

**Appendix 1 – Belfast City Air Quality Action Plan 2021-2026 Action Plan Measures.**

No.	Measure	Lead authority	Description	Implementation date	Estimated completion date	Air Quality Benefits
1.	Zero Emission Public Transport	Translink	Introduce c.85 new zero emission buses to greater Belfast	Nov 2020 to April 2022	December 2022	Replaces 85 diesel buses with zero emission vehicles.
2.	Zero Emission Public Transport	Translink	Develop a programme to decarbonise the bus fleet in greater Belfast	November 2022 to December 2025	December 2030	To remove all diesel buses in the Belfast Metro and replace with a zero-emission fleet by 2030.
3.	Bus Fleet Improvement	Translink	Through vehicle modification, deliver minimum Euro 6 emission standards for all buses and coaches operating in Belfast	October 2020 to December 2022	December 2022	Significant reduction in NOx and PM emissions.
4.	Decarbonisation of the rail network	Translink	Work ongoing on a feasibility assessment to decarbonise the rail network including the potential roll out of electrification, battery traction and hydrogen technologies	October 2020	December 2023	Ultimately, zero emissions on rail network by 2040.
5.	Future Ticketing System	Translink	Contactless payment on Metro / Glider  Account-based ticketing on all bus and rail services	2018	2022	Provide greater ease of use, improved integration and best value for customers, thereby encouraging modal shift to public transport and a reduction in emissions from cars.
6.	Belfast Transport Hub	Translink	Major new multi-modal transport hub for Belfast	2020 Procurement of the main works contractor is ongoing and work on the new station is due to commence in Q1 2022.	2025	Provide a new integrated transport hub, including facilities for active travel to encourage and facilitate increased modal shift towards sustainable transport.
7.	Promote Public Transport	Translink	Undertake engagement across companies, organisations and agencies to incentivise	November 2020	Ongoing	Modal shift from car use to public transport/active

		All BCC stakeholders	<p>reduced use of the private car and greater use of public transport.</p> <p>Provide information at our stations, on Personalised Travel Planning, Corporate Commuter Initiatives (CCIs), providing best value fares information and promotional activity to attract modal switch onto public transport.</p> <p>Promote the use of low and zero emission buses with the development of new branding and messaging to highlight their benefits.</p>			travel will reduce emissions.
8.	Belfast Rapid Transit Phase 2	DfI Translink	Introduce Phase 2 BRT – bus priority measures, enhanced facilities & new vehicles	September 2022	September 2027	The BRT route encompasses the City Centre and Ormeau Road AQMA. BRT will have a beneficial impact on modal shift, traffic movements and direct pollution levels along the route. For example, the Glider vehicles are demonstrating a 90% reduction in NO <sub>2</sub> and particulate matter emissions relative to the oldest vehicles in the Metro fleet.
9.	Bus & Rail based Park & Ride / Interchange	DfI Translink	<p>1500 additional Bus &amp; Rail P&amp;R spaces by 2023 across NI</p> <p>Promotion of active travel links</p>	April 2018	March 2023	Modal shift from car use to Public Transport/Active travel will reduce GHG emissions.
10.	Bus Route Improvements	DfI Translink	<p>Bus priority on all key Metro corridors in Belfast equivalent to that provided on the BRT Glider corridors</p> <p>Bus stop rationalisation to reduce stop/start</p>	April 2020	March 2025	By converting general traffic lanes to bus lanes, journey times are reduced and consequently fuel consumption and emissions are reduced.

						By rationalising the number of bus stops, dwell times are reduced, reducing idling, stop/start and associated emissions.
11.	Park and Ride	DfI Translink	The current Park & Ride Strategic Delivery Programme aims to deliver approx. 5,000 additional spaces by 2025.	2013	2025	This extension to the programme will have positive impacts on reducing air quality in Belfast by providing alternative transport for commuters coming into the city rather than private car.
12.	Improved walking and cycling connectivity to public transport interchanges	DfI Translink	Enhance walking and cycling infrastructure to bus and rail stations, halts and P&R sites	2021	Ongoing	Improve infrastructure to make it easier and more attractive to walk and cycle to and from public transport interchanges, thereby reducing car usage and associated emissions.
13.	Bicycle Strategy for NI  Belfast Bicycle network Plan	DfI Sustrans	The Bicycle Strategy will be followed with a Bicycle Network Plan for Belfast to guide the development & operation of bicycle infrastructure in the city for the next 10 years.  A public consultation on the draft Belfast Bicycle Network was held in January 2017 and in early 2018, a consultation report was published. It is hoped that a final document will be produced towards the end of 2020.	2017	Report due in early 2021	Increased levels of cycling could reduce congestion, improved air quality, reduce noise pollution and contribute to a cleaner environment.
14.	Blue / Green Infrastructure Funding	DfI	Capital Grant funding for Councils to construction Greenways.  Six greenway projects have been identified for a grant over the 2020/21 and 2021/22 period: - Lagan Gateway greenway (BCC) - Forth Meadow greenway (BCC)	2020-2022 depending on available Budget allocation	March 2022	Greenways have the potential to bring significant benefits to us all in terms of more physically active lifestyles, active travel, improved mental and physical health and

			<ul style="list-style-type: none"> <li>- Strathfoyle greenway (DCSDC)</li> <li>- Strabane North greenway (DCSDC)</li> <li>- Banbridge Riverside lighting (ACBCBC)</li> <li>- North Down Coastal Path (short section) (ANDBC)</li> </ul>			wellbeing, social inclusion, tackling climate change, the strengthening of the local economy and tourism.
15.	Green Recovery	DfI	<p>Temporary reallocation of road space to aid social distancing and active travel</p> <ul style="list-style-type: none"> <li>- Pedestrianisation of Hill Street/Gordon Street</li> <li>- Reallocation of parking spaces for extended footpath use</li> <li>- Pop-up cycle lanes to connect main hospitals for key workers – Dublin Road, Grosvenor Road and Crumlin Road</li> </ul>	2020/21	Ongoing	Increased levels of walking and cycling could reduce congestion, improved air quality, reduce noise pollution and contribute to a cleaner environment.
16.	Belfast Multi-Modal Transport Model	DfI	<p>It is expected that the Multi-Modal transport model will be enhanced and updated as part of the development of the Belfast Metropolitan Transport Plan in conjunction with the Belfast City Council Local Development Plan. However, this is currently 'in abeyance' in light of the COVID emergency and the programming of work for the Transport Plans. A key use of the model will be in transport and land-use option generation and testing. The transport model will provide forecasts of traffic flows and speeds to enable the estimation of air quality using separate detailed atmospheric dispersion modelling software held by Belfast City Council.</p>	2022	Ongoing	<p>This model will provide the capability to estimate the likely change in air quality arising from different transport investment options.</p> <p>Please note that the decision to develop this model is currently 'in abeyance' in light of the COVID emergency and the impact on travel patterns.</p>
17.	ecarNI	DfI	<p><i>"A network of 320 22kWh (fast) charge points at 160 locations and a further 17 50kWh DC rapid charge points across Northern Ireland is now in place and commercially operated by the Electricity Supply Board. A further 54 charge points have been installed in the public sector estate to facilitate workplace initiatives. The Utility Regulator recently published its decision to remove the Maximum Resale Price (MRP) of Electricity</i></p>	2015	Ongoing	There are significant benefits to both the environment and to the driver in the use of electric vehicles.

			<p>on the electricity cost of charge points following consultation, allowing commercial operators to charge above cost price for electricity supply. It is anticipated this will support the development and maintenance of ULEV public infrastructure (and therefore also the uptake of ULEV's). The Department continues to work with partners in the Office for Low Emission Vehicles and the private sector to build capacity for the Ultra-Low Emission Vehicle market.”</p>			
18.	Lagan Pedestrian and Cycle Bridge	DfI	<p>The proposed bridge will span the River Lagan from the Gasworks to the Ormeau Embankment aiming to improve accessibility to the city centre for residents and communities east of the River Lagan. The Bridge also aims to encourage both people from the city centre and local communities to use Ormeau Park for recreational use.</p>	Ongoing depending on available Budget allocation	2023	Increased levels of walking and cycling could reduce congestion, improve air quality, reduce noise pollution and contribute to a cleaner environment.
19.	Promoting travel alternatives:  Behaviour change programmes	PHA, DfI and DAERA, Belfast City Council, EU Interreg (delivered by Sustrans)	<p>Sustrans works in a range of settings:</p> <ul style="list-style-type: none"> <li>• <b>Schools</b> with the Active School Travel Programme;</li> <li>• <b>Workplaces</b> with the Leading The Way Programme;</li> <li>• <b>Communities</b> – to promote walking and cycling as a mode of transport.</li> </ul> <p>In addition:</p> <ul style="list-style-type: none"> <li>• Active Travel Hub in CS Lewis Square, east Belfast and more recently Whiterock Community Centre in west Belfast – provides a base for range of interventions with community groups, individuals and workplaces.</li> <li>• Project to encourage walking and cycling in new Forthmeadow Greenway</li> <li>• Applied to run Active Travel Hub at Cathedral Gardens</li> </ul>	<p>2013</p> <p>2015</p> <p>2016</p> <p>2017</p>	Ongoing - Currently all these programmes are underway, with a review of extension.	<p>Changing people's travel habits – swapping the car for walking, cycling and public transport.</p> <p>Active Travel Hubs are visible in the community to provide info &amp; encourage travel alternatives.</p>

		Cycling UK/ Sustrans/ European Cycling Federation  Sustrans	<b>Cycle-friendly Employer Accreditation Scheme</b> – Cycling UK run this in N. Ireland with support from Sustrans  <b>Pedal Perks</b> cycling discount scheme offered by range of businesses to encourage cycling to premises	2018  2017		Provide facilities to encourage active travel e.g. cycle parking; changing facilities; mileage incentives  Incentivises active travel to shops and facilities.
20.	Transport planning and infrastructure:  Build safe protected cycling infrastructure	DfI Sustrans	<b>Belfast Bike Life report</b> – produced every 2 years in collaboration with DfI. Provides evidence of support for cycling and progress to date, includes a public survey of attitudes to cycling.  <b>Belfast Bicycle Network plan</b> – due to be published in 2021 which will set out government plans to develop cycle routes. The Bicycle Strategy will be followed with a Bicycle Network Plan for Belfast to guide the development & operation of bicycle infrastructure in the city for the next 10 years. A public consultation on the draft Belfast Bicycle Network was held in January 2017 and in early 2018, a consultation report was published. It is hoped that a final document will be produced towards the end of 2020.  <b>Safe Routes to School campaign</b> – to enable children to walk and cycle rather than being driven.  <b>Strategic plan for Greenways</b> – Paths for Everyone. Funding pot for Councils to develop greenways. Sustrans can assist with community consultation and feasibility plans.	2015 Latest Bike Life report published in March 2020  2017  2013 Part of Active School Travel Programme/ lobbying work  2016	Ongoing Next report due Spring 2022  Ongoing Report due early 2021  Ongoing  Ongoing	Safety is biggest barrier to people cycling. Traffic-free greenways enable more people to walk or cycle. Urban greenways used by commuters as well as leisure trips.
21.	Traffic management	DfI Sustrans	20mph speed limits  <b>School Streets</b> – closing area around schools to traffic. This is a proposed pilot scheme, which has proved successful and popular in GB.	2019	Ongoing	As above, as we saw in lockdown less traffic encourages people to walk or cycle. Traffic restraint measures necessary to reduce

			<b>Low Traffic Neighbourhoods</b> – implement car-free areas	TBC		volume of traffic and polluting vehicles.
22.	Dust monitoring	Belfast Harbour Commissioners	Monitor particulate matter from bulk cargoes in Port operational areas of Belfast Harbour Estate	Commenced	Ongoing	Identify areas of high concentration for action.
23.	AQ Modelling	Belfast Harbour Commissioners	Complete Baseline AQ modelling of Belfast Harbour Estate & publish results	Commenced	2021	Establish theoretical baseline & identify areas for attention.
24.	NO <sub>2</sub> Monitoring	Belfast Harbour Commissioners	Conduct monthly diffusion tube monitoring of NO <sub>2</sub> at 18 sites within Belfast Harbour Estate	Commenced	Ongoing	Establish baseline of NO <sub>2</sub> levels & identify areas for attention.
25.	Real Time Air Quality Monitoring Stations	Belfast Harbour Commissioners	Implement real time AQ Monitoring for air pollution within Belfast Harbour Estate	2021	2022	Publically available AQ information/ potential link to SMART traffic controls.
26.	Air Quality Strategy	Belfast Harbour Commissioners	Publish Harbour AQ Strategy	2021	2021	Public commitment to improve AQ.
27.	Low/zero carbon fuels	Belfast Harbour Commissioners	Replace light vehicle fleet with electric/alternative fuels	2021	2023	Reduced air emissions from vehicles.
28.	Electric Vehicle Charging	Belfast Harbour Commissioners	Work with tenants to deploy EV charging points	2021	2025	Reduced air emissions from vehicles.
29.	Car sharing	Belfast Harbour Commissioners	Introduce Car Sharing Scheme for tenants	2021	2023	Reduced air emissions from vehicles.
30.	Clean vehicle incentive	Belfast Harbour Commissioners	Consider Clean Vehicle Incentive Scheme	2022	2024	Reduced air emissions from vehicles.
31.	SMART traffic control	Belfast Harbour Commissioners	Queens Road Mobility project/SMART traffic system	2021	2022	Reduced air emissions from vehicles.
32.	Integrated commuter plans	Belfast Harbour Commissioners	Integrated commuter plans to reduce private car use including first and last mile connectivity	2021	2025	Reduced air emissions from vehicles.
33.	Cycle lanes	Belfast Harbour Commissioners	Additional Cycle Lanes	2020	2025	Reduced air emissions from vehicles.
34.	Green corridors	Belfast Harbour Commissioners	Introduce Green Screening/corridors	2021	2025	Absorb vehicle emissions.
35.	Shore-side power	Belfast Harbour Commissioners	Assess feasibility of shore power – cruise/ferry vessels	2021	2025	Reduced air emissions from vessels.

36.	Decarbonise port cranes & HGV's	Belfast Harbour Commissioners	Substitute hydrocarbon fuels with low carbon alternatives – cranes/plant & HGV's	2021	2023	Reduced air emissions from port plant & equipment.
37.	Decarbonise work & pilot boats	Belfast Harbour Commissioners	Trial alternative marine fuels - Work and Pilot Boats	2022	2024	Reduced air emissions from vessels.
38.	Commercial incentive	Belfast Harbour Commissioners	Clean Vessel Incentive Scheme	2022	2023	Reduced air emissions from vessels.
39.	Ship planning	Belfast Harbour Commissioners	Optimise Vessel Passage Plans & Berth Utilisation	2020	Ongoing	Reduced air emissions from vessels.
40.	Zero carbon vessel	Belfast Harbour Commissioners	Introduce electric/hybrid patrol vessel	2023	2025	Reduced air emissions from vessels.
41.	Decarbonise space heating	Belfast Harbour Commissioners	Decarbonise premises heating systems	2023	2025	Reduce air emissions from premises.
42.	Driver ECO Skills	Belfast City Council	Driver ECO Training & Refresher Driver ECO Training & vehicle monitoring by GPS	From 2020/21 onward	Ongoing	Fuel consumption reduction.
43.	Promoting Cleaner commercial vehicles	Belfast City Council	Replacing older commercial EU3-4 vehicles above 3.5ton with EU6 cleaner standard	From 2020/21 onward	Ongoing	Emission level reduction.
44.	Vehicle Emission Testing	Belfast City Council	All fleet vehicles tested annually to manufacturers approved EU standard	From 2020/21 onward	Ongoing	Ensuring vehicles meet their EU approved Standard.
45.	Promoting Electric Commercial panel vans	Belfast City Council	Replacing older commercial panel vans up to 3.5ton with Electric	From 2020/21 onward	Ongoing	Reduction in the commercial panel van fleet carbon footprint.
46.	Promoting Vehicle Electric Bin-lifts	Belfast City Council	Replacing Refuse Collection Vehicles with rear electric bin-lifts	From 2020/21 onward	Ongoing	Refuse Collection Vehicle fuel consumption reduction.
47.	'Just Eat' Belfast Bikes public bike hire scheme	Belfast City Council	Public Bike Scheme in City Centre – 300 bikes and 30 docking sites originally in 2015 in public places, including Titanic Quarter, the Gasworks, Queen's University and York Street. This has now increased to 47 docking stations.	From 2015 onward	Ongoing	Cutting congestion and improving air quality.
48.	Local Development Plan	Belfast City Council	We will support an efficient integrated transport network offering travel choice that minimises congestion and pollution. The plan will encourage the expansion of green		Ongoing	



			infrastructure networks for walking and cycling to encourage active travel and improve air quality and promote increased use of public transport whilst retaining suitable provision for cars			
49.	Belfast Open Spaces Strategy (BOSS)	Belfast City Council	BOSS Strategic Principal 2 - Improve connectivity - as well as providing better opportunities for recreation, improved connectivity also helps to promote active travel by encouraging more people to walk and cycle to their destinations through our parks and open spaces. This helps reduce vehicular traffic congestion, air pollution and climate change inducing emissions.		Ongoing	
50.	Green and Blue Infrastructure Plan	Belfast City Council			Ongoing	