport activities and the internal combustion engine which cause exceedances of NO2. Accordingly, this plan is focused on road transport emissions.

The EPA report on national air pollution emissions as part of Ireland's obligations under the Convention on Long Range Transboundary Air Pollution and the National Emissions Ceiling Directive. Below is a breakdown of the sources of NOx and the trend in transport NOx emissions for Ireland as reported by the EPA to the European Environment Agency. Table 3.1 below shows the breakdown of overall national emissions. Emissions from road transport will be a higher percentage in urban Areas, which is the focus of this plan; however, it is informative of the overall emissions and sources of NOX.

Figure 3.1 2019 NOx Emissions Ireland

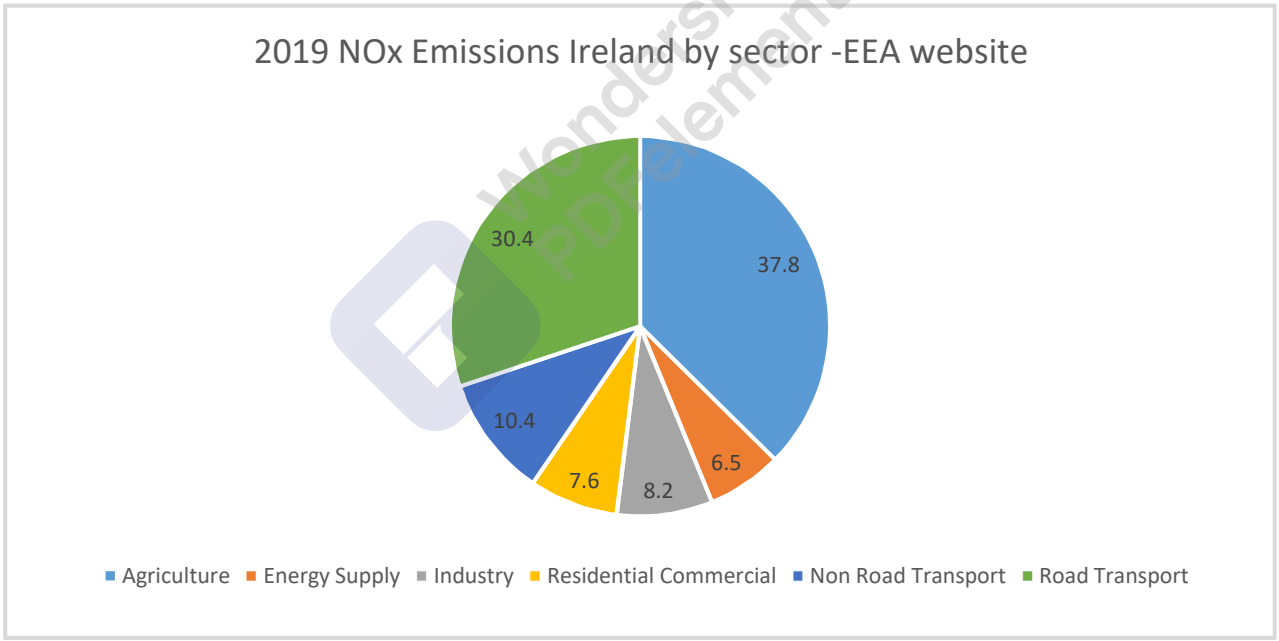



Figure 3.2 below shows transport emissions have halved over a period of 30 years despite an increase in traffic volumes.

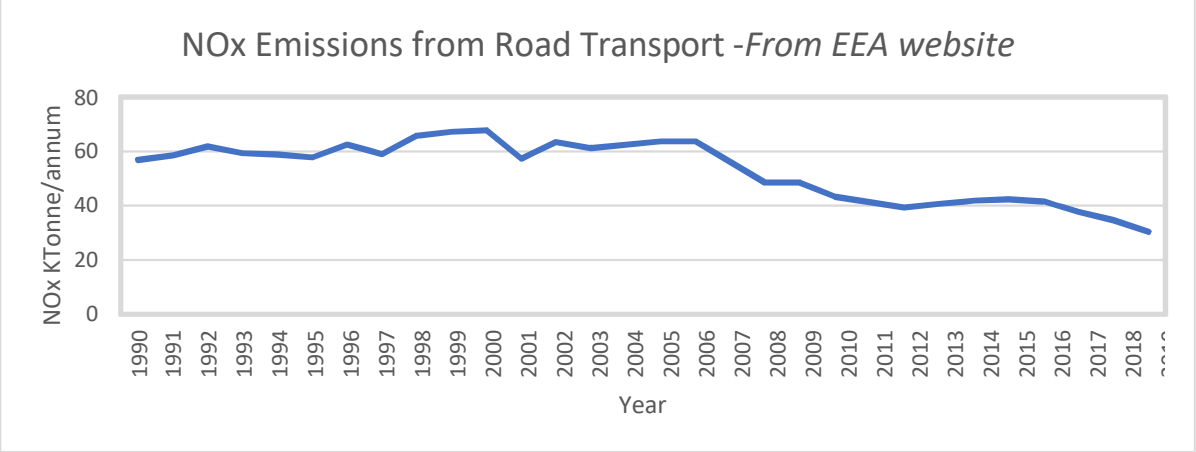
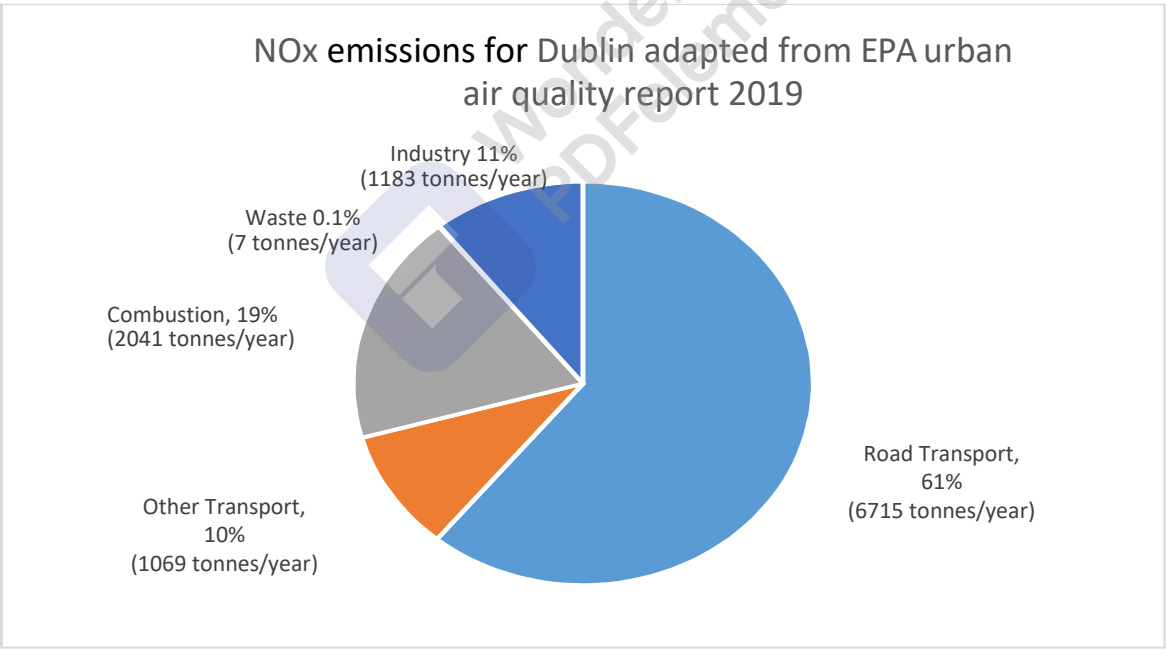



Figure 3.2 NOx Emissions from Road Transport

The EPA also published a study on Urban Air Quality Modelling of Dublin July 2019 that calculated reported on NOx emissions in the Dublin Area and is shown below in Figure 3.3

Figure 3.3 NOx Emissions for Dublin by source




## 3.2 Vehicle Emissions Standards

Vehicle emission standards road vehicles are governed by EU directives and regulations - Regulation (EC) No. 715/2007 and it's implementing Regulation (EC) No. 692/2008, as amended) Table 3.1 below shows the limits for the range of pollutants for the various Euro standards. There has been controversy over the NOx standards for diesel vehicles in that real driving emissions are sometimes a factor of 10 greater than the laboratory conformity test in the regulations. Figure 3.4 below shows the discrepancy. In addition, defeat devices to cheat the test were discovered to have been installed by a number of

manufacturers. This led to a revision of the standards and the inclusion of a RDE (Real Driving Emissions) conformity test. The emissions from the RDE test were allowed to exceed the standard for an interim period that expired in January this year.

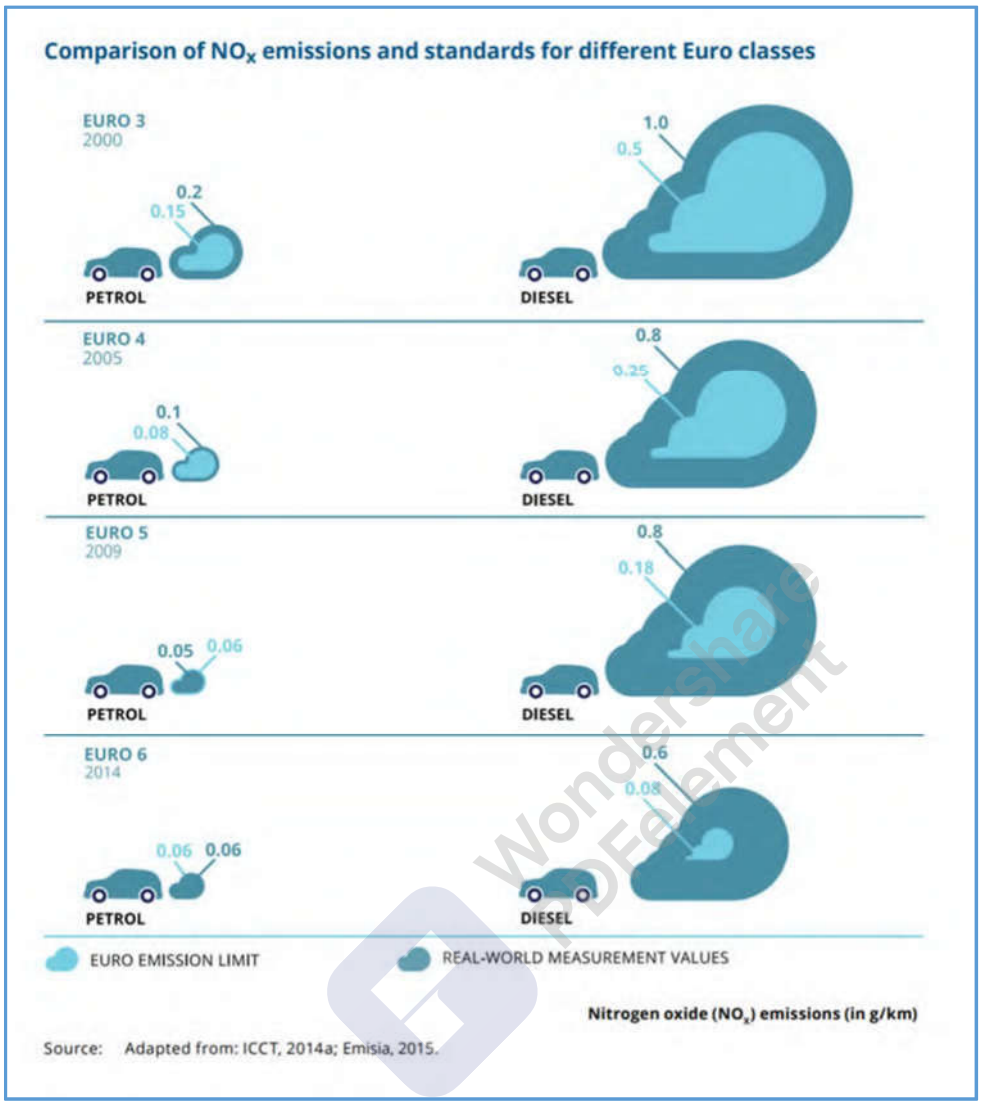
Table 3.1 from European Environment Agency 2016[1]

**Emission limits (g/km) of the successively introduced Euro emission standards for passenger vehicles**

| Diesel | Date | CO | NMHC | $NO_x$ | HC + $NO_x$ | PM | PN |
|---|---|---|---|---|---|---|---|
| Euro 1 | July 1992 | 2.72 | – | – | 0.97 | 0.14 | – |
| Euro 2 | January 1996 | 1.0 | – | – | 0.7 | 0.08 | – |
| Euro 3 | January 2000 | 0.64 | – | 0.50 | 0.56 | 0.05 | – |
| Euro 4 | January 2005 | 0.50 | – | 0.25 | 0.30 | 0.025 | – |
| Euro 5a | September 2009 | 0.50 | – | 0.180 | 0.230 | 0.005 | – |
| Euro 5b | September 2011 | 0.50 | – | 0.180 | 0.230 | 0.005 | $6.0 \times 10^{11}$ |
| Euro 6 | September 2014 | 0.50 | – | 0.080 | 0.170 | 0.005 | $6.0 \times 10^{11}$ |
| **Petrol** | **Date** | **CO** | **NMHC** | **$NO_x$** | **HC + $NO_x$** | **PM** | **PN** |
| Euro 1 | July 1992 | 2.72 | – | – | 0.97 | – | – |
| Euro 2 | January 1996 | 2.2 | – | – | 0.5 | – | – |
| Euro 3 | January 2000 | 2.3 | – | 0.15 | – | – | – |
| Euro 4 | January 2005 | 1.0 | – | 0.08 | – | – | – |
| Euro 5 | September 2009 | 1.0 | 0.068 | 0.060 | – | 0.005 | – |
| Euro 6 | September 2014 | 1.0 | 0.068 | 0.060 | – | 0.005 | $6.0 \times 10^{11}$ |

[1] Explaining road transport emissions, a non-technical guide, EEA 2016

Figure 3.4 (EEA 2016)




## EU emissions standards for vehicles

A useful document explaining the revision of standards was published by the European Environment Agency "Explaining road transport emissions" 2016.

Vehicle emissions are speed dependent and congestion causing slow speeds, engine idling and acceleration can increase emissions.

## Five Cities Demand Management Study

The Five Cities Demand Management Study undertook a survey of cars entering the city centre to establish the average emission factor using real driving emissions calculation, the study also predicted changes to the average emission factor over this decade based on existing policy measures and emission standards. The forecast shows a drop in the emission factor in Dublin from 0.284 g/km in 2019 to 0.123

g/km in 2030, a reduction of 57%.

## Potential Changes to EU Emissions standards

The European Green Deal foresees a proposal for more stringent emission standards to be adopted in 2021 (Euro 7).

## Electric Vehicles Strategy

The national climate change strategy has a target of 936,000 electric vehicles by 2030. This will require additional measures to incentivise electric vehicles or disincentivise internal combustion engine vehicles. The abovementioned reduction in average emission factors does not take into account the climate change target, the achievement of which will lead to a further substantial reduction in vehicle emissions beyond the 57% reduction forecast for 2030.

The Dublin Climate Change Action Plan has included an action to improve the roll out of electric vehicle chargers especially for dwellings without driveways to charge their own vehicles. A recent study has estimated the charging requirement based on various scenarios for the roll out of electric vehicles. Policy measures to achieve targets for EVs remain uncertain; however, a more rapid replacement of internal combustion engines by electric vehicles will lead to a more rapid improvement in air quality in the city including NO2

## Low Emission zones

Low emission zones are zones that charge entry into a zone based on emission factors for individual vehicles. These are being examined by the 5 cities demand management study and have the potential to target reductions in NO2 in urban areas and are dealt with further in chapter 5

### London Ultra Low Emission Zone

In 2019, a low emission zone was introduced in central London. A daily charge of £12.50 is imposed on the following vehicles

- Motorbikes that do not meet Euro 3 standards (most vehicles pre-2007)
- Petrol cars and vans that do not meet Euro 4 standards (most vehicles pre-2006)
- Diesel cars and vans that do not meet Euro 6 standards (most vehicles pre-2015)

This will in the future apply to residents of the zone and is in addition to the congestion charge

A daily charge of £100 is imposed on Buses, Coaches and Lorries that do not meet Euro VI standards
Compliant vehicles increased from 39% February 2017(announcement of the charge) to 75% after the first four months of operation. Central London Ultra Low Emission Zone - Four Month Report

## Road Transport Emission Inventories

Road traffic modelling calculating, traffic flows and speeds for different classes of vehicles combined with emission factor functions are used to calculate total emissions by link, grid or area. This modelling allows for the air quality assessment of different future transport scenarios and vehicle emissions standards. Final results of recent modelling are not fully available to show the impact of proposed public transport measures to 2030; however, it is likely that there will be significantly greater reduction due to changes to the fleet emissions compared to reductions in traffic volumes.

# 4.0 Transport, Vehicle Emissions and Land USE and their impact on Air Quality

## 4.1 Introduction

Transport related emissions of NOx are the product of vehicle emission factors and volume of vehicles on the road. Vehicle emission factors are not static but are related to speed and can be increased due to traffic congestion. Table 4.1 below shows the canal cordon count for the previous 11 years and shows a small drop in car usage and a large increase in walking and cyclists and a more modest increase in buses.

| Mode | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bus | 1,680 | 1,740 | 1,814 | 1,704 | 1,688 | 1,539 | 1,503 | 1,539 | 1,504 | 1,528 | 1,652 | 1,637 | 1,837 | 1,852 |
| Car | 58,664 | 58,686 | 58,897 | 58,232 | 58,047 | 55,745 | 55,343 | 54,458 | 53,033 | 53,064 | 51,908 | 50,158 | 48,820 | 46,388 |
| Taxi | 3,825 | 4,583 | 5,079 | 4,980 | 4,809 | 4,862 | 5,277 | 5,458 | 4,955 | 4,699 | 4779 | 4,098 | 4,399 | 4,292 |
| Walk | 17,114 | 18,594 | 18,360 | 14,618 | 15,092 | 14,551 | 17,070 | 17,495 | 19,711 | 18,727 | 21,473 | 24,936 | 23,858 | 24,691 |
| Cycle | 4,839 | 5,676 | 6,143 | 6,326 | 5,952 | 6,870 | 7,943 | 9,061 | 10,349 | 10,893 | 12,089 | 12,447 | 12,227 | 13,131 |
| Goods | 2,291 | 1,445 | 1,223 | 1,087 | 993 | 1,176 | 1,099 | 1,045 | 1,087 | 1,096 | 1,093 | 1,024 | 1,153 | 983 |
| M.Bike | 2,395 | 2,429 | 2,375 | 2,060 | 1,656 | 1,485 | 1,425 | 1,423 | 1,372 | 1,390 | 1,464 | 1,532 | 1,477 | 1,485 |

## 4.2 Greater Dublin Area Transport Strategy 2022-2042 (Draft)

This Transport Strategy for the Greater Dublin Area 2022-2042 (Transport Strategy) replaces the previous framework, titled the Transport Strategy for the Greater Dublin Area 2016- 2035, which was approved by the then Minister for Transport, Tourism and Sport in 2016. That prior transport strategy set out to contribute to the economic, social and cultural progress of the Greater Dublin Area (GDA) by providing for the efficient, effective and sustainable movement of people and goods. It did that by providing a framework for the planning and delivery of transport infrastructure and services in the GDA. It has also provided a transport planning policy around which other agencies involved in land use planning, environmental protection, and delivery of other infrastructure such as housing, water and power, could align their own investment priorities. It has been an essential component, along with investment programmes in other sectors, for the development of the GDA, which covers the counties of Dublin, Meath, Kildare and Wicklow.

The outcomes of the prior Strategy implementation include:

- An increase in the use of sustainable modes for travel into Dublin City in the morning peak, from 66% (2015) to 72% (2019);
- A reduction in the use of cars to enter Dublin City Centre in the morning peak, from 65,000 (2015) to 58,000 (2019);

- Growth in daily passenger trips on Irish Rail services in the GDA, from 119,000 (2015) to 150,000 (2019);
- Increase in total passenger trips on Dublin Metropolitan Area bus services, from 120 million (2015) to 153 million (2019);
- Growth in total passenger trips on the Luas system, from 35 million (2015) to 48 million (2019);
- 87% customer satisfaction among public transport users (2019)

This latest Draft Strategy, published in November 2021 and undergoing public consultation until 17 December 2021 addresses the following challenges.

- Climate Change
- Recovery from the Covid19 Pandemic
- Servicing the Legacy Development Patterns
- Revitalisation of the City Centre and Town Centres
- Transformation of the Urban Environment
- Ensuring Universal Access
- Serving Rural Development
- Improving Health and Equality
- Fostering Economic Development
- Delivering Transport Schemes
-

The Transport Strategy, in combination with other Government policies and programmes is forecast to lead to a significant reduction in air polluting emissions compared to 2016:

Table 3.2 Air-polluting Emissions 2016 and 2042 (Kg)

| | $NO_x$ | $NO_2$ | PM10 | PM2.5 |
|---|---|---|---|---|
| **2016** | 7,182,430 | 2,234,190 | 537,350 | 357,300 |
| **2042 With Strategy** | 1,217,850 | 259,640 | 445,270 | 247,590 |
| **Reduction** | -83% | -88% | -17% | -31% |

## 4.3 Five Cities Demand Management Study

The Department of Transport commissioned Systra Ltd. to undertake a study on traffic in the cities of Dublin, Cork, Galway, Limerick and Waterford titled "Five Cities Demand Management Study. Their final report was published on 25 November 2021 to provide a *"focused and evidence based approach*

*to addressing the carbon, congestion and air quality challenges facing our cities".* The report list and assess options for addressing the challenges. Many of the measures discussed in chapter 5 of this Air Quality Plan are consistent with this study

## 4.4 Remote Working

Remote working has the potential to reduce the demand for travel and lead to a reduction in NOx emissions. Government Policy is for a degree of remote working in the public service and many firms are setting policies that would allow some remote working. It is too early to quantify the longer-term level and other impacts of remote working and therefore assess the impact on air quality. The reduction in commuting due to remote working might be offset by a reluctance to use public transport and any road space freed up by remote working might be taken up by public transport users transferring to car transport. Remote working might encourage a trend where people live further away from their place of employment, travelling to work fewer days a week but for a longer distance.

## 4.5 Land Use Planning

The four Dublin Authorities are responsible for the preparation of county and city development plans and local area plans at a sub county level. The development plans are required to be consistent with the GDA Transport Strategy and are assessed by the National Transport Authority in this regard. This plan has not identified any changes to land use plans.

## 4.6 Bus and taxis

In the city centre area buses and taxis are a significant portion of NOx emissions. On a per passenger basis

Euro 6d buses have an emission factor (Coper 5.4) of 0.597 g NOx/km compared to 0.17g/km for a small diesel car. The bus however would be much lower emitter on a per passenger basis.

Dublin Bus have a number of hybrid buses and announced a trial purchase of hydrogen buses and have a relatively modern diesel engine fleet. There is an action in the 2021 climate action plan to evaluate fully electric buses as part of bus procurement. The latter commits to a significant decarbonising of Ireland's public transport fleet and requires that all new urban buses be electric hybrid or electric. The

NOx emissions from the private bus fleet is also an area for NOx reduction especially as this fleet is likely to have a higher proportion of older diesel engines which are higher emitters of NOx.

Similarly, for Taxis. A proportion of the Taxi fleet will be higher emitters of NOx and additional regulation to remove these from the Taxi fleet in the city centre area would lead to a reduction in NOx

## 4.7 Heavy Duty Vehicles

Similarly to cars and buses Euro standards apply to heavy duty vehicles, however further regulation of deliveries and heavy duty vehicles in the city centre is an option to be considered in particular a low emission zone which could apply to these vehicles alone to speed up the replacement of older vehicles using the city centre which could be combined with the current regulation of 5 axle vehicles using the city centre.

# 5.0 Measures to be adopted to reduce nitrogen dioxide in Dublin

## 5.1 Introduction

This Chapter will address the measures and actions required to address nitrogen dioxide levels in the Dublin Region. These measure and actions are proposed are to be implemented over varying times scales and will require specific interventions by a range of stakeholders. In considering the measures required to reduce nitrogen dioxides level in the Dublin region, it must be emphasised that no single body has exclusive ownership of those measures. The measures are purposely presented in a "bottom up" fashion to support the principle that local authorities can take actions that have a definitive influence on air quality , albeit that may need using legal powers available under other legislation. This is particularly relevant in Ireland as the powers currently delegated to them in air quality plans are limited.

## 5.2 Measures

**Measure 1**

**Integrate "15 Minute Neighbourhoods" concept in City and County Development Plans**

**The Five Cities Demand Management Study Study https://www.gov.ie/en/publication/c6571-five-cities-demand-management-study/** identifies the introduction of the 15 Minute Neighbourhoods concept as the No. 1 overall ranked intervention to address demand management, decarbonisation, air quality, and urban development.

This concept has been addressed in the Regional Spatial and Economic Strategy (RSES), which sets out the mechanism for delivering the National Planning Framework at a regional level. This concept of mixed-use development envisages a range of community facilities and services being accessible in short walking/ cycling timeframes from homes or accessible by high quality public transport in larger settlements.

In its Review of the Dublin City Development Plan 2016-2022 and the preparation of a City Development Plan for 2022-2028, Dublin City Council posed the question in the Pre – Draft Consultation Process – *Is the 15-minute City an achievable goal?*

Submissions received in the pre consultation process sought a renewed focus on urban living and that the liveability of the City should be an overarching theme of the plan. Submissions sought vibrant urban

centres and also that the growth of the city is aligned with the '15 Minute City' concept whereby people's daily requirements can be reached within 15 minutes by foot, bike or public transport. City and County Development Plans are subject to their own SEA process.

**PROPOSED ACTION: Dublin local authorities to adopt as appropriate "15 Minute Neighbourhoods" approach in their 2022-2028 Development Plans**

**Measure 2**

**Public Parking Controls**

**The Five Cities Demand Management Study** identifies public parking controls as the Number 4 ranked intervention to address demand management, decarbonisation, air quality, and urban development. Typically, the average car is parked at home for 80% of the time, parked elsewhere for 16% of the time and in active use for the remaining 3-4%.

The local authorities in the Dublin region each have comprehensive policies in their respective Development Plans to control the supply of parking in their functional area to achieve sustainable transportation policy objectives. These polices will be reviewed and updated as appropriate following statutory public consultation in the next iteration of City and County Development Plans 2022-2028.

**PROPOSED ACTION: Dublin local authorities to incorporate protection of air quality as appropriate in their 2022-2028 Development Plans with regard to maintaining and enhancing public parking controls.**

**Measure 3**

**Residential Parking Standards**

Parking standards for residential developments stipulate the amount of parking (including both car parking and cycle parking) that must be provided as part of new developments. Parking standards for residential developments seek to balance ensuring there is an adequate amount of parking to cater

for potential demand with restricting provision in areas on account of the proximity of various locations to public transport. Reducing residential parking can have a direct impact on car ownership and hence the demand for car travel across all journey purposes.

The Dublin local authorities have developed residential parking standards in their respective City and County Development Plans. These will be reviewed and revised as necessary following statutory consultation and screening in the 2022-2028 Development Plans.

**PROPOSED ACTION: Dublin local authorities to incorporate protection of air quality as appropriate in their 2022-2028 Development Plans with regard to maintaining and enhancing residential parking standards.**

**Measure 4**

**Workplace Parking Standards**

Similarly to the above, The Dublin local authorities have developed workplace parking standards in their respective City and County Development Plans. These will be reviewed and revised as necessary following statutory consultation and screening in the 2022-2028 Development Plans.

It should be noted that in respect of the removal of parking at workplaces, COVID-19 provides an opportunity to consider reduce parking, as less staff are travelling to work locations. In the context of COVID-19 and greater levels of staff working from home, there may be opportunities to use staff car parking spaces for more sustainable mobility usage.

**PROPOSED ACTION: Dublin local authorities to incorporate protection of air quality as appropriate in their 2022-2028 Development Plans with regard to workplace parking standards.**

**Measure 5**

**Continued Delivery of the Active Travel Programme**

In February 2021, The National Transport Authority announced a total of €240m to support sustainable transport projects across the country.

The NTA will be tasked with overseeing and supporting the development of the high-quality mobility infrastructure across all projects. The state agency will also ensure that projects are accessible, age-

friendly and maximise comfort to people of all ages and abilities.

PROPOSED ACTION: The local authorities in the Dublin region to continue implementation of the Active Travel Programme

**Measure 6**

**Electrical Vehicle (EV) Charging Strategy**

The Climate Action Plan 2019 has set ambitious targets for the conversion of the national fleet to EV over the coming decade and beyond.

As part of this overall strategic approach, the Dublin Local Authorities launched their Electric Vehicle Charge Point Draft Strategy.

This Draft Strategy considers the public EV charging needs for a range of vehicle types out to 2030. Detailed stock modelling shows that there would be 140k EVs in the Dublin region by 2030, but only 25% (35k) of these will be reliant on public charging. Rapid hub charging has significant benefits compared to slow on-street charging and is therefore the priority technology recommended. It is this switch to EVs, supported by an adequate EV charging network that will contribute to a significant reduction in emissions.

The Dublin region will require between roughly 500 and 4,000 residential (public) EVCPs by 2030, depending on how many rapid hubs are deployed (as preferred by each local authority).
These results back up the strategic focus on rapid charging – approximately 50 well-located 10-charger hubs could meet all residential demand, compared to thousands of on-street devices. To develop a comprehensive charging network that drives EV uptake, up to approximately 2,500 destination EVCPs and 166 en-route EVCPs will be needed and delivery is expected to be largely private sector led.

Local Authorities are well placed to have a key strategic and enabling role but would not be involved with physical infrastructure delivery or operation. The strategic approach is aligned with best practice in more developed EV markets. Evidence from other cities/regions highlights the benefits of Councils planning and coordinating deployment. It is envisaged that the Dublin LAs collaborate and play a central strategic role in enabling a region-wide charging network.

The Five Cities Demand Management Study indicates that a suite of EV charging measures could deliver

a reduction of 49% in nitrogen oxide emissions.

**PROPOSED ACTION: Dublin local authorities to finalise their Electrical Vehicle (EV) Charging Strategy**

## National - Government Level Measures

**Measure 7**

**Publication of National Clean Air Strategy**

As mentioned earlier, the Department of the Environment, Climate and Communications (DECC) is developing a National Clean Air Strategy with the aim of promoting clean air policies to enhance and protect the quality of ambient air. The introduction of these policies will be a key step in underpinning many of the measures identified in this plan. A draft National Clean Air Strategy, is due for publication in 2021 and will be the subject of a public consultation process.

**PROPOSED ACTION: Awaiting publication by the Minister for Environment**

**Measure 8**

**Air Quality Enabling legislation**

One of the specific measures that is of fundamental importance in the context of a National Clean Air Strategy is to provide a fit for purpose framework of measures in air quality enabling legislation. Such a framework would include providing for the delegation of legal powers to appropriate bodies, including local authorities to introduce enhanced air quality measures.

The Department of the Environment, Climate and Communications (DECC) have indicated their intention to commence work on a Clean Air Act.

**The Five Cities Demand Management Study** indicates that air quality enabling legislation could yield a 49% reduction nitrogen oxides emissions. While legislation in and of itself will not enact measures such as Low Emissions Zones it is expected that the existence of legislation and a framework for interventions will inform the public as to what actions might be taken. This knowledge is likely to inform vehicle purchasing behaviours and result in less demand for vehicles with the poorest air quality standards, e.g. older diesel cars.

The necessity to produce this Plan by the Dublin local authorities clearly highlights that the legislative supports for delivery are complex and that legislation should be provided for the emissions-related regulation of private cars, goods vehicles, taxis and buses.

As has been mentioned earlier n this plan, one direct consequence of the breach of nitrogen dioxide levels in 2019, led to the Department of Transport, together with the Department of the Environment, Climate and Communications, Climate & Communications establishing the multi-stakeholder UTRAP (Urban Traffic-related Air Pollution) working group. The ongoing work of UTRAP will be an important element in considering the development of appropriate air quality enabling legislation.

The Dublin local authorities are represented on UTRAP and will continue to actively engage to work with all stakeholders for going and sustained improvement in urban air quality. Specifically Dublin local authorities will utilise that representation to seek the acquisition of enhanced legislative powers.

**PROPOSED ACTION: The UTRAP group will publish their final report in late 2021. This report will detail the final suite of recommendations designed to support a decrease in NO2 levels in the urban environment nationally and set out a timeline for implementation. The group will continue to meet to support the implementation phase. The Dublin local authorities will advocate for enhanced legal powers in respect of air quality management be delegated to them.**



**Measure 9**

**Introduction of Clean Air Zones/ Low Emission Zones**

While there is no one single additional legal power that will address all potential scenarios, one enhanced legal power deserving of detailed consideration is for local authorities to be given the authority to introduce clean air zones or low emission zones

**The Five Cities Demand Management Study** identifies that the introduction of clean air zones or low emission zones could reduce NOx emissions from transport by between 60-71% depending on the approach taken.

This approach has been used successfully in countries across Europe to restrict vehicles with higher emissions entering certain zones. The evidence suggests that the introduction of such legislation in itself influences consumer behaviour in terms of vehicle purchase and subsequently on air quality. Currently local authorities in Ireland do not have the legal powers to introduce such zones.

One of the targets of the Carbon Plan 2021 is to implement decarbonising zones in each local authority by 2030. Furthermore, Action 244 of the National Climate Action 2021 gives a commitment to:

- *Examine the role of demand management measures in Irish cities, including low emission zones and parking pricing policies*

The nearest existing approximation to such powers under the Air Pollution Act 1987, enable the Minister for Environment as follows:

**53.**—(1) The Minister, for the purpose of preventing or limiting air pollution, may make regulations in relation to—

( *a* ) the standard, specification, composition and contents of any fuel of a type which is used in mechanically propelled vehicles or in mechanically propelled vehicles of a particular class or description or mechanically propelled vehicles in a particular area or a particular class of areas;

It should also be noted that under the current provisions of Part IV of the Air Pollution Act 1987, there is provision for the introduction of Special Control Areas. It is not clear however if these provisions are appropriate or provide for the introduction of clean air zones or low emission zones in relation to vehicle or transport related emissions. Therefore an appraisal of the current legal provisions to determine if they are fit for purpose regarding the introduction of clean air zones or low emission zones and identification of any potential amendment necessary is required.

The enactment of primary and secondary legislation is subject to Statutory Impact Assessment by the appropriate Government Department introducing such legislation.

**PROPOSED ACTION: An appraisal be carried out of the current provisions in the Air Pollution Act 1987 to determine if they are fit for purpose regarding the delegation of powers to local authorities for the introduction of clean air zones or low emission zones and identification of any potential amendment necessary. This appraisal should include consideration of amending Section 53(1) (a) of the Act to delegate powers to local authorities as well as the current the provisions of Part IV of the Act. Furthermore, an overall appraisal into the feasibility of introducing Low Emission Zones in the Dublin region where appropriate to be carried out. These are tasks that should be undertaken by the UTRAP Working Group ( which includes the Dublin local authorities) or a sub-group of UTRAP.**

**Measure 10**

**Remote/Flexible Working**

**Making Remote Work – National Remote Work Strategy 2021**

The European Environment Agency reported that lockdown measures introduced during the Covid-19 pandemic had led to levels of nitrogen dioxide falling by more than 60% in April 2020. While this gave some insight into the potential air quality benefits of reducing work related commuting it does not reflect the impact of recent patterns of home working as part of the response to the COVID-19 pandemic on long-term travel demands.

Recent studies suggest that a large majority of respondents favour a hybrid model where time working remotely blended with time in the workplace.

In January 2021, the Government announced the new 'National Remote Work Strategy' to ensure that remote working is a permanent feature in the Irish workplace in a way that maximizes and balances economic, social and environmental benefits. The strategy includes proposals for the following:

- Mandating that home and remote work should be the norm for 20 percent of public sector employment.
- Reviewing the treatment of remote work for the purposes of tax and expenditure in the next Budget.
- Mapping and investing in a network of remote working hubs across Ireland
- Legislating for the right to request remote working.

**PROPOSED ACTION: Implementation of National Remote Work Strategy. As part of that implementation local authorities are commencing a process to considerations for flexible work arrangements for their own work force**

**Measure 11**

**Enhanced Air Quality Monitoring and Modelling**

**National Ambient Air Quality Monitoring Programme (AAMP)**

Following a review of ambient air quality monitoring in Ireland, a national ambient air

quality monitoring programme commenced at the end of 2017. The AAMP provides real-time air quality information from a total of 95 monitoring stations (national and local combined) nationwide of which 24 were installed in 2019. This network of stations monitor a range of important air quality parameters including particulates, heavy metals, inorganic and organic gases.

The national ambient air quality monitoring programme is built around three key pillars:
A greatly expanded national monitoring network with automatic monitoring stations, providing enhanced real-time information to the public.

- Modelling and forecasting capability, to provide an ongoing air quality forecast to the public.
- Encouraging greater understanding and involvement of the public in air quality issues utilising citizen engagement and citizen science initiatives.

One of the direct results of the AAMP was the establishment of the monitoring station at St. John's Road West in Dublin.

The Five Cities Demand Management Study suggests that that increased air quality monitoring will lead to earlier action on air quality limit exceedances, which will contribute to driving a switch in the fleet away from older, more polluting vehicles. The Study further suggests this measure could contribute to a decrease of 48% in nitrogen dioxide levels as a result of driving this switch.

It is planned to establish a further multipollutant (including nitrogen dioxide) monitoring station in the Dublin north inner city area in the very near future, and ongoing indicative monitoring is being carried out to establish further suitable sites.

While air quality monitoring is a central pillar of air quality management, modelling is another important tool. In 2019, the EPA published their 'Urban Environmental Indicators Report'. This report that was based on data from the year 2015, included dispersion modelling techniques that showed that the concentrations of NO2 were highest around:

- the M50 motorway in Dublin,
- certain city centre streets,
- the entrance / exit of the Dublin Port tunnel.

The LIFE Emerald project (see below) and the expansion of the modelling carried out in preparing this Plan (see Chapter 7) will be central to enhancing air quality surveillance in the Dublin region.

**PROPOSED ACTION:**

**1. Additional national air quality monitoring station to be established in Dublin north inner city.**

**2. On completion of the indicative nitrogen dioxide campaign (end 2021) being carried by the EPA carried out by, The Dublin local authorities will work with the EPA to establish additional monitoring stations in the Dublin region as required in line with findings**

**3. 3.The Dublin local authorities will collaborate with the EPA on ongoing indicative monitoring across the Dublin region**

**4. Air quality modelling - The work carried out on the limited modelling incorporated in the preparation of this plan highlights both the challenge required to complete that task and the necessity of having that level of detail available . Concurrently the Dublin local authorities are also commencing the process of gathering data for the preparation of noise actions plans in compliance with the EU Environmental Noise Directive. In order to make best use of the data available within local authorities, other public bodies and other sources, the Dublin local authorities will investigate in conjunction with the EPA the feasibility of establishing regional air quality modelling capacity within the local authorities.**



**Measure 12**

**Air Quality - Citizen Engagement**

Ireland has a significant track record in successful citizen engagement in the area of environment, health and air quality. The successful introduction and ongoing extension of the ban on the burning of bituminous coal in cities and towns nationwide is one clear and internationally cited example of how public engagement has led and shaped public policy. In terms of building and strengthening pubic engagement in improving air quality in Dublin, it is vital to build on the high levels of support for continued roll out of air quality monitoring stations and citizen engagement programmes. The Five Cities Demand Management Study reported that stakeholders noted these measures could contribute to better quality of life, place making, improved air quality and the Smart City concept. There was also a suggestion that engagement programmes should emphasise and promote active travel as a solution to air quality issues, with awareness of such issues being high. In that context there a number of current citizen engagement initiatives that are central to the success of this plan.

**LIFE EMERALD**

In 2021, the EPA commenced the *LIFE EMERALD* project aimed at improving understanding of Ireland's air quality. This 3-year project that will improve the level of air quality information available to the public and policy makers in Ireland.

The main objectives are:

an operational 3-day ambient air quality forecast;

near real-time mapping of the main air pollutants throughout the country and in major cities and towns;

annual mapping of air pollutants across the country

The project will support Irish citizens in making decisions that positively benefit their health on a day-to-day basis. The LIFE EMERALD project will also improve Ireland's ambient air quality management capabilities, by using an air quality modelling system to gain a better understanding of the factors contributing to poor air quality and develop a system that will provide better information to the public.

The EPA will work with a number of main project partners, namely the Department of the Environment, Climate and Communications, the Health Service Executive, the Asthma Society of Ireland, University College Cork and the Belgian research institute VITO. The project will also involve consultation and co-operation with other national stakeholders, namely the Department of Health, the Department of Transport, the Department of Agriculture, Food and the Marine, Met Éireann, Dublin City Council, An Taisce, The Central Statistics Office, Teagasc, Transport Infrastructure Ireland, the ESRI and The Irish Heart Foundation.

**GLOBE Project**

The Global Learning and Observations to Benefit the Environment **(GLOBE) Programme** is an international science and education programme that provides school students with the opportunity to participate in citizen science. In Ireland, GLOBE is managed by An Taisce in partnership with the EPA. Participating schools learn about air quality and the weather by making scientific measurements and using their data to carry out research.

The GLOBE Air Quality Campaign is specifically a citizen science project to assess traffic-related air pollution at schools. The campaign measures nitrogen dioxide gas in the air, and is designed to raise

awareness about air pollution and showcase the potential of citizen science to gather unique datasets and insights in the r environment. To date, 100 schools have participated in the GLOBE Air Quality campaigns, collecting over 350 nitrogen dioxide measurements. The campaign also provides a collaborative platform for schools to share their research and insights.

**Airview Project**

In May 2021, Google and Dublin City Council launched "Airview Dublin" - a partnership initiative to capture Dublin's air quality street by street as part of the Dublin Smart Cities programme.

The initiative will see Google's first electric Street View car, deployed around the city measuring air quality for one year. In Ireland, this is the first time a Google Street View car has been used to capture air pollution measurements, in addition to Google Maps Street View imagery. The car has been equipped with specialised mobile air sensors that can measure nitrogen dioxide (NO2), nitrous oxide (NO), carbon dioxide (CO2), carbon monoxide (CO), fine particulate matter (PM2.5), and ozone(O3).

The air pollution measurements will be will be used to develop maps of street-level air pollution. These, in addition to air quality pollution data insights, will be available for use by city authorities and by the public.

This project was born from a clear and urgent need for hyperlocal insights on air quality and the overall objective of the initiative is to make air pollution data and insights available to city and government authorities, the scientific community, not for profit organizations, and the public.

Google and Dublin City Council are hopeful that access to this data will encourage more people to join the conversation around air quality and enable people to make small but informed daily changes to contribute to its improvement.

In particular, the data will provide valuable insights to walkers, cyclists and outdoor enthusiasts to help them find the healthiest routes and locations for their commutes, trips and activities.

**Clean Air Together Project**

This project aims to measure levels of nitrogen dioxide across Dublin. It will involve recruiting between 1000 and 1200 participants to deploy nitrogen dioxide diffusion tubes across the region in late2021.

The five primary objectives of the project are to:

- Develop and deliver a methodology for large-scale citizen-based air quality monitoring of $NO_2$.
- Generate data will provide input to the validation of EPA air quality models.
- Increase public knowledge and engagement with the topic of air quality.
- Assess the impacts of citizen-based air quality monitoring on awareness, attitudes and the potential for this to lead to behaviour change.
- Inform policy-change by working in partnership with stakeholders.

**PROPOSED ACTION:**

**1. Dublin City Council to establish public dashboard on Airview study results for Dublin City**

**2. Dublin local authorities to explore with other stakeholders such as An Taisce, or the Asthma Society on the establishment of a public consultative process or forum on air quality.**



**Measure 13**

**Air Quality and Health Research**

As part of its range of functions the Environmental Protection Agency manages an environmental research programme to deliver essential scientific support for environmental policy development, implementation and broader decision-making. Since 1994, the EPA has funded research that has increased national understanding of the environment, the challenges it faces and responses to these. EPA Research focuses on achieving environmental objectives, informing policy and bringing together researchers and research users. In the context of this plan, there are two EPA funded research projects ongoing of particular interest, whose findings will be of particular interest in informing and shaping public discourse and policy in relation to nitrogen dioxide levels nationally and in particularity in the Dublin region.

**Project 1: Impact of NO2 on Health with particular emphasis on vulnerable groups**

A team of engineers, hospital consultants and environmental scientists from Trinity College Dublin are collaborating on this EPA funded project to examine the impacts of nitrogen dioxide (NO2) on health and quality of life. Although it is possible that, to some extent, NO2 acts as a marker for the effects of

other traffic-related pollutants, the epidemiological and mechanistic evidence elsewhere now suggests that it would be sensible to regard NO2 as causing some impact on health and quality of life. Research on this topic is particularly important in the context of very significant challenges across Europe in meeting targets for the reduction of NOx emissions from the transport sector.

The TCD team will assess how the recent findings elsewhere in relation to the associations between NO2 and health impacts pertain to Ireland, with particular emphasis on vulnerable groups including children, the elderly and the socio-economically disadvantaged. Using currently available air pollution measurements, and recent research results on the influence of meteorological and source parameters (including transport vehicle and population mobility demands), they will identify a set of characteristics for the locations in Ireland that are at most risk of experiencing high levels of NO2.

They will also examine the HSE-Primary Care Reimbursement Service (PCRS) prescribing database to establish much needed baseline data linking NO2 levels with the prescription of drugs used to treat asthma and chronic obstructive airways disease with the intention to consider methodologies to facilitate the collection of prospective data in the future.

Other databases, such as the Growing up in Ireland (GUI) and the Irish Longitudinal Study on Ageing (TILDA), subject to their availability, will be explored to investigate if relationships between prevalence of respiratory symptoms in vulnerable groups and NO2 levels exist. Finally, the team will review policies and strategies being implemented by other countries to bring NO2 within compliance levels and identify a set of effective and efficient solutions to reduce and mitigate the impact of the transport sector on NO2 levels in Ireland, given its predominance in the output of NO2 emissions.

**Project 2: Redmap Project**

This project involves measuring and modelling emissions from in-use vehicles in Dublin. The project is funded by EPA-Ireland and co-funded by the Department of Transport, Tourism and Sport (DTTAS). The REDMAP project team comprises engineers from Trinity, University College Dublin and Ricardo from the UK. The team will measure and model real-world emissions using Remote Sensing (RS) and Portable Emission Measurement Systems (PEMS) from more than 150,000 vehicles at four locations over a 16-week period in Dublin. Emissions from real-world driving are often higher than estimated emission levels calculated based on Euro emissions standards and laboratory tests. This has given rise to widely published controversy and consequently, the air quality in cities has not improved as much as was

originally anticipated from stringent emission regulations in European regions and associated renewals of vehicle fleets. Due to the high density of on-road vehicles and proximity of pollutant generation to high density urban dwellings the impact of air pollution is higher in urban areas such as Dublin, so it is imperative that projects such as REDMAP accurately assess the true levels of traffic emissions."

The real emission contribution of different vehicles considering Euro standard, fuel type, make, and categories and vehicle modifications will be utilised to improve the existing emission inventory generated using literature values. A new traffic-emission model and paired air quality model estimating pollutant concentrations will be formulated based on real-world emission factors (RD-EF). The modelling framework will illustrate the potential environmental, economic and health impacts of real emission due to new Real-Driving Emission (RDE) legislation, related policy changes and future growth considering scenario-based modelling. The project will generate guidelines on measures and opportunities to reduce actual vehicular emission on roads in Dublin.

**PROPOSED ACTION:**

**Dublin local authorities to formally engage with above research teams on their emerging findings and to collaborate on the formulation of practical measures and guidelines from this research.**



**Measure 14**

**Behavioural Change Campaigns to cleaner fleets**

**The Five Cities Demand Management Study** identifies this measure of targeted behavioural change campaigns to encourage low emission vehicle purchase as being highly effective and enjoying general support. – estimated that a 49% reduction in nitrogen oxides emissions is achievable. Stakeholder feedback to the study highlighted COVID-19 as creating an opportunity for change in behavior. These reductions refer to the percentage change in the emissions per kilometre from the average private car in city centre traffic in 2030, relative to 2019 levels, based on ANPR data collected in Cork in February 2020.

Nitrogen Dioxide Modelling

As part of the production of this Plan, the Environmental Protection Agency (EPA) supported the four Dublin local authorities by specifically modelling nitrogen dioxide levels for a number of scenarios, involving a base year and four future scenarios.

To inform this Plan, the EPA assessed monitoring and modelling data to get a wider understanding of

the current and future air quality situation around the local area of the measured exceedance. The area of assessment within the vicinity of St Johns Road West is the area covered by the bold rectangle in Figure 5.1 below. Completing Air Quality modelling across the Dublin Region would be a significant undertaking beyond the timeframe available for the production of this Air Quality Plan and has thus not been possible at this time. However, at the time of drafting of this Plan it is known that the EPA are progressing wider air quality modelling of Dublin and this will be published in 2022.

The approach adopted for this plan thus makes best use of the work underway by the EPA and focuses output at the location of the St John's Road West monitoring station to demonstrate the positive impacts that predicted future changes to transportation fleet, and emissions from same, is likely to have on air quality in the vicinity of the St John's Road West monitoring station.

A copy of the EPA report is available in Appendix D.


Figure 5.1 – Area of Air Quality Modelling Assessment (Marked in Bold

Modelling Methodology

The EPA completed the air quality modelling of the assessment area using the urban scale model ADMS-Urban and the outputs have been evaluated and verified by the EU DELTA tool in conjunction with the model developers own model evaluation tool kit, see EPA report in Appendix D.

As noted above the modelling was completed for a base year and four future scenarios. These scenarios were chosen by the four Dublin Local Authorities and are set out below;

- 2019 Basecase scenario
- 2028 Business as Usual scenario
- 2028 Intervention scenario
- 2030 Business as Usual scenario
- 2030 Intervention scenario

A fuller explanation of these scenarios is included below.

The traffic data and emission factor forecasts in relation to fleet growth and changes have been taken from existing national traffic models (National Transport Authority (NTA) Regional Modelling System) and relevant transport fleet profiles and toolkits (based on a review of National and UK sources). As mentioned above the Five Cities Demand Management Study identified a measure of targeted behavioural change campaigns to encourage low emission vehicle purchase as being highly effective to contribute to achieving greater emission reductions. It is this behavioural change that is reflected in measure 14 and in the modelled scenarios set out above.

The business as usual case reflects the change to fleet profiles based around forecasted car sales and changes to fuel/emissions profile of this changing fleet. The intervention scenario is a sensitivity scenario to demonstrate the effect that further incentives to drive accelerated electrification of the fleet might have on air quality. The measures included in this sensitivity intervention scenario include;

- 50% electrification of the taxi fleet
- 50% electrification of the bus fleet
- 20% electrification of the passenger car fleet

Modelling Results

The modelled results for each of the five scenarios is set out in the table below;

| Scenario | Modelled Annual Average $NO_2$ St John's Road Receptor ($\mu g/m^3$) | Measured Annual Average $NO_2$ St John's Road Receptor ($\mu g/m^3$) | Absolute $NO_2$ Concentration Reduction ($\mu g/m^3$) | Percentage $NO_2$ Reduction from 2019 Basecase Scenario (%) |
|---|---|---|---|---|
| 2019 Basecase | 39.0 | 43.4 | - | - |
| 2028 Business as Usual | 31.3 | - | 7.7 | 19.7 |
| 2028 Intervention | 29.4 | - | 9.6 | 24.6 |
| 2030 Business as Usual | 30.6 | - | 8.4 | 21.5 |
| 2030 Intervention | 29.0 | - | 10.0 | 25.6 |

As can be seen from the above results the model output for 2019 is very close to that which was measured at this location in 2019. The results are within 10% of the measured.

The results from the scenarios all show significant reduction in the nitrogen dioxide concentrations when compared to the 2019 basecase scenario with the results for the business as usual case showing reductions of 21.5% out to 2030 and up to 25.6% where the further sensitivity interventions outlined are achieved within this timeframe. These scenarios all bring the predicted annual average air quality values for $NO_2$ at this location back within the legal limit of 40 $\mu g/m^{3.}$ This would remain the case even if an allowance for the 10% discrepancy between modelled and measured values was applied as indicated by the modelling of the baseline case.

Based on the modelling results, it would be reasonable to conclude that the realisation of the anticipated "business as usual" fleet changes, together with additional interventions that may result from the range of measures proposed by this Plan and other National strategies, will have a beneficial effect on reducing $NO_2$ levels across the Dublin Region, although it is acknowledged that the actual reductions will vary across the region depending on local traffic patterns. The EPA modelling of the Dublin region will provide additional clarity on this in 2022.

It is thus reasonable to conclude, based on the modelling results that the Dublin agglomeration will be compliant with the NO2 limits by 2028 or earlier. Measures 1 to 13 will help to accelerate the timeline to achieve compliance, although it is not possible to quantify their benefit through modelling work. In

particular, incentives to move to lower emission vehicles such as financial incentives or the introduction of low emissions zones (Measure 9) is likely encourage a more timely transition.

**PROPOSED ACTIONS:**

1. **Commuter/Travel surveys carried out by public bodies to include determining public attitudes towards air quality measures and commuting behaviour.**
2. **Air quality forum (see Measure 12) to address and gauge public attitudes on behaviour change to improve air quality.**
3. **Public consultation on City and County Development Plans to include eliciting feedback on public view on introduction of cleaner fleets and clean air/low emission zones.**

## 5.5 Framework for Measures and Actions

The following table provides a synthesis of the measures and actions detailed above in respect of their time scale for implementation and the level (i.e. local authority, national etc.,) for that implementation.

The definition of timescales used below are referenced from the Five Cities Demand Management study whereby "Short Term" indicates implemented by 2025, "Medium Term" indicates by 2030 and Long Term indicates by 2040.

These timescales need to be considered in the context of a dynamically evolving wider environmental management priorities not least of which is the delivery of the climate action agenda.

The Five Cities Demand Management Study also provides a framework for consideration of measures in the context of an Avoid/Reduce- Shift-Improve- Manage approach as follows:

**Avoid/Reduce Demand** – avoid or reduce the need to travel.
**Shift Demand** – to more sustainable transport modes.
**Improve** – environmental sustainability of residual vehicular traffic.
**Manage** – day to day efficiency of the transport network.

**Where the** Five Cities Demand Management Study has predicted an estimate for the potential reduction in nitrous oxides (NOx) associate with such a measure this has also been included for information.

| No. | Measure /Action | 5 City Demand ref. if applicable | Time scale to implementation | Estimated NOx reduction (if available) |
|---|---|---|---|---|
| **Local Authority Measures** | | | | |
| 1 | "15 Minute Neighbourhoods" | PP08 **Avoid/Reduce Demand & Shift Demand** | Short (commencement) To (ongoing) Long | |
| 2 | Public Parking controls | PTM04 **Avoid/Reduce Demand & Shift Demand** | Short (commencement) To (ongoing) Long | |
| 3 | Residential parking standards | PTM08 **Avoid/Reduce Demand** | Short | |
| 4 | Workplace Parking standards | PTM09 **Avoid/Reduce Demand** | Short | |
| 5 | Continued Delivery of the Active travel programme | | | |
| 6 | Electrical Vehicle Charging Strategy | PTM02 **Improve** | | -49% |
| **National - Government Level Measures** | | | | |
| 7 | Introduction of National Clean Air Strategy | n/a | Short (commencement) To (ongoing) Long | |
| 8 | Air Quality Enabling legislation | AQ1 **Manage & Improve** | Short | -60% |
| 9 | Clean Air Zones/ Low Emission Zones | AQ4 **Manage & Improve** | Short | -71 % |
| 10 | Flexible Working | BC05 **Manage Shift Demand** | | |
| **National Agencies in cooperation with Local Authorities** | | | | |
| 11 | Air Quality Monitoring and Modelling | AQ2 **Shift Demand** | Short | -48% |
| 12 | Air Quality Citizen Engagement | AQ3 **Shift Demand** | Short | |
| 13 | Research | | Sort to medium | |
| 14 | Behavioural Change Campaigns to cleaner fleets | BC10 **Improve** | Medium to long | -60% |

# 6.0 Measures or Project Planned or Envisaged for the Long Term

In addition to those measures dealt with in the previous chapter there are a number of other emerging or future measures that merit consideration for the long term. These include:

- Modelling capacity at local authority level
- Research Funding
- Resourcing/Capacity Building

## 6.1 Modelling Capacity at local authority level

The value of modelling as a predictive tool for air quality management, with inputs based on known and predicted traffic volumes, vehicle types and profiles, is universally recognised. While there are measures planned by the Environmental Protection Agency to enhance their air quality modelling within the context of the National Ambient Air Quality Monitoring Programme , as described in the previous chapter, it has become evident in the preparation of this plan that having analogous modelling capacity at local authority level would be beneficial, not only for air quality management but also across a number of other sectors such as noise mapping and city planning.

Recommendation:

The Dublin local authorities to carry to a feasibility study on developing modelling capacity for air quality management and noise mapping

## 6.2 Research Funding

Air quality and health research have played an important role in developing public policy in Ireland. The EPA, as part of their Research Programme 2021-2030, recently launched their Research Call 2021. Amongst the research topics included in the call, two have particular relevance to nitrogen dioxide in the Dublin region:

**Topic Title: Review of emerging technologies / novel approaches for detection and quantification of the levels for Nitrogen Dioxide (NO2)**

“In Ireland and in much of the EU, NO2 is monitored by using a certified ‘Indirect Monitoring’

technique. The EU is currently reviewing the use of 'Direct Monitoring' techniques that measure only NO2. Research in emerging air quality monitoring technologies and novel approaches that are EU compliant could help further tackle Ireland's issues in relation to increases in air pollutants (existing and emerging) from transport that is resulting in exceedances in NO2. Research would allow Ireland to explore mechanisms for achieving the highest international air quality standards. This research is considered an opportunity to improve monitoring and assessment, inform regulatory decision making, assist in the development of technologies and identify solutions to reduce unnecessary exposure to poor air quality, for Ireland."

**Topic Title: An international best practice review of the localised and wider pollutant contribution of large railway hubs on air quality, in large urban centres**

This innovative research project will gather information on the best international practice in assessing the impact of rail emissions at large railway hubs and the impact on the localised air quality in high- density residential/urban centres. It will allow the provision of the best evidence-based advice to the public and other stakeholders. The proposed research project should also ensure alignment with the Urban Transport-Related Air Pollution (UTRAP) Working Group process.

Proposals are invited to:

• Undertake a comprehensive review of best EU practice and apply to Irish data on how to mitigate against/reduce high contributions of harmful emissions.

• Apply this assessment of best international practice to Ireland by ground truthing on selected Irish sample sectoral sites/case studies to pilot.

Recommendation: Dublin local authorities to request the EPA to grant them representation on the Technical Steering Committees of these projects

## 6.3 Resourcing/Capacity Building

### Local Authority Resources

The Programme for Government provides a commitment to develop a regional approach to air quality and noise enforcement. This approach could also consider possibility of developing capacity for air quality monitoring, modelling and management at a regional level in the Dublin Agglomeration.

Such an approach, with appropriate resources in place could be fundamental in the successful implementation of this plan and has other positive benefits in complementary areas such as noise mapping and noise action planning.

## Urban Traffic Management Centres

The Five Cites Demand Study identifies urban traffic management as an effective traffic demand management tool. Dublin City Council operate Dublin's Traffic Management Centre in collaboration with Dublin Bus, and An Garda Síochána.

Using over 300 CCTV cameras and SCATS signalling technology, traffic volumes at hundreds of junctions are monitored and junction timings are adjusted dynamically depending on traffic flows. When traffic accidents occur, traffic light timings can be overridden to reduce congestion. Investment is ongoing to use the data gathered to drive further automation and incident detection.

Further integration of traffic management with public transport operation will take place when Dublin City Council's Traffic Management Centre is co-located with the recently approved new National Train Control Centre to be constructed at Heuston Station.

This control centre will oversee management of all train traffic in the country and all road transport in Dublin. There are potential benefits for continued NTA investment in control centres for all public transport modes in each of the cities, as public transport supply increases through the delivery of the planned city strategies.

Such a traffic control centres has a key role in more efficiently managing the capacity of the existing transport network, smoothing demand through integrated partnership working and the pushing out of key disruption information combined with travel alternatives. They offer substantial congestion management benefits, with correlating benefits for reducing carbon and improving air quality and the urban environment.

These traffic management systems can also integrate environmental monitoring as one of the criteria in traffic management and the evolution of the next generation of reliable and relatively low cost air quality sensors opens up the possibility of developing this capacity.

# 7.0 Public & Stakeholder Consultation

## 7.1 Overview of legislative requirements

The Ambient Air Quality and Cleaner Air For Europe (CAFE) Directive (2008/50/EC) sets air quality standards for European Union member states and has been transposed into Irish legislation by the Air Quality Standards Regulations 2011 (S.I. No 180 of 2011 as amended). The directive and regulations records air quality standards in Ireland and other member states for a number of pollutants. One element of the implementation of this Directive involves carrying out air quality monitoring for a number of specified air pollutants at a network of air quality monitoring stations throughout Ireland. These Regulations also provide for the dissemination of public information, including information on any exceedances of the target values, the reasons for the exceedances, the area(s) in which they occurred and appropriate information regarding effects on health and impact on the environment.

As mentioned in Chapter 1 of this Air Quality plan, in 2019 there was an exceedance of the annual permissible limit value for Nitrogen dioxide at one of the monitoring stations in Dublin. As a result of this exceedance, under the national legislation, the relevant local authorities are obliged to prepare an air quality plan to identify the root causes and formulate measures to address the exceedance of that pollutant. One of the legal obligations under the Air Quality Standards Regulations 2011 on local authorities in preparing this air quality plan is to ensure that it is “clear, comprehensible and accessible”.

However, within the regulations, there is no mention of a requirement to go to Public Consultation with the Air Quality Plan. The legislation does include a requirement to consult with a list, set out in Schedule 17, of Prescribed Bodies as follows: The Minister for Health, The Health Service Executive, Local Authorities, An Bord Pleanála, Cystic Fibrosis Association of Ireland, The Asthma Society of Ireland, Met Éireann, Teagasc.

Notwithstanding this the Dublin Local Authorities are aware of their obligations to encourage and promote public engagement and consultation and enable citizens’ voices to be heard, though such instruments as the Aarhaus Convention on Access to information, Public Participation in Decision-Making and Access to Justice in Environment Matters(Directive 2003/4/EC on Public Access to Environmental Information). Therefore, in the interests of involving the public and seeking engagement and consultation with the public a decision was made to engage members of the public

and go to Public Consultation for a four-week period on the 18th October 2021. Our methodology for public consultation is set out below in Section 7.2.

## 7.2 Methodology adopted

One of the legal obligations under the Air Quality Standards Regulations 2011 on local authorities in preparing this air quality plan is to ensure that it is "clear, comprehensible and accessible".

Despite there being no legal requirement for public consultation a 2-step approach to Consultation was adopted for both Stakeholder/Prescribed Bodies and with members of the Public.

**Stakeholder/Prescribed Bodies Consultation**:

The initial approach towards engagement with Prescribed bodies, as listed in Schedule 17 of the Air Quality Standards Regulations 2011 (S.I.180/2011) involved writing to each of them to notify them of the Air Quality Plan and invite them to a consultation meeting/workshop to discuss same. In addition to the prescribed bodies an invitation was extended to An Taisce who had previously expressed an interest in the drafting of the Air Quality Plan. A positive response was received and on 1st September 2021 a consultation meeting/workshop was held with the following prescribed bodies and An Taisce;

- Asthma Society of Ireland
- Health Service Executive – Public Health
- Health Service Executive – Environmental Health
- Teagasc
- Met Eireann
- An Taisce (not a Prescribed Body)

The consultation meeting/workshop took the form of a presentation and discussion around the drafting of the Air Quality Plan to improve levels of nitrogen dioxide (NO2) in ambient air in Dublin. Initial feedback was sought at the workshop and the participants were advised of our plans for formal consultation with the Public later in the year.

**Public Consultation:**

Regarding Public Consultation, the public were initially notified through the following media, a Newspaper advert was published on 23rd July 2021 and also published on Social media. This notification advised that the four Local Authorities (Dublin City Council, Final County Council, Dun

Laoghaire Rathdown County Council and South Dublin County Council) were together preparing a new Air Quality Plan to address a single exceedance of the annual $NO_2$ level. It advised that the draft Plan would be subject to a period of public consultation later in the year and that it must be submitted to the European Union by the end of 2021. The notification invited members of the public at this initial stage to submit their views on the exceedance of Air Quality in the Dublin Region and the drafting of the Plan.

Following this initial step, a period of formal Public Consultation commenced on the 18th October 2021 for a 4 week period. The Public Consultation was hosted online on Dublin City Council's online Consultation hub on behalf of all four Local Authorities. Each of the four Local Authorities advertised the public consultation on their own websites and social media accounts and provided a direct link to the Dublin City Council Consultation hub.

A summary of the responses and issues raised by the public consultation process are detailed in section 7.3 below and also Appendix B.

## 7.3 Summary of responses and replies

### Background

The public consultation on the Dublin Region Air Quality Plan, Air Quality Plan to improve Nitrogen Dioxide levels in Dublin Region was open for submissions from 18 October 2021 to 15 November 2021. A total of 219 unique submissions were received, 208 via the Consultation Portal and 11 by email.

Only a small number of submissions were specifically related to the actual draft Air Quality Plan document itself and its requirements as set out by Europe. The majority were instead comments on air pollution in general, how it can be addressed and paying for it through taxes. While these submissions could not be directly incorporated into the Air Quality Plan itself at this time, they give a valuable insight into public feelings on the issue, and will feed into ongoing work in the area including the development of many of the measures included in the plan.

Appendix B of the Plan includes details of the public consultation submissions and the analysis undertaken in relation to same. Appendix B1 includes a report with graphs produced from the Consultation Hub which contained an online survey with 25 questions relating to the Air Quality Plan. A quantitative summary of the submissions taken from that data set out in that consultation hub report is presented in the section

below. Questions 22 to 25 and emailed submissions have been reviewed, tagged by Theme and analysed against the measures in the plan. The subsequent section of this chapter, and the table in Appendix B3, deals with the review and analysis of the consultation responses which tagged them by Themes and presented responses and amendments to be made to the Plan.

## Quantitative Summary of the Public Consultation Responses

There were 208 responses to the online Public Consultation on the AQP. These were mainly from private individuals, however, a list of organisations that responded is listed in Appendix B. Of those that responded approximately 52% resided in Dublin City with 18% in Fingal and 15% from Dun Laoghaire Rathdown, 10% from South Dublin. 4% of those that responded reside outside of Dublin County.

By far the main reason for driving, almost 64%, was for day-to-day getting around and travelling to shops and local services.

The vast majority of people had an understanding of the health impacts of elevated $NO_2$ levels and vehicular emissions were considered to be a greater contributor to $NO_2$ levels than agriculture, power plants or heating by about half of those responding. National Government led awareness campaigns were felt to be the best way to make the public aware of the health impacts of air pollution (specifically $NO_2$) and these were closely followed by restricting drop off locations at schools and publicity about high transport related emissions in local areas.

Approximately half of those who took part in the Public Consultation agreed with the recommendations of the Citizens' Assembly in relation to the climate actions that impact on air quality.

Almost 80% of responders support the idea of reviewing and strengthening Local Authority and Environmental Protection Agency (EPA) powers in relation to dealing with air pollution.

With regard to considering Low Emission Zones, over 75% of those who took part in the Public Consultation support this, as well as the possibility of a charge being levied on those with polluting vehicles. A similar number of responders support the Government amending existing legislation to delegate powers to the Local Authorities to introduce Low Emission Zones.

Over 85% of the public involved are familiar with 10-15 minute neighbourhoods and over 70% think Local Authorities should examine the concept.

80% of those who took part in the Public Consultation want an electrical vehicle-charging network developed in Dublin.

Almost 95% of those involved feel that the Irish workforce should be given the option of remote working for a portion of the week.

Around 70% of those involved believe that consideration should be given to incorporating air quality considerations into vehicle taxation and that the NCT emissions testing should have a role in periodic assessment of air pollution emissions, to inform better regulation of 'in use' vehicle emissions.

### Analysis of Public Consultation Responses

In addition to the quantitative analysis of the submissions as set out in the previous section, all the submissions that contained free text and those that were received by email where analysed for the comments, views and suggestions expressed. Rather than respond to each view within each individual submission, all submissions were reviewed to identify common themes against which all the comments and views could be captured. A response against each theme has been provided which sets out how the Air Quality Plan and/or other Plans and Strategies address the issues covered by the Theme and also whether any amendments or actions within the Plan are proposed.

For a detailed overview of the Themes identified together with the responses and actions proposed please see table in Appendix B3 at the end of this report.

## 7.4 Conclusions and proposed actions arising from public consultation

Many different points were raised through the Public Consultation and an analysis of the general comments and suggestions was carried out as set out in Appendix B1 and B3.

The draft Air Quality Plan included 14 measures as summarised below.

- Integrate "15 Minute Neighbourhoods" concept in City and County development Plans
- Public Parking Controls
- Residential Parking Standards
- Workplace Parking Standards

- Continue delivery of the Active Travel Programme
- Electrical Vehicle (EV) Charging Strategy
- Publication of National Clean Air Strategy
- Air Quality Enabling Legislation
- Introduction of Clean Air Zones / Low Emission Zones
- Remote / Flexible Working
- Enhanced Air Quality Monitoring and Modelling
- Air Quality – Citizen Engagement
- Air Quality and Health Research
- Behavioural Change Campaigns to Cleaner Fleets

These 14 measures remain within the Final Plan. While there were varying comments and levels of support for each, the responses did not warrant the removal or a significant change to any one measure. Modification to two measures are proposed as set out below;

- **Measure 9** of the Plan to be amended to include an action as follows; The UTRAP Working Group, which includes the Dublin Local Authorities, should commit to further investigations into the adequacy of current legal provisions and feasibility of Low Emissions Zones in Dublin.

- **Measure 12** to be modified to reflect Smart Cities involvement in citizen engagement project

Many of the comments and suggestions, while very valid, fall outside the remit of the Air Quality Plan but are covered by other Government and Local Authority strategies and plans.

# 8.0 Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) Screening

## 8.1 Overview of legislative requirements

The Dublin Regional Air Quality Action Plan to improve levels of nitrogen dioxide ($NO_2$) in ambient air in Dublin has been prepared in accordance with the requirements of S.I. No. 435/2004 - European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and Article 6 of the Habitats Directive 92/43/EEC.

The SEA and AA process, carried out in tandem with the preparation of the Dublin Regional Air Quality Action Plan to improve levels of nitrogen dioxide ($NO_2$) in ambient air in Dublin, have ensured full integration and consideration of environmental issues throughout the action plan preparation process.

These are available as separate documents, to be read in conjunction with this Dublin Regional Air Quality Action Plan to improve levels of nitrogen dioxide ($NO_2$) in ambient air in Dublin.

The SEA Screening Report and Screening Statement in support of the AA are available online on the four Dublin Local Authorities websites. The SEA Determination, AA Determination and URL to the Screening Report and Statement are available in Appendix C.

## 8.2 Conclusion

The Screening of the Dublin Air Quality Plan shows that the plan will not result in land use activities that have the potential to result in negative impacts to the qualifying features of interest of European Sites occurring within or surrounding the plan area and will not have the potential to compromise the achievement of the conservation objective of these European Sites. The examination of the plan has found that the plan will have the potential to contribute to the conservation management of European Sites within and surrounding the plan area and will thus have positive implications for the conservation objectives of these European Sites. In light of the findings of this report, it is the considered view of the authors of this Screening Report for Appropriate Assessment that it can be concluded by the Dublin Region Local Authorities that the Plan is not likely, alone or in combination with other plans or projects, to have a significant effect on any European Sites in view of their Conservation Objectives and on the basis of best scientific evidence and there is no reasonable scientific doubt as to that conclusion.

# 9.0 Proposed framework for improving ambient nitrogen dioxide level

## 9.1 Overview

The preparation of this plan and the elaboration of measures (already in progress or proposed) highlights that addressing air quality involves a wide range of stakeholders working with common purpose as the measures identified include a raft of policy, legislative, and behavioural interventions. In practice, this requires ongoing action at national as well as regional and local level as well as a high level of engagement with the public. The following sets out the main elements of the framework required to address these matters.

## 9.2 National Level

As mentioned earlier in this plan, one direct consequence of the breach of nitrogen dioxide levels in 2019, was the establishment of the multi-stakeholder UTRAP (Urban Traffic-related Air Pollution) working group by the Department of Transport and the Department of the Environment, Climate and Communications, Climate & Communications

The UTRAP Working Group was established to achieve the following six objectives:

1. Enhance awareness of clean air legislation and its requirements generally, and specifically in relation to NO2 and other transport related air pollutants, amongst relevant stakeholder organisations

2. Provide a forum to enhance understanding of the causes and the health and environmental impacts of NO2 air pollution and other transport related air pollutants in conurbations

3. Identify developments that may impact on NO2 levels and other transport-related air pollutants in conurbations, e.g. evolving technical standards, and quantify the impact under likely future scenarios

4. Identify examples of best practice in combatting NO2 air pollution and other transport-related air pollutants in conurbations, particularly road traffic-related air pollution, assess applicability and any barriers to their implementation in an Irish context

5. Consider a range of options for potential measures and any associated actions and supports

required to facilitate their effective uptake to address NO2 and other air pollution; identify measures most suitable to Ireland and appropriate implementation bodies

6. Present the final UTRAP recommendations to the Minister for consideration by Government

The Interim Report issued by UTRAP in March 2021 see more here made 23 Recommendations and in the context of providing a framework for oversight of the implementation of this plan this working group provides a platform for bringing appropriate stakeholders together.

Two of the recommendations made address this specific role i.e.

**Recommendation 22**

UTRAP Group to reconvene and review the findings and 'Road map' of the Five Cities Traffic Demand Management Study to support local authorities in implementing suitable traffic demand management measures identified for specific cities.

**Recommendation 23**

UTRAP Group to continue to meet at least bi-annually to monitor the implementation of the recommendations until completed.

## 9. 3 Local/Regional level

**Local level**

The Environmental Protection Agency (EPA) has designed a performance framework to measure the performance of local authorities in delivering their environmental enforcement activities. Local authorities provide data and plans annually to the EPA for the purposes of assisting implementing programmes of continual improvement in the areas of environmental enforcement and inspection. By providing local and national comparative data, a local authority can benchmark their own enforcement processes and plan for making performance improvements.

The plan submitted to the EPA is known as the Recommended Minimum Criteria for Environmental Inspections (RMCEI) Plan. The potential of adopting a regional approach to air quality management in the Dublin Agglomeration has been addressed elsewhere in this plan. One important consideration is the current resourcing of a quality functions within the Dublin local authorities.

The most recent evaluation published by the EPA in 2021 of the plans submitted by all local authorities

emphasises the need to enhance capacity on a regional basis in terms of air quality management in order to protect public health see more here

On the basis of data provided by each of the local authorities in Dublin to the EPA (RMCEI Plan 2021) on their respective inspection and compliance plans for 2021, a total of 603 working days will be utilised for routine air quality inspections including air quality monitoring (90% of this accounted for by Dublin City Council which maintains its own extensive air quality monitoring network ) and 1175 days for reactive inspections related to public complaints for both air and noise issues (77% of this accounted for by Dublin City Council).

There is a compelling need to address capacity issues in the next iteration of RMCEI Plans for 2022 by the local authorities.

## 9.4 Enhancing Public Engagement

The role of the public, both individually and collectively is critical in terms of addressing air quality issues across the board. Addressing air quality issues cuts a across a wide spectrum other issue that are of public concern including climate action and transport policy. Rather than being a “tick box” exercise, enhanced public engagement can be the driver for change on matters that appear to be politically challenging. The convening of Citizen Assemblies to consider and ultimately address societal issues have been used to good effect in Ireland.

The Citizens Assembly on how the State can make Ireland a leader in tackling climate change made a number of recommendations that have a direct bearing on reducing nitrogen dioxide levels namely:

93% of the Members recommended that the number of bus lanes, cycling lanes and park and ride facilities should be greatly increased in the next five years, and much greater priority should be given to these modes over private car use.

96% of the Members recommended that the State should immediately take many steps to support the transition to electric vehicles.

92% of the Members recommended that the State should prioritise the expansion of public transport spending over new road infrastructure spending at a ratio of no less than 2-to-1 to facilitate the broader availability and uptake of public transport options with attention to rural areas.

In terms of implementing the measures in this plan, it could be argued that in terms of their thinking the public are ahead of progress on policy. A number of the measures identified in this plan are the

basis of the framework to promote informed involvement and decision making by the public.

In particular, the proposed measure to explore with other stakeholders such as An Taisce, or the Asthma Society on the establishment of a public consultative process or forum on air quality will be a crucial initiative in this plan.

## 9.5 Integration/Cross Cutting Actions (Noise, Climate Action etc.)

Addressing nitrogen dioxide levels in Dublin in the coming years should be considered in the context of a number of other actions that come within the remit of local authorities. These include:

**Environmental Noise Directive**

The four Dublin local authorities are also classed as one agglomeration for the purposes of the European Communities (Environmental Noise) Regulations 2018, which implements the EU Environmental Noise Directive 2002/49/EC (END). The END requires the preparation and publication every 5 years, of strategic noise maps and noise management action plans for transport noise sources (i.e. roads, railways and airports) and industry.

Currently Round 4 of this noise mapping and action planning cycle (2020–2025) is underway which entails completing noise mapping during by mid-2022 and preparation and approval of noise action plans by mid-2023.

As this plan is primarily focused on addressing transport, related noise there is clear potential for cross over actions to promote and facilitate quieter and cleaner modes of transport.

**Dublin Local Authorities Climate Change Action Plans 2019 – 2024**

The urgency of the climate action agenda – as articulated in the most recent report from the Intergovernmental Panel on Climate Change (IPCC) see more here underlines the need for urgent action on climate change by all sectors of society.

The report stated, strong and sustained reductions in carbon dioxide ($CO_2$) and other greenhouse gases would limit change and as a result, benefits for air quality would come quickly.

Dealing with the transport sector is central to implementing climate action and while challenging it also presents opportunities to address wider environmental issues in the round including reducing nitrogen dioxide emissions

The four Dublin Local Authorities local authorities have produced Climate Action Plans for 2019 —– 2024.

The four Dublin Local Authorities launched Dublin's first Climate Action Week (DCAW21), which ran from Monday 13th to Sunday 19 September 2021

The agreed shared objectives of the initiative were:

- Demonstrate progress on the implementation of the four Dublin local authority Climate Change Action Plans, and a regional approach to climate action;
- Engage with a full range of partners to share knowledge on efforts and innovation across sectors;
- Make climate action a 'reality' allowing citizens to see what climate action looks like;
- Promote this initiative so as to fully engage with EU and international cities and our climate peers; and
- Create a legacy so that this initiative can carry forward to subsequent years in a variety of ways.

# 10.0 Conclusions and Recommendations

## 10.1 Conclusions

I. The 14 Measures set out in chapter 5 of this Plan has been screened for both Strategic Environmental Assessment and Appropriate Assessment and the conclusions of these screening assessments are that the Plan will not result in land use activities that have the potential to result in negative impacts on the qualifying features of interest of European Sites occurring within or surrounding the plan area and will not have the potential to comprise the achievement of the conservation objectives of these European Sites. In this regard the four Local Authorities have made a determination under section 9 (3) of S.I. No. 435/2004 – European Communities (Environmental Assessment of Certain Plans and Programmes) regulations 2004, that this Air Quality Plan for NO2 is not likely to have significant effects on the environment and thus does not require the completion of a Strategic Environmental Assessment.

II. Levels of nitrogen dioxide in the ambient air have been in compliance with European Union limit values except for an exceedance in 2009 and again in 2019, when the limit value was exceeded at one location in these years. There is no room for complacency as levels recorded at various times and locations over a number of years have approached this limit value. There is a strong possibility that the limit value could be exceeded in subsequent years unless existing initiatives continue and additional appropriate measures are considered and implemented. It should be noted that nitrogen dioxide levels for 2020 have not exceeded EU limit values, and the results to date for 2021 do not indicate an exceedance.

III. It is generally accepted that the dominant primary source of nitrogen dioxide in ambient air in the Dublin Region is vehicular traffic. While individual vehicle engines have become less polluting and more efficient over time, the population increases, the number of vehicles and their pattern of movement have given rise to continuing elevated levels of nitrogen dioxide.

IV. The overriding concern with regard to an exceedance of the European limit value for nitrogen dioxide is the public health dimension. The Clean Air for Europe Directive prioritises the need to reduce pollution to levels that minimise harmful effects on human health, paying particular attention to sensitive populations. The evidence base from previous experience in the Dublin Region of health effects from pollution from bituminous fuels is a clear reminder that timely action is of the essence to protect public health when air pollution levels are elevated. A recent 2020

study concluded that when the AQIH (Air Quality Index for Health) deteriorates, there is an impact on hospital admissions for individuals with asthma, chronic obstructive airways disease and heart failure.

V. The EU air quality standards are based on the criteria for the protection of human health set down in the World Health Organisation Air Quality Guidelines Global Update 2005. These legal limit values are focussed on the protection of human health and are based on the World Health Organisation Air Quality Guidelines Global Update 2005.

VI. The World Health Organisation issued New WHO Global Air Quality Guidelines (AQGs) on 22 September 2021. These new guidelines recommend new air quality levels to protect the health of populations, by reducing levels of key air pollutants, some of which also contribute to climate change. The goal of the guideline is for all countries to achieve recommended air quality levels. Whilst acknowledging that this may be a difficult task for some countries, WHO has proposed interim targets to facilitate stepwise improvement in air quality and thus gradual, but meaningful, health benefits for the population.

VII. In the 2020 “State of the Environment Report “ the Environmental Protection Agency reported that “The publication and implementation of the planned National Clean Air Strategy is needed to protect Ireland’s air quality. The adoption of the World Health Organization guideline values as national air quality standards within the strategy would provide for a higher level of public health protection. Integrating air pollution controls, noise mitigation measures and climate action, for example in transport management, can bring multiple benefits.” The report also stated that measures to address NO2 could include those used in other European cities, such as promoting the use of public transport, cycling and walking, and restricting more polluting vehicles from central areas. The announcement that Dublin has become the first Irish city to sign up to the WHO Breathe Life campaign, which entails making a commitment to meeting the WHO guideline values by 2030 (Breathe Life, 2020), is a positive step.

VIII. Land use and transportation planning strategies to deliver sustainable living, need to be continued and supported. They will also need to rigorously demonstrate how and to what degree their air quality benefits are to be achieved.

IX. Many of the proposed transport infrastructure measures currently under consideration have considerable lead-in times, and funding for these measures needs to remain secured for these projects. Under these circumstances, there is also a need to harness public information measures

and pro-active encouragement of behaviour change in transport usage.

X. There are real choices available to individual transport users and commuters in terms of their personal contribution to air emissions. While some initiatives have clearly been successful in demonstrating this, much still remains to be done. Linking such initiatives to potential savings in transport fuel costs for individuals would strike a chord in current economic circumstances.

XI. Given the advances in technology, it is now feasible and timely to consider measures to integrate real time air quality monitoring, predictive air quality modelling, and traffic management systems.

XII. There is a compelling need for the local authorities in the Dublin region to review capacity issues in respect of air quality monitoring and management and in particular explore the added value of engaging in air quality modelling on an ongoing basis.

XIII. The emission modelling undertaken under the 5 City Demand Management Study and the dispersion modelling carried out by the EPA indicate that the agglomeration will be in compliance with the nitrogen dioxide limit by 2030 if not earlier. If the timescale to reach compliance is to be accelerated the most likely measures to achieve this acceleration will be to reduce emission factors from vehicles in particular cars. This can be achieved by:

- financial incentives to remove older diesel vehicles,
- incentives to increase the percentage of Electric Vehicles,
- or the introduction of low emission zones.

XIV. Dispersion modelling assessments complement existing monitoring techniques and can help to accurately predict pollution levels throughout the Dublin region and better inform decision making about how local areas might identify and tackle any rise in pollution levels. Any future expansion of the national monitoring network will depend on the results of nearby monitoring stations, indicative sampling and dispersion modelling assessments.

XV. Modelling capacity at local authority level would complement the EPA's modelling activities and would produce useful data not only for air quality management purposes but also for other sectors such as noise mapping and city planning.

XVI. With publicly funded research it is imperative that the Dublin local authorities have a say in precisely what areas need to be researched and must be invited to participate on research steering groups.

XVII. No one agency or authority can bring about and sustain a reduction of nitrogen dioxide levels in ambient air in the Dublin region. Each key agency needs to maintain air quality to the forefront of their programmes.

XVIII. Efforts have been made to incorporate ambient air quality considerations in a range of national, regional, and local transport strategies in the Dublin Region by a variety of agencies. It is imperative that these agencies continue to appraise their contribution to ensure air quality is prioritised, given the possibility of further exceedances of European Union limit values.

XIX. With indications that levels of NO2 were approaching EU limit values in certain areas of Dublin the Urban Transport Related Air Pollution Working Group (UTRAP) was formed in 2019. UTRAP brings together for the first time all the key stakeholders including Government departments and agencies in the transportation sphere as well as local authorities and other key stakeholders. UTRAP provides a forum to enhance understanding of the causes and the health and environmental impacts of NO2 air pollution and how to combat NO2 and other air pollution levels.

XX. The establishment of the UTRAP group is recognition that no one stakeholder can address all aspects of rising transport related pollution levels and that the activities of all the key stakeholders need to be coordinated. Any shortcomings or failures by any one key stakeholder could be detrimental to the success of this plan.

XXI. Public interest and concern in relation to air quality in Ireland is very significant and there is genuine buy in from the public in addressing air quality challenges. A number of projects and initiatives are underway to build on this public interest, and it is evident that the measures proposed in this plan depended on public cooperation and behavioural change over the long term. This plan identifies a number of ways in which public participation can be harnessed in a proactive rather than a reactive manner to reduce nitrogen dioxide levels and provide the opportunity to improve air quality generally.

## 10.2 Recommendations

Chapter 5 of this Plan sets out a number of specific measures and actions for consideration, this section sets out to provide a number of overarching recommendations to facilitate the further implementation and development of those measures and actions. This will require continued engagement across a range of local regional and national stakeholders.

i. The measures and actions identified in this plan highlight the absolute necessity for concerted action by the various agencies with input to national, regional, and local policy that influence reducing nitrogen dioxide levels in ambient air in the Dublin Region.
It is recommended that the Urban Transport-Related Air Pollution Steering Group (UTRAP) should remain in place to ensure that there is a forum to harness and direct that concerted action.

ii. It is recommended that a coherent framework for addressing air quality matters generally will be best served by the publication of the National Clean Air Strategy, and this strategy should incorporate reference to the most recent World Health Organization air quality guideline values for an enhanced level of public health protection.

iii. It is recommended that the incorporation of "10/15 minute neighbourhoods" ( or similar) concept in City and County Development Plans be considered given the overall benefit that will accrue in terms of air quality generally and nitrogen dioxide levels in particular. **The Five Cites Demand Management Study** identifies the introduction of this concept as the No. 1 overall ranked intervention to address demand management, decarbonisation, air quality, and urban development.

iv. It is recommended that future public, residential and commercial parking controls be considered with specific reference to their impact on ambient nitrogen dioxide levels

v. It is recommended that legislation be introduced to allow local authorities to establish Clean Air Zones/Low Emissions Zones

vi. It is recommended that the Local Authorities Electrical Vehicle (EV) Charging Strategy, which is currently being elaborated, be completed to support the growth of EVs to at least 800,000 by 2030 and set a target for the supply of infrastructure to stay sufficiently ahead of demand.

vii. Citizen engagement is a key element in improving air quality. As well as the initiatives currently underway it is recommended that Dublin local authorities to explore with other stakeholders such as An Taisce, the Asthma Society and others as relevant, on the establishment of a public consultative process or forum on air quality.

viii. It is recommended that local authorities in the Dublin Region intensify their collaboration with the EPA to expand real time air quality monitoring in the region and also to develop air quality modelling and forecasting capacity.

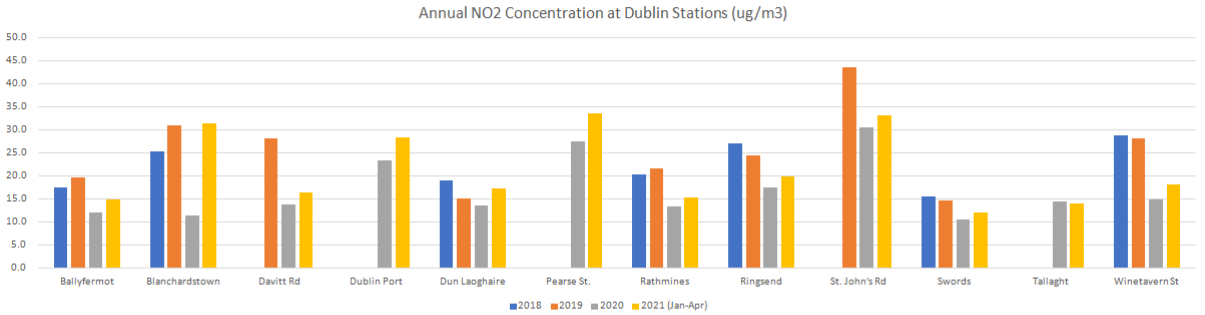
ix. It is recommended that the local authorities be engaged as partners and/or advisers in air quality research being funded by the EPA on projects in the Dublin region.

x. This plan demonstrates the wide variety of policies, strategies and initiatives that address ambient nitrogen dioxide levels. Continued delivery of the objectives of these policies and strategies needs to be maintained. It is recognised that government policy seeks to include environmental criteria in initiatives such as the National Development Plan. It is recommended that the development of air quality and other criteria needs to include input from a wide range of stakeholders including the public and local authorities.

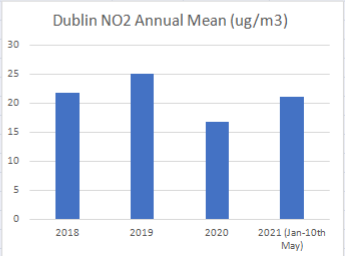
# Appendix A - Air Quality Monitoring Data/Graphs

## Annual Mean – Dublin Stations (ug/m3)

| | Ballyfermot | Blanchardstown | Davitt Rd | Dublin Port | Dun Laoghaire | Pearse St. | Rathmines | Ringsend | St. John's Rd | Swords | Tallaght | Winetavern St |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2018** | 17.4 | 25.3 | | | 18.9 | | 20.3 | 27.0 | | 15.5 | | 28.7 |
| **2019** | 19.7 | 31.0 | 28.0 | | 15.0 | | 21.6 | 24.3 | 43.4 | 14.6 | | 28.0 |
| **2020** | 12.1 | 11.5 | 13.7 | 23.3 | 13.5 | 27.4 | 13.3 | 17.5 | 30.4 | 10.6 | 14.4 | 14.8 |
| **2021 (Jan-Apr)** | 14.8 | 31.4 | 16.4 | 28.3 | 17.2 | 33.5 | 15.4 | 19.8 | 33.0 | 12.0 | 13.9 | 18.0 |




| Annual Mean (ug/m3) | |
|---|---|
| **2018** | 21.9 |
| **2019** | 25.1 |
| **2020** | 16.9 |
| **2021 (Jan-10th May)** | 21.2 |



# Appendix B - Public Consultation Report and Analysis

# Appendix B1 – Consultation Hub Responses Summary Report

## Air Quality Plan to improve levels of nitrogen dioxide (NO2) in ambient air

https://consultation.dublincity.ie/environment/air-quality-plan-to-improve-levels-of-nitrogen-dio

This report was created on Tuesday 16 November 2021 at 09:28

The activity ran from 18/10/2021 to 15/11/2021

Responses to this survey: **208**

### 1: What is your name?

**Name**

There were 202 responses to this part of the question.

### 2: What is your email address?

**Email**

There were 165 responses to this part of the question.

### 3: What is your organisation? (if applicable)

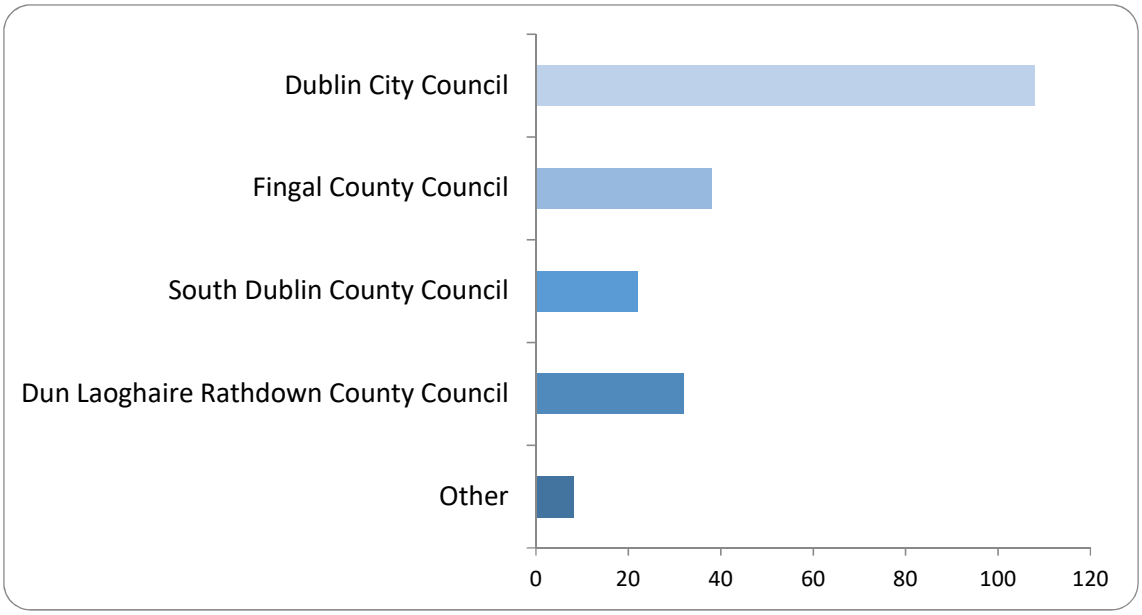
**Organisation**

There were 29 responses to this part of the question.

### 4: In which Local Authority area do you reside?

**Local Authority**

There were 208 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| Dublin City Council | 108 | 51.92% |
| Fingal County Council | 38 | 18.27% |
| South Dublin County Council | 22 | 10.58% |
| Dun Laoghaire Rathdown County Council | 32 | 15.38% |
| Other | 8 | 3.85% |
| Not Answered | 0 | 0.00% |

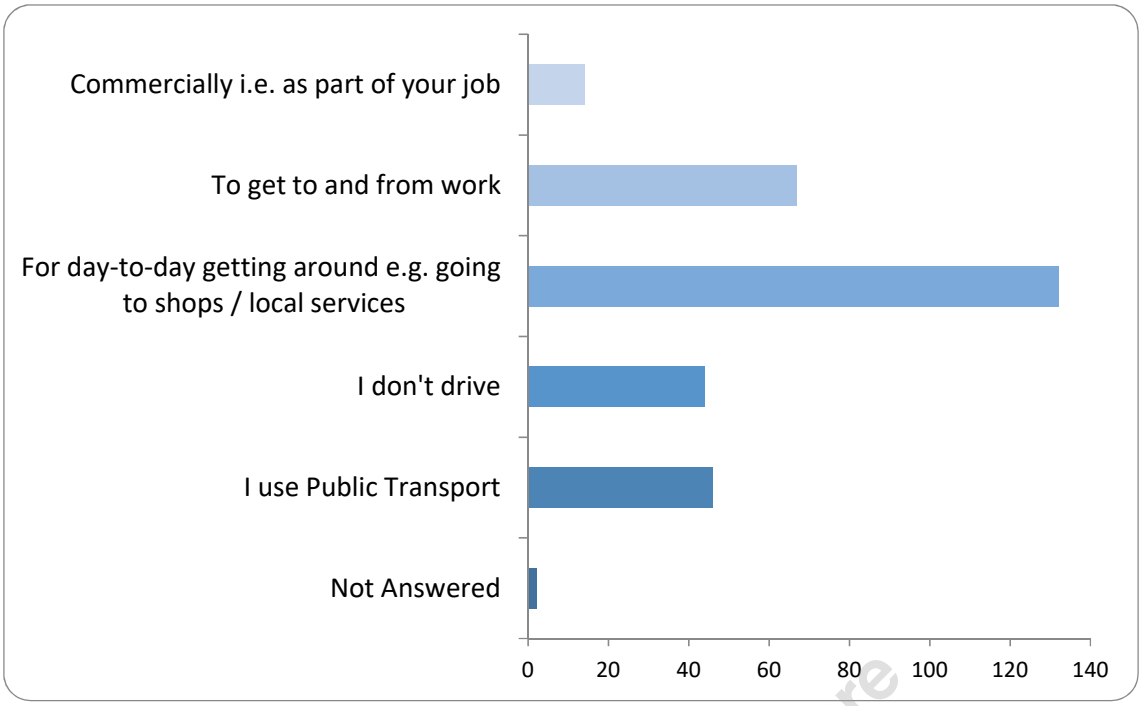
**Other Local Authority**

There were 8 responses to this part of the question.

5: What are the main reasons you drive a vehicle in your local area / in Dublin generally? Please select as many as apply to you.

**Reasons for Driving**

There were 206 responses to this part of the question.

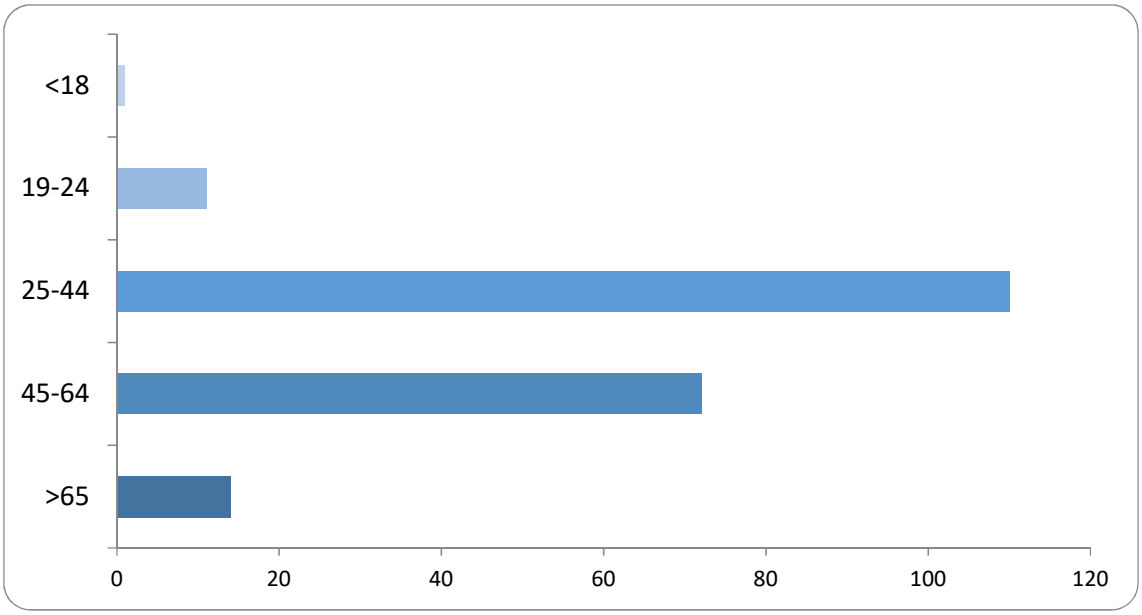



| Option | Total | Percent |
|---|---|---|
| Commercially i.e. as part of your job | 14 | 6.73% |
| To get to and from work | 67 | 32.21% |
| For day-to-day getting around e.g. going to shops / local services | 132 | 63.46% |
| I don't drive | 44 | 21.15% |
| I use Public Transport | 46 | 22.12% |
| Not Answered | 2 | 0.96% |

## 6: Which age bracket do you fall into?

**Age Profile**

There were 208 responses to this part of the question.

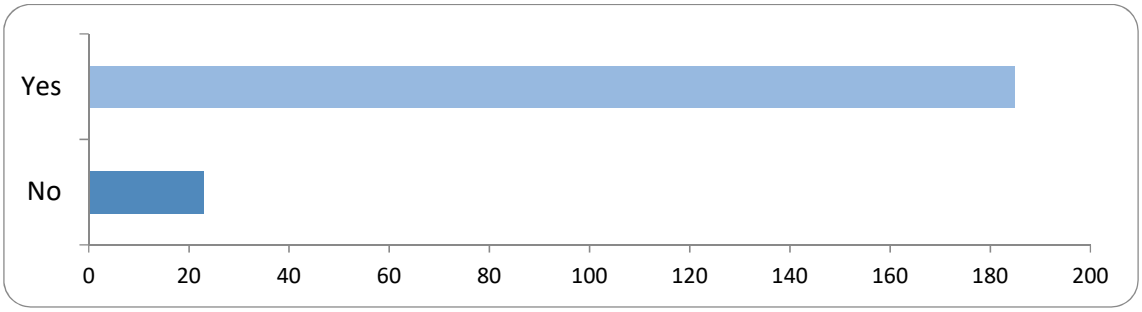



| Option | Total | Percent |
|---|---|---|
| <18 | 1 | 0.48% |
| 19-24 | 11 | 5.29% |
| 25-44 | 110 | 52.88% |
| 45-64 | 72 | 34.62% |
| >65 | 14 | 6.73% |
| Not Answered | 0 | 0.00% |

7: Do you have an understanding of the health impacts of elevated NO2 levels?

**Understand health impacts of high NO2**

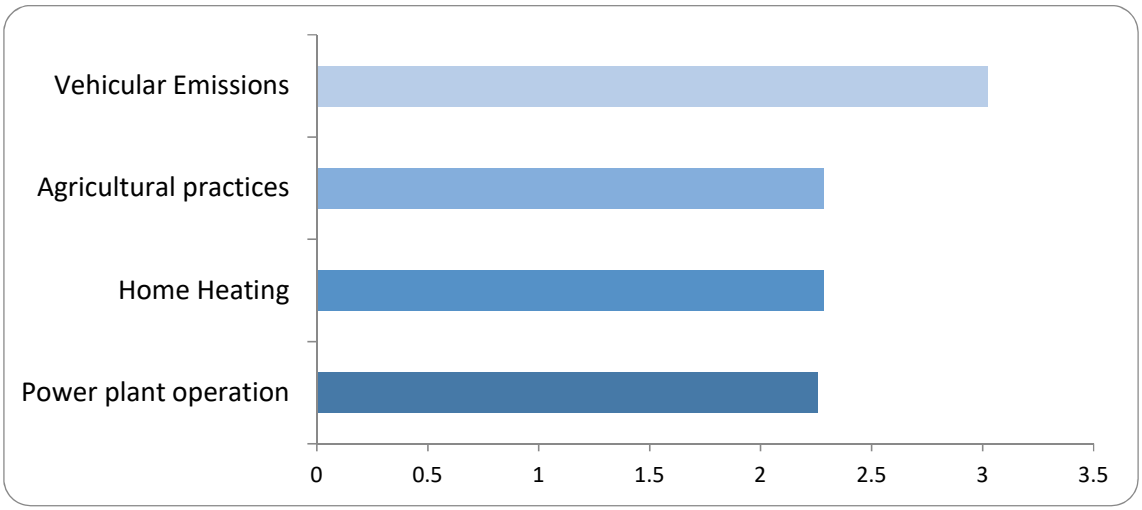
There were 208 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| Yes | 185 | 88.94% |
| No | 23 | 11.06% |
| Not Answered | 0 | 0.00% |

8: Rank each of the following contributors to elevated NO2 levels (with 1 being the highest contributor).

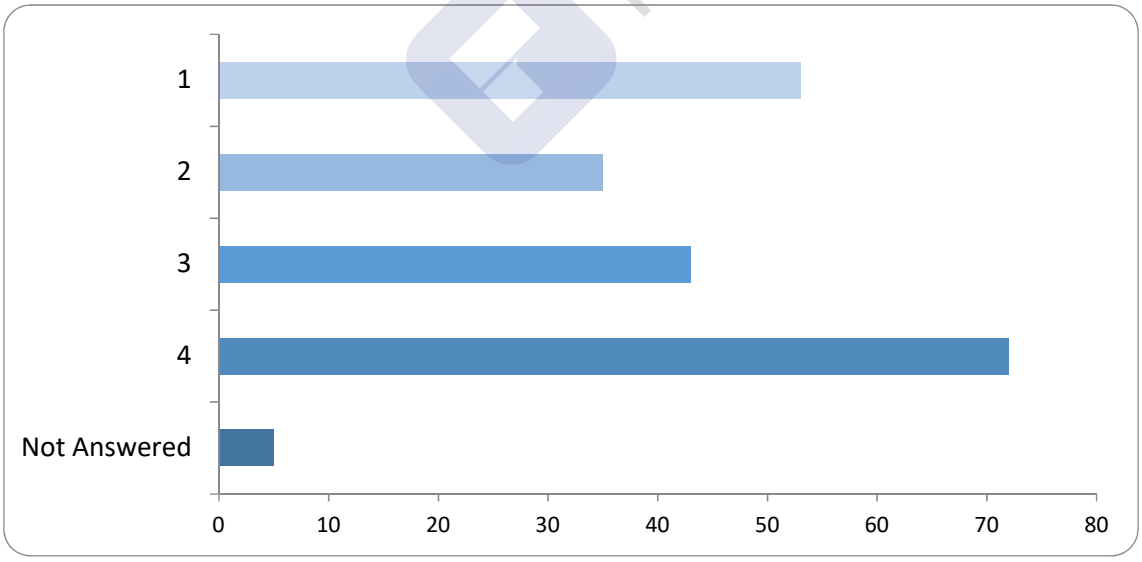
**Ranking of 'Ranking of contributions to NO2 levels'**




| Item | Ranking |
|---|---|
| Vehicular Emissions | 3.02 |
| Agricultural practices | 2.28 |
| Home Heating | 2.28 |
| Power plant operation | 2.25 |

**Ranking of contributions to NO2 levels - Agricultural practices**

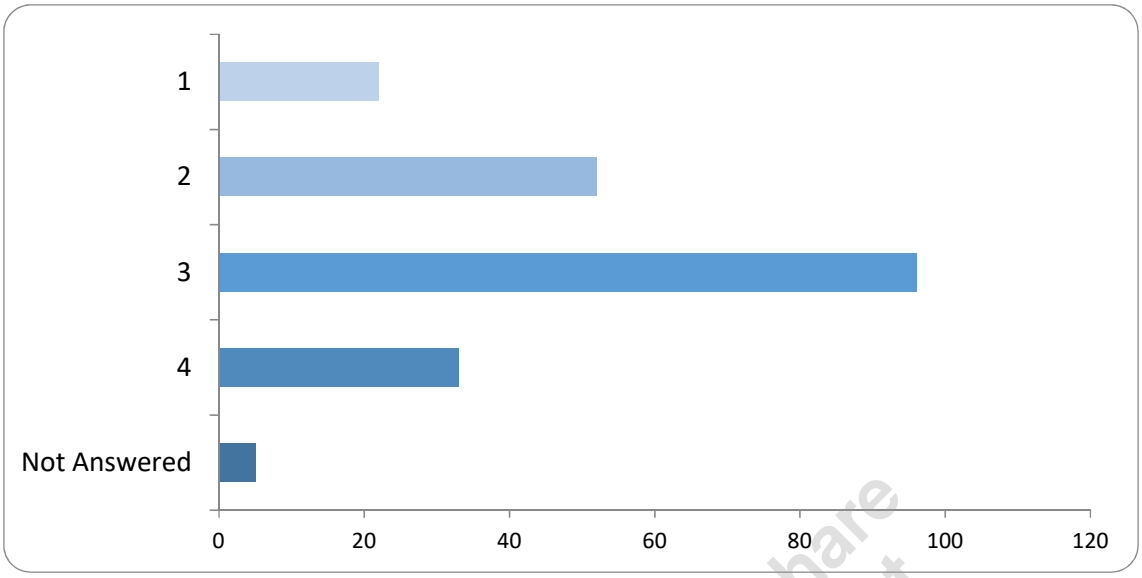
There were 203 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| 1 | 53 | 25.48% |
| 2 | 35 | 16.83% |
| 3 | 43 | 20.67% |
| 4 | 72 | 34.62% |
| Not Answered | 5 | 2.40% |

**Ranking of contributions to NO2 levels - Power plant operation**

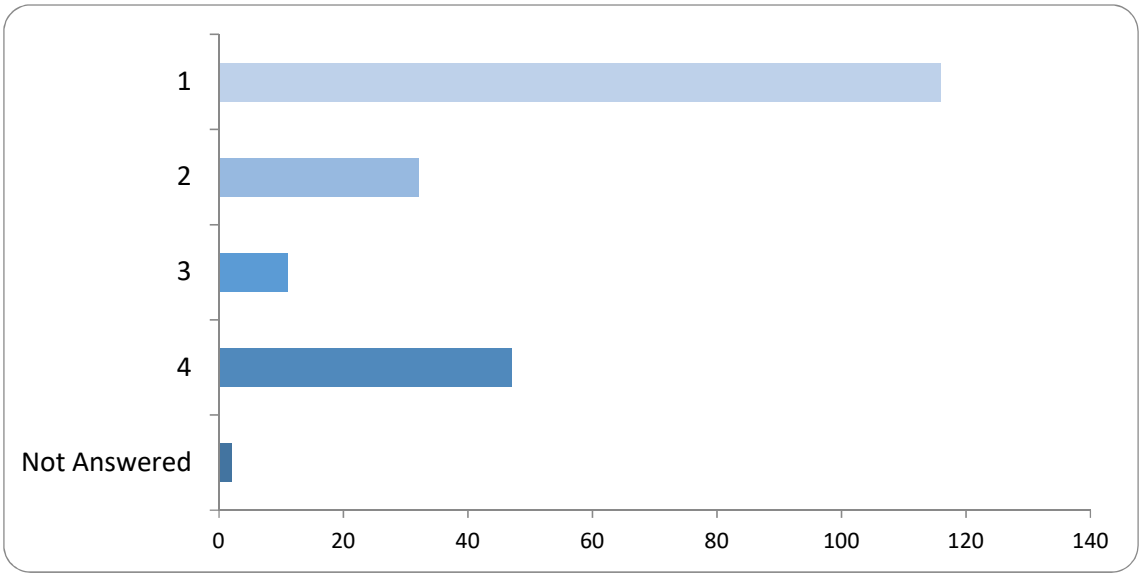
There were 203 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| 1 | 22 | 10.58% |
| 2 | 52 | 25.00% |
| 3 | 96 | 46.15% |
| 4 | 33 | 15.87% |
| Not Answered | 5 | 2.40% |

**Ranking of contributions to NO2 levels - Vehicular Emissions**

There were 206 responses to this part of the question.

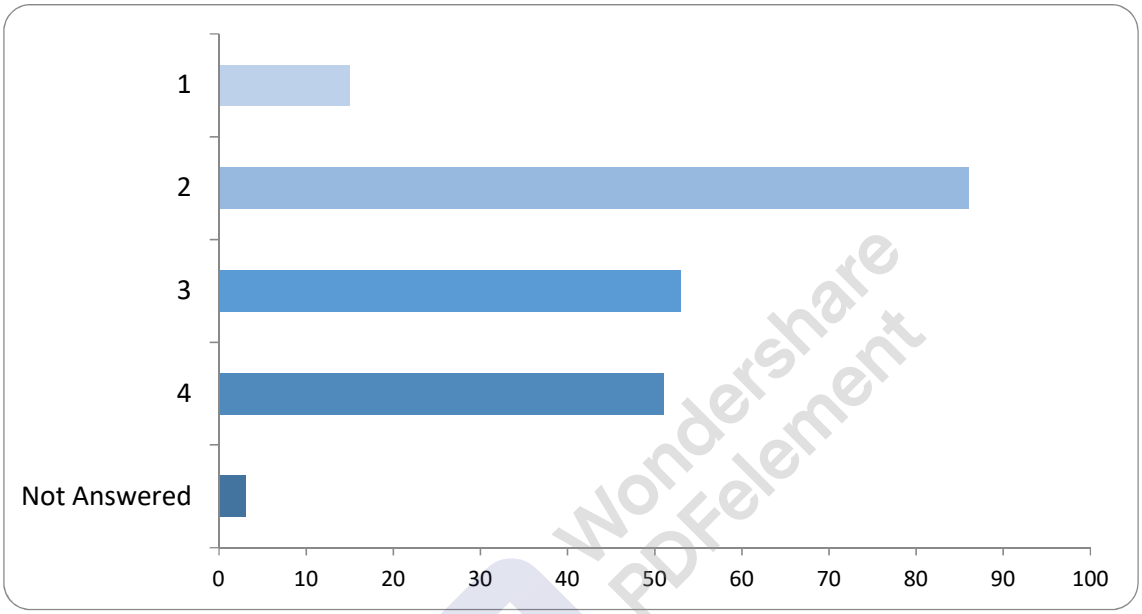



| Option | Total | Percent |
|---|---|---|

| | | |
|---|---|---|
| 1 | 116 | 55.77% |
| 2 | 32 | 15.38% |
| 3 | 11 | 5.29% |
| 4 | 47 | 22.60% |
| Not Answered | 2 | 0.96% |

**Ranking of contributions to NO2 levels - Home Heating**

There were 205 responses to this part of the question.

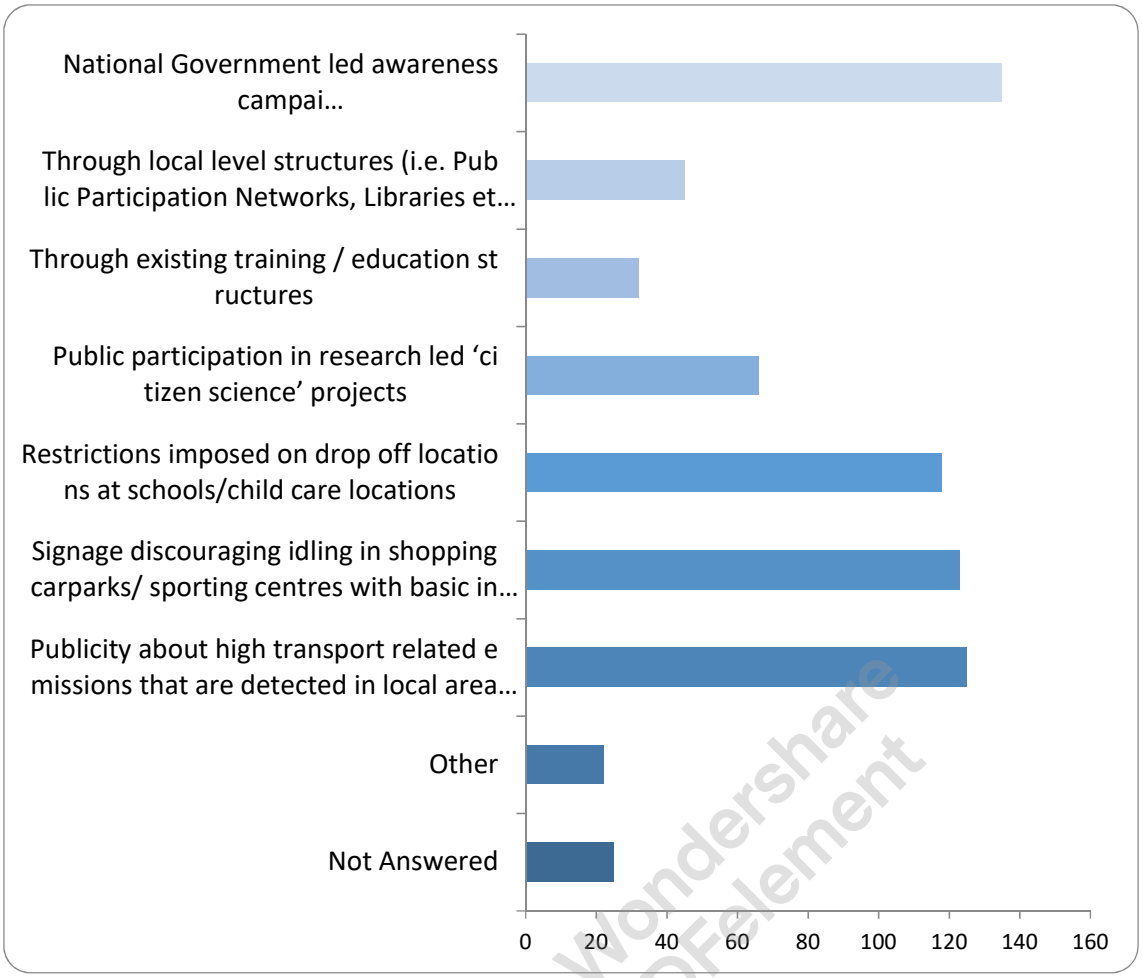



| Option | Total | Percent |
|---|---|---|
| 1 | 15 | 7.21% |
| 2 | 86 | 41.35% |
| 3 | 53 | 25.48% |
| 4 | 51 | 24.52% |
| Not Answered | 3 | 1.44% |

## 9: How can the general public be best made more aware of the health impacts of air pollution (specifically NO2)?

**How to make people aware of health impacts of NO2**

There were 183 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| National Government led awareness campaigns | 135 | 64.90% |
| Through local level structures (i.e. Public Participation Networks, Libraries etc) | 45 | 21.63% |
| Through existing training / education structures | 32 | 15.38% |
| Public participation in research led 'citizen science' projects | 66 | 31.73% |
| Restrictions imposed on drop off locations at schools/child care locations | 118 | 56.73% |
| Signage discouraging idling in shopping carparks/ sporting centres with basic info about harmful emissions from petrol/diesel vehicles | 123 | 59.13% |
| Publicity about high transport related emissions that are detected in local areas | 125 | 60.10% |
| Other | 22 | 10.58% |

| | | |
|---|---|---|
| Not Answered | 25 | 12.02% |

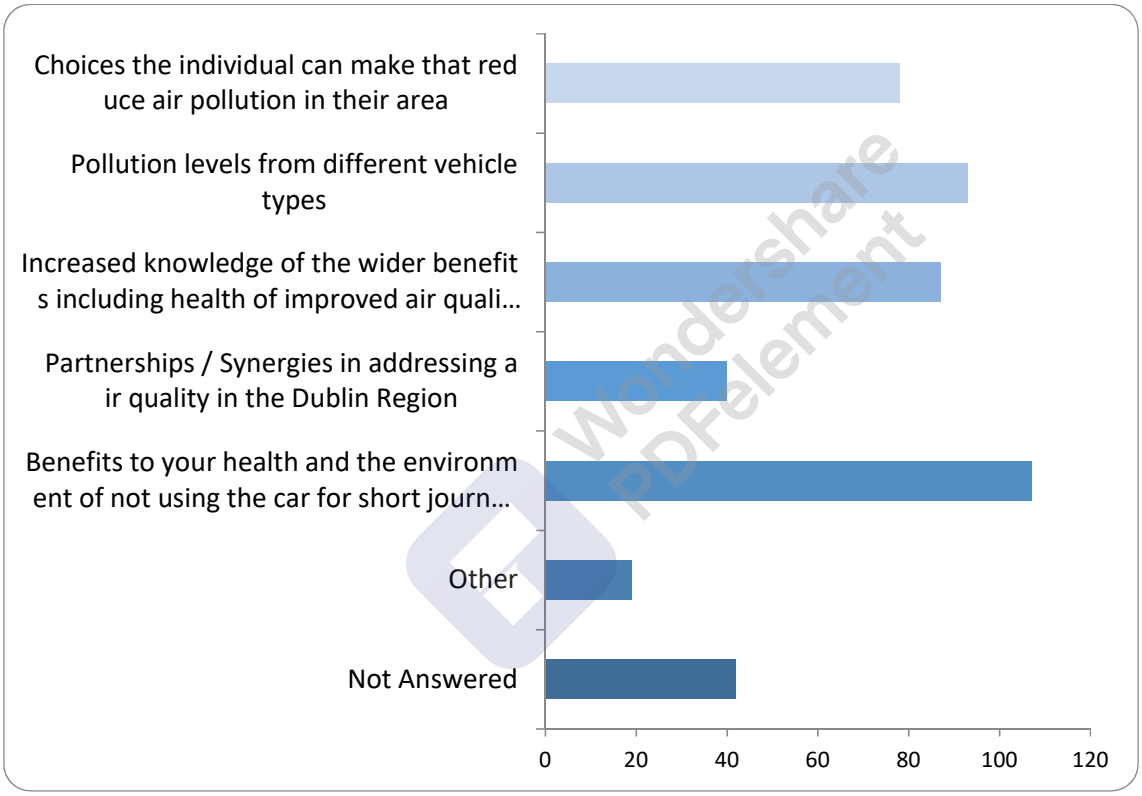
**Other**

There were 58 responses to this part of the question.

## 10: Are there particular transport related air pollution issues in your area that would benefit from an awareness raising campaign?

**What awareness campaigns needed**

There were 166 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| Choices the individual can make that reduce air pollution in their area | 78 | 37.50% |
| Pollution levels from different vehicle types | 93 | 44.71% |
| Increased knowledge of the wider benefits including health of improved air quality | 87 | 41.83% |
| Partnerships / Synergies in addressing air quality in the Dublin Region | 40 | 19.23% |

| | | |
|---|---|---|
| Benefits to your health and the environment of not using the car for short journeys/ leaving the car at home for a number of days per week" | 107 | 51.44% |
| Other | 19 | 9.13% |
| Not Answered | 42 | 20.19% |

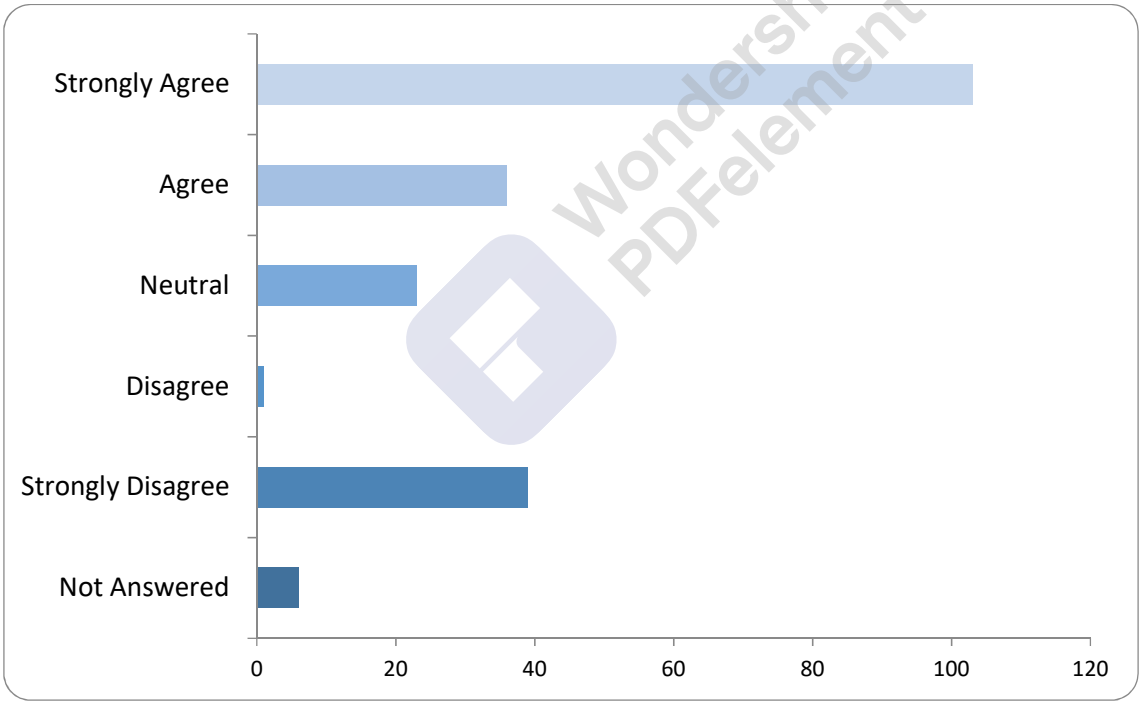
**Other**

There were 52 responses to this part of the question.

## 11: Do you agree with the recommendations of the Citizens' Assembly in relation to the climate actions that impact on air quality?

**Recommendations of Citizen Assembly**

There were 202 responses to this part of the question.

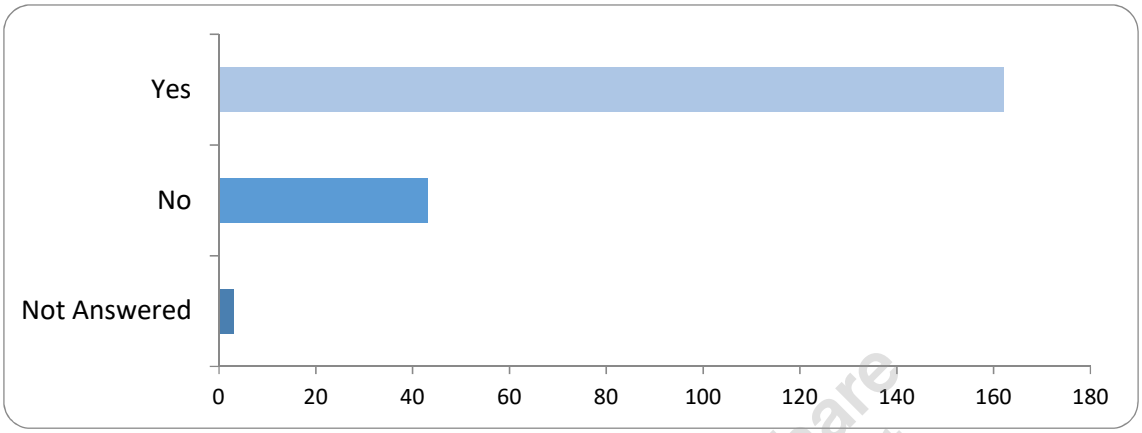



| Option | Total | Percent |
|---|---|---|
| Strongly Agree | 103 | 49.52% |
| Agree | 36 | 17.31% |
| Neutral | 23 | 11.06% |
| Disagree | 1 | 0.48% |
| Strongly Disagree | 39 | 18.75% |
| Not Answered | 6 | 2.88% |

12: Is there a need for review and strengthening Local Authority and Environmental Protection Agency EPA powers in relation to dealing with Air pollution, and in particular NO2 levels?

**Need to review and strengthen powers to deal with Air Pollution**

There were 205 responses to this part of the question.

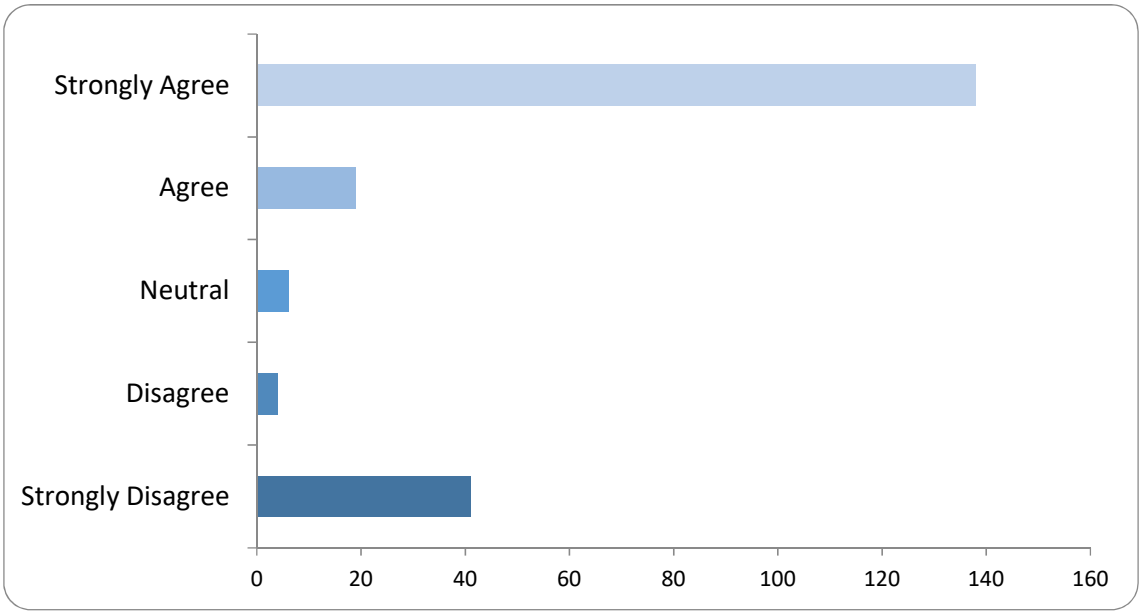



| Option | Total | Percent |
|---|---|---|
| Yes | 162 | 77.88% |
| No | 43 | 20.67% |
| Not Answered | 3 | 1.44% |

13: Consideration should be given to the introduction of Low Emission Zones in urban areas.

**Low Emission Zones**

There were 208 responses to this part of the question.



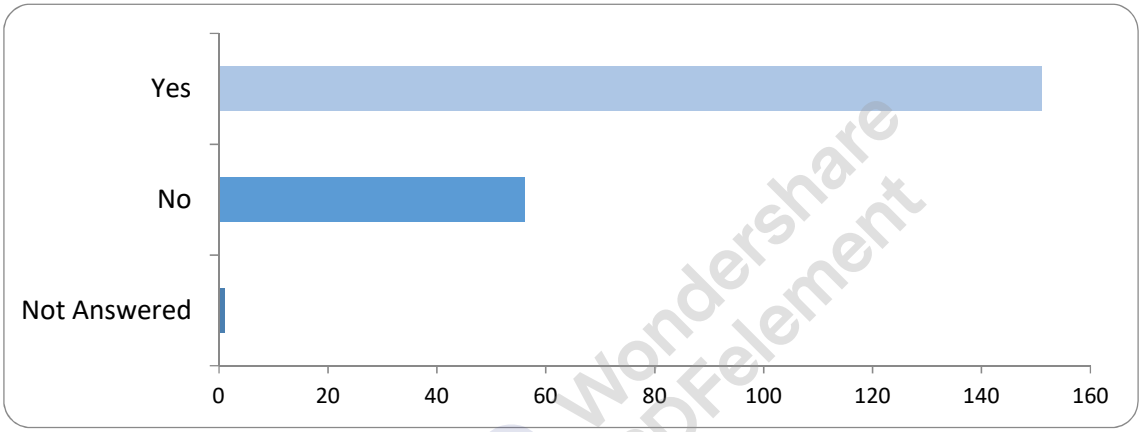

| Option | Total | Percent |
|---|---|---|

| | | |
|---|---|---|
| Strongly Agree | 138 | 66.35% |
| Agree | 19 | 9.13% |
| Neutral | 6 | 2.88% |
| Disagree | 4 | 1.92% |
| Strongly Disagree | 41 | 19.71% |
| Not Answered | 0 | 0.00% |

14: A Low Emission Zone may involve a charge being levied on those with polluting vehicles. Is this a measure you would support?

**Support Low Emission Zone Charge**

There were 207 responses to this part of the question.

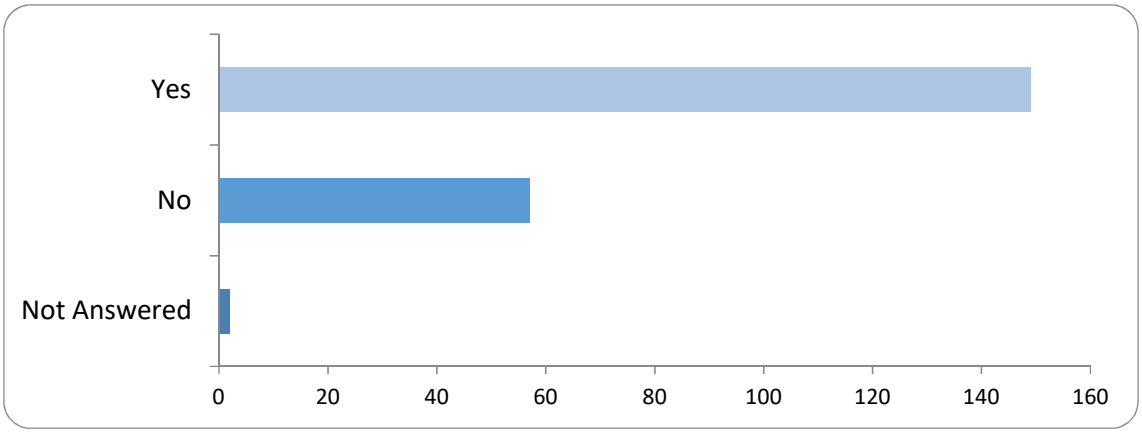



| Option | Total | Percent |
|---|---|---|
| Yes | 151 | 72.60% |
| No | 56 | 26.92% |
| Not Answered | 1 | 0.48% |

15: Would you support the Government amending existing legislation to delegate powers to the Local Authorities to introduce Low Emission Zones?

**Low Emission Zones**

There were 206 responses to this part of the question.

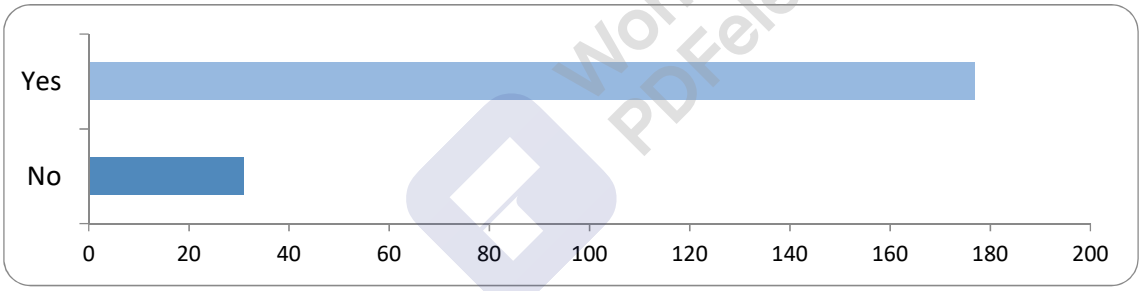



| Option | Total | Percent |
|---|---|---|
| Yes | 149 | 71.63% |
| No | 57 | 27.40% |
| Not Answered | 2 | 0.96% |

16: Are you familiar with the concept of 10/15 minute neighbourhoods?

**Familiar with 10-15 min neighbourhoods**

There were 208 responses to this part of the question.

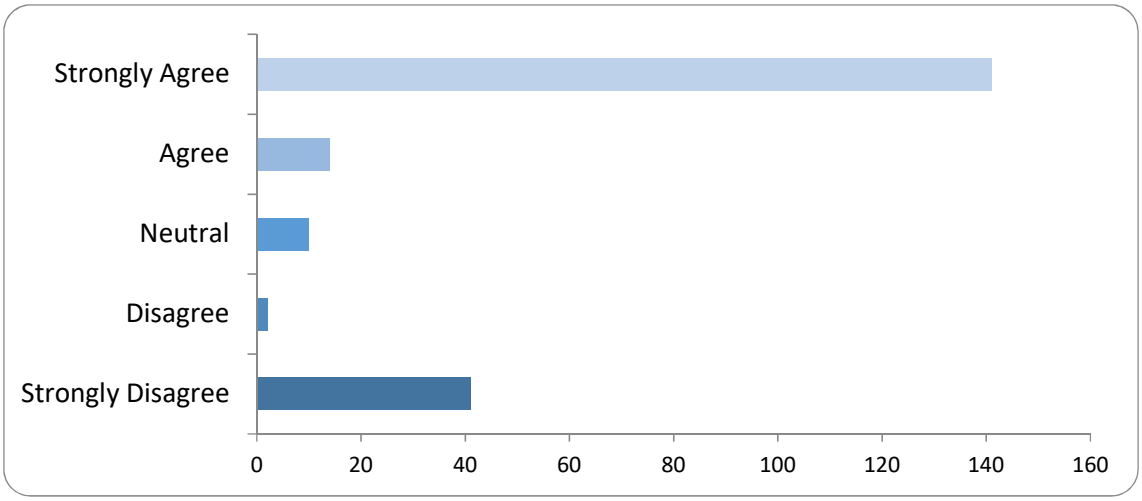



| Option | Total | Percent |
|---|---|---|
| Yes | 177 | 85.10% |
| No | 31 | 14.90% |
| Not Answered | 0 | 0.00% |

17: The concept of a 10/15 minute neighbourhood, or similar, should be examined by all local authorities.

**10/15 minute neighbourhoods should be examined**

There were 208 responses to this part of the question.

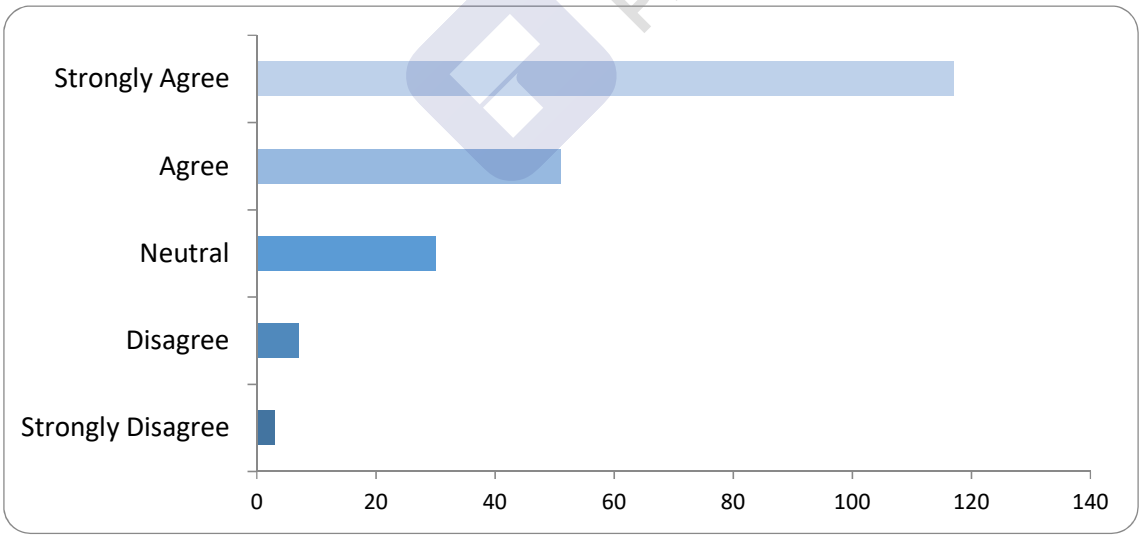



| Option | Total | Percent |
|---|---|---|
| Strongly Agree | 141 | 67.79% |
| Agree | 14 | 6.73% |
| Neutral | 10 | 4.81% |
| Disagree | 2 | 0.96% |
| Strongly Disagree | 41 | 19.71% |
| Not Answered | 0 | 0.00% |

18: An extensive electrical vehicle-charging network should be developed in Dublin.

**Electrical Vehicle-charging**

There were 208 responses to this part of the question.

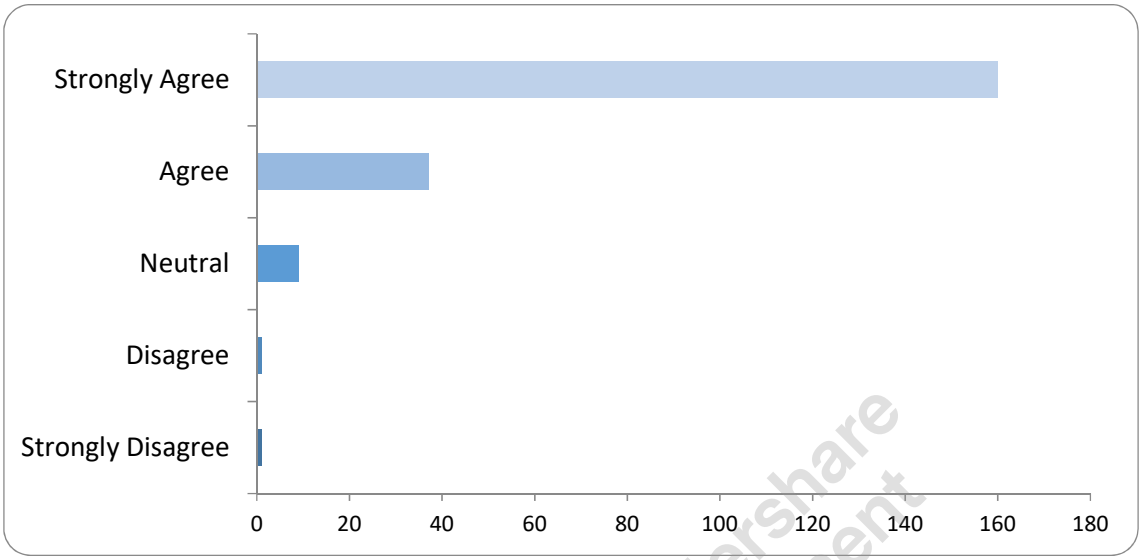



| Option | Total | Percent |
|---|---|---|
| Strongly Agree | 117 | 56.25% |
| Agree | 51 | 24.52% |
| Neutral | 30 | 14.42% |
| Disagree | 7 | 3.37% |
| Strongly Disagree | 3 | 1.44% |
| Not Answered | 0 | 0.00% |

19: The Irish workforce should be provided with the option of remote working, for a portion of the week, to reduce NO2 emissions.

**Remote Working**

There were 208 responses to this part of the question.

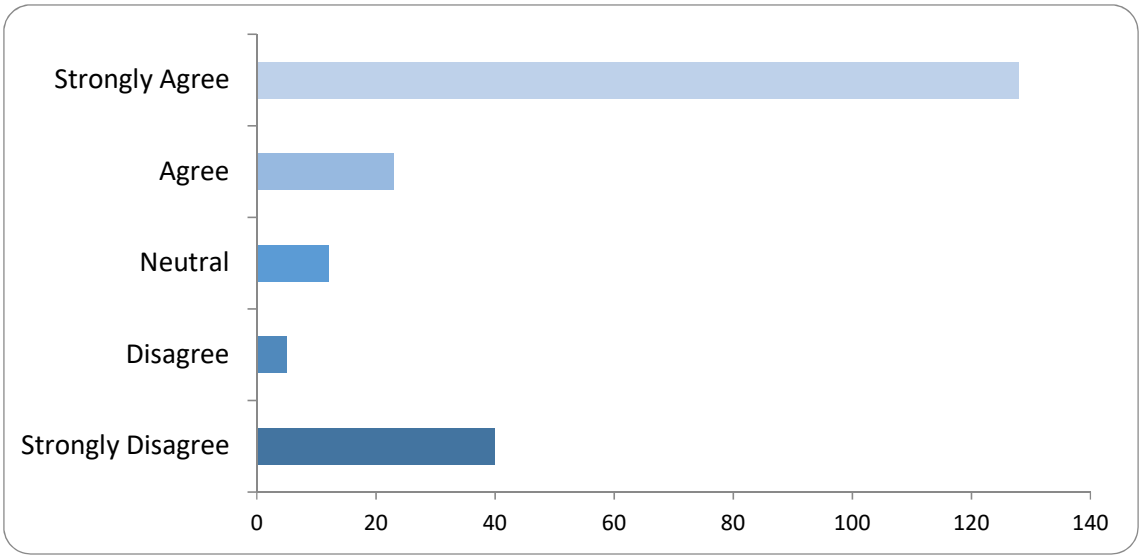



| Option | Total | Percent |
|---|---|---|
| Strongly Agree | 160 | 76.92% |
| Agree | 37 | 17.79% |
| Neutral | 9 | 4.33% |
| Disagree | 1 | 0.48% |
| Strongly Disagree | 1 | 0.48% |
| Not Answered | 0 | 0.00% |

20: Consideration should be given to incorporating air quality considerations into vehicle taxation.

**Air Quality in vehicle tax**

There were 208 responses to this part of the question.

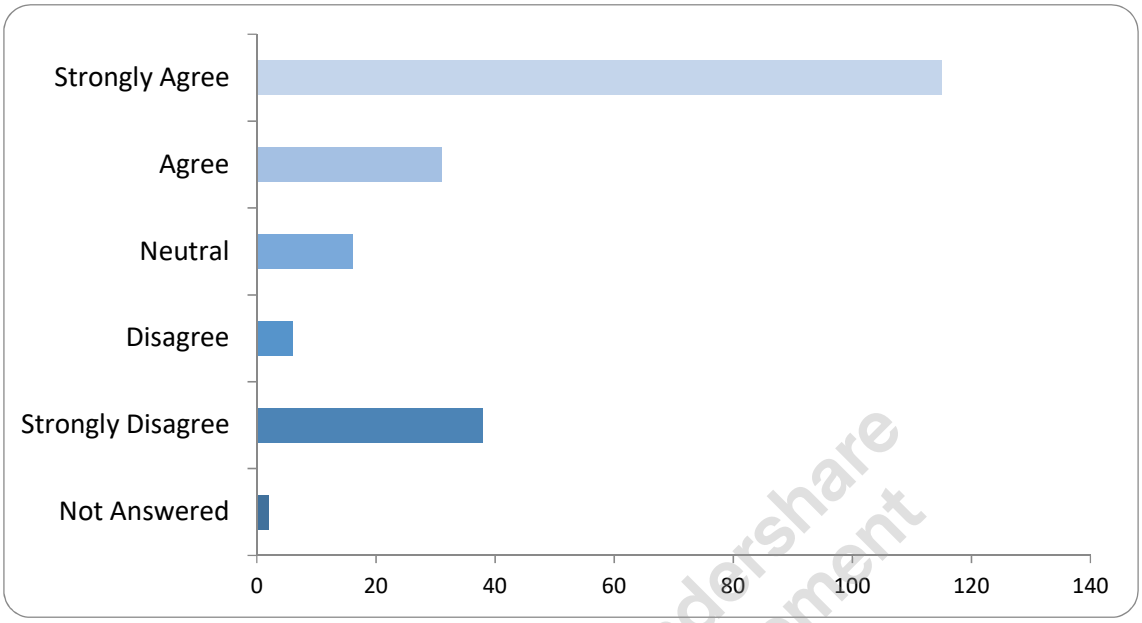



| Option | Total | Percent |
|---|---|---|
| Strongly Agree | 128 | 61.54% |
| Agree | 23 | 11.06% |
| Neutral | 12 | 5.77% |
| Disagree | 5 | 2.40% |
| Strongly Disagree | 40 | 19.23% |
| Not Answered | 0 | 0.00% |

21: The NCT emissions testing should have a role in periodic assessment of air pollution emissions, to inform better regulation of 'in use' vehicle emissions.

**NCT role in assessment of air pollution**

There were 206 responses to this part of the question.

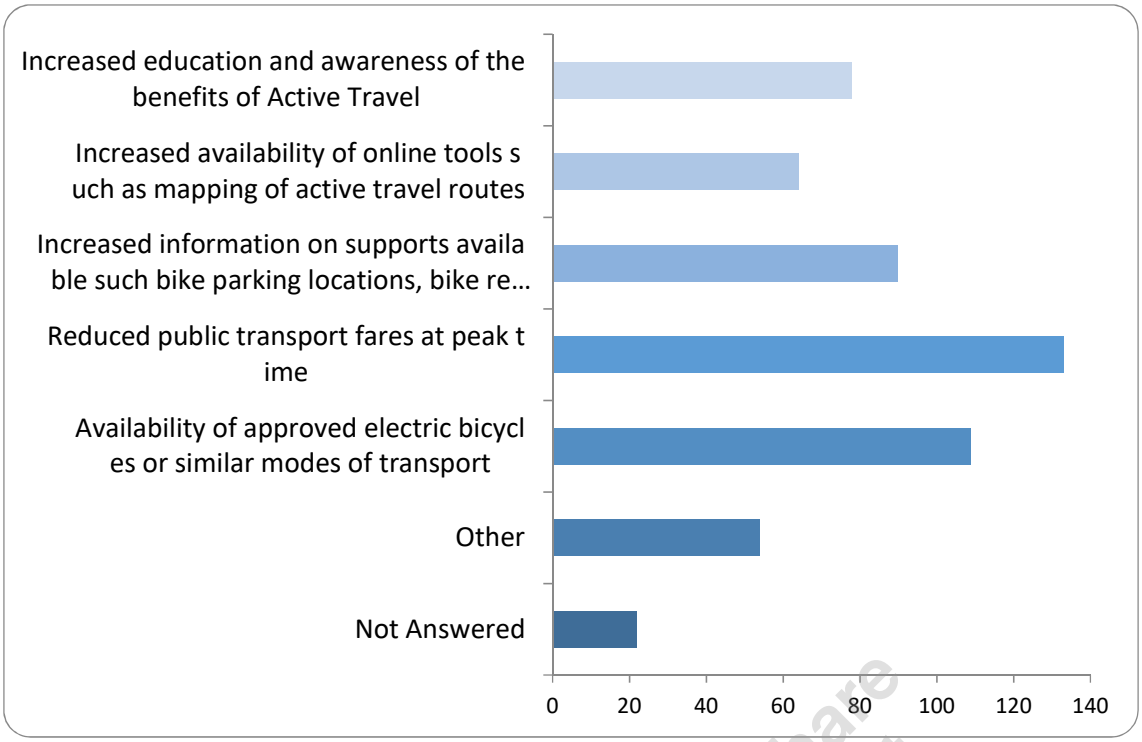



| Option | Total | Percent |
|---|---|---|
| Strongly Agree | 115 | 55.29% |
| Agree | 31 | 14.90% |
| Neutral | 16 | 7.69% |
| Disagree | 6 | 2.88% |
| Strongly Disagree | 38 | 18.27% |
| Not Answered | 2 | 0.96% |

22: What other measures would encourage and support the continued modal shift to Active Travel and Public Transport?

**Measures to shift to Active Travel**

There were 186 responses to this part of the question.




| Option | Total | Percent |
|---|---|---|
| Increased education and awareness of the benefits of Active Travel | 78 | 37.50% |
| Increased availability of online tools such as mapping of active travel routes | 64 | 30.77% |
| Increased information on supports available such bike parking locations, bike repair outlets etc | 90 | 43.27% |
| Reduced public transport fares at peak time | 133 | 63.94% |
| Availability of approved electric bicycles or similar modes of transport | 109 | 52.40% |
| Other | 54 | 25.96% |
| Not Answered | 22 | 10.58% |

**Other**

There were 93 responses to this part of the question.

## 23: What are the important current and emerging air quality transport related air pollution issues in Ireland that require research?

**Emerging air quality issues**

There were 94 responses to this part of the question.

## 24: How can the national research capacity that exists in Universities/educational

institutions on air quality issues be best used to achieve the reduced NO2?

**Use of Research Capacity in Universities**

There were 67 responses to this part of the question.

25: Do you have any additional comments / observations on the Draft Plan?

**Milestone**

There were 108 responses to this part of the question.

# Appendix B2 – Organisations listed in Consultation Responses

## Organisations which were listed by respondents

- Aeravai Autonomous Electric Road and Air Vehicle Association of Ireland
- AHAA - All Hallows Area Association
- Biodiverse Balbriggan
- Fingal bikes
- Naul Community Council
- Nuaworks
- Wood Fuel Quality Assurance Scheme
- HES Ltd.
- UCD

## Emailed Response were received from

- HSE Public Health
- HSE Environmental Health
- An Taisce
- Ciaran Cuffe MEP (Green Party)
- DAA
- Dublin Friends of the Earth
- Fingal Active Travel Group
- Ger O'Halloran
- Green Party West
- Irish Doctors for the Environment
- Met Eireann

# Appendix B3 – Analysis of Public Consultation Submissions against Themes, Responses and Actions

| **Overview of the themes, responses and actions taken from the 219 submissions through the Public Consultation on the Draft Dublin Regional Air Quality Plan** | | |
|---|---|---|
| **Theme** | **Response** | **Action** |
| **Matters raised that do not come within the remit of this Plan**<br><br>A number of respondents queried why this plan dealt solely with nitrogen dioxide and did not address other issues including:<br><br>• Particulates (PM10 and PM2.5,),<br>• Emissions from vehicle brake and tyre wear.<br>• Solid fuel burning<br>• Emissions from the Dublin Waste to Energy Plant<br>• Noise<br>• Reorientation of public sector and civil service mileage expenses to discourage the use of vehicles and encourage active travel and public transport<br>• Repurposing of public sector cark parking. | **Particulates (PM10 and PM2.5,) – including emissions from vehicle brake and tyre wear**<br>The legal obligation imposed by Section 22 of the Air Quality Standards Regulations 2011 is to produce a plan for nitrogen dioxide as there was a reported exceedance in 2019. There has not been a reported exceedance for any other air pollutants at any point.<br><br>**Solid fuel burning**<br>The Department of the Environment, Climate and Communications will introduce legislation in 2022 for a national ban on bituminous coal and setting standards for wood fuel.<br><br>**Emissions from the Dublin Waste to Energy Plant**<br>This facility is subject to EPA licensing – and the emissions data indicates nitrous oxide emissions are significantly below stipulated EPA limit values<br><br>**Noise**<br>The Dublin local authorities have commenced work on the preparation of noise maps and will be preparing a noise action plan in 2022 in accordance with the EU Environmental Noise Directive. The preparation of the noise action plan will involve a public consultation process | No amendment to the Dublin Regional Air Quality Plan required |

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| | **Public sector and civil service mileage expenses and parking**<br>This is a matter for national government policy | |
| **10/15/20 Minute Cities approach**<br><br>There was general (though not universal) support for the adaption of the 10/15/20 Minute Cities approach<br><br>The points raised included the need to :<br><br>Transform cities and towns to make it less likely to need cars.<br><br>Increase efforts to populate the city between the canals.<br><br>Reduce amount of derelict land and empty properties that could provide accommodation.<br><br>One suggestion addressed the adoption of superblocks as a form of urban development, whereby residential blocks are larger than those traditionally built. These developments also give priority to pedestrians and cyclists. Such developments are taking place in other European cities, including Barcelona. | The 15 minute neighbourhood concept is addressed in **Measure 1** of the Draft Plan. This concept has been addressed in both the Five Cities Demand Management Study and the Eastern and Midland Regional Assembly - Regional Spatial and Economic Strategy (RSES). This concept of mixed-use development envisages a range of community facilities and services being accessible in short walking/ cycling timeframes from homes or accessible by high quality public transport in larger settlements. This concept is also being considered in the preparation of new City / County Development Plans. | No amendment to the Dublin Regional Air Quality Plan required |
| **Parking Controls and Standards**<br><br>**Enforcement of parking and traffic laws**<br><br>A number of respondents highlighted their dissatisfaction with the level of enforcement of current speeding and parking laws by enforcement bodies and their desire for further measures in this respect including the establishment of a new | **Measures 2 to 4** in the Plan deal with Parking Controls and Standards.<br><br>Enforcement of traffic and parking legislation violations including access to cycle lanes, bus lanes and footpaths is a matter for the Gardai and Traffic Wardens and is outside the scope of this report. | No amendment to the Dublin Regional Air Quality Plan required |

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| enforcement body. A smaller number of respondents indicated they did not wish to see any further speed limits imposed. Other submissions suggested that parking charges be used as a deterrent to car usage. | The Draft Greater Dublin Area Transport Strategy 2022-2042 provides for comprehensive enforcement of road traffic laws in order to protect investments in transport infrastructure. It also addresses car parking standards and a move to reduce the number of spaces available in Dublin city and elsewhere. | |
| **Active Travel**<br><br>A number of submissions raised issues that included the need for increased active travel choices, access for all and addressing disability in active travel, improve public transport and the need to reduce / ban the use of the private car. | These issues are addressed under **Measure 5** - Continued Delivery of the Active Travel Programme, of the Draft Plan.<br><br>The Dublin local authorities, supported by Government, the National Transport Authority and other stakeholders, continue to develop and implement a range of active travel projects, in particular enhancing local walking and cycling networks. In particular, the Dublin local authorities were some of the first in Ireland, to introduce significant mobility and public realm measures, in order to respond to the COVID- 19 pandemic.<br><br>In February 2021, the National Transport Authority announced a total of €240m to support sustainable transport projects across the country. The NTA will be tasked with overseeing and supporting the development of the high-quality mobility infrastructure across all projects. The state agency will also ensure that projects are accessible, age-friendly and maximise comfort to people of all ages and abilities.<br><br>In November 2021, the NTA launched public consultation on the Draft Greater Dublin Area Transport Strategy 2022 - 2042, which sets out the framework for investment in transport infrastructure and services over | No amendment to the Dublin Regional Air Quality Plan required |

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| | the next two decades to 2042, including transport schemes and measures needed:<br><br>• to tackle climate change;<br>• to reduce the impact of congestion;<br>• to deliver a safe and attractive cycling environment; and<br>• to develop sustainable communities across Dublin City and region. | |
| **Active Travel – Continued**<br><br>**Improved Cycling Infrastructure**<br><br>A consistent theme in the majority of responses was the desire to see significant improvement in cycling infrastructure including protected cycle ways, improved cycle facilities and overall promotion and prioritisation of active travel relative to car usage.<br><br>Specific suggestions included: extending the Bike to Work Scheme to include cargo bikes to facilitate creche and school drop offs.<br>Create more convenient exits routes from cul-de-sacs for cyclists<br>Improve bike parking- safe and sheltered, bike lockers for example | These matters are substantively addressed in **Measure 5** in the draft plan retain to active travel and are also addressed in Draft Transport Strategy for the Greater Dublin Area 2022-2042 which is currently undergoing public consultation<br><br>At a local level the City and County Development Plans 2022 – 2028 set out the land use framework to guide future development within the city and county with a focus on the places we live and work and how we interact and move between these places while protecting our environment | No amendment to the Dublin Regional Air Quality Plan required |
| **Active Travel – Continued**<br><br>**Public Transport/ Vehicles**<br>It was suggested that trialling free transport during off peak hours and free public transport for under 18 year olds on public transport be introduced.<br>• More park and ride facilities. | These matters are substantively addressed in **Measure 5** in the draft plan retain to active travel and are also addressed in Draft Transport Strategy for the Greater Dublin Area 2022-2042 which is currently undergoing public consultation | No amendment to the Dublin Regional Air Quality Plan required |

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| • Reduce national Speed limits<br>• Prohibit Diesel vehicles from entering city centre.<br><br>A number of respondents indicated they would wish to see an increase in the number and frequently of buses including more school buses with segregated routes for public transport | The issue of public transport charging does not come within the scope of this Plan. | |
| **Electric Vehicles and EV charging Infrastructure**<br><br>Suggestions submitted included electrifying public and private buses; promoting taxi scrappage scheme to encourage greater uptake and more support for promoting EV for commercial vehicles.<br><br>Other submissions were also received that suggest that EVs should be regarded as secondary and supplementary to active travel and public transport strategies<br><br>There was broad support for expanding the EV charging infrastructure and a suggestion that new house builds should have charging points incorporated where possible. | The Draft Transport Strategy for the Greater Dublin Area 2022-2042 deals extensively with these issues.<br><br>The ongoing development of the EV Charging Strategy is addressed in **Measure 6** in the Plan. | No amendment to the Dublin Regional Air Quality Plan required |
| **Clean air zones/ low emission zones/congestion charging**<br><br>There were a wide range of diametrically opposed opinions received in respect of the potential introduction of clean air zones/ low emission zones/congestion charging. These ranged from the point of view that air quality was satisfactory, that no interventions were required and any move to introduce any charges was a | The implications of measures in respect<br>of the potential introduction of clean air zones/ low emission zones/congestion charging merit careful consideration in advance of any legislation by the relevant stakeholders.<br><br>**Measure 9** of the Plan to be amended to include an action as follows; The UTRAP Working Group, which includes the Dublin Local Authorities, should commit to further investigations into the | Measure 9 of Dublin Regional Air Quality Plan amended |

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| stealth tax on motorists to those who held that immediate action was required to exclude all non EV private cars from the city centre entirely.<br><br>In planning terms the following views were expressed; consider location of schools relative to main roads. Plant trees. Don't plan new schools within 10 metres | feasibility of Low Emissions Zones in Dublin. | |
| **Remote working**<br><br>Remote working as a choice for those who are in a position to avail of it was favoured by most respondents. Amongst the suggestions received were to stagger work start and finish times and promoting commuter belt workspaces/ hubs | The ongoing development of the National Remote Working Strategy is addressed in **Measure 10** of the Plan | No amendment to the Dublin Regional Air Quality Plan required |
| **Increased air quality monitoring**<br><br>There was a number of calls for increasing the number air quality monitoring stations in the Dublin region and the deployment of low cost sensors.<br><br>There were suggestions on the need for , roadside testing and improved real-time $NO_2$ monitoring across Dublin.<br><br>One suggestion received addressed lining traffic data collected more closely with air quality monitoring data | These issues are addressed under **Measure 11** - Enhanced Air Quality Monitoring and Modelling, of the Draft Plan.<br><br>The Five Cities Demand Management Study suggests that increased air quality monitoring will lead to earlier action on air quality limit exceedances, which will contribute to driving a switch in the fleet away from older, more polluting vehicles. The Study further suggests this measure could contribute to a decrease of 48% in nitrogen dioxide levels as a result of driving this switch.<br><br>It is planned to establish a further multipollutant (including nitrogen dioxide) monitoring station in the Dublin north inner city area, and ongoing indicative monitoring is being carried out to establish further suitable sites. | No amendment to the Dublin Regional Air Quality Plan required |

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| | As set out in the Draft Plan, the Dublin local authorities will work with the EPA to establish additional monitoring stations in the Dublin region as required. The Dublin local authorities will investigate in conjunction with the EPA, the feasibility of establishing regional air quality modelling capacity within the local authorities.<br><br>In July 2021, the European Commission adopted a package of proposals to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. With these proposals, the Commission is presenting the legislative tools to deliver on the targets agreed in the European Climate Law and fundamentally transform the EU economy and society for a fair, green and prosperous future.<br>The consideration of costs, taxation and regulation / enforcement related to air quality is a national issue and as such requires a cross Government and cross sectoral approach. The Department of the Environment, Climate and Communications is currently working to finalise Ireland's first National Clean Air Strategy. The Strategy will identify and promote the integrated measures and actions across Government, that are required to reduce air pollution and promote cleaner air, while delivering on wider national objectives. Accordingly, specific measures and actions on costs, taxation and regulation / enforcement are beyond the scope of this Plan. | |

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| | The need for the deployment of low cost sensors is acknowledged and as well as the projects such as the Clean Air Together described in Measure 12 listed in this Plan, a number of other university led projects are currently working in the area of citizen science and sensor deployment. This currently includes the UCD European funded, WeCount project.<br>This project will carry out five different pilot projects across a number of European cities, Dublin, Cardiff, Leuven, Madrid, Barcelona and Ljubljana. The aim is to quantify local road transport, produce scientific knowledge in the field of mobility and environmental pollution, and devise informed solutions to tackle various road transport challenges. | |
| **Citizen Engagement**<br><br>The submissions received encompassed a very comprehensive range of issues and suggestions including:<br>Research the best ways to engage and inform the public;<br>Empower community and citizen change and action;<br>Economically nudge people and organisations to lower emissions;<br>Get younger citizens and students involved;<br><br>Enhancing political and public awareness;<br><br>Consideration of Citizens Assembly findings;<br>Provide air quality signage and real-time displays;<br><br>Use easily understood data, | Citizen engagement is crucial in strengthening climate action and lowering all greenhouse gas emissions, including nitrogen dioxide, in the Dublin Region. These issues are addressed under **Measure 12** - Air Quality - Citizen Engagement and **Measure 14** - Behavioural Change Campaigns to cleaner fleets, of the Draft Plan.<br><br>In terms of building and strengthening pubic engagement in improving air quality in Dublin, it is vital to build on the high levels of support for continued roll out of air quality monitoring stations and citizen engagement programmes. The Five Cities Demand Management Study reported that stakeholders noted these measures could contribute to better quality of life, place making, improved air quality and the Smart City concept. There was also a suggestion that | Measure 12 to be modified to reflect Smart Cities engagement |

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| Use robust and well-tested messaging,<br><br>Communication of local active travel projects that displace car parking etc.<br><br>On the other hand, The effectiveness of awareness campaigns in changing public behaviour was queried by a number of respondents<br><br>**Smart Cities link up**<br>There were a number of queries as to there were linkages between Smart Cities initiatives and air quality monitoring activities | engagement programmes should emphasise and promote active travel as a solution to air quality issues.<br><br>The Five Cities Demand Management Study also identifies the measure of targeted behavioural change campaigns to encourage low emission vehicle purchase, as being highly effective – estimating that a 57% reduction in nitrogen oxides emissions is achievable. Stakeholder feedback to the study highlighted COVID-19 as creating an opportunity for change in behaviour. The results from the modelling carried in the preparation of this plan also indicate that the graduated move towards cleaner vehicles, will have a significant influence on nitrogen dioxide levels in the Dublin region during the remainder of this decade.<br><br>Citizen engagement is also a key action area of the Government's Climate Action Plan 2021 – Securing Our Future, published in November 2021. A National Climate Stakeholder Forum (NCSF) will be established by the Department of the Environment, Climate and Communications, to function as a consultative forum on climate issues, with administrative support being provided by the Environmental Protection Agency.<br><br>The participants will include a broad range of stakeholders from across society including elected politicians; government departments and local authorities; state agencies and national organisations; academics; representative bodies; community, local and voluntary groups; and | |

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| | representatives of stakeholders and communities most at risk from the impacts of climate change or the transition to a carbon neutral society. It will inform stakeholders of the latest scientific and policy developments and will act as a core mechanism to facilitate inputs into the Climate Action Plan and sectoral policies relating to climate change.<br><br>The Airview project cited in measure 12 was established though the Dublin City Smarts Cities team, and other similar air quality projects are at commission stage | |
| **Research**<br><br>**Role of Universities in Air Quality and Transport Research**<br><br>Detailed submissions on these issues included:<br>Highlighting the exemplar role of universities in air quality research and leading by example;<br>Need for dedicated PhD funding;, data collection and analysis;, lessons learned from on-site / campus projects;<br>Importance of STEM degrees (Science, Technology, Engineering, and Mathematics); the need for research grants, bursaries, placement programmes, linking with European ERASMUS programmes and international best practice, and graduate employment opportunities.<br><br>With regard to **transport research**, the issues raised included :<br>engaging expertise in the areas of sustainable transport/smart cities to devise action plans and | The role of universities, third level institutions and other education institutions are recognised as key enablers of air quality research in Ireland. These issues are addressed under **Measure 13** – Air Quality and Health Research, in the Draft Plan. As part of its range of functions the Environmental Protection Agency manages an environmental research programme to deliver essential scientific support for environmental policy development, implementation and broader decision-making. EPA Research focuses on achieving environmental objectives, informing policy and bringing together researchers and research users.<br><br>The Draft plan outlines a number of EPA funded research projects ongoing of particular interest, the findings of which will be of particular interest in informing and shaping public discourse and policy in relation to nitrogen dioxide levels nationally, and in particularity in the Dublin region. | No amendment to the Dublin Regional Air Quality Plan required |

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| transport modelling and emissions from heavy rail.<br><br>With regard **to Air Quality and Health Impact** the issues raised included<br>including the need for compelling research on the effect of air quality on health/quality of life; research on urban planting, research into $NO_2$ removal and the public dissemination of health research findings | Local authorities have a range of professional and technical staff working in the areas of transport, active travel and capital project delivery. It is acknowledged that local authorities engage a broad range of external expertise and advice, including consultants and third level institutions, as needed.<br><br>The current round of calls for EPA funded research include funding for a study on the contribution of rail sources in urban areas to ambient air quality - See section 6.2 of Plan | |
| **Other issues raised** | | |
| **Staffing & Resources**<br>Submissions raised issues including maximising existing resources within local authorities, creation of graduate posts and the supporting role of third level institutions to local authorities in addressing air quality matters. | This matter is highlighted in the Plan in the context of commitment in the current Programme for Government. Local authorities have a range of professional and technical staff working in the areas of air quality, transport, active travel and capital project delivery. It is acknowledged that local authorities engage a broad range of external expertise and advice, including consultants and third level institutions, as needed. | No amendment to the Dublin Regional Air Quality Plan required |
| **Social inclusion**<br>A number of respondents urged that the needs of the elderly, those with disabilities and parents with young children be kept in mind, and raised the query to why a social inclusion assessment was not part of this plan. | The Draft Transport Strategy for the Greater Dublin Area 2022-2042 places emphasis on inclusion and equality and it will be subject to a full Equality Impact Assessment prior to finalisation. | No amendment to the Dublin Regional Air Quality Plan required |
| **Taxation and fiscal measures to address air quality**<br><br>There was a very diverse range of views on these matters and many respondents were not in favour of any introduction of taxes or other similar measures. The point | In July 2021, the European Commission adopted a package of proposals to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. With these proposals, the | No amendment to the Dublin Regional Air Quality Plan required |

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| was made by many respondents that a lack of alternative modes of transport to their private car usage was a major impediment in making other choices<br><br>A number of submissions raised issues around researching the costs incurred by reduced air quality by sector and vehicle type, and related vehicle taxation | Commission is presenting the legislative tools to deliver on the targets agreed in the European Climate Law and fundamentally transform the EU economy and society for a fair, green and prosperous future.<br>The consideration of costs, taxation and regulation / enforcement related to air quality is a national issue and as such requires a cross Government and cross sectoral approach. The Department of the Environment, Climate and Communications is currently working to finalise Ireland's first National Clean Air Strategy. The Strategy will identify and promote the integrated measures and actions across Government, that are required to reduce air pollution and promote cleaner air, while delivering on wider national objectives. Accordingly, specific measures and actions on costs, taxation and regulation / enforcement are beyond the scope of this Plan. | |
| **Driver Behaviour :**<br>**Vehicle idling and using "rat runs"**<br><br>A number of respondents raised the contribution of idling vehicle engines as a particular concern to overall pollution levels and use of minor roads though housing estates as shortcuts by some drivers to the detriment of low traffic neighbourhoods | The Clean Air Together project described in **Measure 12** is specifically aimed at behaviour change and raising awareness of how individual actions contribute to improved air quality | No amendment to the Dublin Regional Air Quality Plan required |
| **Interaction with other Plans and Strategies**<br>A number of submissions raised concerns as to where this plan sits and interacts with other sectoral plans and strategies and the perception that this plan lacks | The Dublin Regional Air Quality Plan has been prepared concurrently with a wide range of related plans and strategies.<br>A number of these have in-built statutory pubic consultation which are ongoing at this point . | No amendment to the Dublin Regional Air Quality Plan |

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| clarity and/or urgency on a number of proposed measures and actions.<br>Specifically the sectoral plans and strategies cited include:<br>• National Clean Air Strategy<br>• UTRAP Working Group Final Report<br>• City and County Development Plans<br>• Transport Strategy for the Greater Dublin Area | It would be premature to include proposals from such plans and strategies currently undergoing public consultations as firm measures in this plan until those statutory processes have run their course.<br>In respect of this plan, it should be noted that the EU Commission will require that it be subject to review and report to them ,and as related measures in other sectoral plans and strategies emerge , this would be reflected in the report issued to the EU Commission.<br>As there is a mandatory legal deadline set for the submission of this Plan, it is inevitable that not all of the related sectoral plans and strategies will align in terms of completion and publication. | |
| **WHO Air Quality Guidelines 2021**<br>In view of the recently published revised air quality guidelines by the World health Organisation, the concern was raised as to whether the revised standards for nitrogen dioxide could be met by 2030. | The revised WHO Air Quality Guidelines 2021 are under active consideration by the EU. It is envisaged a revised air quality directive will be prepared which will set out revised mandatory limit values and a timescale for compliance for all Member States. It should be noted that the forecasted reduction in the levels of nitrogen dioxide in the Dublin region – as per the Draft Transport Strategy for the Greater Dublin Area 2022-2042 and the modelling carried out for this plan indicate substantive reduction current legal limit values. Any changes to those limit values will be addressed in the ongoing review of this plan. | No amendment to the Dublin Regional Air Quality Plan |

# Appendix C – SEA and AA Determinations

# SEA Determination

Strategic Environmental Assessment (SEA Screening Determination under: European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (S.I. No. 435 of 2004), as amended by S.I. No. 200/2011 - European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011.

## Dublin Region Air Quality Plan 2021

An SEA Screening determination as to whether the Dublin Region Air Quality Plan 2021 is likely to have significant effects on the environment is being made under the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (S.I. No. 435 of 2004), as amended by S.I. No. 200/2011 - European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011.

The Dublin Region Air Quality Plan 2021 has been tested against the relevant criteria 'requirements to carry out environmental assessment'. The first relevant criteria 9 (1)(a) relates to plans 'which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications and tourism, and which set the framework for future development consent of projects listed in Annexes I and II to the Environmental Impact Assessment Directive.

The Dublin Region Air Quality Plan 2021 does not come under any of the sectors specifically listed namely 'agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications and tourism'. Although the Dublin Region Air Quality Plan 2021 may refer to other plans and projects in order to capture the current baseline position in each of the relevant local authorities, the Plan does not identify or provide the framework for the delivery of these plans and projects.

The projects as well as the proposed measures listed in the Dublin Region Air Quality Plan 2021 can only be delivered through inclusion of dedicated objectives in the relevant statutory plans which are subject to SEA in their own right. In some cases, measures also require the provision of enabling legislation. The Plan will therefore not 'set the framework for future development consent of projects' listed in Annexes I and II to the Environmental Impact Assessment Directive.

The Dublin Region Air Quality Plan 2021 is consistent with other key relevant higher-level plans and programmes and aligns with national environmental commitments. In this context, the relevant objectives and policy commitments of the National Planning Framework and the Eastern and Midlands Regional Spatial and Economic Strategy have been considered, as appropriate.

The second relevant criteria 9 (1)(b) relates to plans 'which are not directly connected with or necessary to the management of a European site but, either individually or in combination with other plans, are likely to have a significant effect on any such site.' The Dublin Region Air Quality Plan 2021 either individually or in combination with other plans, is not likely to have a significant effect on any European site for reasons outlined in the Appropriate Assessment (AA) Screening Report.

In making the determination, the information contained in the accompanying SEA Screening Report (including information provided by environmental authorities and an examination of the need to undertake SEA against relevant criteria set out in Schedule 2A 'Criteria for determining whether a plan is likely to have significant effects on the environment' of the above Regulations) has been taken into account. That information has been carefully considered and its reasoning and conclusion agreed with and adopted — allowing a determination to be made that the Dublin Region Air Quality Plan 2021 would not be likely to result in significant environmental effects.

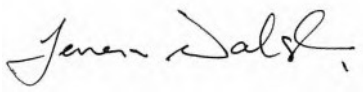
Taking into account all of the above, SEA is not required to be undertaken on the Dublin Region Air Quality Plan 2021.

Signatories:

Liam Bergin
Executive Manager, Environment and Transport Department
Dublin City Council

Robert Burns
Director of Infrastructure and Climate Change
Dún Laoghaire-Rathdown County Council

Teresa Walsh
Director of Environment, Water & Climate Change
South Dublin County Council



David Storey
Director of Environment, Climate Action & Active Travel
Fingal County Council

**Date: October 2021**

**In the matter of Article 6(3) of the Habitats Directive and**
**S.I. No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011**

**Appropriate Assessment Determination**
**Dublin Region Air Quality Plan**

In accordance with Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) and Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, the Dublin local authorities (Dublin City Council, Fingal County Council, South Dublin County Council and Dún Laoghaire-Rathdown County Council) have undertaken Appropriate Assessment screening to assess, in view of best scientific knowledge and the conservation objectives of the European Sites, if the Dublin Region Air Quality Plan, individually or in combination with other plans or projects, is likely to have a significant effect on a European Site(s).

In order to comply with the requirements of Article 6(3) of the Habitats Directive and S.I. No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011, as amended, the process of Screening for Appropriate Assessment was undertaken at an early stage in the drafting of the Dublin Region Air Quality Plan. The AA Screening assessed whether the plan was likely to have significant effects on any European Sites within the Natura 2000 network, either alone or in combination with other plans and projects.

As required under Regulation 42(7) of the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, the Dublin Local Authorities made a determination, following screening that an Appropriate Assessment is not required. The examination of the plan has found that the plan will have the potential to contribute to the conservation management of European Sites within and surrounding the plan area and will thus have positive implications for the conservation objectives of these European Sites. The following provides the reasoning for this determination:

European Sites and their associated qualifying features and associated conservation objectives are likely to be compromised by the plan, only where the actions of the plan have the potential to result in land-use activities that could result in damage or disturbance to qualifying habitat, qualifying species and or special conservation interests and the processes that they rely upon to maintain their favourable conservation status. The Plan will not result in the implementation of land use activities that will have the potential to result in negative impacts on European Sites and their conservation objectives. On the contrary, the overall aim and the measures of the plan have been identified as having the potential to result in positive implications for the environment and air quality, in particular and neutral to positive implications for European Sites and their conservation status.

The implementation of the Dublin Region Air Quality Plan will have the potential to enhance the air quality of the four local authorities. The measures outlined in the Dublin Region Air Quality Plan that aim to effectively tackle the $NO_x$ emissions, will also have the potential to contribute to the conservation management of the other European Sites that occur within the wider area surrounding the Dublin Region. The implementation of these measures will also ensure that a deleterious trajectory in air quality in the Dublin Region is avoided. This in turn will contribute to the conservation status of European Sites and particularly any qualifying interests of European Sites that are sensitive to poor air quality and nitrogen deposition, such as the dune habitats of the North Dublin Bay SAC and the sensitive bryophyte communities they support, which includes the Annex 2 qualifying species Petalwort and the petrifying spring habitats and their associated indicator bryophyte communities of the Glenasmole Valley SAC and Knocksink Wood SAC in the south of the region.

The Dublin local authorities, having carefully considered all of the foregoing, and in particular, the

Appropriate Assessment Conclusion Statement and agrees with and adopts the reasoning and conclusion as set out in the said Appropriate Assessment Conclusion Statement.

The Council's hereby **DETERMINE** pursuant to of Article 6(3) of the Habitats Directive and S.I. No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011, that the adoption and publication of the Dublin Region Air Quality Plan, will not either individually or in combination with any other plan or project, adversely affect the integrity of any European Site(s) as defined.

**REASONS FOR DETERMINATION**

The reasons for the said determination are set out in the Appropriate Assessment Conclusion Statement, the reasoning and conclusions of which have been adopted in full by the Dublin Region Local Authorities. The said Appropriate Assessment Conclusion Statement is to be published together with this Determination.

**Signatories:**

Liam Bergin
Executive Manager, Environment and Transport Department
Dublin City Council

Robert Burns
Director of Infrastructure and Climate Change
Dún Laoghaire-Rathdown County Council

Teresa Walsh
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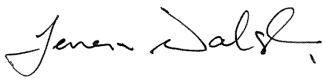
South Dublin County Council



David Storey
Director of Environment, Climate Action & Active Travel
Fingal County Council

**Date: November 2021**

# Appendix D – Air Quality Modelling

# Dublin Air Quality Plan EPA modelling report September 2021

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# SUMMARY

In 2019 one of the air quality monitoring stations in the EPA managed National network, St. John's Road West, measured an exceedance of the annual nitrogen dioxide level (43.4µg/$m^3$ versus the EU limit value of 40µg/$m^3$). Under the EU CAFE Directive there is a requirement to produce an Air Quality Plan (AQP) to address the exceedance. The Dublin Local Authorities are producing the Air Quality Plan (AQP) and the EPA are supporting them by specifically modelling nitrogen dioxide levels for a number of scenarios.

Five modelling scenarios (2019 basecase and four future scenarios) were chosen by the four Dublin Local Authorities. The EPA has modelled the five scenarios using the ADMS-Urban model and the outputs have been evaluated and verified by the EU DELTA tool in conjunction with the model developers own model evaluation tool kit.

All four modelled future scenarios show a significant reduction in nitrogen dioxide concentrations. It is predicted that there will be reductions of 19.7% to 25.6% in nitrogen dioxide concentrations in the modelled area by 2030.

# INTRODUCTION

The EPA have a wide range of responsibilities as the competent authority for the implementation of ambient air legislation in Ireland. The air quality monitoring network has 96 monitoring stations strategically located across the country. Information from the network is available at www.airquality.ie .

One of these monitoring stations, St. John's Road West in Dublin City Centre (Figure 1), measured an annual nitrogen dioxide ($NO_2$) level in 2019 of 43.4µg/$m^3$. The measured level is an exceedance of the EU limit value of 40µg/$m^3$.

There is a requirement under Directive 2008/50/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe (CAFE Directive) to produce an Air Quality Plan (AQP) to address the exceedance at St. John's Road West. The Dublin Local Authorities are producing the AQP and the EPA are supporting them by modelling nitrogen dioxide levels for a number of scenarios.


*Figure 1 - St. John's Road West Monitoring Station Location*

# ASSESSMENT TECHNIQUES:

To inform the AQP, the EPA assessed monitoring and modelling data to get a wider understanding of the current and future air quality situation around the local area of the measured exceedance. Figure 2 displays the area of assessment within the vicinity of St Johns Road West. The EPA is progressing wider modelling of Dublin, which will be published in 2022.

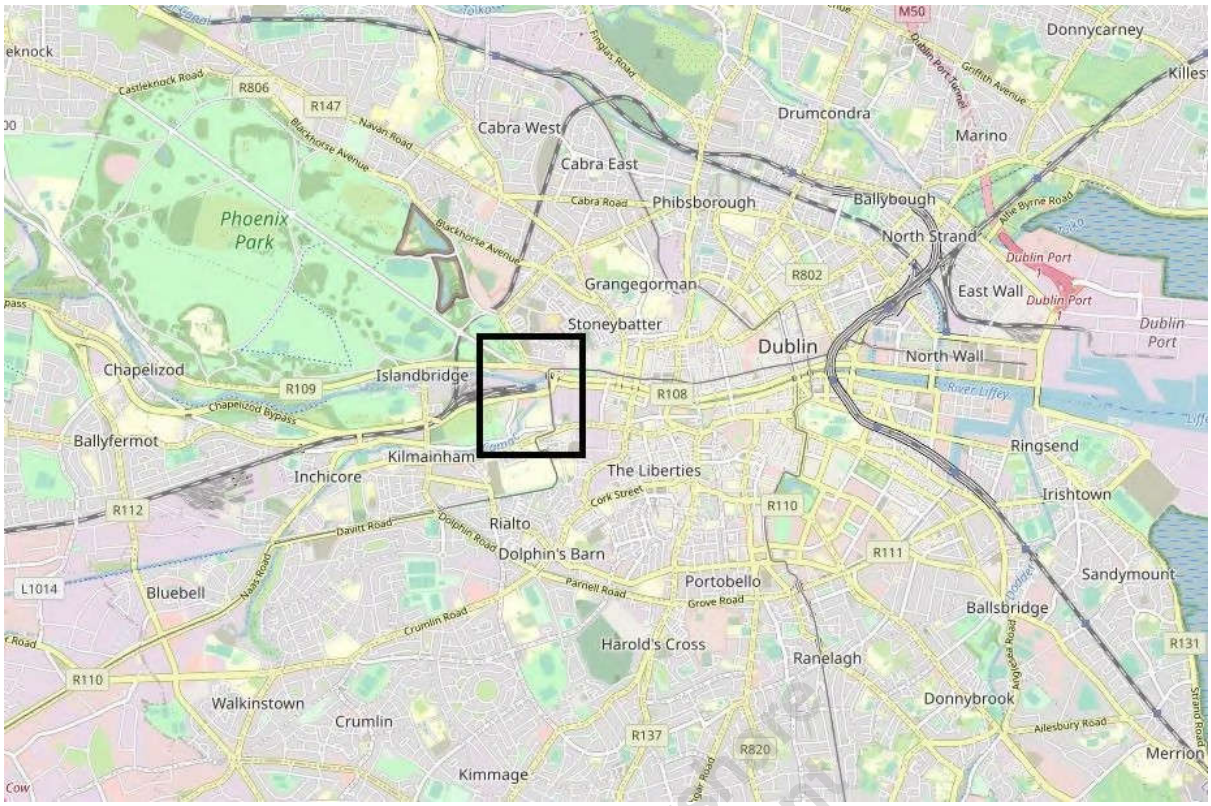


*Figure 2 – Area of assessment outlined in bold*

## Monitored data

Monitored data from St. John's Road West monitoring station (Figure 1) for the year 2019 was examined using Programme Application R and analysis package Openair (Carslaw et al., 2012). Openair allowed a more critical assessment of the data to take place such as combining with meteorological data. This gives additional information that may be of importance in understanding the overall impacts on local air quality e.g. information on pollutant sources.

## Modelled data

The EPA have used the urban scale model ADMS-Urban to carry out modelling in the area of the exceedance (Figure 1). The model uses detailed input data such as weather information, data on emissions from industry and transport, street and building layout information, and background regional air quality information to calculate nitrogen dioxide levels across the defined assessment area.

The EPA were requested by the 4 Dublin Local Authorities to provide a 2019 basecase and 4 future year scenarios. These are detailed as follows

- 2019 Basecase scenario
- 2028 Business as Usual scenario
- 2028 Intervention scenario
- 2030 Business as Usual scenario
- 2030 Intervention scenario

In the context of this report, the term 'Business as Usual' refers to the estimation of future traffic trips in the National Transport Authority (NTA) Regional Modelling System based on the available planning data and other growth assumptions for Dublin and the rest of Ireland. The 'intervention' scenarios include the business as usual projected data plus the additional measures as received from the 4 Dublin Local Authorities.

The measures included in the 'intervention' scenarios are:

- 50% electrification of the taxi fleet
- 50% electrification of the bus fleet
- 20% electrification of the passenger car fleet

Table 1 outlines the five scenarios modelled by ADMS-Urban along with the providers of the traffic data.

| Scenario | Year | Description | Traffic Data Providers |
|---|---|---|---|
| 1 | 2019 | Basecase year | National Transport Authority |
| 2 | 2028 | Business as usual | National Transport Authority |
| 3 | 2028 | Intervention[1] | National Transport Authority, Dublin Local Authorities |
| 4 | 2030 | Business as usual | National Transport Authority |
| 5 | 2030 | Intervention[2] | National Transport Authority, Dublin Local Authorities |

Table 1 – Scenario's modelled

Each of the scenarios were compared to the 2019 basecase situation for a number of locations in the vicinity of the measured exceedance. This allowed a percentage change in concentration to be calculated.

The EPA have worked closely with model developers, Cambridge Environmental Research Consultants (CERC), to ensure that the model was applied appropriately in the area being assessed. Verification of the model data has been completed using the EU DELTA tool for assessment. The DELTA tool was developed by the Forum for Air quality Modelling (FAIRMODE) [3]. Additional verification statistics from CERC's Model Evaluation toolkit have also been applied.

# RESULTS

## Assessment of Monitoring Data

Figure 3 displays the variation of nitrogen dioxide concentrations at the St. John's Road West monitoring station on an hourly, daily, weekly and monthly basis for 2019. A double peak coinciding with peak time traffic in the morning and evening is measured on weekdays. This is due to normal weekday commuting patterns. The double peak is significantly reduced for Saturday and Sunday.

[1] 2028 Intervention – NTA 'business as usual' traffic projections plus 4 Dublin LA's interventions - proposed fleet changes

[2] 2030 Intervention – NTA 'business as usual' traffic projections plus 4 Dublin LA's interventions - proposed fleet changes

[3] FAIRMODE - joint response initiative of the European Environment Agency (EEA) and the European Commission

Highest average monthly concentrations are measured during winter, while concentrations associated with the summer months are lowest. This reflects the impact meteorological conditions, particularly temperature, have on the station.

Figure 4 displays a wind rose of the wind speed and associated wind direction at Casement Aerodrome. The overall mean windspeed for 2019 was 5.34 metres per second. The highest frequency of wind directions occurs to the South West, which is typical in Ireland.

Figure 5 displays a polar plot of oxides of nitrogen ($NO_x$) associated with wind direction and wind speed. As a traffic classified station, the plot reveals the highest concentrations associated with winds from the north, i.e. from the closest road, St. John's Road West. A secondary contribution associated with winds from the north east is also evident in the plot. This is most likely $NO_x$ contributions from the uncovered section of the railway station to the north of the road.

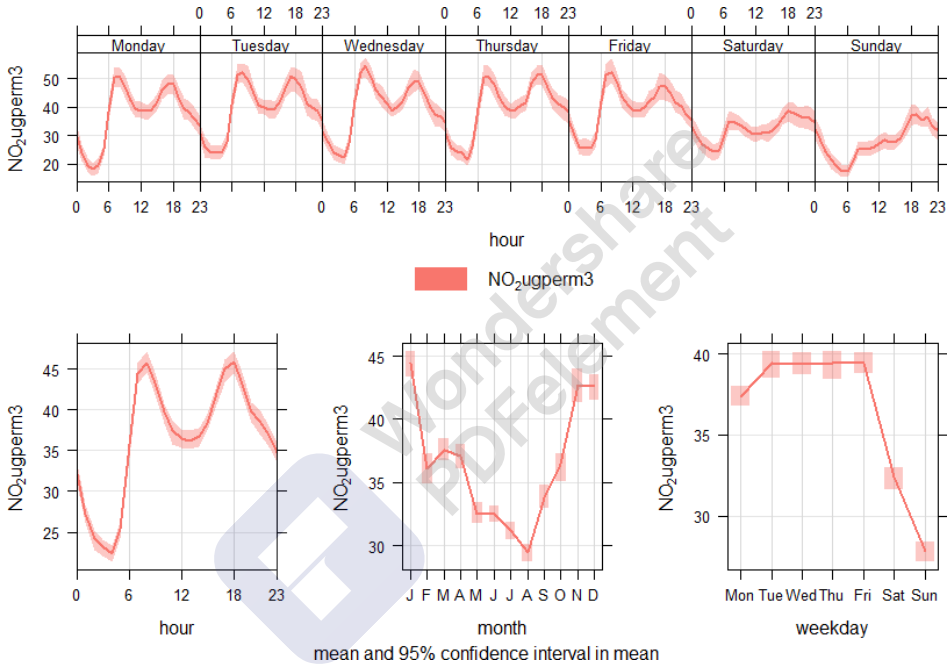


*Figure 3 – Hourly, Daily, Weekly and Monthly Measured Nitrogen Dioxide Profiles at St. John's Road West*

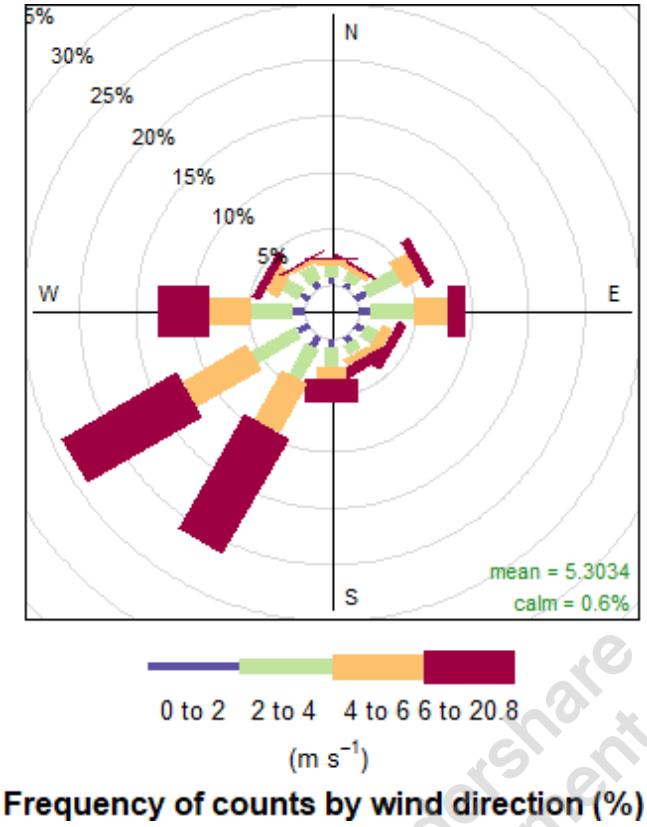


*Figure 4 - Wind Rose for Casement Aerodrome 2019*

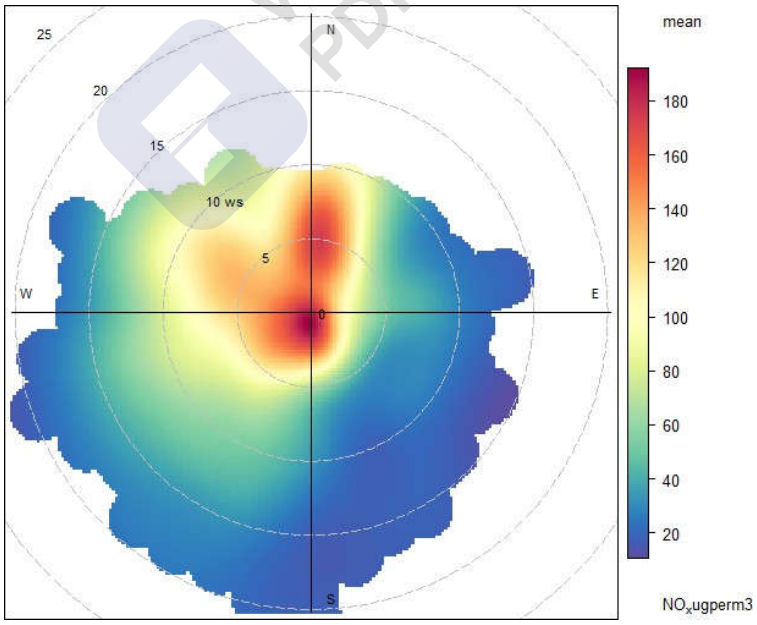


*Figure 5 - Polar Plot of $NO_x$ Concentrations at St. John's Road West 2019*

## Model Verification and Evaluation

To evaluate the performance of the model, the predicted concentration for the 2019 basecase was compared to the measured concentration at St Johns Road West station. The evaluation involves using recognised statistical tests and is a necessary step as it provides confidence that the model is fit for the intended purpose.

To achieve this, two modelling evaluation packages were used – the DELTA tool and the Model Evaluation toolkit. The overall result from the DELTA tool for the model quality indicator for both the hourly and annual model dataset are <1, which deems the model suitable for assessment purposes. The result from the Model Evaluation toolkit confirmed that the model passed a number of key modelling statistical indicators. Detailed results for the Model Verification and Evaluation process are outlined in Appendix 1

## Assessment of ADMS-Urban Model Outputs:

***Please note that this report addresses nitrogen dioxide concentrations only. Assumptions for future concentrations of other pollutants e.g. particulate matter, should not be drawn from thisreport.***

- Scenario 1 – 2019 Basecase

Table 2 details the annual modelled and measured nitrogen dioxide concentration at the St. John's Road West station. The annual average limit value of 40µg/m$^3$ was exceeded at the St. John's Road West monitoring station in 2019. The modelled annual concentration was 39µg/m$^3$. The modelled result, approaching the limit value, would suggest a significant potential for exceedance in the area. This has been verified by the actual measured exceedance.

| Monitoring Station | Annual Modelled $NO_2$ (µg/m$^3$) | Annual Measured $NO_2$ (µg/m$^3$) | Modelled Percentage |
|---|---|---|---|
| St. John's Road West | 39 | 43.4 | 90 |

Table 2 - Annual Modelled and Measured $NO_2$ at St. John's Road West 2019

Figure 6 details a contour plot of nitrogen dioxide concentrations for the 2019 basecase for the modelled area. The model predicts elevated annual average concentrations of nitrogen dioxide along St. John's Road West, at Frank Sherwin Bridge and on sections of Conyngham Road. The maximum modelled annual average concentration of 56µg/m$^3$ nitrogen dioxide occurred along St. John's Road West.

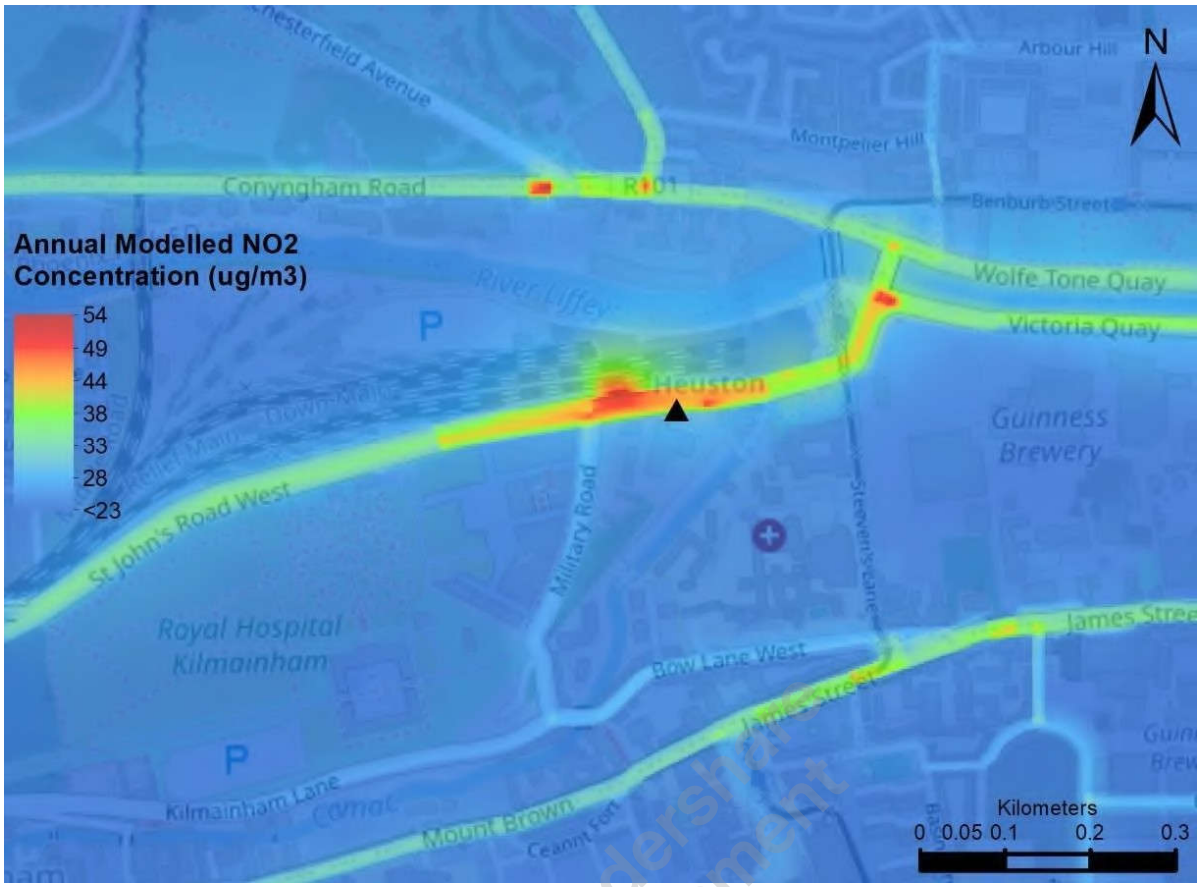


*Figure 6 - Modelled Annual Average Nitrogen Dioxide Concentrations, µg/m³, in 2019*

- Scenario 2 to 5 –2028, 2030 Business as Usual and interventions

The following section details the modelled results for the future year scenarios of 2028 and 2030 at the St Johns Road West monitoring station.

In the context of this report, the term 'Business as Usual' refers to the estimation of future traffic trips in the National Transport Authority (NTA) Regional Modelling System based on the available planning data and other growth assumptions for Dublin and the rest of Ireland. The 'intervention' scenarios include the business as usual projected data plus the additional measures as received from the 4 Dublin Local Authorities. Table 4 details the annual average nitrogen dioxide concentrations at St Johns Road West for each of the modelled scenarios.

The predicted nitrogen dioxide concentrations for all four scenarios are less than the 2019 basecase modelled concentration. The largest decreases are seen for the intervention scenarios in 2028 and 2030, with a 24.6% to 25.6% reduction in nitrogen dioxide concentrations relative to the 2019 basecase modelled concentration. The business as usual scenarios show a reduction of 19.7% to 21.5% relative to the 2019 basecase modelled concentration.

The scenarios which included the 'interventions', electrification of the passenger fleet, taxi's and buses, are projected to yield an additional 1.6 – 1.9µg/m$^3$ reduction of nitrogen dioxide at the St. John's Road West monitoring station. Overall, the largest reductions in concentrations of nitrogen dioxide are attributed to the reduced nitrogen dioxide emissions for the future projected traffic fleet.

| Scenario | Modelled $NO_2$ St. John's Road Receptor ($\mu g/m^3$) | Absolute $NO_2$ concentration attributable to intervention ($\mu g/m3$) | Absolute $NO_2$ concentration reduction ($\mu g/m^3$) | Percentage $NO_2$ reduction from 2019 Basecase scenario (%) |
|---|---|---|---|---|
| 2019 Basecase | 39.0 | - | - | - |
| 2028 Business as usual | 31.3 | - | 7.7 | 19.7 |
| 2028 Intervention | 29.4 | 1.9 | 9.6 | 24.6 |
| 2030 Business as usual | 30.6 | - | 8.4 | 21.5 |
| 2030 Intervention | 29.0 | 1.6 | 10.0 | 25.6 |

*Table 4 - Modelled $NO_2$ concentration, $\mu g/m^3$, for each scenario*

## CONCLUSIONS

As part of the Dublin Air Quality plan, the EPA completed a detailed modelling study of nitrogen dioxide concentrations around the area of the 2019 exceedance at St Johns Road West.

All four future scenarios are showing a significant reduction in nitrogen dioxide concentrations compared to the 2019 basecase scenario. It is predicted that there will be reductions of between 19.7% to 25.6% in nitrogen dioxide concentrations at the St Johns Road West station for the future scenarios modelled.

Business as usual scenarios for 2028 and 2030 are projected to result in 7.7 – 8.4 ug/$m^3$ reduction in concentrations relative to the modelled 2019 basecase (19.7% – 21.5% reduction). The additional interventions on the traffic fleet, as proposed by the 4 Dublin Local Authorities, are projected to yield an additional 1.6 – 1.9$\mu g/m^3$ nitrogen dioxide reduction by 2030. The 2030 scenario with additional interventions as proposed by the 4 Dublin local authorities gave the highest reduction in concentrations relative to the modelled 2019 basecase of 10.0 ug/$m^3$ or a 25.6% reduction.

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# Appendix 1

Model Verification and Evaluation

## DELTA Tool

The DELTA tool (V6.0) is an application developed by the Joint Research Commission (JRC) within the FAIRMODE community. It is aimed at model users in the context of model assessment against Directive 2008/5-/EC of the European Parliament and of the Council on ambient air quality and cleaner air for Europe (CAFE Directive). The tool calculates a cumulative statistical indicator known as the Model Quality Indicator, which is then assessed against the Model Quality Objective value to see if it is fit for purpose. The application also includes several additional statistics, including Root Mean Square Error, Correlation Coefficient, Normalised Mean Bias and Normalised Mean Standard Deviation.

## Model Evaluation Toolkit:

The model evaluation toolkit, developed by CERC, uses the programme application R, to carry out statistical assessments on the modelled and measured data.

A range of statistics are calculated which include:

- the number of valid observations;
- the measured and modelled mean concentrations;
- the normalised mean square error (NMSE), a positive number for which a value closest to zero is best;
- the correlation coefficient (R), which varies between 0 (worst) and 1 (best);
- the fraction of modelled values within a factor of two of the measured (Fac2), which varies between 0 (worst) and 1 (best);
- the fractional bias (Fb), which can be either positive or negative, with zero being the best value.

Figure 1a displays the output from the DELTA tool. It consists of a target plot and summary statistics. The model quality indicator for both the hourly and annual model dataset are <1, which deems the model suitable for assessment purposes. The model achieves the 4-time related indicators also.

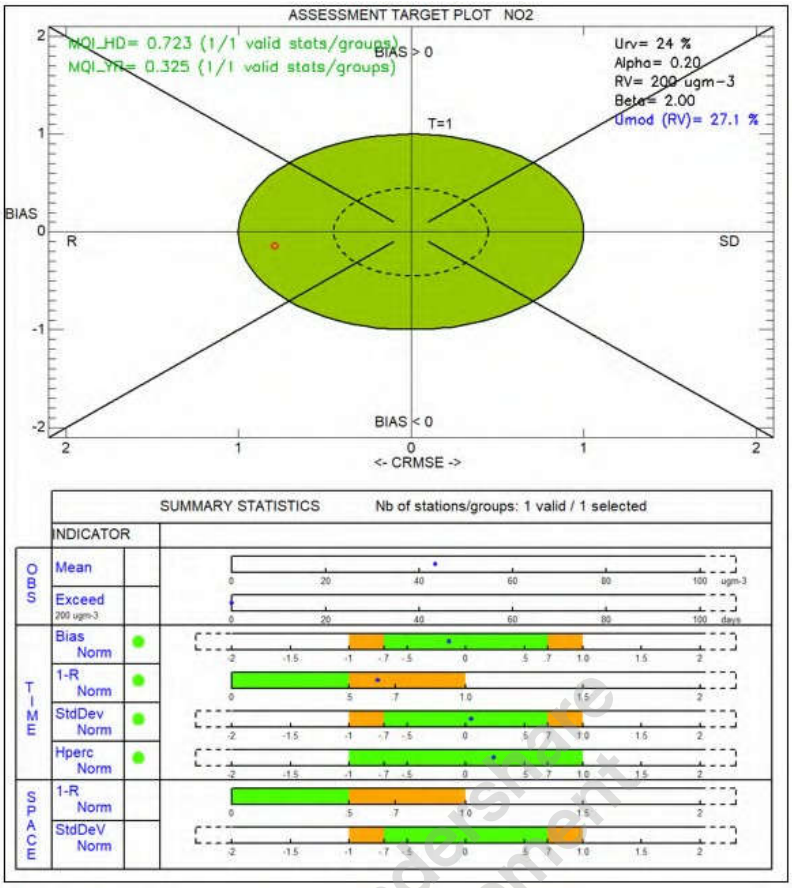


*Figure 1a - DELTA Tool Output*

Figure 2a displays the Model Evaluation toolkit Quantile – Quantile plot of modelled and measured hourly concentration. This plot compares the modelled and measured concentrations ordered independently from lowest to highest concentration. The dotted lines represent the factor of 2. There is good agreement between points.

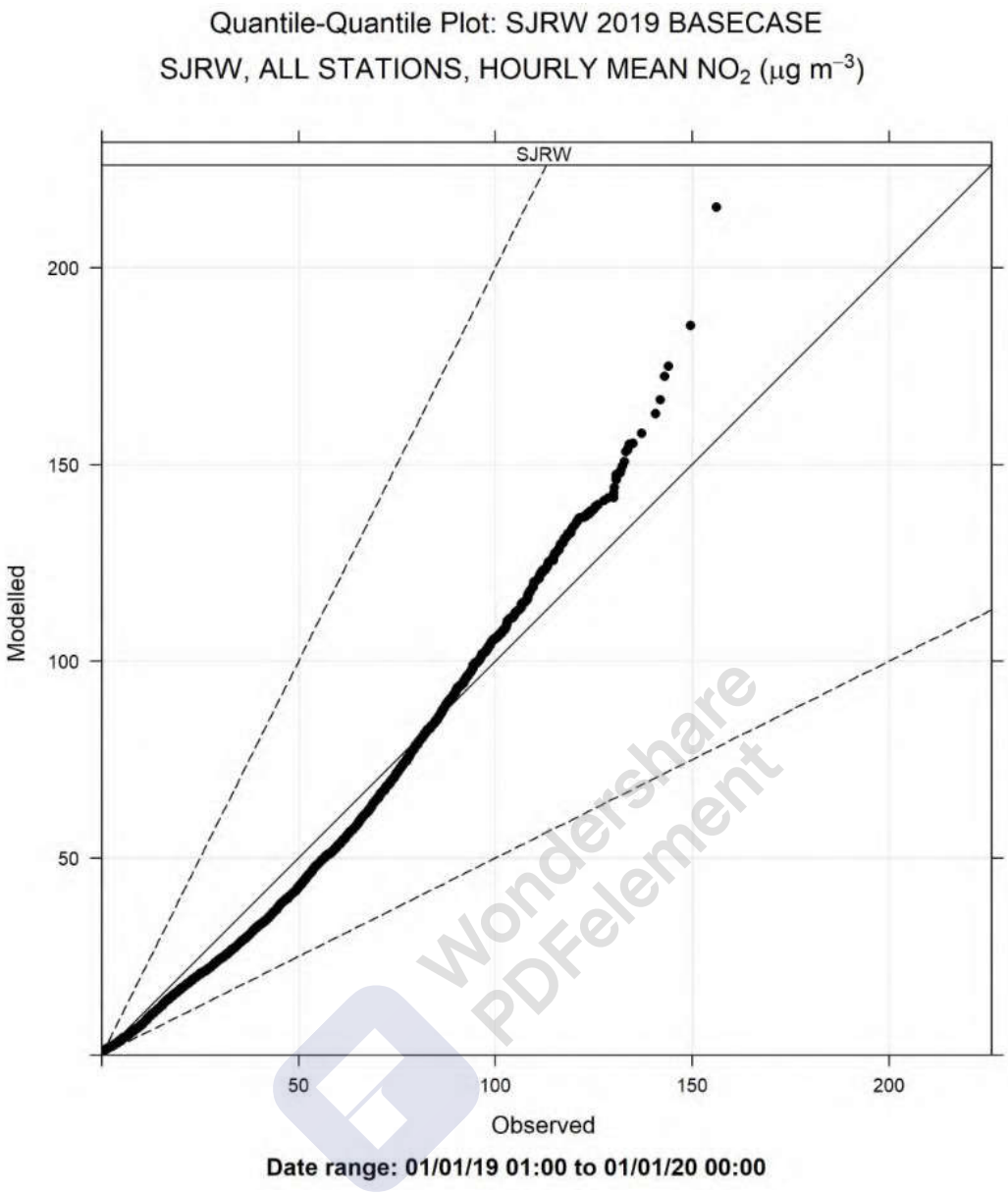


*Figure 2a - Quantile Plot of Measured and Modelled Concentrations at St. John's Road West Monitoring Station*

Figure 3a displays the Model Evaluation toolkit over lay of the measured and modelled concentration for 2019. Overall the model follows similar patterns to the measured concentration. One obvious deviation is for the month of June, where measured concentrations reduced dramatically.

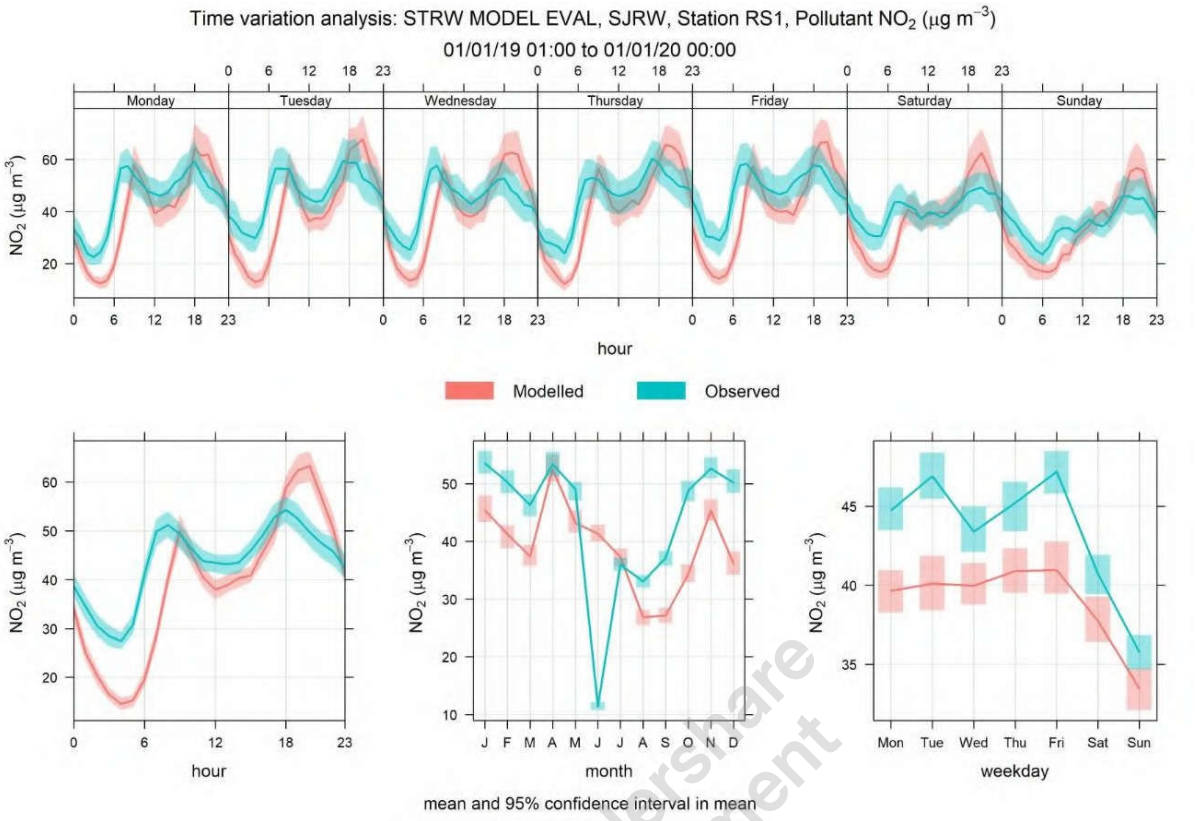


*Figure 3a - Model Evaluation Toolkit Plot, Modelled and Measured, St. John's Road West 2019*

# Appendix E - Responsible persons for the development and implementation of improvement plan

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# Draft Dublin Region Air Quality Plan 2021

The four Dublin Local Authorities (Dún Laoghaire-Rathdown County Council, Dublin City Council, Fingal County Council and South Dublin County Council) have prepared a Draft Dublin Region Air Quality Plan, to reduce levels of Nitrogen Dioxide ($NO_2$) in ambient air in Dublin.

The Draft Dublin Region Air Quality Plan has been prepared in response to an exceedance of the annual limit value for nitrogen dioxide ($NO_2$), at one of the air quality monitoring stations in Dublin – St. Johns Road West, Dublin 8, in 2019. All other pollutants measured were within EU limit values.

The Plan must be submitted to, and considered by the Department of the Environment, Climate and Communications and the Environmental Protection Agency (EPA). The Plan will then be submitted to the European Commission for approval. Under the Air Quality Standards Regulations 2011 (S.I.180/2011), the Plan must be submitted to the European Commission no later than the end of December 2021, being two years following the exceedance being reported.

Public Consultation on the Draft Plan was undertaken for a four (4) week period from Monday 18th October up to and including Monday 15th November 2021. This process was managed by Dublin City Council, on behalf of the Dublin local authorities.

A total of 219 public submissions were received, with 32 submitted from the Dún Laoghaire-Rathdown County Council area. A review of the submissions has been undertaken and proposed amendments arising from public consultation, are included in the Draft Plan.

The table below sets out the range of themes and issues raised in the submissions received:

| **Theme** | **Issues raised** |
|---|---|
| 10/15/20 Minute Cities approach | There was general (though not widespread) support for the adaption of the 10/15/20 Minute Cities approach. The points raised included the need to:<br>• Transform cities and towns to make it less likely to need cars;<br>• Increase efforts to populate the city between the canals; and<br>• Reduce the amount of derelict land and empty properties that could provide accommodation.<br><br>One suggestion addressed the adoption of superblocks as a form of urban development, whereby residential blocks are larger than those traditionally built. These developments also give priority to pedestrians and cyclists. Such developments are taking place in other European cities, including Barcelona. |
| Parking Controls and Standards | *Enforcement of parking and traffic laws*<br>A number of respondents highlighted their dissatisfaction with the level of enforcement of current speeding and parking laws, by enforcement bodies and their desire for further measures in this respect, including the establishment of a new enforcement body. Some respondents indicated that they did not wish to see any further speed limits imposed. Other submissions |

| | |
|---|---|
| | suggested that parking charges be used as a deterrent to car usage. |
| Active Travel | A number of submissions raised issues including the need for increased active travel choices, access for all and addressing disability in active travel, improving public transport and the need to reduce / ban the use of the private car.<br><br>*Improved Cycling Infrastructure*<br>A consistent theme in the majority of responses was the desire to see significant improvement in cycling infrastructure including protected cycle ways, improved cycle facilities and overall promotion and prioritisation of active travel relative to car usage.<br><br>Specific suggestions included, extending the Bike to Work Scheme to include cargo bikes to facilitate creche and school drop offs, create more convenient exits routes from cul-de-sacs for cyclists, improve bike parking - safe and sheltered, bike lockers, for example.<br><br>*Public Transport/Vehicles*<br>It was suggested that trialling free transport during off-peak hours and free public transport for under 18 year olds on public transport be introduced.<br><br>A number of respondents indicated they would wish to see an increase in the number and frequency of buses, including more school buses with segregated routes for public transport, more park and ride facilities; reduce national speed limits; and prohibit diesel vehicles from entering the city centre. |
| Electric Vehicles and EV charging Infrastructure | Submission suggestions included electrifying public and private buses, promoting taxi scrappage scheme to encourage greater uptake, and more support for promoting EV for commercial vehicles.<br><br>Other submissions also suggested that EVs should be regarded as secondary and supplementary to active travel and public transport strategies.<br><br>There was broad support for expanding the EV charging infrastructure and a suggestion that new house builds should have charging points incorporated, where possible. |
| Clean air zones/ low emission zones/congestion charging | There were a wide range of different opinions received in respect of the potential introduction of clean air zones/ low emission zones/congestion charging. These ranged from the point of view that air quality was satisfactory, that no interventions were required, and any move to introduce any charges was a stealth tax on motorists. It was also submitted that immediate action was required to exclude all non-EV private cars from the city centre entirely. In planning, consider location of schools relative to main roads. It was also suggested to plant more trees and increase urban greening. |

| | |
|---|---|
| Remote working | Remote working as a choice for those who are in a position to avail of it was favoured by most respondents. Amongst the suggestions received were to stagger work start and finish times and promoting commuter belt workspaces/ hubs. |
| Increased air quality monitoring | Submissions stated the need for increasing the number of air quality monitoring stations, in the Dublin region and the deployment of low cost sensors. There were suggestions on the need for roadside testing and improved real-time $NO_2$ monitoring, across Dublin. One suggestion received addressed aligning traffic data collected, more closely with air quality monitoring data. |
| Citizen Engagement | The submissions received encompassed a very comprehensive range of issues and suggestions including:<br>• Research the best ways to engage and inform the public;<br>• Empower community and citizen change and action;<br>• Economically nudge people and organisations to lower emissions;<br>• Get younger citizens and students involved;<br>• Enhancing political and public awareness;<br>• Consideration of Citizens Assembly findings;<br>• Provide air quality signage and real-time displays;<br>• Use easily understood data;<br>• Use robust and well-tested messaging; and<br>• Communication of local active travel projects that displace car parking etc.<br><br>On the other hand, the effectiveness of awareness campaigns in changing public behaviour was queried by a number of respondents.<br><br>*Smart Cities link up*<br>There were a number of queries requesting more linkages between Smart Cities initiatives and air quality monitoring activities. |
| Research | *Role of Universities in Air Quality and Transport Research*<br><br>Submissions on these issues included:<br>• Highlighting the exemplar role of universities in air quality research and leading by example;<br>• Need for dedicated PhD funding;<br>• Data collection and analysis;<br>• Lessons learned from on-site / campus projects;<br>• Importance of STEM degrees (Science, Technology, Engineering, and Mathematics); and<br>• The need for research grants, bursaries, placement programmes, linking with European ERASMUS programmes and international best practice, and graduate employment opportunities. |

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| | With regard to transport research, the issues raised included<br>engaging expertise in the areas of sustainable transport/smart cities, to devise action plans and transport modelling and emissions from heavy rail.<br><br>With regard to Air Quality and Health Impact the issues raised included the need for compelling research on the effect of air quality on health/quality of life; research on urban planting, research into $NO_2$ removal and the public dissemination of health research findings. |
| Taxation and fiscal measures to address air quality | There was a very diverse range of views on these matters and many respondents were not in favour of any introduction of taxes or other similar measures. The point was made by many respondents that lack of alternative modes of transport to private car usage. was a major impediment in making other choices. A number of submissions raised issues related to researching the costs incurred by reduced air quality by sector and vehicle type, and related vehicle taxation. |
| Other issues raised in Submissions | Staffing & Resources, Social inclusion, Driver Behaviour: Vehicle idling and using "rat runs", World Health Organisations (WHO) Air Quality Guidelines 2021. There were a number of issues raised which are outside the scope of the Plan, including solid fuel burning, noise, social inclusion, emissions from the Dublin Waste to Energy Plant, public sector parking etc. |

The Final Draft Dublin Region Air Quality Plan, including proposed amendments, will be submitted for consideration to the Department of the Environment, Climate and Communications and the Environmental Protection Agency (EPA), in advance of submission to the European Commission, who approve the Plan, in accordance with the EU Directive 2008/50/EC on ambient air quality and cleaner air for Europe (also referred to as the CAFÉ Directive).

It is noted that the Department of the Environment, Climate and Communications is currently working to finalise Ireland's first National Clean Air Strategy. The Strategy will identify and promote the integrated measures and actions across Government, that are required to reduce air pollution and promote cleaner air, while delivering on wider national objectives.

A copy of the Draft Dublin Region Air Quality Plan is included with this Report. The Draft Plan is being finalised following Public Consultation, remaining amendments are editorial in nature and not material changes to the Draft Plan.