



## Environmental Report 2019

# INTRODUCTION

## SHOREHAM HARBOUR

Shoreham Harbour is located on the south coast of England, five miles west of Brighton City Centre and five miles east of Worthing. The Harbour stretches for three miles and is bounded to the north by the A259 south coast road and the adjacent coastal communities (from west to east) of Shoreham-by-Sea, Southwick, Fishergate, South Portslade and West Hove.

The Harbour area embraces important environmental characteristics including the River Adur (linking the Harbour with the South Downs), the coastline, a Site of Nature Conservation Importance at Shoreham Fort and also borders a Site of Special Scientific Interest in the Adur Estuary.

The Harbour area straddles the local authorities of Adur District Council and West Sussex County Council in the west and Brighton & Hove City Council in the east.



## SHOREHAM PORT FACILITIES

In total there are 23 berths in the port with a total length of 3,156 metres along a 7.9km quay frontage.

## **EASTERN ARM**

The Eastern Arm lies between the historic harbour mouth and the locks leading to the impounded basin known as The Canal. Long breakwater arms mark the seaward entrance whilst Kingston Lighthouse (adjacent to the A259) marks the landward side. The Lighthouse dates back to 1846 and is Grade II listed. It is a tapering tower with a roll-moulded plinth dwelling in half-ovolo moulded platform above finished in Ashlar with an iron and wooden superstructure. The Lighthouse is located on Kingston Beach on the north side of the harbour entrance. Kingston Beach is designated a 'Village Green' due to its local public amenity value.

The historic Shoreham Fort is situated adjacent to the entrance to the harbour, and is one of the celebrated south coast defences built under the authority of the Victorian Prime Minister, Lord Palmerston, in response to a perceived threat from the French Emperor Napoleon III. The Fort is a Scheduled Ancient Monument and is undergoing a gradual process of restoration, including the development of educational and visitor facilities.

### **Outer Layby Terminal**

Located on the seaward side of the Port's locks, the Outer Lay-by is a NAABSA berth terminal (Not Always Afloat but Safe Aground). With two recently-built sheds and an expanse of block-paved hard standing, the terminal handles general softwood from various Baltic Sea states.

### **Penney's Wharf & Turberville Wharf**

These are located on the north side of the Eastern Arm and are owned and operated by the Dudman Group for importing aggregates and for a concrete batching plant. The overall site covers 20,540 square metres in total.

## **WESTERN ARM**

Much of the land along the Western Arm is in private ownership, although, being within the harbour limits, SPA has a duty to ensure that the River Adur remains navigable, requiring periodic dredging. The south side is developed mostly for residential use, characterised by blocks of apartments. Land to the north side of the river provides both port and non-port related employment and facilities for commercial fishing and marine leisure activities. The land strip between the river and the A259 is narrow, and at low tide grounded boats are a common sight on the mudflats of the river bank. A sizeable storage area and tidal marina at Sussex Yacht Club near Shoreham Town Centre complements the marinas within the Canal.

Part of the Western Arm falls within the Shoreham-by-Sea Conservation Area. The Conservation Area is located on flat low land, set on the north bank of the River Adur and extends as far south as the high water mark of the river. This part of the Conservation Area is described as “Riverfront which is characterised by clustered development around a riverside setting, yacht club and boats on the river”.

There are a number of wharves along the north side of the river:

**Kingston Railway Wharf** – is currently empty and is the subject of a planning application for mixed residential and retail development. The site is 9,500 sq m in total.

**Egypt Wharf** – owned and operated by European Metal Recycling Ltd for the recycling of motor vehicles and other metals, including the extraction of all operating fluids, and the removal of batteries, wheels and hazardous parts.

**Lennard’s Wharf** – owned and operated by CPL Petroleum. CPL supply fuels including kerosene, gas oil, road diesel, petrol and lubricants.

**Fisherman’s Wharf** – owned and operated by Monteum Ltd. The site is used for the landing, processing and sale of fish and seafood.

## THE CANAL

### South Side (from west to east):

**Inner lay-by Terminal** – The westernmost of the two main non-tidal timber terminals at the Port, the Inner Lay-by Terminal handles a variety of softwood timber. The Terminal has three transit sheds and block-paved and tarmac hard standing.

**Power Station Wharf** – Approximately 240 metres long and 14.5 metres deep, Power Station Wharf provides berthing space for visiting scallop trawlers and lay-by berthing and about 1,300 square metres of space for the storage of imports, principally timber

**Power Station Bulk Terminal** – A terminal of approximately one hectare in area currently used for the import of a variety of bulk commodities including quarried stone, road salt and rock wool and for the export of waste glass for recycling.

**Fishersgate Terminal** – Fishersgate Terminal is a 4.65 hectare dedicated construction steel import, storage and semi-processing facility occupied and operated by Parker Steel. Steel for the construction industry, including beam, column and channel sections are unloaded into an external gantried storage area and then transferred into a 13,200 square metre building where they are cut, drilled, shot-blasted and painted before delivery to site..

**ARC Terminal** – 4.25 hectares occupied by the Hanson and Tarmac aggregates companies and used for the import, grading and bagging of dredged shingle and the production of ready-mixed concrete.

**Brighton Terminal** – At approximately 9 hectares, the largest terminal in the Port in terms of land area, covered storage area and cargo throughput, Brighton Terminal is used primarily for the import of softwood timber. The terminal has an expanse of block-paved hard standing for open storage and seven large sheds for cargo requiring covered storage.

**Brighton Bulk Terminal** – A fully-bunded area of approximately 4,200 square metres used primarily for the export of wood-chip for energy production.

**Shoreham Silo Services** – Operated by Bartholomews Agri-foods Ltd, Shoreham Silo Services is approximately 0.77 hectares in area with eight silos of up to 10,000 tonnes capacity each and a grain storage shed of 6,000 square metres. The facility is used for the storage, drying and export of grain.

**Brighton Terminal East** – This terminal is currently used principally for the import and storage of steel sheet piles by Arcelor Mittal.

**North Side (from west to east):**

**Shoreham Oil Terminal** – An area of 1.5 hectares operated by Local Fuels Ltd as a petrol and diesel import and storage depot supplying fuel to the local area.

**Hall's Aggregate Wharf** – Owned and operated by Cemex for the import, storage and distribution of dredged and quarried aggregates and the production of ready-mixed concrete.

**Baltic Wharf** – Owned and operated by Travis Perkins. This is currently non-port operational land but has a depth and width that would be acceptable for port operations.

**Ferry Wharf** – Ferry Wharf is currently occupied by Edburton Contractors Ltd and used for the recycling of aggregates.

## **OTHER HARBOUR FACILITIES**

**Southwick Waterfront** – This area features commercial and leisure uses, including marina berths, a chandlery, bar and restaurant and commercial units. Part of it is in an important Conservation Area.

Incorporating the Lady Bee Marina, this area has a very distinct character compared with other areas in the Port, largely attributed to its strong recreational function and lack of active quayside. The fine urban and maritime grain of the marina area (it's small sailing boats and the tight spaces of the Conservation Area) provide a human scale in contrast with the comparatively vast scale of the Port and shipping. The waterside setting and adjoining jetties provide recreational opportunities and the Royal Sussex Yacht Club (Grade II listed building) is located within the area. Commercial activities include a wide range of business, office and retail premises. There is also a public house and some residential property.

The Lady Bee Marina is characterised by a cluster of buildings located within a semicircular shaped parcel of land between the A259 (Albion Street) to the north and the water of The Canal to the south. The buildings in the area have been described as a “hotchpotch” due to their variety of styles, scales and uses, and many date from the 19th or early 20th centuries. Vehicular access to the Lady Bee Marina is restricted with a narrow road that runs close to the water's edge. This is the only remaining piece of the original road that followed the line of the harbour from Brighton to Shoreham.

Towards the east of the area there is an open expanse of uninhabited land characterised by a steep bank up to the A259 and a wide, flat area to the south. This location is publicly accessible and used for walking and angling, having a notable amenity value, with steps leading up to the A259 at several locations.

**Nicholson Marina** - Lying east of the Oil Terminal, Nicholson's Marina provides pontoon berths for small commercial fishing vessels and yachts.

**Aldrington Basin** - Located towards the eastern end of the Canal - Aldrington Basin is the main gateway to the port. It is therefore an important area for traffic movements into and out of the Port, from the A259 adjacent to Hove Lagoon. This junction is a tight right turn to and from the A259 onto the port road from the west, but access is rarely problematic. Aldrington Basin is the primary of the two turning areas for ships within the Canal. A variety of businesses are located here, many non-port related (such as the local Virgin Media hub) but this is also the location of

one of Shoreham Port's main fishing concerns – B&N Fish Sales Ltd. The business includes a fishing fleet, filleting, sorting and freezing plant supplying both the wholesale and retail markets and with a retail outlet on site.

Aldrington Basin is probably the most challenging and exciting area for change. The area includes Maritime House and Hove Enterprise Centre with a total land area of 5.9 hectares. Shoreham Port's land ownership in this area includes sites occupied by B&N Fish Sales (4,900sqm), Maritime House (3,000 sqm) and Hove Enterprise Centre/Aldrington Marina (9080 sqm). The remaining land is in private ownership.

**Lock Gates** – This is the gateway into The Canal for ships, fishing boats and leisure craft. Two separate but adjacent locks provide access between the tidal waters to the west and the impounded Canal to the east. The Harbour Radio building, housing the lock control and shipping liaison facilities is located on the Middle Island between the two locks and Shoreham Port Authority's head office, Nautilus House, is located just to the north.

The public footpath across the lock gates attracts a constant stream of pedestrians and cyclists travelling between the A259 to the north and Basin Road South and the public beaches to the south. The route across the lock gates is the only place to cross the Canal to South Quayside and Southwick Beach, other than the main access point at Hove Lagoon, almost 3 km to the east.

**Dry Dock** - The dry dock facility is a well-used facility and one of only a very few of its type in the region. Adjacent to and on the north side of the lock gates it is a notable port asset and facility for ship inspections and repairs.

# ENVIRONMENTAL POLICY STATEMENT

## SP Environmental Policy Statement V2 (PERS compliant)

Shoreham Port is responsible for the management, maintenance and development of the Port, and our Environmental Policy Statement commits us to preventing negative impacts on people and the environment, while maximising the positive social, environmental and economic opportunities of a thriving port.

Our responsibility to prevent pollution and to protect the environment from the impact of our operations is led by the Board, who are committed to continuously improve our environmental performance. We will ensure compliance with environmental legislation as a minimum.

We work to the code of practice of the European Sea Ports Organisation (ESPO) and Port Environmental Review System, adopting a systematic approach in our environmental management performance. We focus on 12 key aspects:

- Energy use and CO<sub>2</sub> emissions
- Waste prevention and management
- Water use
- Air quality
- Water quality
- Land use, biodiversity and natural resources
- Materials use and management
- Transport
- Noise and nuisance
- Local heritage and amenity
- Employment skills & training
- Community engagement

### **We will**

- Have clear roles and responsibilities, with trained and competent people in place to build knowledge, experience and skills in managing environmental risks and opportunities.
- Have procedures and plans in place for environmental management, including incident control, investigation and reporting, using learning to update and communicate new procedures.
- Promote improved environmental performance in partnership with our suppliers, contractors and business partners through consultation, collaboration and clear contractual requirements.
- Stimulate innovation and solutions-led thinking to reduce environmental impacts, using design specifications, technical controls and keeping up to date with new technology.

- Build community relationships so that local people can play a part in the Port's success.
- Ensure the availability of the necessary resources to develop the Environmental Management System and implement the programme.
- Measure and report our progress.

*Last updated February 2019*  
*CEO Rodney Lunn*  
*Signed*

*Director of Compliance Paul Johnson*  
*Signed*

## OVERVIEW OF KEY ENVIRONMENTAL ASPECTS

**ASPECT:** Waste Management

**IMPACT:** Contamination of Soil, Water & Air

Human impact due to disease and vermin control.

**PERFORMANCE:**

All enquiries or complaints relating to waste management issues are lodged with the Harbour Master/ Director of Compliance.

### Environmental Review

Key Aspects	Performance Review
Waste management	SPA continues to monitor and review its Waste Management Plan and strives to fulfil its legal duties with regards to waste management. For every commercial vessel berthing at a Port Authority managed berth, a covered skip is provided for the reception of the ship's own domestic waste and disposed of by a registered waste disposal contractor. Strategically placed skips are sited at various areas of the Port which comfortably accommodate waste from all quayside and contractor activities. These skips are monitored and emptied regularly by registered waste disposal contractors. Plastic, timber and metal are separated to aid in the recycling operation.
Construction Waste Management	Construction waste at Shoreham Port is kept to an absolute minimum and no significant quantities of construction waste materials have left the port for more than 10 years. All mineral arisings, such as concrete and aggregate from foundation excavations, are tested for contaminants and re-processed into new construction materials for use elsewhere on the port. All timber and steel construction waste is recycled.
Air quality	Shoreham Port provides facilities for bulk loading of materials including grains, woodchip (biomass) and aggregates, which are operated by the port and tenants of the port. Occupants of residential and commercial properties on Fishersgate Terrace and nearby roads had expressed concerns regarding airborne and deposited dust which was perceived by the complainants to be related to the storage and handling of bulk materials at the port. Shoreham Port has conducted an assessment of ambient

	<p>airborne particulate matter concentrations, dust deposition rates and any potential risks to health.</p> <p><b>Conclusion</b></p> <p>Three weeks of ambient airborne particulate matter monitoring was undertaken using a Turnkey Osiris nephelometer and a frisbee dust deposition gauge at St Peter’s Community School adjacent to Shoreham Port. The average PM10 concentration throughout the period was 12.5 µg/m3. This would not exceed the UK Air Quality Strategy objective for PM10 in ambient air of 40 µg/m3. The UK air quality objective for daily average PM10 of 50 µg/m3 was not exceeded during the monitoring period.</p> <p>We will continue to monitor our air quality and demonstrate to our stakeholders that our air quality for the undertakings at Shoreham Port is in accordance with the UK air quality guidelines.</p> <p>Complaints for dust related issues from our stakeholders have continued to see a significant reduction over the past 36 months.</p>
Dredging	<p>Shoreham Port needs to maintain the main shipping channel to the chartered dredge depth of 1.9m and in order to achieve this they compare hydrographic surveys, which indicate where dredging is required. Shoreham Port’s tugs ‘Aduarni’ and Acamar and external contractors are utilised.</p> <p>Shoreham Port has an MMO licence to dispose of material up to 999,000 tonnes per annum.</p> <p><b>Dredging in 2017 –</b></p> <p>3 campaigns over 16 tides removing 31,833 tonnes. Tug Aduarni carried out 790 hours of bed levelling.</p> <p><b>Dredging in 2018 -</b></p> <p>3 campaigns over 27 tides removing 78,921 tonnes. Tug Aduarni carried out 790 hours of bed levelling.</p>
Sustainable Development	<p>Shoreham Port has adopted ECO Port Status which assists in attaining its environmental objectives and sustainable economic growth. Improving competitiveness by adopting an Ecosystem-based approach. The Port uses an Environmental Code of Practice for all port administrations in order to make port development sustainable.</p> <p>The Code reiterates the port sector’s collective commitment to contributing to sustainable development in its three dimensions – social, economic and environmental – and demonstrates that Shoreham Port is improving its environmental performance. It recognises that the future for new port development and new investment must be done</p>

with environmental protection to the forefront. Shoreham Port sees the movement of a wide range of goods including steel, timber, building materials and raw materials oil, petroleum, chemicals, grain and fertilizer (spot cargo only) which are needed to fuel the economy. Shoreham Port also provides a range of other services e.g. fishing, leisure and recreation. We also accommodate various industrial installations (refineries, power plants, etc.). As a result, Shoreham ports act as magnets for trade and industry and is generators of employment within the local area.

International competition puts pressure on our administration to offer infrastructure and facilities which accommodate the wishes of our customers. However, Shoreham port development is constrained by scarcity of land, urban development and ecological considerations. It is affected by a number of EU Directives: Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), the Habitats and Birds Directives. Moreover, port development now falls within the context of ICZM which requires a comprehensive assessment, setting of objectives and planning of coastal systems and resources. Sustainable port development and management have become an imperative because society, clients and stakeholders see sustainable development as a necessity for the acceptance of Shoreham port in the local economy. Increasingly, environmental legislation requires that ports are managed sustainably. However, an environmentally friendly attitude can also be advantageous commercially. Every port differs in its ownership, financial structure, activities and environmental responsibilities. Shoreham port's organisation is responsible for the management of the whole port area and owns its cargo operation company, But also leases land out to tenants whom operate under their own licences and are governed by their own codes and practices. Shoreham port area is governed by environmental permits. Stakeholders, however, often see the port area as one system. They consider the port manager as the contact-person for every environmental issue in the port area, even if the port administration has no direct responsibility. Moreover, even if they are not immediately responsible for the activities carried out in the port area, port administrations still bear, to a certain degree, a general public responsibility which will be further strengthened by the Environmental Liability Directive.

Shoreham Port has adopted the main environmental objectives which the EU port sector has set out and are as follows:

1. To contribute to the development of a sustainable logistics chain, as ports are key elements of the Trans-European Network.
2. To encourage wide consultation, dialogue and cooperation between port administrations and the relevant stakeholders at the local level (port users, public, NGOs) to facilitate the reconciliation, at an early stage, of differing interests and the acceptance of port projects by the local community.
3. To generate new knowledge and technology and to develop sustainable techniques which combine environmental effectiveness and cost efficiency. The aim is to achieve self-regulation and develop a bottom-up approach. Even if the EU decides to issue environmental regulations, the existing self-regulatory instruments, developed by the port sector itself and which address day-to-day practice, will provide a port-accepted background to be used as a basis for EU environmental policy. This will enable EU legislation to be more easily supported and implemented.
4. To enhance cooperation between port administrations in the field of the environment and facilitate the exchange of experiences and implementation of best practices on environmental issues to avoid unnecessary duplication and enable port administrations to share the costs of environmental solutions. This can notably be achieved through the participation of port administrations in a network e.g. the ECOPORTS Foundation. The aim is to create a level playing field by limiting poor environmental practice as a competitive factor between port administrations.
5. To increase awareness of environmental concerns and to integrate sustainable development into ports' policies, by encouraging port administrations to prepare a publicly available environmental policy setting out their strategies and methods of achieving them. This will contribute to promoting corporate social responsibility at the port.

	<ol style="list-style-type: none"> <li>6. To encourage port administrations to conduct appropriate environmental impact assessments for port projects and appropriate strategic environmental impact assessments for port development plans to assess, at an early stage, how their effects on the environment can be minimised.</li> <li>7. To stimulate continual improvement in the port environment and its port environmental management by promoting the use of Environmental Management Information System tools (such as environmental audit, environmental review, environmental management system, decision support system, port visitor internet tool).</li> <li>8. To promote monitoring, based on environmental performance indicators, as recommended by the 2001 ESPO Environmental Review, in order to measure objectively identifiable progress in environmental port practices.</li> <li>9. To promote environmental reporting as a means of communicating environmentally good behaviour to stakeholders and the European institutions, in line with the recommendations of the ESPO Environment Review published in 2001.</li> <li>10. To intensify the communication about environmental improvements achieved by ports, with the aim to create a better understanding of the role of ports and their efforts towards sustainability.</li> </ol>
<p>Water Quality</p>	<p>It is our policy to ensure that wasteful and inefficient use of water resources within the workplace is kept to an acceptable level.</p> <p>As a business customer, we pay for all the water that passes through our meters so it makes sound financial sense to ensure we are not pouring money down the drain. We also recognise that water is a precious resource, and that the way we use it has implications for the environment, both through the demand we place on local water resources, and through our potential to pollute the water we use.</p> <p>To help ensure we give due and proper consideration to our environmental management responsibilities, and to assist in the minimisation of water consumption and the efficient use of water in the workplace, we have implemented a Policy</p>

and Procedure which helps prevent unnecessary wastage. All staff are expected to abide by our Procedure and co-operate with management in the execution of this Policy.

### ***Management of water use***

Further to the general statement above, we aim to reflect our commitment to sustainable development through the way we use water in our organisation.

#### **Accordingly we:**

- use water efficiently
- avoid causing water pollution
- minimise expenditure on water consumption.

#### **In order to achieve this we:**

- monitor the consumption of water within our buildings and premises
- have identified buildings/processes with high water consumption
- introduced cost-effective water-saving devices where appropriate
- promptly repair leaks where identified on our premises
- work in partnership with water companies and the Environment Agency to help conserve water and reduce pollution
- raise awareness about the environmental implications of water use and promote good housekeeping practice.

### ***Procedures***

The first step was to establish the amount of water used. We did this by looking at historic water bills to see if there have been any significant increases in usage (with allowance for increases in staff numbers and new work processes including tenants). The installation of a water meter enables the exact volumes of water used to be more closely monitored.

#### **Find and fix leaks**

- where a water meter is fitted, we have a weekly system in place to check for leaks by turning off the main stop tap,

and taking two meter readings several minutes apart i.e. If the reading is different, there may be a leak.

- leaks are more likely to occur in the supply pipes located below or adjacent to your premises;
- contact with water supplier enables us to understand where the source of increased water use is. Our water authority provides free water audits upon request.
- checks for leaks in toilet cisterns, overflows and pipe-work for the heating and hot/cold water supplies around the building are carried out weekly by our engineering team.
- all areas where water is used in our offices and other buildings is checked weekly. A dripping tap can waste as much as 90 litres a week.

**Simple water saving techniques implemented continuously**

- installation of a special water saving device in all our toilet cisterns, such as the inexpensive “Save a flush” and “Hog Bag”

**Installations of new fittings (when replacing old for new)**

- Spray inserts are to be fitted in regularly-used taps. These reduce the amount of water discharged through the tap but do not reduce washing efficiency
- Where identified, new percussion taps will be fitted, which turn off after a set period
- As when old toilets need replacing they will be replaced with variable flush handles to all applicable toilet cisterns. Standard toilets use between six and nine litres of water every time they are flushed
- when replacing automatic flushing urinals, consideration of the proximity of the flush control systems, or use of waterless and air flush systems where possible. We will fit supply restrictor valves in supply pipes. these maintain a steady water flow, whatever the change in water pressure and can reduce water flow by up to 50%

**Consider collecting rainwater for alternative uses**

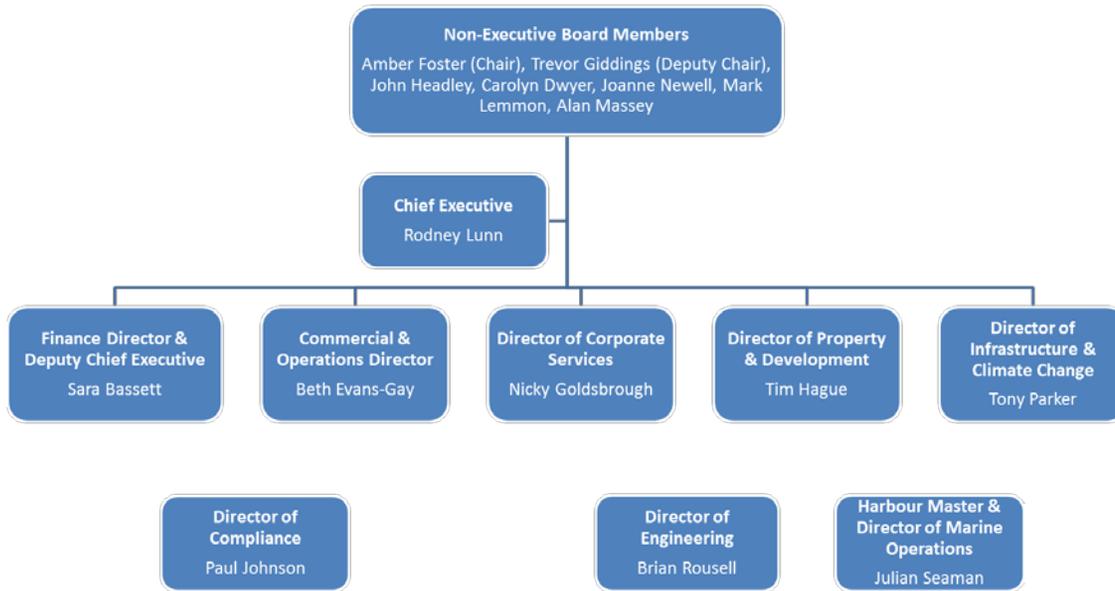
- rainwater can be collected in water butts and used for various processes such as watering gardens, washing vehicles and general cleaning, a feasibility study will be

	<p>carried out and where identified areas throughout the port will be highlighted for implementing water butts</p> <p><b>Efficient water use within the office</b></p> <ul style="list-style-type: none"> <li>• A staff education programme was carried out in 2015 with a reminder in 2017 to ensure that everyone is aware of the need to be water-efficient i.e.</li> <li>• they do not over-fill kettles, use only enough water for your needs at any particular time. This has the added benefit of also reducing our energy bills</li> <li>• water can be saved by turning the hot tap down, rather than the cold tap up, if cooler water is required</li> <li>• use of a plug in the sink and a bowl of water to wash cups and plates rather than washing under the tap over an open plughole.</li> </ul> <p><b>Tenants Responsibility</b></p> <p>Tenants are asked annually if they can provide Shoreham Port with a water quality sample of the canal water within their proximity. This will enable the Port to understand the tenant's activity and satisfy ourselves that their undertaking is not polluting the water. Equally the Port can demonstrate to its stakeholders that it is ensuring that its water quality is very much part of its EMS.</p>
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Environmental Responsibilities of Key Personnel*		
	Job Title or Name**	Department
Resources for EMS	Finance Director Director of Compliance	Accounts Safety & Environment
Port Operations (Dredging)	Harbourmaster	Marine
Port Operations (Navigation)	Harbourmaster	Marine
Port Operations (Terminals)	Operations Director	Operations
Cargo Handling Operations	Operations Director	Operations
Quay/Wharf Management	Harbourmaster	Marine
On-site contractor Management	Harbourmaster/Engineer	Marine/ Engineering
Strategic Planning	Chief Executive	Board
Supplies acquisition	Director of Engineering	Engineering
Emergency Planning	Harbourmaster/ Director of Compliance	Marine/ Safety & Business Risk
Waste Management	Harbourmaster	Marine

Slipway management	Harbourmaster	Marine
Environmental Document Management	Director of Compliance Director of property & Development	Safety & Business Risk Property
Environmental Data Management	Director of Compliance Director of property & Development	Safety & Business Risk Property
Soil pollution assessment	Director of Engineering / Consultant	Engineering
Air Quality monitoring	Director of Engineering / Consultant	Engineering
Noise Management	Director of Engineering / Director of Compliance	Engineering Safety & Business Risk
Energy Use	Director of Compliance / Director of property & Development	Safety & Business Risk Property
Energy and Carbon Footprint monitoring Water Quality monitoring	Director of Engineering / Consultant Director of Compliance / Director of property & Development	Engineering Safety & Business Risk Property
Vehicular Management of Terminal traffic	Operations Director	Operations
Recycling Initiatives	Director of Compliance Director of property & Development Assistant Harbour Master	Safety & Business Risk Property Marine
Marina	Assistant Harbour Master	Marine
Property	Director of property & Development Property Manager	Property
Travel	Director of Property & Development	Property

## Organisational Chart 2019



# PROJECTS

Examples of current sustainable development activities at the Port include:

- Supporting renewable energy generation including wind and solar power generation
- Introducing greater energy efficiency measures especially with lighting
- Protecting wildlife habitats and promoting the World Biosphere Reserve for Brighton and Lewes Downs
- Conserving heritage sites including a Site of Special Scientific Interest, Local Nature Reserve, Scheduled Ancient Monument conservation areas and Village Green
- Gained certification under the Port Environmental Review System
- Implementing measures to improve water quality and preventing water pollution
- Working with the Environment Agency and Adur District Council to undertake ongoing improvements to the flood defence system
- Ongoing monitoring and regulation of air quality and emissions from port-related activity
- Developing and promoting a travel plan
- Procuring sustainable plant, vehicles and vessels
- Development & implementation of a Clean Air Plan

## ENVIRONMENT

The Port continues to seek new initiatives to ensure that we tackle climate change and improve our environment throughout the Port. Many environmental initiatives / projects have been completed and this has ensured Shoreham Port remains an active member of the EcoPort environmental accreditation scheme.

Some of these initiatives included an Environmental MSc Student from Brighton University completing an Ecology Plan and this has assisted us with our Environmental Management Plan. Sustainable projects completed have included the erection of two onshore wind turbines, installation of solar panels on ten buildings and the continuing introduction of LED lighting units throughout the port, each of these will help to substantially reduce energy bills and reduce the impact of our activities on the environment.

### Environmental Accreditation

The Port will once again be audited against the Port Environmental Review System (PERS) standard in 2019. PERS is an independently certified environmental management standard set by the European Sea Ports Organisation (ESPO). The European port sector has achieved significant progress in the field of environmental management during the last two decades and this has been largely driven through the long standing close cooperation between ESPO and EcoPorts. Further progress is expected as ESPO broadens the guiding principle of “ports-helping-ports” and the commitment towards continuous improvement through voluntary self-regulation to its whole membership.



The "EcoPort" status is obtained by any port within the broad ESPO membership upon completion of a Self-Diagnosis Method (SDM) checklist. The port is awarded in that way for providing data on the performance of its environmental management programme and for contributing in such way to the up-to-date maintenance of the ESPO European Benchmark of performance. Additional credit is provided to ports that are certified with PERS, the only port-sector specific environmental management standard, and ISO 14001. This environmental accreditation is an effective way of demonstrating commitment to the environment and sustainability, more and more UK Ports are signing up to become ECO Port status, with a further four joining in 2016 making Shoreham Port one of eleven within the UK. Our environmental arrangements and environmental legal register sit alongside our safety arrangements and safety legal register which ensures the environment, as well as safety, is taken into account in every aspect of Port activity.

### **Environmental Measures**

Shoreham Port's Ecology Plan has helped us identify what animal and plant species and communities are present and has given us a better understanding of the ecology at our port. This will assist us with identifying the broad goals for the site (setting our objectives) whilst identifying the management needed to achieve them and the means to determine progress towards achieving the objectives and showing that resources of cash, labour and skills are being used efficiently. Our management plan will bring these elements together, while the process of producing and implementing it should ensure that the necessary management is widely approved and carried out in an agreed manner and to an agreed timescale.

Environmental Risk Assessments were carried out in key areas of the Port which highlighted current environmental practices; control measures as well identifying areas that required additional resources, control measures in order to improve whilst reducing potential impact of that task / activity. An example of this was the improvement of our bund facility for handling dirty oil waste received from fisherman.

Following a few incidents of oil spillages from the hydraulic system operating the Prince George lock our engineers have upgraded the hoses and installed a low level sensor that will shut down the lock system when a drop in oil pressure has been detected. This will ensure that any potential hydraulic oil leak into the lock is significantly reduced.

In addition to the additional employed staff member whose main role is to ensure that the Port is clean and tidy as reported in our last PERS recertification we have expanded this team to four ensuring that the whole estate is routinely cleaned five days per week. This has ensured that the Port's waste management has significantly improved. Not only do we now have a team routinely visiting all areas of the Port, during the week ensuring that these areas are maintained and kept rubbish free, but can also react to issues reported by both staff members and third parties. An example of this was following one of the storms last year when shingle and debris was washed up onto our Southwick promenade. This was swept and cleaned up immediately upon being notified. This has also given us an additional pair of eyes on the ground which has improved the reporting of environmental and safety issues.

### **Lighting Strategy**

As part of our aim to significantly reduce our energy costs we have embarked on a plan to:

- install and use low cost renewable energy,
- secure lower prices for the energy we take from the grid and
- become more efficient in the use of energy.

One significant way to become more efficient is through the conversion to LED lighting. Powering lights on the terminals and in our buildings is one of our biggest costs.

The proposed lighting strategy is to install LED where it is cost effective to do so, phased over time as and when we can afford it. LED is expensive to install but is up to 65% more efficient and lasts longer so the whole-life cost is substantially lower than for conventional lighting in most cases. It also creates a better white light, comes on instantly and can be dimmed to save energy. Pay back is typically 2 to 7 years. Therefore, it is proposed from now on to install LED as the norm on any new towers, street lights and buildings and also replace existing units over time.

### **Wind Energy**

Shoreham Port has taken further action to reduce its dependency on fossil fuels and continue to convert to using renewable energy. The Port has installed two Norvento nED100 wind turbines, which are situated on the seaward side of the Outer Lay-by Terminal off Basin Road South. The turbines produce annually 555,000 kWh of electricity, matching the energy demand of the Port's pump house. The installation of these wind turbine forms part of the Port's wider energy strategy, of which Solar PV is already playing an important role. The two turbines consist of a three-bladed rotor, 22m in diameter, supported by a 24.5m tubular monopole. They are of a similar height to the existing lighting towers.

### **Waste Management**

The Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) regulations 2003 require all ports and terminal operators to provide waste reception facilities adequate to meet the needs of vessels using the Port or its terminals.

A Waste Management Plan has been completed by all terminal operators and these have been collated into a single Port Plan, which is administered by the port and has been approved by the Maritime and Coastguard Agency.

We continue to investigate recycling opportunities throughout the Port as part of our commitment to protecting the environment.

## **Sustainability**

Examples of current sustainable development activities at the Port include:

- Supporting renewable energy generation including wind and solar power generation
- Introducing greater energy efficiency measures especially with lighting
- Protecting wildlife habitats and promoting the World Biosphere Reserve for Brighton and Lewes Downs
- Conserving heritage sites including a Site of Special Scientific Interest, Local Nature Reserve, Scheduled Ancient Monument conservation areas and Village Green
- To maintain ECO Port Status under the Port Environmental Review System
- Implementing measures to improve water quality and preventing water pollution
- Working with the Environment Agency and Adur District Council to undertake ongoing improvements to the flood defence system
- Ongoing monitoring and regulation of air quality and emissions from port-related activity
- Developing and promoting a travel plan
- Procuring sustainable plant, vehicles and vessels

**Port fact:** Shoreham Port is part of the Brighton Area Biosphere. It is only one of four designated in the UK and the first entirely new biosphere area for almost 40 years. It is also one of only a handful of areas based on a city worldwide. The area covers the whole block of countryside, towns and coast between the River Adur and River Ouse.

## **Solar Energy**

Shoreham Port has the ambition of becoming a major centre for renewable energy and has embarked on an extensive programme of solar and wind energy projects. This fits well with its EcoPort status.

We have already made major strides forward in large scale solar energy. Over **9,000** solar panels have now been installed on Port Authority owned buildings.

The programme of projects will help reduce our carbon footprint and at the same time reduce our energy bills. The aim is to generate electricity on the Port that is used for operating the Port and by local businesses and residents. Generating and using energy locally is far better for the environment.

The first array was completed in 2012 at Hove Enterprise Centre in Basin Road North. This involved installing 366 panels (87kwp) to supply electricity to the offices and nearby marina. Since then we have seen larger schemes completed on the roofs of two warehouses (in 2013 & 2014), adding another 1,698 solar panels (411kwp). These initial schemes were developed in partnership with Brighton Energy Co-op with the finance coming from local people investing in and owning the panels.

More recently some of our tenants have started to look seriously at using renewable energy and Parker Steel were the first to have solar panels installed in 2015. This scheme is a massive 7,074 panels (1.8 Megawatts) covering virtually all the roof of the steel processing plant.

After a lull we are now once again looking at further schemes to maximise the potential of the roof space we have and further schemes are expected next year, including making full use of the new warehouses erected on the Outer Layby and at other port locations such as the dry dock and port offices. Our target is to have 15,000 solar panels on the Port so there is still some way to go, but we have made a great start and are now over half way.

### **Shore Supply 'Cold Ironing' Alternate Marine Power AMP**

Shoreham Port purchased Maritime House a few years ago, a large tenanted building on the north side of The Canal. This has a berth and can offer shore supply to any vessel whilst alongside. This presents us with a great opportunity to monitor the shore supply with a view to implementing shore supply stations at various other berths throughout the Port. We all aware that vessels of varying sizes can pollute the marine ecosystem considerably. The pollution caused includes acid rain because of sulphur oxide and smog because of nitrous oxide. In order to make sure that the levels of these pollutants do not increase further, there has emerged the concept of cold ironing or alternate marine power.

Alternate marine power or AMP, as the name suggests, refers to the usage of other power supply sources to feed power to the ship. Such AMP is used when the ship is halting at a port so that the engines of the ship (working on diesel) do not need to be used unnecessarily. This in turn reduces the emissions by the ships by a great margin. This process is also known as cold ironing.

## **TRAVEL PLAN**

### **Introduction**

Shoreham Port (SP) developed a Travel Plan in 2014 to support its environmental intentions and sustainable growth plans for the port, and will be promoting and implementing the Travel Plan over the next five years. It will cover not only staff travel to work but also business and visitor journeys. This will be reviewed in 2019.

The initial focus will be on SP, but eventually the plan will be developed to cover the whole of the Port in consultation with the other businesses and organisations based here.

### **Distinct Advantages of Shoreham Port**

The Port can make a big difference because of its scale and location.

The National Cycle Route (No. 2) goes through the port with various improvements along the route either completed, underway or planned such as the new Adur Ferry Bridge replacing the Shoreham Footbridge.

Other sustainable travel measures such as cycle rack provision, shared pedestrian/cycle routes, better signage and pedestrian crossings have become a reality in many places over the past few years. It has made a difference and improved the image of the area.

Public transport has also been improved at the four rail stations serving the port area and also at the bus waiting facilities along the coast road with a very frequent bus service operated during the day.

SP has become a member of the Brighton & Hove Travel Plan Partnership which meets quarterly to share best practice across the city. Companies and organisations that are already in the Partnership are Sussex Police, Legal and General, EDF Energy, Royal Sussex County Hospital, Lloyds/TSB, Veolia and Brighton & Hove Bus & Coach Company. Funding has been available for initiatives and SP has already taken advantage of it such as for erecting bike shelters.

This is the right time to capitalise on the public investment being made in the area and to promote greener travel.

### **The Need to Travel**

There are over 105 SP staff that travel to work each day and there are another 1400 people who work on the Port. While at work several staff need to travel around the port on a daily basis whether it's for maintenance work, meeting a tenant, a site visit with a prospective client, visiting a ship or carrying out safety inspections. Equally, staff do need to travel off the Port for business meetings, training courses, visiting customers and other ports.

Many staff start their work very early in the morning and are spread out over the Port in several different buildings and locations.

### **Aims of the Plan**

We are already doing a substantial amount to reduce our environmental impact, but there is plenty more we can and should do.

The aim is to continually reduce the impact from travel on the environment and climate change by a set of coordinated initiatives and targets.

## **Benefits of having a Plan**

There will be an economic payback as well as an environmental one.

The full set of benefits of a successful travel plan is:

1. There will be more informed choices
2. Potential lower travel costs
3. Less congestion and pollution in the area
4. Better health and therefore reduced sickness
5. Increased staff and tenant retention
6. Less pressure on car parks
7. SP recognised as a green port

## **Proposed Actions**

It is proposed to carry out simple and realistic initiatives in the short term and identify ideas for further consideration in the long term.

### **Encourage staff to cycle to work more by:**

1. Providing secure bike shelters, showers and lockers
2. Carrying out a safety audit of cycle routes and produce an improvement plan
3. Providing information on routes, travel times, lock closures, etc. on the website and notice boards and at induction of new employees
4. Negotiating a user friendly service with a bike repairer
5. Establishing a bike user group

### **Promote public transport by:**

1. Providing up-to-date information on services and timetable
2. Actively encouraging visitors to use public transport by offering to pick them up at the station or provide a travel pack with taxi numbers, bus timetables, location of the city car clubs
3. Finding out about the new smart ticket for local trains and buses
4. Offering loans for season tickets
5. Introducing a policy on using public transport when and where ever possible

### **Encourage more car sharing by:**

1. Investigating existing car sharing schemes or setting up a new one for the Port

### **Reduce journeys taken by vehicle on the Port by:**

2. Combining journeys
3. Making more conference calls instead of having meetings
4. Providing green transport for journeys in and around the port

### **Encourage the use of less polluting vehicles on journeys to work and on business journeys by:**

1. Publishing information on the website about green vehicles and grant availability
2. Adopting and implementing a green procurement code on the purchase of future SP vehicles

### **Improve access for people with disabilities by:**

1. Making routes wheel chair and scooter friendly
2. Providing better information

### **Better Publicity and Promotion by:**

1. Feeding back to staff through team briefs, works council
2. Staff/visitor inductions and travel packs
3. Running events and one-off initiatives e.g. walk to work week
4. Providing leaflets and updating the intranet

### **Key Performance Indicators**

We have set the following targets for the next five years:

- decrease the annual business mileage by single occupancy car and commercial vehicle journeys by 5%
- decrease the number of miles travelled by staff getting to and from work using a single occupancy car by 10%
- reduce the amount of carbon dioxide (CO<sub>2</sub>) produced from travelling by 20%
- regularly achieve more than 25% of staff sharing a car or using an alternative to a car for getting to and from work at least once a week.

### **Financing the Plan**

Each proposal will be fully appraised to ensure it is cost effective and affordable. It will be the intention to maximise any grants available.

### **HERITAGE**

The main heritage site on the port is Shoreham Fort. The first major phase of the renovation programme to protect Shoreham Fort and improve the surrounding area has been completed. The repairs are essential if we are to preserve the fabric of the fort and maintain it as a highly valued popular amenity space for the local community.

The work was funded by English Heritage and Shoreham Port and was carried out by a specialist firm, The Flintman of Lewes, with additional help by volunteers from the 'Friends of Shoreham Fort'. This first phase of repairs involves repairing the most damaged areas of the brickwork and flint walls, resetting the granite sett steps and repairs to scoured areas of earth embankments. It is hoped to undertake further phases of repair and improvements to the fort in future years.

### **Site Improvements**

Shoreham Port and Adur District Council are also considering how the rest of the site could be improved with such measures as better signage and pathways, upgrading of the car park and toilet block and introduction of information boards about the local area (for instance on the history of the film industry on Shoreham Beach, the importance of the Port today and on the wildlife that can be seen in the local area). A more ambitious plan in the long term is to recreate the barrack block in its original position to provide new space for community use and may be a café.

### **Back ground Information**

The fort was completed in 1857 by the Palmerston Government as part of our defences against a potential invasion by Emperor Napoleon III of France. It is now designated as an ancient monument and there are strict rules on how and what can be done to it. The former Coastguard tower was added in two phases in the 1960's and 70's.

The smaller watch tower to the east of the Fort was renovated in 2009 and is now used by the National Coastwatch Institution and staffed by volunteers who provide a valuable watch service.

The fort is owned by Shoreham Port Authority and the car park and toilets are owned and managed by Adur District Council.

The restoration of the fort is part of the Port Masterplan and also part of the wider Shoreham Harbour Regeneration Project being delivered jointly by Adur District Council, Brighton & Hove City Council, West Sussex County Council and Shoreham Port Authority.

## ECOLOGY

### Shoreham is part of the Brighton Area Biosphere

Shoreham Port is a member of the Biosphere Partnership with more than forty other organisations – made up of bodies from the public, private, voluntary and educational sectors. We wish to play our part in the ambitious plans to improve the local environment, economy and community. Individual port users can also show their support by signing up as a 'Friend of the Biosphere'. Friends receive e-news, access to events, ideas for local places to visit and suggestions for action to appreciate and benefit the environment.

Shoreham Port had an Ecology Plan undertaken. The Ecology Plan has been designed to comply with the Port Masterplan 2010, by the fulfilment of one of its objectives: the environmental enhancement of the port areas, working together with local authorities and with the active participation of local communities. In the same line, the Ecology Plan has been created in accordance with the Environmental Policy Statement of Shoreham Port, and with the objectives of environmental protection and effective environmental port management, that the Port follow as a holder of Eco-Port status. Furthermore, it supports the objectives of the Brighton and Lewes Downs Biosphere Management Strategy. In this framework the Plan provides a coherent and thorough strategy, which will be used as a planning and development guidance for the implementation of the suggested actions, with the aim of the regeneration of the specific areas selected within the port.

The Ecology Plan has focused in those areas more vulnerable to significant changes and with a higher ecological value. As a result, Annex 1 of the Ecology Plan includes ten strategic sites that has been identified to assess their physical attributes and functions, with a brief description of main characteristics and a set of individual proposals. Likewise, Annex 2 includes an ecological enhancement map for each strategic site.

The development proposals are based on sustainable development principles. They have the main aim of improving and conserving the environmental conditions of the sites, at the same time, to obtain social benefits by a recreational and leisure use in a responsible way. They have been established taking into account the current ecological status of each site and with the vision to conserve, protect and enhance existing biodiversity and to create appropriate habitats. Although they are short and medium term proposals, it will need their future continuous management of the sites and monitoring of the results, to ensure effectiveness over time.

See the Biosphere website [www.biospherehere.org.uk](http://www.biospherehere.org.uk) for more details.

## **GREEN GROWTH PLATFORM**

The Green Growth Platform (GGP) was launched in June 2014. It is an exciting, new £3m, 5 year project led by the University of Brighton that seeks to unlock the growth potential of the environmental businesses across Sussex. This fits with Shoreham Port's status as an eco-port and to work with others to improve the local environment and economy.

Tony Parker Director for Infrastructure & Climate Change said "Shoreham Port is a member of the forum and hopes to benefit from the package of 1-2-1 business support, events, and services to be delivered by a team of industry experts, business advisors and leading academics."



## **Water Quality**

We have been looking at ways to ensure that we manage our water quality better particularly the areas where our Port Operators Bio Mass/Grain / Aggregate /Oil etc. By doing a 360 on our tenants we will be asking them to present to us their environmental impact assessment for the product that they deal with in order to understand the impact that their commodity may potentially have if it were to spill into the Canal. We will also be asking them to demonstrate to us that they have carried out a water quality sampling of their area of responsibility annually

# **ENVIRONMENTAL PROCEDURES**

## **Shingle Bypassing**

There is a natural process of shingle movement along the Sussex coast from west to east, which results in the buildup of approximately 15,000 cubic metres of shingle annually at the east end of Shoreham Beach, where its progress is blocked by the west breakwater at the Harbour entrance. It is the blocking of further eastwards shingle movement by the breakwater that causes the erosion of Southwick Beach on the east side of the entrance.

Shoreham Port has adopted, in addition to various sea defence measures, a programme of shingle bypassing, whereby shingle is excavated from the west side of the entrance and transported and placed on the east side. This process is split evenly between spring and autumn campaigns and care is taken to minimise the impact of the operation on local residents.

Studies have shown that as a result of shingle bypassing, beach volumes along the Port have improved and stabilised.

The shingle bypassing operation is supported by the South Downs Shoreline Management Plan and by the two coastal defence strategies that define the needs for sea defence improvements between the River Arun and Brighton Marina.

## **Oil Spill Response**

At Shoreham Port, the Harbour Master has overall responsibility for the conduct of the oil spill response operations and for casualty and/or salvage management. He is supported in this role by the Oil Spill Management Team and Shoreham Port's own Internal Incident Management Team.

In the event of a one-tier incident, appropriate response actions will be taken in accordance with Shoreham Port's Oil Spill Contingency Plan. To deal with this type of incident, Shoreham Port has its own in-house Oil Spill Response Unit.

Should a tier two or three incident occur, the Port's Oil Spill Management Team would convene and assistance would be provided by Oil Spill Response Limited (Southampton), who provide regional oil spill response services to the Port.



**Our Oil response Unit**



**Booms being deployed for an emergency planning exercise**

## **WASTE MANAGEMENT**

The Merchant Shipping and Fishing Vessels (Port Waste Reception Facilities) regulations 2003 require all ports and terminal operators to provide waste reception facilities adequate to meet the needs of vessels using the Port or its terminals.

A Waste Management Plan has been completed by all terminal operators and these have been collated into a single Port Plan, which is administered by SPA and has been approved by the Maritime and Coastguard Agency.

We continue to investigate recycling opportunities throughout the Port as part of our commitment to protecting the environment.

## **ECO FRIENDLY PLANT & MARINE CRAFT**

### **Forklifts**

As an Eco-Port we are continually looks for ways to improve our efficiency and to reduce our carbon emissions. One excellent way to reduce the Port's impact on the environment is through the leasing and purchasing of eco-friendly equipment, including vehicles, boats, equipment. One of the most successful initiatives has been the transition to a fleet of 30 eco-friendly forklift trucks. Our forklifts use the latest technology to meet the current European emission figures. They use Exhaust Gas Regeneration (EGR) valves and Diesel Particulate Filters (DPF) to ensure emissions are kept to a minimum. The forklifts also use ultra-low sulphur diesel to the same specification used with road vehicles. As with modern cars, these forklifts are now manufactured using lightweight materials where possible, state-of-the-art electronics and ergonomically designed driver controls for ease of use and driver comfort. They are also designed to keep noise, emissions and breakdowns to a minimum



## **Pilot Cutter ‘Deneb’**

Shoreham Port’s Pilot Cutter ‘Deneb’ is one of the most environmentally friendly vessels there is. It has been designed to meet our specific requirements and to take advantage of new technologies to achieve the best possible green credentials.

The hull design offers an easier arrangement for driving through the water and in tests the hull has shown to be very fuel efficient in relation to the weight that the vessel carries. Also the Deneb has two engines to power the vessel up to 22 knots when needed. In the choice of engines, the Port chose the Cummins QSB6.7 which is Tier 3 compliant. The Cummins QSB6.7 has a whole new level of power, versatility and emissions control. It achieves Tier 3 compliance with in-cylinder technology that maintains a compact and simple installation providing premium performance to every application. The engine electronics restrict the emissions and is the modern approach to a cleaner diesel burn without losing unburnt fuel.

The other factor which makes the boat ‘green’ is its multi-purpose role. Unlike the previous pilot cutter it is designed to push ships and to assist in mooring them, which obviates the need to use larger tugs that are less environmentally friendly. It can also be used to transfer crew, equipment and spare parts to ships out at sea. All in all it is a great addition to the Port’s fleet of vessels and it fits very well with our Eco-Port status.

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