



**THE BRISTOL
PORT COMPANY**

**AIR QUALITY STRATEGY
INITIAL PUBLIC CONSULTATION
FEBRUARY 2020**



Summary Statement of Intent

The Bristol Port Company is committed to improving air quality in Royal Portbury and Avonmouth Docks in order to safeguard public health. The Company has the opportunity to play a key role in reducing emissions of air pollutants generated within the Port, and to align with Bristol City and North Somerset Councils' clean air initiatives. In recognition of this, the Company is preparing an Air Quality Strategy which sets out long-term plans to reduce emissions of pollutants and greenhouse gases within the Port Estate, on both land and water. As essential elements of this work, The Bristol Port Company will endeavour to:

- Submit an Air Quality Strategy to the Department for Transport in July 2020 in accordance with Government guidance;
- Consult and engage with key stakeholders over the development and implementation of the Air Quality Strategy, including tenants, shipping companies, port users, local authorities, residents' groups and other interested parties;
- Monitor air quality in Royal Portbury and Avonmouth Docks and maintain an inventory of emissions generated by key Port activities;
- Build on existing initiatives to improve energy efficiency, promote the sustainable use of resources, generate and use renewable energy, and create and manage environmental corridors to conserve the environment and reduce our carbon footprint;
- Develop an action plan which identifies a range of measures which will be implemented over the short (to 2023), medium (to 2030) and long term (to 2050) to reduce emissions of key air pollutants and greenhouse gases in the Port;
- Deliver reductions in emissions from key Bristol Port activities, such as harbour craft, port vehicles, cargo handling equipment and offices, workshops and buildings;
- Engage with shipping operators to understand, and, where possible, support their initiatives to reduce emissions from ships visiting the Port, and to explore the feasibility of making changes that may permit vessels to switch to, or use, lower emission fuels or shore-side power;
- Work with tenants, operators and port users to develop and encourage actions to reduce emissions from their operations and traffic across the Port estate, and to promote sustainable less-polluting means of getting to, from, and around Royal Portbury and Avonmouth Docks; and
- Review and submit an updated strategy every three years (or as required), reporting on actions taken, updated emissions inventory, reductions in emissions, progress towards targets and any new actions.

David Brown

Chief Executive Officer

31st December 2019



Introduction

The Bristol Port Company is committed to improving air quality in Avonmouth and Portbury for all who work and live here. To help achieve this goal we are currently preparing our first Air Quality Strategy which sets out our existing activities and long-term plans to reduce emissions of air pollutants and greenhouse gases in the Port.

This initial consultation report describes the goals and proposed scope of our Air Quality Strategy and outlines the work in progress to identify actions to reduce emissions from activities in Avonmouth and Portbury Docks. Bristol Port are seeking your views at this early stage, to help us to develop and improve this Air Quality Strategy. We are keen to hear what others in and around the Port are doing to monitor and reduce their emissions and carbon footprint. We know we can achieve much more if we work together and we are looking for opportunities to collaborate with shipping companies, port users, businesses, neighbouring communities, local authorities and other stakeholders on clean air projects across the Port.

Background

The Government published its Clean Air Strategy¹ in January 2019, which aims to reduce air pollution across all sectors to protect public health and the environment. As part of this Clean Air Strategy, all major ports in England have been asked to produce their own air quality strategies to reduce emissions from port operations. These strategies are voluntary in nature and aim to establish an understanding of air quality in ports and to reflect actions that the port is taking to address emissions under their control.

The development of port air quality strategies is not being undertaken in isolation. Worldwide steps are being taken to reduce emissions from shipping which is the most environmentally friendly way to move freight around the world but remains a significant source of air pollutants and greenhouse gases. These international actions include the adoption of more stringent limits on the sulphur content of marine fuels, the use of exhaust gas cleaning systems (or scrubbers) and emission control areas for shipping. In the UK, steps to reduce emissions from shipping and ports form part of the wider initiatives under the Government's Clean Maritime Plan² which sets out future plans to meet ambitions for zero emissions shipping by 2050.

The Bristol Port Company owns and operates the commercial Port of Bristol, comprising Royal Portbury and Avonmouth Docks, and is a Statutory Harbour Authority. Bristol is the largest commercial port in the South West, handling around 8.5 million tonnes of cargo and over 2,000 vessels every year. The Port is recognised as a strategically important national asset, providing facilities to move cargo by sea, road and rail to national and international destinations. The Port is also an integral part of local life, directly employing 600 people from surrounding communities and beyond. Some 10,000 people are employed within the Bristol Port estate and 19,000 jobs around the UK are supported by the Port and associated businesses.

Bristol is the UK's most centrally located deep-sea port, with direct access to the strategic road and rail network which provides links to nearby major markets in the Midlands, London and beyond. This efficient inland distribution of freight significantly reduces road miles and provides significant emissions savings. Key statistics that illustrate the importance of the Port, our trades and activities are shown in Figure 1.

Bristol Port is a thriving transport hub with an extensive estate of associated manufacturing, distribution and retail businesses, all located within the wider industrial hinterland of Avonmouth-Sevenside and the M5 corridor. Despite this industrial setting, monitoring indicates that emission levels in Royal Portbury and Avonmouth Docks comply with appropriate standards and guidelines. This is reflected in the Port not being located within or near any Air Quality Management Areas (the nearest of which is over 6km away around Bristol City Centre).

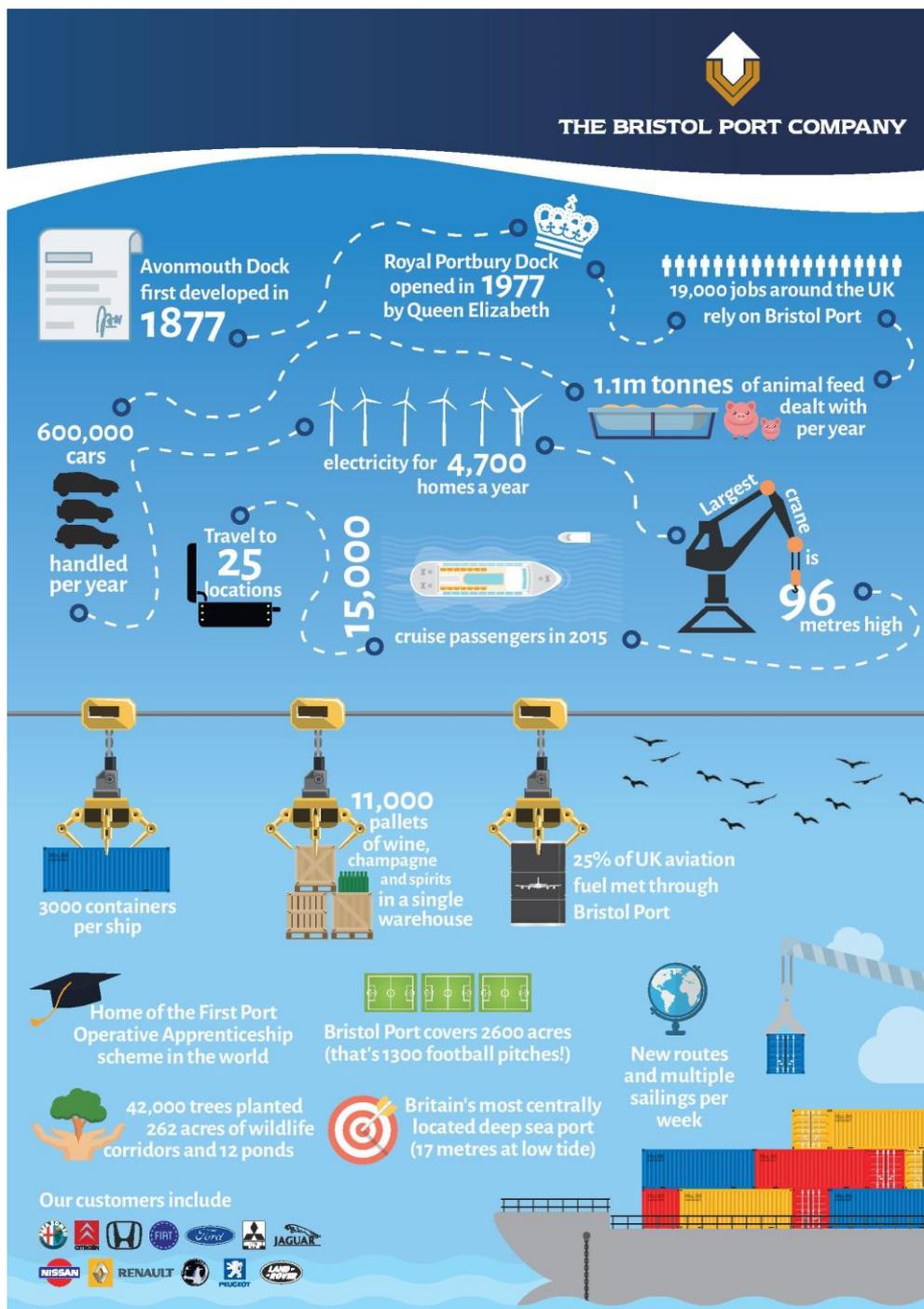
¹ Defra Clean Air Strategy 2019

² DfT Clean Maritime Plan 2019



As a busy commercial port, our daily operations include shipping, cargo handling, road traffic and rail freight, which are all vital to the movement of goods and people, and all produce emissions. As a major employer and neighbour, we want to do what we can to reduce emissions from our activities and work with shipping operators, tenants and others around the Port to support proposals to reduce their emissions, where possible. The development of our Air Quality Strategy gives Bristol Port the opportunity to build on our existing actions, to demonstrate our commitment to make further improvements and to work with others to contribute to clean air initiatives in the wider Bristol and North Somerset area.

Figure 1. Summary of Key Activities and Operations in Bristol Port



Our Air Quality Strategy

Our Air Quality Strategy will target emissions within the Port Estates of Royal Portbury and Avonmouth Docks (Figure 2), including Nitrogen Oxides (NO_x), Sulphur Oxides (SO_x), Particulate Matter (PM₁₀ & PM_{2.5}), and relevant greenhouse gases.

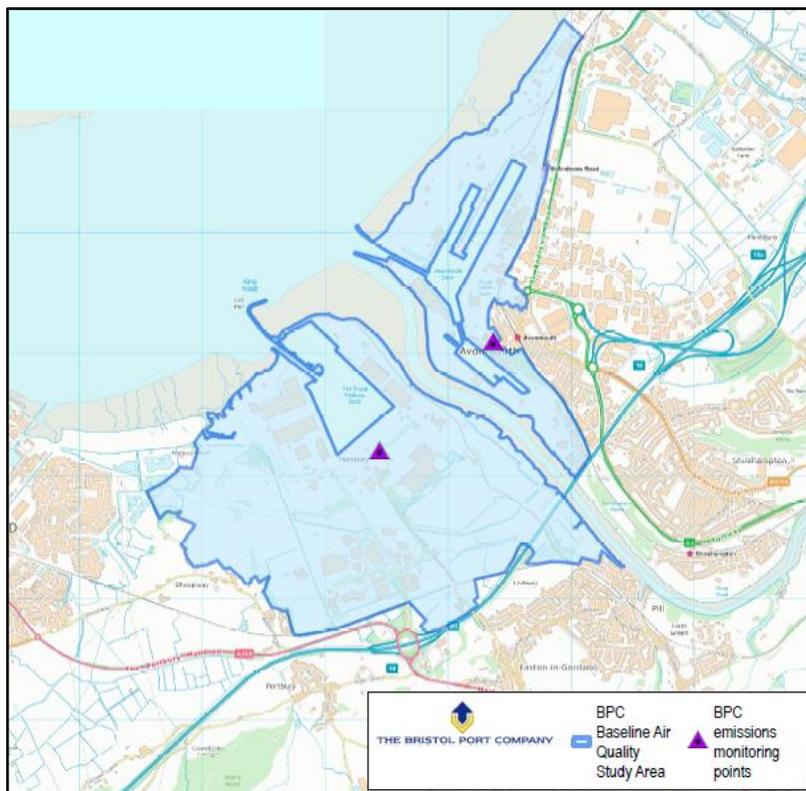
The Strategy will include a range of actions that will be implemented over the short (to 2023), medium (to 2030) and long-term (to 2050). It will focus on the core activities and operations directly under the Port's control but will also incorporate plans to work together with tenants, shipping companies, neighbours and other relevant parties in and around the Port Estate to understand and help reduce emissions from their activities and to tackle port-wide emissions.

In support of this work, we have recently installed two air quality monitoring units in the Port. The monitors are located in Avonmouth and Royal Portbury Dock estates, in close proximity to the nearest residential properties and operational berths (Figure 2). These locations are also near existing dust monitors which have been recording dust levels in the Port for over five years. Together with monitoring undertaken by a variety of other organisations around the Port, including local authorities, Defra, Environment Agency and a number of Port tenants, these new units will contribute to a growing monitoring network across the Port. We are keen to work together with all those monitoring air emissions in Avonmouth and Portbury to share information and help provide an improved understanding of our local air quality.

We are preparing the Air Quality Strategy in accordance with Government guidance³ and will submit it to the Department of Transport in July 2020, after a period of public consultation. Once approved, the Strategy will be published on the Port's website. We will review and submit an updated strategy every three years, reporting on the actions undertaken in the Port, reductions in emissions, progress towards targets and any new or improved actions.

The effective implementation of the Strategy will require the Port to work in partnership with a wide range of stakeholders who we will keep updated on progress, seeking feedback and suggestions for improvements. As part of this engagement, we may set up working groups where helpful to progress specific actions and share information and good practice, such as bringing together organisations interested in reducing emissions from port traffic and establishing a port monitoring group. This process of ongoing consultation will help us to review, develop and improve future versions of the Strategy.

Figure 2. The Bristol Port Estate & Air Quality Monitoring Locations



³ DfT, Port Air Quality Strategies, 2019.



What are we already doing?

Our Air Quality Strategy will build upon the sound foundation of work already undertaken or in progress in the Port to protect the environment, improve energy efficiency and reduce our emissions and carbon footprint including:

- **Environmental Management:** an ISO14001 Environmental Management System is implemented for the Motor Vehicle trade and supporting services and departments which aims to deliver continual improvements in the Port's environmental performance, including minimising the impacts of our operations and promoting the sustainable use of resources and energy;
- **Renewable energy:** three wind turbines in Avonmouth Docks have been generating around 35% of Bristol Port Company's electricity for over a decade;
- **Monitoring of energy use and greenhouse gases:** we monitor and report on our energy usage and greenhouse gas generation. Work is in progress to understand and reduce our carbon footprint;
- **Cargo handling equipment:** all of Bristol Port's large cranes in Royal Portbury and Avonmouth Docks are electric;
- **Port Vehicles:** an Energy Saving Trust review of the Port's fleet of vehicles was undertaken last year to identify opportunities for electrification and our first electric vans have just been delivered;
- **Energy efficiency:** the Port has numerous ongoing projects to reduce the use of energy and fuel, including the ongoing installation of energy efficient LED lights. An energy savings opportunities audit was recently undertaken by the Green Energy Consultancy to identify further means of optimising our energy usage;
- **Harbour vessels:** the Port's dredgers, survey vessel and workboats all use shore-side electricity at berth and ultra-low Sulphur fuel (0.01% sulphur) when operating in the harbour area;
- **Dust monitoring:** over the past decade we have worked with local councils and tenants to monitor dust, in consultation with local resident's groups, demonstrating compliance with relevant standards;
- **Sustainable transport:** we have recently trialled the use of e-bikes in the Port and with the support of Travel West, North Somerset Council and Bristol City Council we now have two pool e-bikes in use by employees at our main office in Avonmouth and by our Port Police; and
- **Green infrastructure:** we manage a network of around 260 acres of environmental corridors and green areas in the Port to conserve and enhance a wide variety of habitats and wildlife; and over the past few decades we have planted over 42,000 trees and shrubs.



Shipping operators, port users and businesses within the Port estate are also already implementing a wide range of measures to reduce their emissions and carbon footprint. We are keen to find out more about these ongoing initiatives and future plans and we would like to provide a summary of this work in our Air Quality Strategy.





What are we proposing to do?

We are in the process of developing an Action Plan of measures that we propose to implement to reduce emissions of pollutants and greenhouse gases in the Port. This Plan will include a range of different actions that will be implemented over the short, medium and long-term. The variety of actions being considered and developed fall under the following four general themes, namely, Monitoring & Management; Shipping; Port Estate; and Traffic & Transport. An overview of the key areas we are proposing to address, together with initial examples of possible high-level actions that are being considered are provided in Table 1.

Our Action Plan will focus on tackling emissions from those activities and sources that we can control, such as our harbour vessels, port vehicles and cargo handling equipment. Shipping and the activities of tenants in the Port estate, however, are not directly within our powers to control or directly influence. In recognition of this, we are developing actions to work together with these key stakeholders to understand and support the steps they propose to take to reduce their emissions. Furthermore, the adoption of port-wide actions to reduce emissions will be promoted and encouraged, such as campaigns to tackle emissions from traffic in the Port estate.

Bristol Port is currently working on these proposed indicative actions to develop a list of more specific actions, with proposed timescales and, where relevant, targets for emissions reduction. When setting targets, we will consider the national targets for key pollutants set out in the Government's Clean Air Strategy and will bear in mind the wider ambitions to achieve zero emissions of greenhouse gasses by 2050. Bristol Port will also take into account the actions and targets laid out in Bristol City and North Somerset Councils' Air Quality Initiatives, including Bristol's One City Plan⁴ and the West of England Joint Local Transport Plan⁵.

This initial summary of possible actions in Table 1 is just a starting point from which we propose to develop longer-term actions in future versions of the Air Quality Strategy, in consultation with stakeholders. Our aim is for the Strategy to continue to evolve to deliver ongoing improvements in local air quality in Royal Portbury and Avonmouth Docks long into the future.

What can you do?

We would welcome your views on our initial ideas for possible actions to improve air quality in the Port. Your comments and suggestions will help us to develop these initial proposals and to prepare our first Air Quality Strategy which we will publish in July 2020. We are particularly interested in your answers to the following questions:

- Do you monitor air quality and emissions in the vicinity of the Port?
- Do you have any ideas for ways to improve our air quality?
- What are you doing to reduce your emissions and carbon footprint? What are your future plans?
- Are you interested in working together on projects in the Port and surrounding area?
- Are you aware of local clean air plans and other initiatives that may be of interest to the Port?
- Would you like to be kept updated on progress with the development and implementation of our Air Quality Strategy?

Please respond by no later than 13 March 2020 to john.chaplin@bristolport.co.uk. If you have queries or wish to meet and discuss this project, please get in touch with John.

We will post regular updates on the Port's social media:



<https://en-gb.facebook.com/officialbristolport/>



<https://www.bristolport.co.uk/>



<https://twitter.com/bristolport/>

⁴ Bristol City Council, One City Plan, 2019.

⁵ Bath and North East Somerset Council, Bristol City Council, North Somerset Council, South Gloucestershire Council and West of England Combined Authority, Joint Local Transport Plan 3, 2011–2026 and Draft Local Transport Plan 4 2019-2036.

**Table 1. Summary of possible actions to reduce emissions in Bristol Port**

	Theme	Summary of proposed indicative actions
Monitoring & Management		
1	National & local air quality targets	Set medium- and long-term targets for the reduction of emissions from Bristol Port's activities in support of UK Clean Air Strategy targets, Bristol City Council's One City Plan and the West of England Joint Local Transport Plan
2	Monitoring	Undertake air quality monitoring in Royal Portbury and Avonmouth Docks and work with key tenants to establish a Port-wide group to promote the sharing of monitoring data
3	Emissions Inventory	Develop and maintain an emissions inventory for key activities in the Bristol Port
4	Consultation & Engagement	Consultation with tenants, shipping companies, port users, local authorities, residents' groups and other key stakeholders during the preparation and implementation of the Strategy
5	Review & Publish	Review and publish an updated Air Quality Strategy periodically, reporting on actions taken, reductions in emissions, progress towards targets and revised and new actions
Shipping		
6	Visiting Vessels	Understand, and where possible, support shipping operators' proposals to reduce ship emissions. Investigate the feasibility of making changes that may enable the use of lower emission fuels or shore side power.
7	Bristol Port's Harbour Vessels	Establish energy efficiency plans for all Bristol Port's harbour vessels (dredgers, pilot boat, survey vessel and workboats) and where possible replace vessels with lower emission or hybrid/electric models at end of life
8	Tugs	Work with tug operator to explore opportunities to reduce emissions from tugs operating in the Port
Port Estate		
9	Alternative fuels & electricity infrastructure	Identify the capacity, demand, opportunities, constraints and infrastructure needs for the supply of alternative fuels and electricity for vessels, vehicles, plant and equipment in the Port.
10	Bristol Port's cargo handling equipment	Replace cargo handling equipment (e.g. forklifts) with lower emission or hybrid/electric models at end of life where possible.
11	Bristol Port's Vehicles	Trial electric vans in the Port and if successful aim to make the transition to fully electric fleet, with associated investment in charging infrastructure.
12	Port Offices & Workshops	Replace all oil burning boilers with lower emission LPG boilers and investigate the feasibility of alternative heating solutions over the longer term
13	Energy Efficiency & Conservation	Implement measures to reduce the amount of energy used in the Port, including an employee awareness and energy saving campaign
14	Renewable Energy	Identify further opportunities for the generation and use of renewable energy in the Port (e.g. solar panels and wind turbines) to reduce our carbon footprint
15	Green Infrastructure	Continue the Port's ongoing programme of creating and managing environmental corridors and planting trees, shrubs and green areas to help screen emissions and offset carbon footprint
16	Dust Management	Work with tenants to develop and implement an Avonmouth Dust Management Plan
17	Sustainable Development	Aim for future Port development to be carbon neutral, adopting ultra-low emission and renewable energy technology where feasible and appropriate
Traffic & Transport		
18	Port Traffic	Work with tenants, operators and port users to implement port-wide initiatives to reduce emissions from traffic, such as no-idling campaigns.
19	Sustainable Transport	Prepare a Port Sustainable Transport Plan to promote alternative less-polluting means of getting to, from and around work in partnership with SevernNet, local authorities, tenants and neighbouring businesses.
20	Inland road distribution	Work with Highways England and local authorities to encourage the free movement of freight on the road network.
21	Rail & short sea shipping	Optimise rail and short sea shipping in the Port, working with Network Rail and authorities to improve rail capacity and investigating opportunities for promoting short-sea shipping trade