



shoreham port

Environmental Report 2020



Hello...

The aim of this report is to share with our stakeholders Shoreham Port's environmental and sustainability performance and impacts. As a team we are committed to continually improving our environmental performance, reducing our impact, and growing sustainably.

This report will be updated annually in February and be available on our website: www.shoreham-port.co.uk

The European Sea Ports Organisation (ESPO) is the principal interface between European seaports and the European institutions and its policy makers. Founded in 1993, ESPO represents the port authorities, port associations and port administrations of the seaports of 22 Member States of the European Union, the United Kingdom and Norway at EU political level. ESPO also has observer members in Iceland, Israel, Ukraine and the United Kingdom. Serving as the first port of call for European transport policy makers in Brussels, ESPO is a knowledge network that drives ports to perform better.

EcoPorts is the main environmental initiative of the European port sector. It was initiated by a number of proactive ports in 1997 and has been fully integrated into ESPO since 2011. EcoPorts seeks to increase awareness about environmental challenges, deliver compliance with legislation and to demonstrate a high standard of environmental management amongst its 114 members from 23 countries.

Shoreham Port has been a certified EcoPort since 2013 having fully embedded the Self-Diagnosis Method (SDM) checklist and the Port Environmental Review System (PERS) within its management process. PERS has firmly established its reputation as the only port sector specific environmental management standard. PERS certification is voluntary and provides evidence of compliance that is independently audited by [Lloyd's Register](#). 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 considered in every aspect of Port activity.

**Shoreham Port is one of only two
PERS certified EcoPorts in the United Kingdom.**



Our Port

Shoreham Port was established in 1760 and is a busy and thriving Port serving the South East region of the UK. The Port occupies over 110 acres of land and plays an important role in the local and regional economy. Shoreham is a Trust Port, managed by an independent statutory board. It is situated within the Brighton and Lewes Downs Biosphere Zone, one of only four designated in the UK and the first entirely new biosphere area for almost 40 years (UNESCO World Biosphere Region; the 'Living Coast').

The Harbour area straddles the local authorities of Adur District Council and West Sussex County Council in the west and Brighton & Hove City Council and East Sussex County Council in the east. The Harbour embraces important environmental characteristics including the River Adur (linking the area with the South Downs), the coastline, a Site of Nature Conservation Importance at Shoreham Fort and a Site of Special Scientific Interest in the Adur Estuary.



Shoreham Port typically handles some 900 ships and 2 million tonnes of cargo per annum, mainly aggregate, steel and timber, but also other bulk cargoes such as wood pulp, recycled glass and rockwool. The Port also welcomes grain for export and fuels for local distribution into dedicated storage facilities. Marina leisure users and a vibrant fishing community are both well established at the Port.

During the last five years the Port has developed an award-winning commercial property portfolio, currently boasting over 150 small business tenants.



Masterplan 2021

Annually Shoreham Port consults colleagues, customers, stakeholders and our board on the creation of a Masterplan. The purpose of the plan is to establish and communicate a set of objectives to guide management decision making during the year. In 2020 we took the opportunity to fully integrate environmental and sustainable objectives into the plan - an approach we continued into 2021.

1. We will place safety at the heart of everything at our Port.
2. We will balance the requirements of leisure, commercial and fishing marine users to continue the profitable growth of the Port.
3. Investment of our infrastructure will continue, growing capability and capacity for the benefit of all our stakeholders.
4. Cargo operations will be centred on the south side of the Port, offering industry leading efficiency and service levels to an increasing range of customers and tenants.
5. We will continue to develop the commercial estate on the north side of the Port, creating a thriving community of businesses.
6. We will innovate through technology and digitalisation to improve efficiency growing revenue through new services, facilities and products.
7. We will collaborate with our neighbours, charities, educational partners and local authorities to support a vibrant community.
8. We will create an inspiring place to work, growing talent and skills in a modern workplace.
9. The diversity of our people will increasingly reflect society.
10. As an EcoPort, we will protect and enhance our environment, promoting fully sustainable development. We plan to achieve net-zero air quality emissions this year and net-zero carbon emissions by 2030.

Environmental Policy Statement

SHOREHAM PORT ENVIRONMENTAL POLICY STATEMENT 2021

Shoreham Port is committed to managing sustainably. We will ensure our standards are beyond compliance with environmental legislation and proactively prevent incidents which pollute land, air, and water. The Shoreham Port Masterplan, which is reviewed annually, is developed in conjunction with our colleagues, partners and a wide range of external stakeholders. The plan embeds sustainability objectives alongside wider strategies. The 2021 Masterplan states: "As an EcoPort, we will protect and enhance our environment, promoting fully sustainable development. We plan to achieve net-zero air quality emissions this year and net-zero carbon emissions by 2030".

To support the achievement of the above we have implemented the Environmental Code of Practice of the European Sea Ports Organisation (ESPO) and Port Environmental Review System (PERS) as our environmental management system.

Our specific goals are detailed in the Shoreham Port Sustainability Plan 2021-2023, which is updated monthly. The plan enables us to coordinate activity across our management teams and geographical area embedding sustainability as part of everything we do. The plan contains six pillars which capture our priority areas, the plan presents documented alignment with the PERS SE's (Exemplifying, Enabling, Encouraging, Engaging and Enforcing) and the HM Government Ten Point Plan for a Green Industrial Revolution:

1. Climate Action (decarbonisation and energy efficiency)
2. Zero waste (air pollution, clean land, and water)
3. Harmony with our natural environment (helping biodiversity and supporting conservation)
4. Supporting Colleagues and Community (improving safety and transparent communication)
5. Value Partnerships (working together and sharing values)
6. Sustainable Business (efficient, resilient, and responsible approach)

To embed this plan, we will:

- Communicate with all external stakeholders our environmental progress through our public meeting.
- Engage with tenants, partners and customers at our regular Port Users Groups.
- Provide training for all colleagues on environmental practice, encouraging them to embed sustainability in their daily work.
- Procure products and services that in their production, utilisation and destruction/recycling minimise the environmental externalities.
- Publish our progress against the plan at least annually on the company website.

Our environmental policy will be periodically revised, considering audits, government policy and available best practice.

Signed



Tom Willis
Chief Executive
1st January 2021



Nicky Brown
People, Communications & Sustainability Director
1st January 2021



Major Environmental Aspects

Within this section we provide an overview of major environmental aspects, impacts, and our performance.

Key Performance Indicators/Activity Summary:

Activity	Measure	Impact
Solar Array	2,418 kWp	820 tonnes CO ₂ offset per year
Onshore Turbines	400 MWp	160 tonnes CO ₂ offset per year
Electric Vehicles/Fleet	Deployed January 2021	6.4 tonnes CO ₂ removed per year
GTL Fuel	280,000 litres used	37.5 tonnes of CO ₂ removed per year
Sea Bins	438m litres displaced per year	2.8 tonnes of debris removed per year
Marine Source Heat Pump	Deployed March 2021	70 tonnes CO ₂ removed per year

Waste Management

Shoreham Port continues to monitor and review its Waste Management Plan which fulfils its legal duties in this regard. For every commercial vessel berthing a covered skip is provided for the reception of the ship's own domestic waste which is disposed of by a registered waste disposal contractor. In addition, 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 at Shoreham Port is kept to an absolute minimum. 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. The Port is in compliance with this requirement.

Port Air Quality Strategy (PAQS):

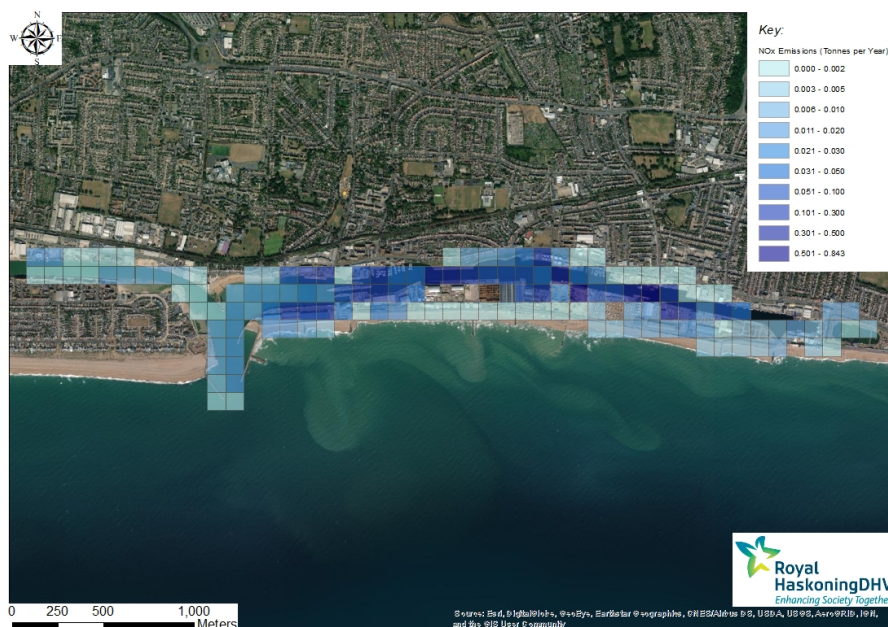
Our PAQS sets out Shoreham Port's plans for achieving the continuous reductions in emissions. The Strategy aligns with UK Government Guidelines for PAQs and is intended to be a living document, reviewed at least every three years to set ever more ambitious targets for air quality improvements.

In essence, our strategy comprises three main elements:

1. The compilation of a thorough inventory of existing air pollutant emissions around the Port. The inventory comprises a catalogue of all operations and activities in the Port that give rise to emissions together with the statutory responsibilities and influences associated with each of the releases.
2. The setting out of a series of measures to be taken over the short, medium and longer term which will lead to a steady and continuous reduction in these emissions.
3. Clear emissions reduction targets and commitments to robust future monitoring and reporting procedures.

Shoreham Port has a linear arrangement with one long side, the shoreline, facing the busiest shipping lane in Europe and the other bordered by one of the busiest roads in the City of Brighton & Hove. Geography thus dictates that identifying the effect of Port activities on air quality by measurement alone is quite difficult. Our PAQS therefore concentrates on quantifying sources of air quality-relevant emissions around the port estate and identifying practical measures that can be taken to reduce them. In order to inform the emissions reduction strategy an Atmospheric Emission Inventory (AEI) was commissioned to establish an understanding of existing air emissions, their relative source contributions and operational responsibility. This approach was endorsed during consultation between the British Ports Association (BPA) and Department for Environment, Food and Rural Affairs / Department for Transport.

The below displays the outputs from the AEI on a 100m x 100m grid across the port estate, displayed as a mass of pollutant released per year:



Findings of the AEI are summarised below:

- Shipping activity is the largest source group within the boundary of Shoreham Port.
- Within the shipping source component, berthing vessels operations, where emissions are released from the use of auxiliary engines, is the dominant source.
- The majority of pollutant emissions within the Port boundary are within the 'influence' control level of Shoreham Port.
- Pollutant emissions under the direct control of Shoreham Port account for less than 10% of most pollutants considered in the AEI.
- Fuel consumption by forklifts is the largest landside source of emissions within the boundary of the Port.
- Although road vehicle emissions are the smallest of the three source groups, they have the greatest potential for off-site impacts.
- Emissions from HGVs are the largest contributor from the road vehicle component.

The Port is in compliance with this requirement and has an extensive action plan in place to further reduce air quality emissions.

Dredging:

To remain accessible to commercial vessels Shoreham Port maintains the shipping channel to the charted dredge depth of 1.9 metres below Chart Datum. To achieve this, we complete hydrographic surveys, which indicate where dredging is required. Dredging activity is undertaken through a combination of port operated tugs and external contractors. Shoreham Port is licensed to undertake this activity by the Marine Management Organisation which has granted a license to dispose of material up to 999,000 tonnes per annum a short distance offshore. The Port is in compliance with this requirement.

Sustainable Development:

In the last five years Shoreham Port has increasingly diversified its business model into property development and management. As part of this we have developed a 'sustainable development template' which is a standard format we use for constructing new properties. This visualisation details the features of all new developments. To date we have completed 24 two story



units to this specification. Our new Lady Bee Enterprise Centre won 'Best Commercial Building' at the Sussex Heritage Awards and 'Best Small Commercial Building' in the Local Authority Building Control awards South East. The Port is in compliance with this requirement.

Water Quality Management:

As part of Shoreham Port's environmental undertaking in relation to its activities, we are committed to preventing pollutants entering the natural environment and maintaining preparedness for response to reduce or eliminate any adverse effects from any polluting incident. In the event of a minor oil spill 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 more significant incident occur, the Port's Oil Spill Management Team would convene. Regional oil spill response services would be accessed by the Port to support the management of the incident.

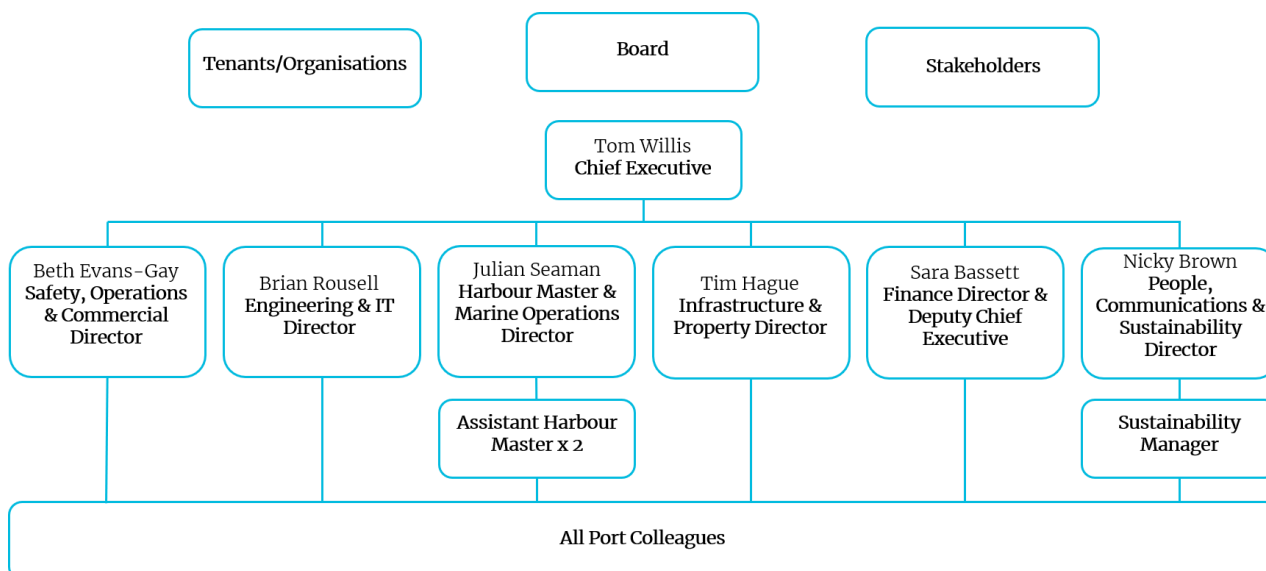
[The Environment Agency](#) officially monitors seawater quality in Adur and Worthing every week throughout the bathing season which lasts from May until September. Shoreham Port periodically reviews the data to ensure there is no deterioration in quality. During 2019 there were no significant adverse effects raised.

During 2020 we have made significant progress engaging the public on water quality issues. During the period 19 complaints were received all of which were investigated, and feedback provided. The Port is in compliance with this requirement. Our new developments have all followed best practice and the relevant regulations to manage surface water run-off and foul sewerage to improve water quality in the locked basin.

Our Environmental Organisation

In this section we provide a brief overview of the Port's environmental management organisation. Alongside safety the Port operates a 'whole team' approach to environmental practice and improvements. Through the adoption of this mindset, we encourage all colleagues to contribute suggestions to improve environmental management.

Environmental Responsibilities of Key Colleagues		
	Job Title	Department
Port Operations (Dredging)	Harbour Master	Marine
Port Operations (Navigation)	Harbour Master	Marine
Port Operations (Shipping)	Harbour Master	Marine
Port Operations (Terminals)	Safety, Operations & Commercial Director	Operations
Cargo Handling Operations	Safety, Operations & Commercial Director	Operations
Jetty/Wharf Management	Harbour Master	Marine
Site Management	Property & Infrastructure Director	Property
Strategic Planning	Property & Infrastructure Director	Property
Supplies Acquisition	Engineering & IT Director	Engineering
Licensing/Permits	Engineering & IT Director	Engineering
Quality Management	Engineering & IT Director	Engineering
On Site Contractor Management	Engineering & IT Director	Engineering
Emergency Planning	Harbour Master	Marine
Waste Management	Engineering & IT Director	Engineering
Marina/Slipway Management	Harbour Master	Marine
Environmental Document Management	People, Comms & Sustainability Director	People
Environmental Data Management	Engineering & IT Director	Engineering
Soil pollution assessment	Engineering & IT Director	Engineering
Air Quality Monitoring	Engineering & IT Director	Engineering
Energy and Carbon Monitoring	Engineering & IT Director	Engineering
Water Quality Monitoring	Harbour Master	Marine
Noise Management	Engineering & IT Director	Engineering
Vehicular Management of Terminal	Safety, Operations & Commercial Director	Operations
Colleague Travel	People, Comms & Sustainability Director	People
Fleet Management	Safety, Operations & Commercial Director	Operations



Our Stakeholders

Within this section we identify all relevant stakeholders, their interests, needs and expectations and record how we engage them in the environmental activities of the Port. We encourage all stakeholders to engage with us in improving our approach to environmental management at the Port.

Stakeholder Group	Key Environmental Interests	Needs and Expectations	Engagement Method and Frequency
Local Community/Public	<ul style="list-style-type: none"> Noise Dust Water Pollution Road Traffic Development 	<ul style="list-style-type: none"> Confidence that the Port is being managed in accordance with environmental legislation and best practice. Confidence that Port activities are not increasing blighting land or property value. That when feedback is raised it is heard and responded to. Noise windows are proactively managed. Air Quality is proactively managed. Emissions are minimised. 	<ul style="list-style-type: none"> Public Meeting – Annually Environment Report – Annually Email feedback process – Continual Website – Continual Social media engagement – Continual
Port Operational Tenants and Importers	<ul style="list-style-type: none"> Road Traffic Ground Pollution 	<ul style="list-style-type: none"> The shipping channel dredging programme is maintained. Waste is managed within legislation and the Port is clean. Road traffic congestion is managed. 	<ul style="list-style-type: none"> Port User Group – Biannually
Local Authorities	<ul style="list-style-type: none"> Legislation Development Road Traffic 	<ul style="list-style-type: none"> All environmental legislation is complied with. Development is compliant with planning law. Road traffic flow is managed. 	<ul style="list-style-type: none"> Local Authority Liaison Committee – Biannually
Marina Users	<ul style="list-style-type: none"> Fuelling Water Pollution 	<ul style="list-style-type: none"> Fuelling safety and environmental process is clearly defined. Marina waste is effectively managed. Response to any water pollution incidents is comprehensive and timely. 	<ul style="list-style-type: none"> Port notice boards – Continual Local Notice to Mariners – Continual Safe Code of Practice – Ongoing Safe Bunkering Procedure – Ongoing Positive reporting to Shoreham Harbour Radio: ‘Bunkering commenced & bunkering completed with No Spills’ – Continual Leisure Safety Group Meeting – Annual Port Users Group – Biannually
Shipping Lines and Shipping Agents	<ul style="list-style-type: none"> Fuelling Water Pollution 	<ul style="list-style-type: none"> Fuelling safety and environmental process is clearly defined. Response to any water pollution incidents is comprehensive and timely. The Port has a good reputation on environmental matters. 	<ul style="list-style-type: none"> Safety information notice given to all commercial vessels on arrival – Ongoing Safe Code of Practice – Ongoing Safe Bunkering Procedure – Ongoing Positive reporting to Shoreham Harbour Radio: ‘Bunkering commenced & Bunkering completed with No Spills’ – Continual Customer engagement meetings – Continual
Anglers	<ul style="list-style-type: none"> Light Pollution Waste/Littering 	<ul style="list-style-type: none"> Waste is managed within legislation and the Port is clean. Lighting is maintained within legislation. 	<ul style="list-style-type: none"> Marine notice boards – Continual Signage – Continual Regular meetings with Shoreham Harbour Arms Community Organisation who disseminate all messages to the wider audience.

Key Projects

Shoreham Port has an active environmental improvement plan with everyone across the team involved in making suggestions and delivering projects. We have detailed here some of the projects we have delivered in the last 12 months:

Solar Energy

The port has an ambitious plan to meet a new target of producing 3.5 mWp of solar energy by the end of 2024, the progress to date is as follows:

- 2012 Hove Enterprise Centre, 366 panels - 87kWp
- 2014 Warehouse roofs, 1,698 panels - 411 kWp
- 2015 Barrett Steel Plant, 7,074 panels - 1,800 kWp
- 2019 Lade Bee, 296 panels - 90 kWp
- 2019 Hove Enterprise Centre extension, 109 panels - 30 kWp

The plan to deliver the full target is as follows:

- 2021 Outer Layby Shed, 2,548 panels - 700 kWp
- 2021 Ferry Wharf, 218 panels - 60 kWp
- 2022 Port Kitchen, 109 panels - 30 kWp
- 2022 Maritime House, 109 panels - 30 kWp
- 2023 Nautical Training Centre, 182 panels - 50 kWp
- 2023 Inner Layby Shed, 2,548 panels - 700 kWp

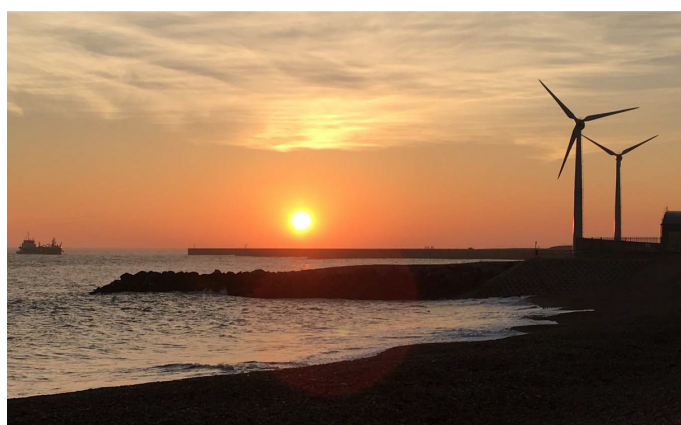
Progress to date: 2,418 kWp/820 tonnes of CO2 saved per year.

Potential progress by 2023: 3,988 kWp/1,300 tonnes of CO2 saved per year.



Onshore Wind

The Port has installed two Norvento nED100 wind turbines on the seaward side of the Outer Lay-by Terminal. The turbines produce 400 MWh of electricity annually, matching the energy demand of the Port's pump house. The two turbines consist of a three-bladed rotor, 22m in diameter, supported by a 24.5m tubular monopole. This electricity production saves 160 tonnes of CO2 per year.



Colleague Travel Plan

In 2014 Shoreham Port introduced a plan to reduce the environmental impact of colleague travel. This year we have made the following progress:

- 40 colleagues now have remote working flexibility in their role profiles, reducing journeys into the port by 50%.
- 10 colleagues have been relocated from buildings isolated from public transport to a central location with excellent public transport links (bus and train).
- Bike shelters are now in place in all locations colleagues are based.
- Electric Vehicle charging points have been installed at all locations and a policy developed to enable all colleagues to access the electricity for free.

Our ambition in 2021 is to engage the wider port community of 1,750 people in collaborative approaches to sustainable colleague travel.



Seabin Installation - Lady Bee Marina

We will shortly be installing two Sea Bins as part of the redevelopment of our Lady Bee Marina pontoons. Water is sucked in from the surface by a pump capable of displacing 25,000 litres per hour and passes through a catch bag inside the bin. The water is then pumped back into the marina leaving litter and debris trapped in the bag. Each Seabin can catch an estimated 3.9 Kgs of floating debris per day or 1.4 tons per year (depending on weather and debris volumes) including micro plastics down to 2 mm across.

We intend to use the Seabins as a public educational resource to raise awareness of the damaging effects of ocean pollution.



World Cetacean Alliance/Sussex Dolphin Project

In 2020 Shoreham Port agreed a strategic partnership with the World Cetacean Alliance (WCA). The WCA is the world's largest marine conservation partnership. The agreement enabled the WCA to establish its UK headquarters at Shoreham Port continuing their key community led activity as the Sussex Dolphin Project. The Sussex coastline was previously one of the most poorly studied cetacean habitats in England. Through a citizen science research project, the WCA have created a network of regular marine users and members of the public who document sightings and record images to identify individual whales, dolphins and porpoises. The charity also runs a calendar of activities aimed at creating a future generation of ocean conservationists in Sussex. The strategic partnership has enabled colleagues at the Port to get involved in recording sightings and we have a joint plan for an ambitious kelp reforestation project in 2021.



Shingle Bypassing

There is a natural process of shingle movement along the Sussex coast from west to east. The result is the buildup of approximately 15,000m³ of shingle annually at the east end of Shoreham Beach, where the west breakwater blocks its progress 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 opening.

Shoreham Port has adopted, in addition to various sea defence measures, a bi-annual operation 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 we take care to minimise the impact of the operation on residents. A similar exercise is also undertaken moving shingle from Brighton Marina to Southwick beach.

Studies have shown that because of shingle bypassing, beach volumes along the Port have 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.

Emission Reduction

By replacing two thirds of our vans with new fully electric vehicles (EV's) the Port has been able to reduce carbon emissions by 6 tonnes of CO₂ per year. As current EV technology does not match the operational requirements of the remaining third, the Port opted to replace the oldest vehicles with newer models until a suitable EV alternative is available. This further reduced carbon emissions by 11%, provided safer equipment for Port colleagues and improved operational flexibility.



To enhance operational efficiency, the Port increased its EV charging infrastructure to 20 smart charging points, all of which draw power from renewable energy sources, including Port solar panels. Many charging points are available to the local community, with free charging available to all colleagues. Following investment in the new, more economical forklifts, the Port identified there was an opportunity to further reduce carbon emissions by using Gas-To-Liquid (GTL) fuel in place of diesel. By adapting its fuelling infrastructure, the Port was able to supply GTL to its fleet of over 60 operational vehicles including forklifts, cranes, telehandlers and work-platforms. Using GTL has reduced emissions by 37.5 tonnes of CO₂ per year, engine particulates by up to 90% and nitrogen oxides by up to 25%. The Port has selected a GTL supplier who support a variety of sustainability projects to off-set its CO₂ production.

Water Source Heat Pump

One of our key emission reduction initiatives is to install a renewable energy powered Marine Source Heat Pump (MSHP) with associated abstraction and rejection plant. This containerised unit is to be sited at Maritime House, a three-storey office building housing 37 business tenants. The MSHP will replace an oil-fired heating system removing 70 tonnes of CO₂ per year with zero Nitrogen oxide (NO_x) and Sulphur oxide (SO_x) emissions.

The MSHP works by drawing water from the Port's locked basin and passing it through a heat exchanger before returning it a short distance away. The heat exchanger then raises the temperature of the water in the building's closed loop heating system. The electrical supply for the MSHP required an upgrade to the local electrical distribution network by way of a new high voltage substation with a dedicated 400A supply to the MSHP. The new substation will also provide capacity for future eco incentive projects like PV (solar panels) electric vehicle charging and shore supplies for vessels.

The Port has received a tariff guarantee accreditation under the Renewable Heat Incentive (RHI) with a return of investment payback within 15 years. The installation will be commissioned by Spring 2021.



Contact:

info@shoreham-port.co.uk

www.shoreham-port.co.uk



our values



good eggs



all in



fair



savvy



one team



own it



open doors



trusted custodians