



ENVIRONMENTAL REPORT 2019

ABOUT THE PLA

- The PLA are the Custodians of the tidal Thames, from Teddington to the North Sea. As a Trust Port, we hold the Thames in trust for future generations. With no shareholders, we operate for the benefit of our stakeholders.
- We work to ensure navigational safety along the tidal Thames, sharing our marine, environmental, planning and other expertise to promote use of the river and safeguard its unique marine environment.
- The tidal Thames is one of the UK's busiest waterways and is home to the country's second biggest port by tonnage of goods handled.

Stakeholder's ambitions are set out in the Thames Vision.

The Thames Vision is a 20-year development framework for the river, created with stakeholders over 18 months from early 2015 to mid-2016. Across six goals, the Vision targets greater river use, alongside an improving environment. The Vision is being delivered in partnership by the PLA and stakeholders; key elements of the Vision are reflected in the London Plan and the Mayor of London's environment and transport strategies. The Environment and Heritage goal is to see ***"the river the cleanest since the Industrial Revolution, with improved habitats and awareness of heritage"***.

The PLA Strategy is to support the Vision ambitions.

To deliver the Vision, the PLA Strategy is centred on key themes:

- **PROTECT** – targeting Zero Harm and improved sustainability
- **IMPROVE** – running efficient operations and investing to support growing river use
- **PROMOTE** – leading the Thames Vision to unlock the potential of the Thames

PLA Environment Mission Statement

The Mission Statement sets out the key objectives to achieve our environmental goals.

PLA Policies drive the PLA's activities.

To deliver corporate environmental improvements we have an Environment Policy, which has a target for carbon emission reduction, and an Energy Policy, which targets a reduction in energy consumption.



OVERVIEW

Following on from our Environment Report 2018, this 2019 report reflects the advances we made last year. At the time of publication, we are still living through the COVID-19 pandemic and the changes that it has brought to life on the river and wider society. The benefits from the lockdown to air quality and wildlife have been widely reported and it is our intention that these improvements can be maintained by a Green Recovery rather than a return to “normal”.

This report is collated under three main themes of Cleaning the River, Resource Management and Greening the River with links to further information on other pages of our website, where appropriate. These include plans and actions relating directly to our operations, as well as our external facing role to improve the wider Thames environment, using our powers as a regulator, investor and advocate.

Key environmental statistics are contained in our 2019 [Annual Report and Accounts](#), which can be found on our website www.pla.co.uk.

Key achievements to date

- Working in partnership with the RSPB to complete habitat enhancements in North Kent and South Essex. Includes volunteering opportunities for our staff.
- Began work on refurbishing our main Gravesend office to improve working conditions and reduce energy consumption.
- Commissioned a new solar PV installation on the roof of our main Gravesend office.
- Signed our commitment to net zero with the [#Pledge to Net Zero](#);
- Continuing to deliver actions in the [Air Quality Strategy](#), including trials of alternative fuels in one of our vessels.
- Became a corporate supporter of the London, Kent and Essex Wildlife Trusts.
- Held a staff awareness day to increase interest in environmental issues.
- Convening an annual [Environment Conference](#) to report on environmental achievements, covering education, citizen science and most recently Net Zero.

- Consenting the Thames Tideway Tunnel and ensuring safety of navigation during construction.
- Continuing to [Work in Partnership](#) with regulators and our stakeholders to deliver the goals of the Thames Vision.

Ongoing Commitments and Future Plans

Many of our future plans are set out in our published Strategies ([Air Quality](#); [Litter](#)), but on a broader note we also plan to:

- Work with partners to drive a Green Recovery post-Covid-19.
- Work, throughout 2020, on our Net Zero Programme. This is formed of two projects to determine how, and by when, we (Green PLA project) and the wider port (Green Port project) can achieve Net Zero. The Net Zero programme will focus on reducing carbon emissions but will also consider wider environmental issues such as air quality and waste reduction.
- Continue to trial alternative fuels to determine if they can reduce air pollutants and carbon, without adversely impacting on engine reliability and performance.
- Review our Climate Change Adaption Report.
- Offer an Environment Fund for projects that meet specific environmental objectives.
- Review our Air Quality Strategy in line with Department for Transport guidelines in summer 2020.
- Continue to implement the [Air Quality Strategy](#) actions.
- Thames Tideway Tunnel will come into operation, improving water quality of the river.
- Work towards our contributions to the United Nations Sustainable Development Goals (UN SDGs).

Overview
Page 2

Cleaning
the River
Page 4

Resource
Management
Page 7

Greening
the River –
Biodiversity
Page 10

CLEANING THE RIVER – AIR AND WATER QUALITY

The aim of our Air Quality Strategy for the tidal Thames, published in 2018, is: ***“The reduction in harmful emissions to air from marine sources within the tidal River Thames, whilst facilitating the Port and London’s future growth.”*** Since publication we have been working with river stakeholders on delivering the eighteen priority actions.

Water quality will be improved by the opening of the Thames Tideway Tunnel, but litter still blights the river and foreshore. With our partners we are delivering the Thames Litter Strategy actions and continue to remove litter and debris from the river.

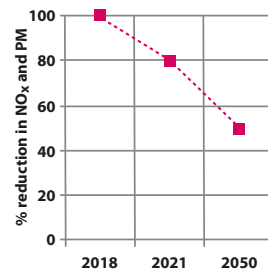
Our work on Cleaning the River contributes to UN SDGs 6 (clean water and sanitation), 11 (sustainable cities and communities), 13 (climate action), 14 (life below water) and 17 (partnerships for the goals).

Air Quality Strategy

Baseline/Target

The **Air Quality Strategy** sets challenging targets, including a reduction in nitrogen oxides (NOx) and particulate matter (PM) by 50% in the next 25 years.

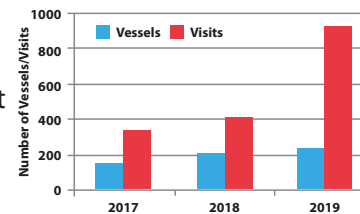
Initial targets are to achieve a 20% reduction by 2021 and progress will be determined by repeating the Emissions Inventory in 2022.



Air Quality Strategy

Baseline/Target

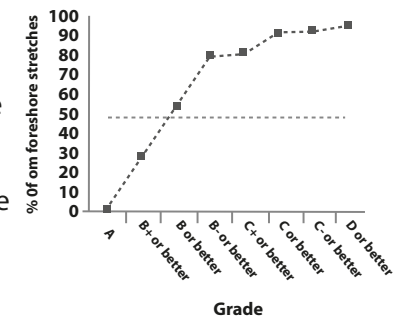
In 2017, London was the first UK port to introduce a **Green Tariff** – a port charge discount scheme. To qualify, vessels must have an Environmental Shipping Index score of 30 or above, based on environmental performance and applies to vessels that outperform current International Maritime Organisation emission standards.



Water Quality

Baseline/Target

Our litter baseline for 2017 found 55% of **surveyed foreshore** was graded B or above (predominantly free of litter). The target is to achieve 75% graded B or above by 2022.



Achievements and results

Nitrogen Dioxide Monitoring

Starting in 2018 and continuing until the end of 2020, a partnership between the PLA and the City of London has undertaken diffuse monitoring at 14 transects from the river, to explore dispersion from different sources. Since 2018 we have been testing a river-wide network to validate emissions and evaluate dispersion of nitrogen dioxide.



Achievements and results

Green Tariff

The **Green Tariff** continues to be successful with 60% more qualifying vessels calling on the Thames in 2019 than in the inaugural year 2017. For 2019, the **Green Tariff** discount was doubled to 10%, providing a greater incentive for shipping lines to invest in ships with good environmental performance.



Achievements and results

Litter Collection

Our afloat staff continue to remove litter from the river. In one day in July 2019, nearly 70 **shopping trolleys** were recovered from the foreshore near Thamesmead by the crew of our vessel *Driftwood III*. The trolleys were sent for recycling.



Air Quality Strategy

Achievements and results ✓

Emissions Monitoring – alternative fuel

During 2019, trials of Shell GTL fuel were undertaken on our harbour service launch *Kew*. Emissions were monitored to determine if the new fuel resulted in lower emissions. Results will be published in 2020 on our website to encourage the adoption of greener fuels.

**Ambient Air Quality Monitoring**

A network of real time air quality monitoring stations was installed at Greenwich and has been recording since May 2019 to allow assessment of any local effects from emissions from cruise ships mooring at Greenwich Ship Tier. Raw data is available on the [PLA website](#).



Proposals /next steps

Greenwich Ship Tier

As part of our commitment to Net Zero and in partnership with cruise lines, local authorities and the private sector, work will begin to assess the necessary measures to make the Greenwich Ship Tier a [zero emission](#) berth by 2025.



Air Quality Strategy

Achievements and results ✓

Conference

In September 2019 we convened the [Greening Inland Shipping conference and exhibition](#). Nearly 200 delegates heard from a range of international speakers who shared experiences on research, innovation and lessons learnt. The conference fulfilled a commitment in the Air Quality Strategy.

**Green Inland Shipping – forecasting**

We have been working with E4tech and operators to develop a better understanding of the low emission technologies that would be most relevant on the Thames and how quickly they can be adopted. This work has identified a number of barriers that we are working with stakeholders to remove.



Proposals /next steps

Green Tariff

For 2020, the [Green Tariff](#) discount will be doubled for ships achieving a score of 50 or more, providing a greater incentive for shipping lines to invest in ships with good environmental performance.



Water Quality

Achievements and results ✓

New Litter Collectors

Our central London passive debris collectors (PDCs) may not be suitable for use in the outer estuary. A trial of a PDC suitable for conditions in the Outer Estuary is underway ahead of the design of a new PDC in partnership with DP World at London Gateway.

**Encouraging Litter Collection**

A feasibility study into the possibility of introducing two-minute litter picks on the Thames has been undertaken. This study also included the possibility of installing water foundations to encourage people to refill water bottles instead of purchasing and using single use plastic bottles.



Proposals /next steps

Litter Map

In 2020 we will launch an online Litter Map for the tidal Thames. This interactive map will maximise the potential for litter removal by connecting volunteers with events and providing a central hub for storage of data collected.



Air Quality Strategy

Proposals /next steps

Air Emissions

Abatement Retrofits

Clean Air Thames is a partnership programme of funding for vessels retrofitting technology, as the first step to reduce emissions in London. The project is run by Cross River Partnership with City of London, Greater London Authority and the PLA. Two vessels have been awarded funding and will be monitored in 2020 by the PLA contractor, UCL Marine Engineering team to quantify improvements. A further round of funding will be available in the summer of 2020.



Air Quality Strategy

Proposals /next steps

Green Operator Scheme – Inland Shipping

We will continue to review the feasibility of an incentive scheme for inland shipping, with an aim to consult in 2021 for implementation in 2022.



Water Quality

Proposals /next steps

Encouraging Litter Collection

In 2020 we will begin to implement the recommendations of the feasibility study into installing two minute litter pick stations and water fountains on PLA landholdings along the Tidal Thames.

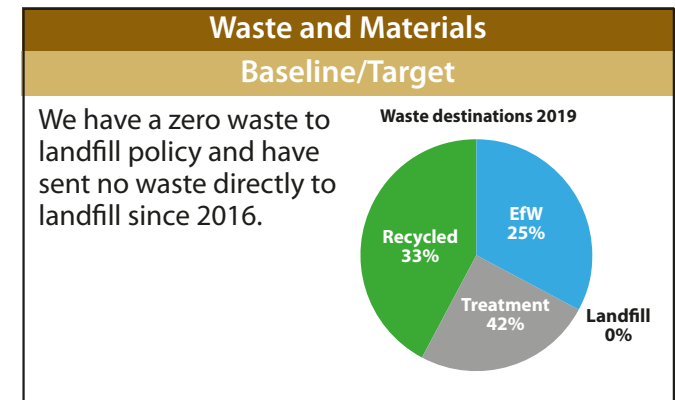
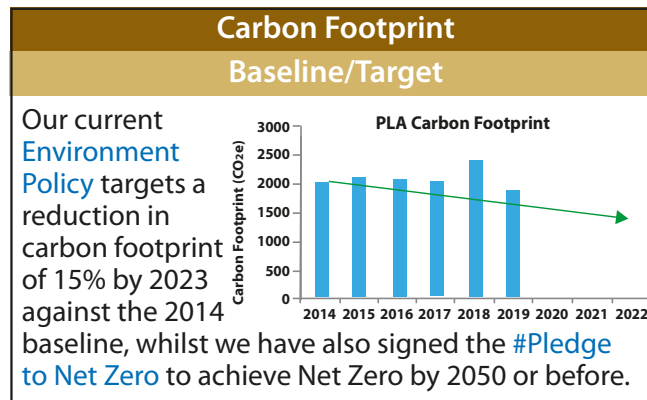
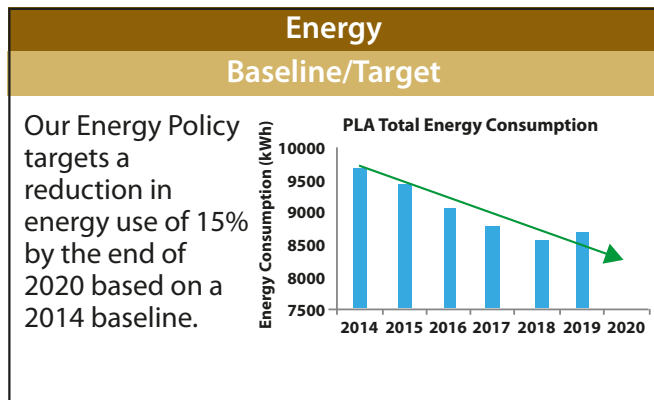


RESOURCE MANAGEMENT

Like most organisations, the PLA uses resources to undertake our work. Our baseline year for resource management is 2014, when we undertook a comprehensive review of energy data.

In 2019 the UK government enshrined in law a commitment to achieve Net Zero carbon emissions by 2050 – meaning for every tonne of carbon emitted to the atmosphere an equivalent amount should be removed. To ensure we play our part we will implement a Net Zero programme in 2020 to determine how and when the PLA and the Port can achieve net zero. We pledged our commitment via the [#Pledge to Net Zero](#).

Two visible achievements of our intention to reduce energy and be less resource-intensive were noticeable during 2019. The first is the arrival on the Thames of our hybrid pilot cutter *Leader* and the second was the scaffolding that covered our headquarters, London River House, from autumn 2019 whilst the building is refurbished. On completion solar panels will contribute to the building energy supply, whilst a new heating and ventilation system and LED lighting is expected to reduce energy consumption by 92MWh/y, or the equivalent energy consumption of nearly six average UK households. Our work on Resource Management contributes to UN SDGs 6 (clean water and sanitation), 7 (affordable and clean energy), 11 (sustainable cities and communities), 12 (responsible consumption and production), 13 (climate action) and 17 (partnerships for the goals).



Achievements and results ✓

Energy - Vehicles

As we replace vehicles we identify the most energy efficient option for the required task. This has resulted recently in the replacement of diesel pool cars with petrol hybrids.

Achievements and results ✓

Carbon Footprint

2019 saw a reduction in our carbon footprint of 6% against our 2014 baseline, making our 2023 target challenging but achievable.

Achievements and results ✓

Clothing

During 2019 we reviewed our stocks and distribution of staff clothing and PPE, requiring issued clothing to be returned. A new contract for recycling the returned clothing has been established, along with a “library” of PPE for occasional users and visitors to borrow.

Energy

Achievements and results ✓

Renewable Energy – Land

The refurbishment of our Gravesend office includes the installation of 70MW of solar photo-voltaic panels which will supply part of the power demand for the site.

**Energy Savings**

During 2019 we made our submission to comply with Phase 2 of the Energy Savings Opportunity Scheme (ESOS) Regulations 2014. New identified energy opportunities will be evaluated for inclusion in our Net Zero action plan.



Carbon Footprint

Achievements and results ✓

Hybrid Technology

Our [hybrid pilot cutter Leader](#) arrived on the river at the end of 2019. With hybrid technology and improved design fuel consumption should fall and an accompanying reduction in our carbon footprint should be reflected in our 2020 figures.

**Office Refurbishment**

Work began on the project to refurbish our Gravesend office. This aims to provide modern office facilities with new heating, ventilation and LED lighting to improve energy efficiency and reduce our carbon footprint.



Waste and Materials

Achievements and results ✓

Waste – suppliers

Work has been ongoing to reduce deliveries and packaging from suppliers by consolidating orders.

**Reducing plastic**

During 2019, we sourced recyclable plastic cards for the nearly 700 ISPS port security cards we issue every year, and have reduced the issue frequency from yearly to three-yearly.

Proposals /next steps

**Vehicles**

In 2020 we will invest in three hybrid vehicles to replace part of our contracted diesel pilot taxi services.

Proposals /next steps

**Net Zero**

We will undertake a programme of work during 2020 to determine how, and by when, the port and the PLA can achieve Net Zero. The work will also consider the impacts from climate change and how we can adapt.

Proposals /next steps

Staff Travel

Our staff-led Travel Group will reflect on the results of the staff survey they conducted in 2019 to publicise alternatives and incentives for greener travel options.



Energy

Proposals /next steps

Net Zero – Renewable Energy

As part of the Net Zero programme we will review our assets and landholdings to identify potential sites for installation of renewable energy. This will form the basis for a Renewable Energy Strategy.



Carbon Footprint

Proposals /next steps

Climate Change Adaption

As a major port under the auspices of the Climate Change Act, the PLA holds a Climate Change Adaption Plan that looks at ways to maintain port services in a changing climate. We will review this in 2020.



Waste and Materials

Proposals /next steps

Net Zero - Waste

As part of the Net Zero programme, we will review the waste we produce and identify further



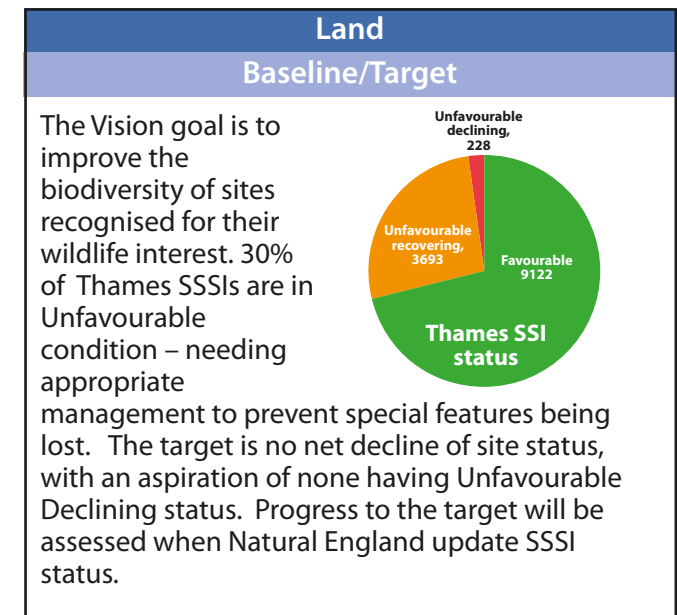
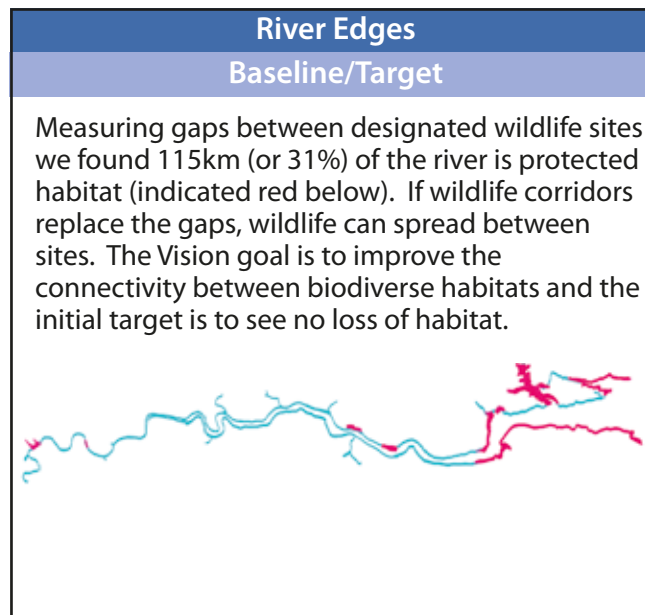
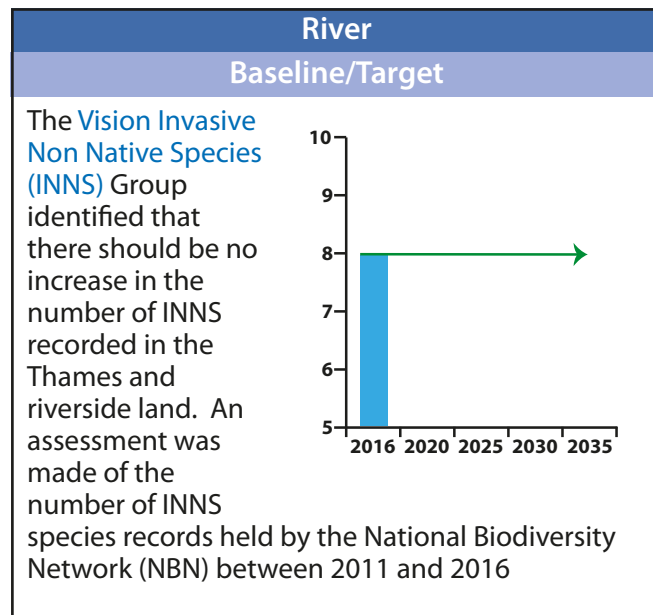
opportunities to reduce, reuse and recycle. We have started to issue digital foreshore permits, reducing plastic usage, (during 2019 we issued 1,000 plastic card permits).

GREENING THE RIVER – BIODIVERSITY

Our assets include the tidal river Thames and tributaries below mean high water, as well as a number of terrestrial landholdings. We want to manage all our assets for the benefit of wildlife. As the Thames Vision recognises, we can't do this alone so we are building partnerships to deliver improvements, including:

- Contracting the silt lagoons at Rainham to Land & Water Services Limited, who have developed a restoration plan in conjunction with the PLA, RSPB and Natural England.
- Supporting our tenant farmers to deliver environmental improvements and developing baseline species data and comprehensive management plans, to demonstrate the value of these improvements.
- The Vision Biodiversity Group which includes nature NGOs, other landowners, regulatory bodies. Dormant during 2019, the Group will be combined with the Vision Invasive Non Native Species Group in 2020 to develop a biodiversity strategy.

Our work on Greening the River contributes to UN SDGs 2 (zero hunger), 6 (clean water and sanitation), 11 (sustainable cities and communities), 13 (climate action), 14 (life below water), 15 (life on land) and 17 (partnerships for the goals).



River

Achievements and results ✓

Communications

Our staff environment competition inspired staff to look at the natural environment in a new way – the winner being a stunning shot of the river at Richmond Lock.

**SSSI Enhancements**

During 2019 we undertook a site visit to West Thurrock Lagoon and Marshes SSSI in Essex with partners Natural England, the Environment Agency and the Land Trust. We collectively reviewed the potential of the intertidal



site for habitat enhancement.

Proposals /next steps

Environment Fund

We propose in 2020 to open the PLA's first Environment Fund for projects. Funding will be offered to projects that meet specific objectives within the broad topics of INNS and litter.



River Edges

Achievements and results ✓

Communication – Estuary Edges

In July 2019 we launched a new website containing the revised [Estuary Edges](#) biodiversity enhancement guidance. Revised in partnership with the Environment Agency and the Thames Estuary Partnership, the guidance is for river wall owners and developers, showing how they can “green the edges” of the tidal Thames, contributing to the Vision goal to improve connectivity.

**Data – closing the gaps**

We continue to investigate opportunities to close the gaps between habitats where possible and continue to monitor the locations of habitat enhancements works undertaken in the Thames



Proposals /next steps

SSSI Enhancements

In 2020 we propose to finalise a design for habitat enhancements at West Thurrock Lagoon and Marshes SSSI in Essex, with an aim that the intertidal SSSI unit will be classified as “Favourable” when it is next reviewed.



Land

Achievements and results ✓

Habitat Monitoring – Farmland

In 2019 we contracted Bramley's Associates to undertake ecological surveys of habitats and species on our tenanted farmland. The surveys, including breeding birds, will establish a baseline dataset against which we can demonstrate improvements.

**Habitat Management – RSPB**

In 2019 we partnered with the RSPB through our investment fund to improve the habitats of a number of RSPB reserves in North Kent and South Essex. These habitat improvements are set to improve the sites' ability to support both bird and invertebrate species.



Proposals /next steps

Biodiversity Enhancements

In 2020 we propose to undertake a feasibility study into the potential for installing biodiversity enhancements on our land holdings. We will review provision of wildflower meadows, bug hotels, green walls and more.

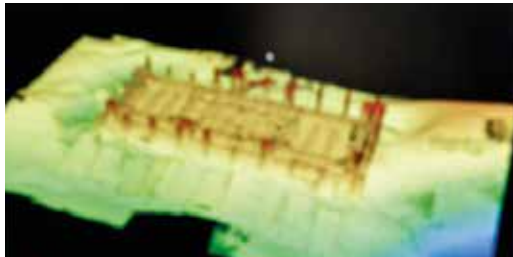


River

Proposals /next steps

Habitat Mapping Trial

We propose that in 2020 we will begin a trial project to map the habitats of the Thames, providing more accurate data on the extent and location of habitats within the river.



River Edges

Proposals /next steps

Net Zero – climate impacts

A critical part of our Net Zero Programme will be to ensure we understand how climate change will affect our operations and our biodiverse landholding in future and identify what adaptations we need to make.



Land

Proposals /next steps

Net Zero – carbon storage

As part of our Net Zero programme we will review our landholdings to determine where we may be able to make habitat enhancements that will store carbon to offset those carbon emissions we cannot eliminate.





The PLA's environmental work contributes to the following UN Sustainable Development Goals:



CUSTODIANS OF THE
TIDAL THAMES

PROTECT | IMPROVE | PROMOTE

www.pla.co.uk
@LondonPortAuth
www.youtube.com/portoflondon
01474-562200