

Belfast Harbour

Environmental
Report 2016



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Energy
Management

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Belfast Harbour

Environmental Report 2016

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Foreword

Belfast Harbour is a cornerstone of the local economy, facilitating the import and export of more than 70% of all Northern Ireland's seaborne trade and acting as a major stimulus for economic activity throughout the region by handling over 20% of all sea trade throughout the island of Ireland.

Belfast Harbour is also Northern Ireland's largest logistics hub, a major commercial centre and encompasses landmark regeneration projects such as Titanic Quarter, Sydenham Business Park and City Quays. More than 23,000 people are employed in the Harbour Estate in sectors ranging from heavy engineering to tourism. The Estate also provides 195 acres of land set aside for nature conservation.

Managing the Harbour's 3,000 acre estate (2,000 acres of land, 1,000 of water) is a complex process and requires that the needs of industry be balanced with those of the environment.

During 2016 the Harbour continued to focus on carbon reduction, conservation of resources, and elimination of waste and protection of the natural and built environment. As a result of such efforts the Harbour was awarded Platinum status for the ninth consecutive year in Business in the Community's ARENA environmental benchmarking survey.

Belfast Harbour has published a Port Master Plan which identifies the port developments anticipated to be undertaken during the next 15 years and outlines

the Harbour's approach to managing the associated environmental aspects.

During 2016 Belfast Harbour invested more than £42m in capital projects, Sustainability is embedded into such projects from the design stage. Safeguarding and improving our environment is an ongoing commitment and we will continue to work with partners such as Business in the Community, RSPB, the Carbon Trust and the Northern Ireland Environment Agency to ensure the sustainable development of Belfast Harbour.



Building a Better Future

The development of the Port through the centuries is inextricably linked to the development, growth and significance of Belfast. Consequently Belfast Harbour understands the importance

of engaging with local communities, providing assistance in terms of both time and money, building linkages to education and training, managing and improving our environmental

impact (particularly in respect of climate change) and encouraging suppliers to also behave responsibly.

Value System

Our corporate responsibility commitment is a strategic objective and forms part of Belfast Harbour's value system.

There are four dimensions to Belfast Harbour's Corporate Responsibility Strategy:

- Young people
- Environment
- Community
- Creative Culture

Belfast Harbour's annual CR programme supports initiatives and projects that reflect one or more of these dimensions. During spring 2016, in partnership with The Conservation Volunteers (TCV),

Belfast Harbour provided tenants within the Harbour Estate with planters and floral displays to improve the local environment.

TCV is a community volunteering charity that works to create healthier and happier communities for everyone through environmental conservation and practical tasks undertaken by volunteers. The scheme was developed after a Biodiversity Workshop hosted for tenants at the end of 2015. Twelve businesses took part in the pilot scheme including The Food Standards Agency, Bank of Ireland, Belfast City Council Port Health and George Best

Belfast City Airport. In 2017 we will roll this project out to 30 community gardens and spaces engaging the local community with the building of the planters and on-going maintenance to develop a sense of pride in areas where anti-social behaviour may be an issue.

Belfast Harbour



Environmental Goals

Belfast Harbour has established a number of environmental goals. Progress towards these goals is measured internally against a set of objectives which form a key element of the Harbour's Environmental Management System.

Our environmental goals which underpin the objectives are to:

- Incorporate sustainability into our development activities
- Continue to reduce carbon emissions
- Implement the Harbour Biodiversity Plan
- Progress towards zero waste to landfill
- Reduce resource consumption
- Reduce mains water loss
- Prevent environmental damage from pollution
- Minimise issues associated with dust, noise and vibration
- Implement a flood risk management plan



Environmental Management Systems

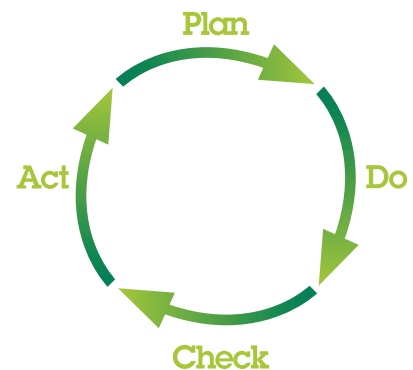
Belfast Harbour operates a formal Environmental Management System (EMS) which is certified to the internationally recognised standard ISO 14001:2004.

The EMS consists of 3 components:

- Environmental Policy
- Governance
- Operational Controls

During 2016 a review of the Environmental Management System by the British Standards Institution confirmed that the Harbour remains compliant with the requirements of ISO 14001:2004.

An assessment by Ecoports identified Belfast Harbour as an exemplar of good environmental practice for the ports sector within the European and International context.



Environmental Policy

- The environmental policy is publicly available on the Belfast Harbour website and is supplied on request to any interested party. Copies of the policy are made available to employees, contractors and suppliers working on behalf of Belfast Harbour.
- The environmental policy is incorporated into an environmental management system designed to identify, assess and manage environmental risks.
- Supporting the policy are a number of additional policies addressing specific issues such as:
 - Energy
 - Procurement
 - Waste and Resources
 - Sustainability
 - Biodiversity
 - Travel

Guillemot Boxes

Black guillemots are typically found in ones and twos, scattered around rocky islets. In recent years we have seen their population increase in the Harbour Estate and they have become a regular attraction for bird watchers in the area. During 2016 we wanted to encourage the population growth in the Port and the Facilities Team built 24 boxes which we fitted along the quay edges for the birds to 'move' into. Monitoring of the boxes has shown that they are all currently occupied!



Environmental Policy Statement

Belfast Harbour recognises that effective environmental management systems and performance are fundamental to our business. We consider it a priority to reduce the risks to our environment to a level as low as reasonably practical, to prevent pollution and to minimise the environmental impact of our activities.

In order to achieve this we will:

- Comply with all applicable legislation, regulations, codes of practice and other requirements to which we subscribe including the:
 - Principles of sustainable development
 - European Sea Ports Organisation (ESPO) Green Guide
 - Port Marine Safety Code
 - Protection of Biodiversity consistent with our duties as a Harbour Authority
- Systematically identify and assess environmental risks associated with our activities.
- Set measurable environmental objectives and targets supported by a management programme that measures and monitors performance, reviews effectiveness and evaluates compliance.
- Mitigate and control identified risks in order to manage our activities in an environmentally responsible manner.
- Develop, maintain and test emergency response plans and procedures.
- Involve and consult interested parties on environmental issues where appropriate.
- Ensure that employees and others working on our behalf are competent to carry out their work and understand the impact their actions and behaviour may have on the environment.
- Provide our employees (and where appropriate; customers, contractors and suppliers) with adequate information, training and supervision to enable them to understand and discharge their responsibilities for compliance with this policy.
- Communicate this policy to all persons working for or on behalf of Belfast Harbour Commissioners and make this policy available to the public.
- Strive to achieve continual improvement in our environmental management systems and performance.

This Policy Statement is periodically reviewed by senior management to ensure that it remains relevant and appropriate to the scope of activities conducted by Belfast Harbour.

Energy Management Policy

Belfast Harbour is committed to reduce the greenhouse gas emissions that result from our energy use whilst ensuring that we continue to meet essential business requirements and the needs of our stakeholders. This Policy provides a framework to set and review energy objectives and targets that will achieve this organisational goal.

It is therefore the policy of Belfast Harbour to:

- Comply with all applicable legislation and other requirement to which we subscribe related to energy use, consumption and efficiency.
- Incorporate energy efficiency considerations into procurement activities and to design for energy performance improvement.
- Establish and maintain a formal Energy Management System that is appropriate to the nature, scale and performance improvement objectives of Belfast Harbour.
- Develop awareness and encourage involvement in energy efficiency initiatives by employees, energy customers and other relevant stakeholders.
- Ensure the availability of information and resources to set and achieve appropriate objectives and targets.
- Demonstrate our commitment through external certification of our Environmental Management and Energy Management Systems to internationally recognised standards.
- Strive to continually improve performance in energy use, consumption and energy management systems.
- Communicate this Policy to all levels within Belfast Harbour and make it available to other stakeholders as required.
- Periodically review this Policy to take account of legislative, organisational and other requirements and update as necessary.



Sustainable Development Policy

Belfast Harbour recognise the importance of sustainable development. We will therefore:

- Comply with the relevant sustainability legislation and regulations and, where possible, exceed any relevant minimum requirements.
- Raise the awareness of employees, suppliers, customers, visitors and other stakeholders by promoting the concept of sustainable development.
- Monitor the use of natural resources, and maximise the efficiency with which they are used.
- Manage our activities in accordance with the principles of sustainable development.
- Encourage our employees to apply sound sustainability practices at work, at home and within the wider community.
- Participate in the definition of sustainability practice, and set our own appropriate and demanding standards where

City Quays

The first office to be completed, City Quays 1 was built to the BREEAM Excellent rating – the world’s longest established method of assessing green buildings. Securing BREEAM certification is a major challenge which begins with the location of the development and its design process - there’s more to being sustainable than installing low energy light bulbs!



Green Travel Policy

Belfast Harbour is committed to minimising the impact of travel on the environment and optimising travel costs.

Belfast Harbour seeks to minimise the impact of travel by:

- Using teleconference technology to avoid travel where appropriate.
- Understanding the environmental impact associated with our business related travel.
- Encouraging Harbour staff to use sustainable methods of transport.
- Considering energy and environmental performance when purchasing vehicles and designing traffic systems.
- Facilitating where practical the integration of sustainable and public transport modes within Belfast Harbour Estate.



Green Procurement Policy

Belfast Harbour seeks to reduce the environmental impacts of our operations by integrating environmental considerations into our procurement process. Belfast Harbour takes environmental aspects into consideration when purchasing goods and services.

Our commitment is to:

- Avoid unnecessary acquisitions and reuse resources where possible.
- Where appropriate purchase products with a high recycled content.
- Give preference to the use of renewable resources where appropriate.
- Insist on compliance with applicable environmental legislation, regulations and standards from our suppliers.
- Consider environmental credentials and impact when selecting suppliers and goods.
- Consider the environmental impact throughout the life cycle of the product or service.

Governance

Belfast Harbour's environmental performance is governed at the corporate level by the Safety, Environmental and Security Committee. The Committee is comprised of members of the Board supported by the executive management team.

The Committee oversees the Harbour's performance in respect of statutory obligations and the Port's own environmental objectives and targets.

Operational Controls

Day-to-day actions are managed in line with the policies, objectives and targets using a suite of standards, procedures and work instructions.

Environmental Competence

The key skills and knowledge required of Harbour employees are delivered through ongoing training, awareness and assessment programmes.

- All Belfast Harbour employees participate in environmental awareness initiatives.
- Employees with specific environmental responsibilities have completed specialised training such as Maritime and Coastguard Agency accredited Oil Spill Response training, waste management operations and energy management.

Environmental Context

Belfast Harbour is located at the head of Belfast Lough and consists of approximately 2000 acres of land and 1000 acres of water. The Harbour contains and is adjacent to nationally designated Areas of Special Scientific Interest, European designated Special Protection Areas, an international RAMSAR Site and Sites of Local Natural Conservation Interest.

The Harbour is also home to approximately 700 businesses including manufacturing, chemical, oil, gas and renewable energy companies as well as financial, educational, office, retail, leisure, tourism and voluntary sector organisations. More than 23,000 people come to work in the Harbour each day.

The Harbour Estate contains:

1. Environmental aspects for which Belfast Harbour has direct control and responsibility.
2. Environmental aspects which are under the control of third parties but which may require monitoring or a response from Belfast Harbour.
3. Environmental aspects which are exclusively the responsibility of third parties.

This report addresses items 1 and 2 only.



Environmental Aspects

Significant environmental aspects include:

- Air quality
- Water and sediment quality
- Land quality and use
- Noise and vibration
- Biodiversity
- Climate change
- Energy efficiency
- Resource use
- Waste management
- Heritage
- Visual impact

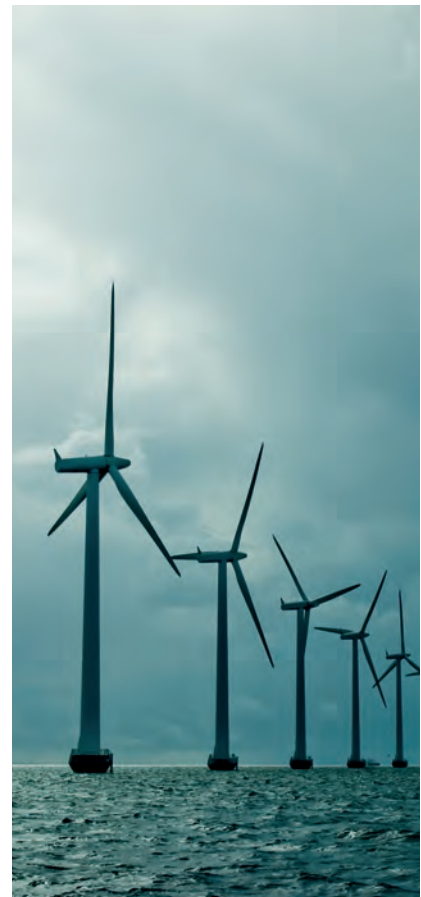


Air Quality

Local air quality is important to the health of the people who work and live in and adjacent to the Harbour Estate. There are a number of operations under the control and influence of Belfast Harbour which have the potential to impact air quality. Maintaining compliance with the relevant pollution control regulations is a key objective.

During 2016:

- Belfast Harbour handled almost 6,600,000 tonnes of dry bulk cargo. Such cargoes can result in airborne dust. The Harbour continued to work closely with Belfast City Council's Environmental Health Department and other stakeholders to improve cargo handling and storage processes and mitigate emissions from these activities
- 26 reports relating to dust caused by third parties were received. These incidents were investigated and corrective actions completed where appropriate.
- An extensive air quality management programme was implemented in order to address a number of persistent problems.
- There were no regulatory non-compliances by Belfast Harbour.



Water and Sediment

Sea and freshwater water are important as social and economic resources. Preserving the natural environment, improving water quality and avoiding pollution are key environmental objectives for the Harbour.

During 2016:

- The Harbour upgraded oil storage facilities at our operational sites.
- Belfast Harbour updated the Oil Spill Contingency Plan and tested the practical deployment of fixed oil boom installations.
- Almost 400,000m³ of dredging spoil was removed to a licensed disposal site to ensure safe navigation.
- Implemented drainage improvements and installed additional interceptors to further reduce the risks associated with potentially contaminated run off water entering the Harbour.
- Worked closely with Government, other ports and marine stakeholders to implement River Basin Management Plans aimed at improving the water quality in our rivers and estuaries.
- There were twelve minor pollution incidents, arising from third party activities. All involved minor oil spillages which were dealt with to the satisfaction of the Northern Ireland Environment Agency (NIEA) and the Maritime Coastguard Agency (MCA).
- Water discharge consent requirements were exceeded on two occasions during the year due to excessive suspended solids within a storm drainage system.



Land Quality

Belfast Harbour is home to a number of commercial and industrial activities.

Key objectives associated with land management include the prevention of illegal dumping, monitoring of pre-existing contamination and effective response to accidental spillages on land.

During 2016:

- There were two recorded incidents of illegal dumping by a third party. This was investigated and reported to the appropriate authorities for further action.
- There were two recorded incidents of spillage to land. This was of a minor nature and involved leakage of molasses from a third party pipe which was contained by direct intervention by the party concerned



Noise & Vibration

Belfast Harbour supports a range of industrial and transport activities which have the potential to cause noise and vibration. The Harbour seeks to prevent such issues through careful design and location of facilities and by implementing standard operating procedures.

Where issues arise these are measured and remedial actions taken where appropriate.

During 2016, one complaint was received, regarding a crane operation. The noise was identified during the set-up of a mobile crane. A physical modification to the crane was made to resolve the issue.

During 2016, three complaints were received regarding noise emanating from the Harbour's new Pilot Boat. Whilst the measured noise levels were within expected and required limits, Belfast Harbour is continuing to work with the vessel manufacturer to determine if further noise reduction is possible.



Biodiversity

Belfast Harbour Estate and waters include nationally designated Areas of Special Scientific Interest, European designated Special Protection Areas and a Ramsar site of international importance for over wintering waders. Belfast Harbour recognises that loss of Biodiversity is a significant environmental issue and more than 195 acres of land and seabed within the Harbour Estate have been set aside for nature conservation.

During 2016:

- Belfast Harbour retained platinum status in the Business in the Community Biodiversity Charter for Businesses in Northern Ireland.
- A formal Biodiversity Action Plan was developed with the assistance of students studying the Queens University of Belfast Master's Degree programme Leadership in Sustainable Development

- Belfast Harbour commenced working with the RSPB to implement our 'Pledge for Nature' action plan. The Harbour also assisted the RSPB in developing the Window on Wildlife project at the RSPB Reserve within Belfast Harbour.
- Belfast Harbour engaged with the Department of the Environment and a number of other stakeholders regarding the proposals for a Marine Conservation Zone (MCZ) to be located in Belfast Lough.

The Harbour has continued to conduct studies of species and habitats; the scientific data gathered during such exercises is being used to further inform and update the Biodiversity Action Plan and guide development activities.

During 2016 many people contacted us as they had noticed the Wildflower Meadow we had established on Airport Road West. Planted in April, the meadow is part of Belfast Harbour's commitment to the natural environment and those who work in the Harbour Estate, as it not only brightens up the grass area, it also provides a habitat and food source for the insects and small wildlife, such as birds and mammals, that live in the the Harbour Estate.

The Irish Coastal blend of wildflowers includes 34 species such as Seaside Wildflower, Devils Bit Scabious, Marjoram, Birdsfoot Trefoil and Wild Chamomile, as well as threatened, rare and endangered species such as Corncockle, Cornflower, Hare's Foot Clover and Sea Aster, which add a conservation aspect to the scheme.



Climate Change and Energy Efficiency

Belfast Harbour remains focused on the potential issues associated with climate change such as rising sea levels and increased storm surges. With this in mind Belfast Harbour established the following objectives:

- To responsibly manage our emissions and carbon footprint.
- To understand the potential impacts of climate change on Belfast Harbour.

During 2016:

- Belfast Harbour further installed low energy LED lighting on operational quays
- Conventional high pressure sodium street lighting units are being progressively replaced by low energy, low maintenance LED installations
- Energy consumption control measures continued to be developed and implemented.
- Smart metering has been installed to better monitor electricity and water consumption and identify further opportunities for improvement.
- Additional cycle lanes have been introduced to encourage the use of cycling as a means of transport.



Conservation of Resources and Waste Management

Belfast Harbour recognises that natural resources are finite and seeks to minimise the impact that its operations and development have on non-renewable resources.

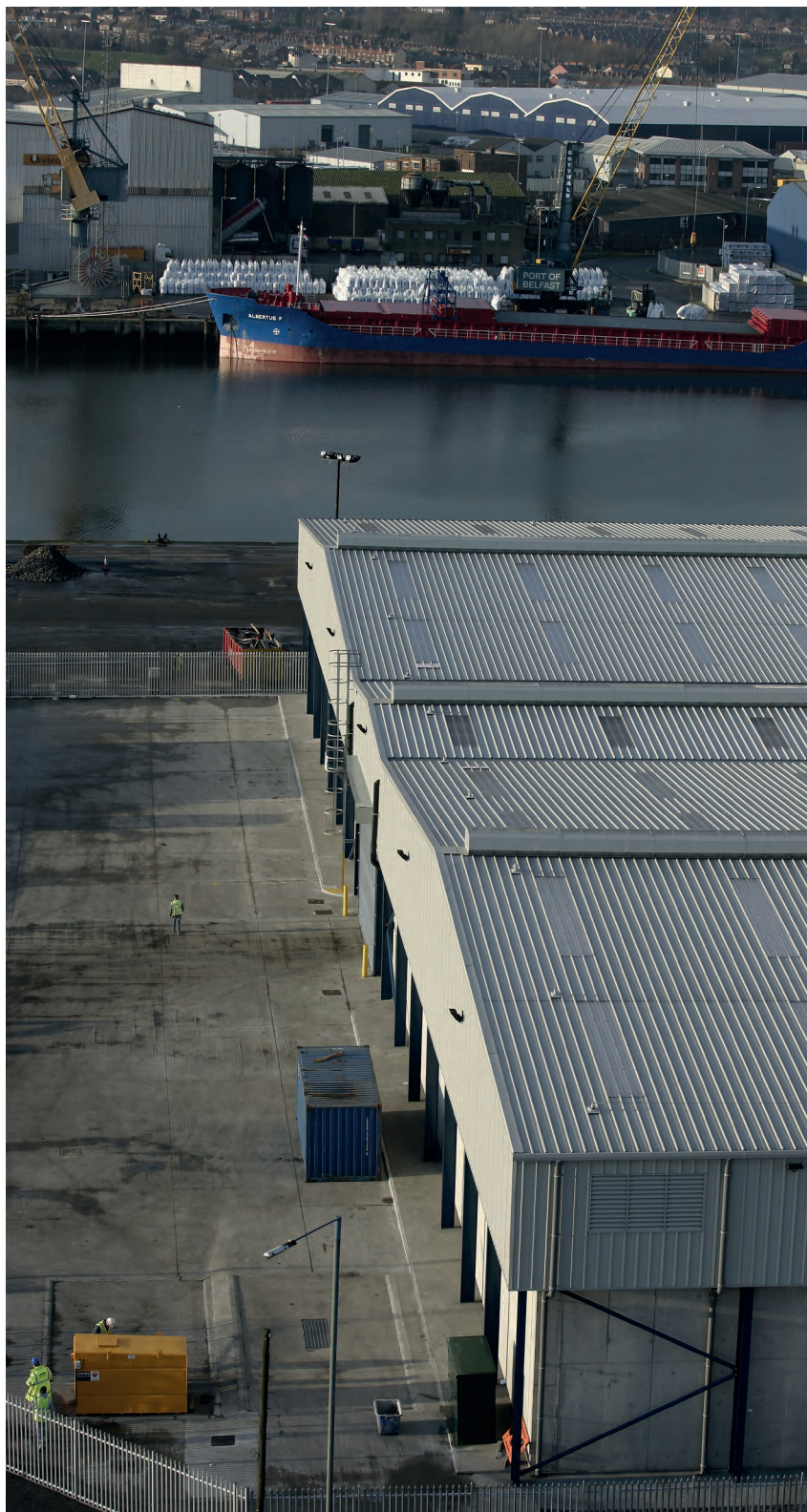
Specific objectives include:

Sustainable development.

- Utilising recycled materials when appropriate.
- Minimising waste to landfill through reduction, reuse and recycling.
- Energy management based on reducing consumption and use of energy from renewable sources where possible.
- Reducing water leaks and consumption.
- Encouraging industrial symbiosis within the Harbour community to prevent waste and reduce use of virgin resources where possible.

During 2016:

- Belfast Harbour continued to utilise a framework for sustainable development within the Harbour Estate working towards a target of achieving a BREEAM "Excellent" rating for the new City Quays 2 office development.
- Belfast Harbour diverted more than 1178 tonnes of waste from landfill and recycled 83% of total port waste.
- Belfast Harbour continued to reduce mains water consumption and installed smart meters where appropriate.



Heritage and Visual Amenity

Belfast Harbour has a rich maritime and industrial heritage. The Harbour Estate contains a number of listed buildings and docks as well as being home to the SS Nomadic and HMS Caroline. Where possible previous developments by Belfast Harbour have incorporated existing heritage features into their design, similarly planned developments endeavour to preserve and enhance the heritage features of the Harbour.



Belfast Harbour comprises industrial, commercial, residential, recreational and natural environments.

Developments are designed to complement the existing built and natural heritage wherever possible and often enhance an otherwise stark industrial landscape. Port operational and industrial facilities are generally located within areas of the Harbour zoned for such activities.

During 2016:

- Further implementation of LED lighting technology has significantly reduced light pollution in the areas where installed.
- Where appropriate, natural or artificial screening has been installed to improve visual amenity.
- Visual amenity was taken into account during the planning, construction and operational phases of new developments.

Engagement

Belfast Harbour believes that the operation of its business and the development of its facilities can be undertaken in an environmentally responsible manner and has established close working relations with other stakeholders at local, regional and international levels to identify and share environmental best practice within the Port Industry.

These relationships include:

- Business in the Community
- The Carbon Trust
- Action Renewables
- The Royal Society for the Protection of Birds (RSPB)
- Ulster Wildlife Trust (UWT).
- European Sea Ports Organisation (ESPO)
- British Trust for Ornithology (BTO)
- UK Major Ports Group
- British Ports Association
- General Stevedoring Council

The Port has organised a number of Belfast Harbour Environmental Forum meetings in which Harbour tenants, port users and Non-Governmental Organisations participated to address topics of common interest such as the 'circular economy', flood risk management, biodiversity and new legislation.



Belfast Harbour

Belfast Harbour
Harbour Office
Corporation Square
Belfast BT1 3AL

Tel +44 (0) 28 9055 4422
Fax +44 (0) 28 9055 4411

email info@belfast-harbour.co.uk
www.belfast-harbour.co.uk



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