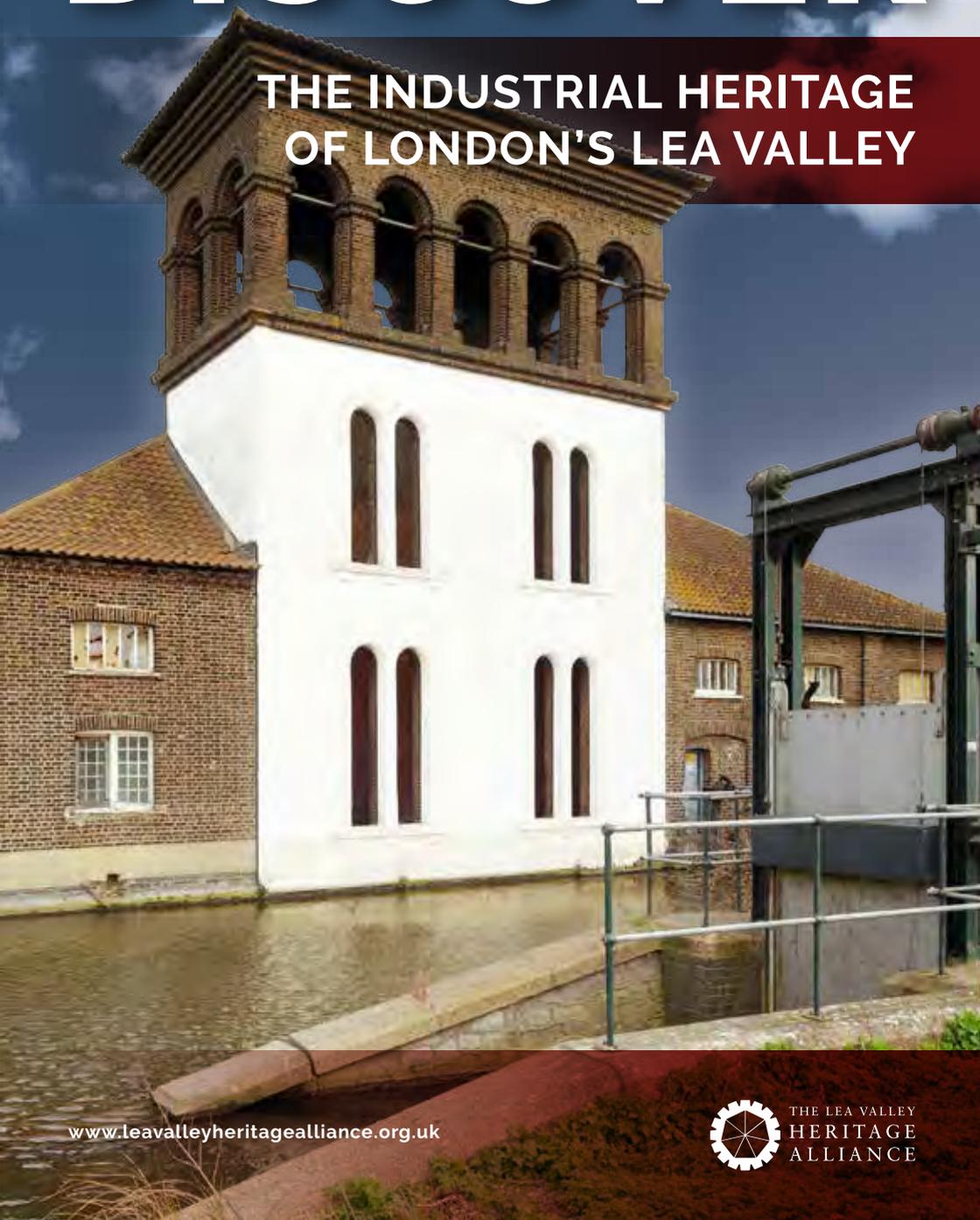


# DISCOVER

## THE INDUSTRIAL HERITAGE OF LONDON'S LEA VALLEY



[www.leavalleyheritagealliance.org.uk](http://www.leavalleyheritagealliance.org.uk)



THE LEA VALLEY  
HERITAGE  
ALLIANCE

## INTRODUCTION

The London 2012 Olympic and Paralympic Games brought the River Lea and its valley to international attention, but beyond the Queen Elizabeth Olympic Park it still remains a little known backwater. In fact it has an extraordinary history of industrial invention and development that is of worldwide significance - arguably the Silicon Valley of its day.

The Lea Valley saw the manufacture of the world's first electric lightbulb, the invention and manufacture of its first diode, first duplicating machine, and first solid state (all transistor) colour television. It also saw the discovery of electro-magnetism, the creation of the world's first plastic, and is where petrol was first refined to power automobiles. It saw the creation and manufacture of Britain's first motorcar, its first standard omnibus, and the construction - and flight - of its first powered aeroplane. Many companies which became British household names originated in the Valley, including Avro, the aeroplane manufacturer, bus manufacturers AEC, toy manufacturers Lesneys, Belling heaters, Ferguson electronics, Gestetner duplicators, and sweet manufacturers Trebor and Maynards.

This industrial valley is today a thing of the past. Much of it lies within what is now Lee Valley Regional Park, and many of its industrial remnants have been imaginatively incorporated by the Park Authority into the surrounding landscape. One positive outcome of its industrial decline has been to preserve and protect waterside ecologies. Peaceful nature reserves are now a valley feature and are included in the visitors' map in the centre of the brochure.

Economic life is now returning to the valley in ways that echo its traditions of creativity, technological innovation and production, but now for the digital age. The well-established art and design studios of Hackney Wick and Fish Island have been joined by the giant Here East, the former Olympic broadcasting and media centre. This has morphed into London's dedicated home for innovative tech-based industries, both established names and start-ups. The Cultural and Education District soon to emerge in the Olympic Park will bring together outstanding organisations to showcase art, dance, history, craft, science, technology and design.

The valley is no longer just a place of the past but also a place of the future.

Front cover image: Grade 2 Listed Coppermill, 1864, Walthamstow Wetlands

Lee Navigation, looking north towards Stratford from Bow Locks



## BACKGROUND TO THE LEA VALLEY

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## INDUSTRY AND INNOVATION

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Milling was the first industry to arrive in the Lea Valley. Since medieval times, numerous mills used water power provided by the river to mill flour to meet London's growing demand for bread. The place name 'Mill' recurs throughout the area. **The House Mill (11)** at Bromley-by-Bow was rebuilt in the eighteenth century as a tidal mill to capture the tidal power of the river for the manufacture of, in this case, gin. Flour is still milled at the historic Wright's Flour Mill at Ponders End.

In the nineteenth century, the mills were overwhelmed by factories, attracted by London's growing demand for manufactured goods and easy access to coal and raw materials brought up the river from the London Docks. The Lea riverside from Stratford to the Thames was rapidly transformed into a dense, uncontrolled industrial zone, notorious for its noise, smoke and smells.

**Cody Dock (13)**, which handled coal deliveries to the giant Bromley-by-Bow gasworks, recalls the period when the river heaved with barge traffic.

Stratford became famous for the building of railway engines and thousands of wagons at Temple Mills. One of the country's major Victorian shipbuilders, Thames Ironworks, was located at Orchard Yard, Leamouth. **The SS Robin (17)**, which is currently moored in the Royal Docks, was built in the yard in 1890 and is the world's oldest complete steam coaster. There are plans to move the SS Robin to Trinity Buoy Wharf.

**Trinity Buoy Wharf (15)**, also in Leamouth, features a lighthouse built in 1866 by Trinity House to trial the innovative use of electricity to power the nation's lighthouses. It also has a reconstruction of the workshop where Michael Faraday carried out his groundbreaking discoveries in electro-magnetism.

**Hackney Wick (6)** saw the creation and manufacture of two significant new products: plastic and petrol. These sites no longer exist but the building housing the world's first dry cleaners still stands. Also still standing, a short distance further upriver, are the railway arches on **Walthamstow Marshes (5)**, in which AV Roe built and flew the first all-British powered

aeroplane. Britain's earliest car and buses were Manufactured in Walthamstow on the river's eastern borders and the **Walthamstow Pumphouse Museum (4)** celebrates the area's rich transport heritage.

The Royal Small Arms Factory at Enfield Lock and the Royal Gunpowder Mills in Waltham Abbey recall the Importance of the Lea Valley in the innovation and manufacture of armaments and modern weaponry. At its southern end, on a site at Bromley-by-Bow, now long gone, lay the factory that produced the innovative Congreve Rockets, first used in the Napoleonic Wars.

## RESERVOIRS, WATERMEADOWS AND WILDLIFE

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The River Lea has supplied drinking water to London since the 18th century and still provides some 15% of London's current demand, channelled through a series of reservoirs which dominate the northern end. In several locations redundant industrial features have been incorporated into the surrounding landscape, notably at the Water Works Centre Nature Reserve and Middlesex Filter Beds, both near Lea Bridge.

On Walthamstow's western border, where natural open spaces still dominate, a series of early reservoirs are being transformed into the Walthamstow Wetlands, a striking landscape with important industrial features that are of special significance for wildlife.

The river has also played an important role in helping to manage the removal of London's waste water and sewage. Relics of these major water enterprises can be found throughout the valley, including the **Markfield Park Beam Engine (2)** in Tottenham, a giant steam-powered pump that is still in working order, and the **Abbey Mills Pumping Station (9)** near West Ham, nicknamed the 'Cathedral of Sewage' due to its remarkable Victorian gothic design.

**East India Dock (14)**, by Leamouth, once the hectic hub of 'East Indiamen' preparing for voyages to India and China, is now a tranquil bird reserve with excellent views up and down the Thames. Bow Creek Ecology Park lies immediately to the north, providing a natural setting that offers striking views of the Lea as it loops towards its junction with the Thames.

## DISCOVER MORE ABOUT THE HISTORY OF THE VALLEY

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Dr Jim Lewis has written a series of fascinating books about different aspects of the history of the Lea Valley, published by Libri Publishing.

In addition to the Museum of London (in Central London), local history museums contain a wealth of information:

### Museum of London Docklands (on the Isle of Dogs)

No.1 Warehouse, W India Dock Rd, Canary Wharf, E14 4AL  
Contact: portriverarchive@museumoflondon.org.uk

### Vestry House Museum

Vestry Rd, Walthamstow, E17 9NH  
Contact: vhm.enquiries@walthamforest.gov.uk

### William Morris Gallery

LLoyd Pk House, 531 Forest Rd, Walthamstow, E17 4PP  
Contact: wmg.enquiries@walthamforest.gov.uk

### Bruce Castle Museum

Lordship Lane, Tottenham N17 8NU  
Contact: museum.services@haringey.gov.uk

### Hackney Museum

1 Reading Lane, Hackney, E8 1GQ  
Contact: hmuseum@hackney.gov.uk

### Tower Hamlets Local History Library and Archives

277 Bancroft Rd, E1 4DQ  
Contact: localhistory@towerhamlets.gov.uk

### Newham Archive and Local Studies Library

Stratford Library, 3 The Grove, E15 1EL  
Contact: archiveslocalstudies@newham.gov.uk

### Enfield Local Studies and Archive

Thomas Hardy House (1st floor), 39 London Road, Enfield, EN2 6DS  
Contact: local.history@enfield.gov.uk



## MARKFIELD PARK BEAM ENGINE

### Markfield Road, N15 4RB

Opening hours:	The Park, offering views of the engine, is open daily. The Beam Engine Room is open regularly; times of steaming days can be found on the website. Admission is free.
Facilities:	Café serving a wide range of foods and drink with a sunny terrace. Toilets. Fully disabled access. All set in an award-winning park next to the River Lea.
Getting there:	South Tottenham Rail Station is a 10 min walk, and Tottenham Hale rail and underground station 15 mins. The Museum is next to the Lea valley cycle and foot path. There is free car parking.
Contact information:	Ph: 01707 873628   email: <a href="mailto:info@mbeam.org">info@mbeam.org</a> or visit: <a href="http://www.mbeam.org">www.mbeam.org</a>

The mighty Markfield beam engine is an impressive and remarkable survivor from the golden age of steam. With its eight fluted columns and richly decorated ironwork it is part ancient Greek temple part late Victorian industrial leviathan.

Built in 1888 to pump waste water to the Thames and abandoned in 1964 after years of hard work it quickly sunk into dereliction. After decades of painstaking restoration by many dedicated volunteers it is reborn in all its original glory and steams regularly. Of all the beams engines that used to labour away in the Lea Valley Markfield is the sole survivor.

The engine was part of the Tottenham sewage works which was one of the first sewage works in the world. The sewage works were hailed in 1852 as an exemplar for the rest of Britain to copy as a way to combat the recurrent deadly cholera epidemics of the time.

The engine's flywheel is 27' (8m) in diameter and weighs 17 tons

# WALTHAMSTOW PUMPHOUSE MUSEUM

10 South Access Road, E17 8AX

Opening hours:	The Museum is open every Sunday from 11am-4pm. Entry is free. Visiting is also possible on other days by prior arrangement and organised school trips are free.
Facilities:	Museum shop, a canteen selling hot drinks and light refreshments. Toilets.
Getting there:	The Museum is 7 mins walk from St James St station, 10 mins from the new Lea Bridge Rd overground station, and 15 mins from Blackhorse Rd, Victoria Line station.
Contact information:	Email: <a href="mailto:enquiries@e17pumphouse.org.uk">enquiries@e17pumphouse.org.uk</a> Web: <a href="http://www.e17pumphouse.org.uk">www.e17pumphouse.org.uk</a> Find them on Twitter and Facebook: @PumphouseMusuem

The Pumphouse Museum is dedicated to the rich technology, transport and industrial history of the Lea Valley and Walthamstow in particular, which saw the construction of Britain's first motor car, the Bremer, and the construction and flight of Britain's first powered aeroplane by AV Roe. The museum is housed in and around a grade II listed former Victorian waste water pumping station.

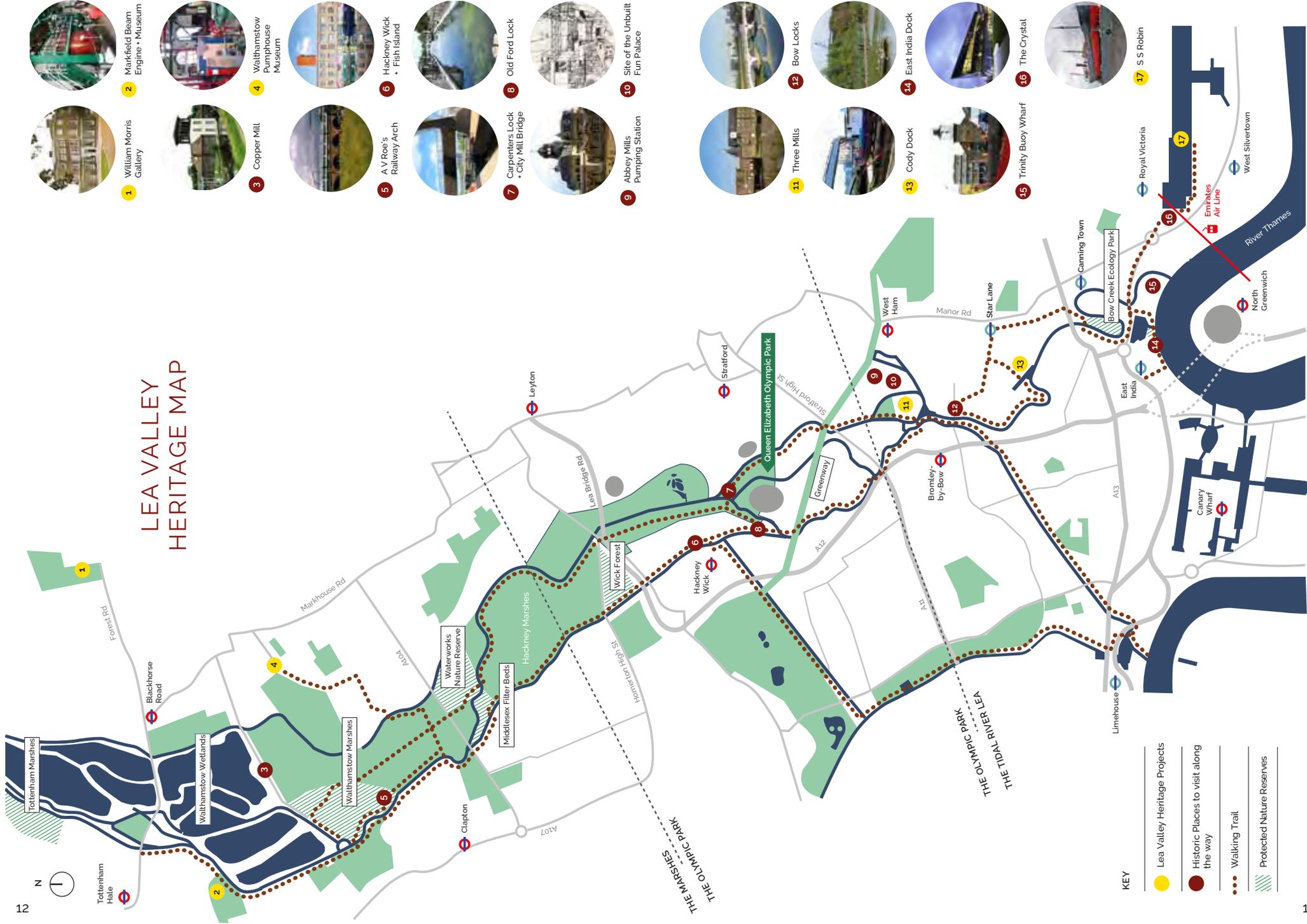
It contains a varied collection of historic vehicles and machinery, including an original pair of Marshall C Class steam engines; a 2/3 model of the famous London 'B' type bus, an original machine workshop run by line shafting and a display dedicated to the history of local railways

The Museum hosts a regular gourmet dinner club in its original Victoria Line coach vintage 1967.

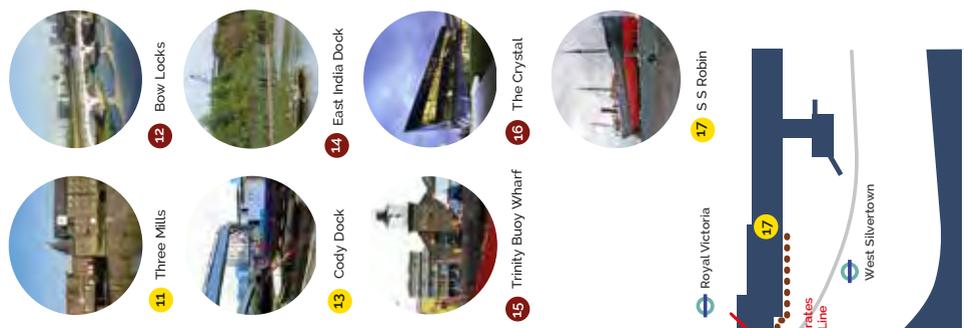
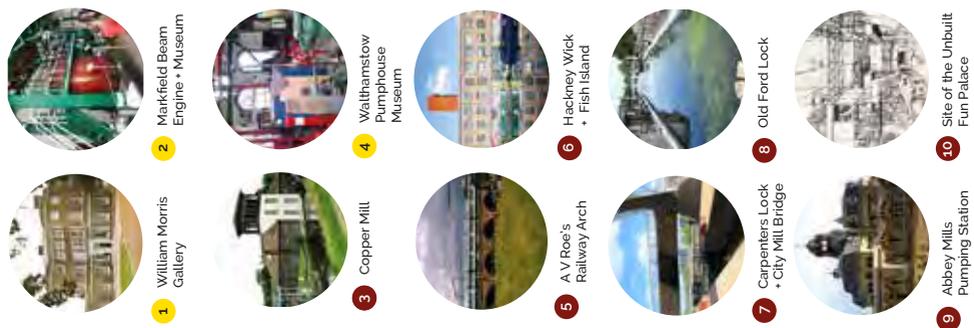


One of the Marshall 'C' Class horizontal steam engines, installed in 1897

# LEA VALLEY HERITAGE MAP



- KEY**
- Lea Valley Heritage Projects
  - Historic Places to visit along the way
  - ⋯ Walking Trail
  - ▨ Protected Nature Reserves





## HOUSE MILL

### The Miller's House, Three Mill Lane, E3 3DU

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Opening hours:	Guided tours on Sundays, May to October 11am-4pm, and at all other times for pre-booked tours, and educational visits. The House Mill Gallery to the west of the building hosts a range of exhibitions during the summer months.
Facilities:	Café - as above during Mill openings, and also Monday to Saturday throughout Spring-Autumn, serving a selection of freshly made foods.
Getting there:	By road, bus and boat. See website for further details..
Contact information:	ph: 020 8980 4626   <a href="http://www.housemill.org.uk">www.housemill.org.uk</a> or email: <a href="mailto:info@housemill.org.uk">info@housemill.org.uk</a>

The House Mill is a grade 1 listed 18th century Tidal Mill located on Three Mills Island, a charming conservation area in the tidal River Lea. It has a long and varied history, occupying a site that has been harnessing the power of the tide to serve the needs of London from before the Norman invasion, producing flour in the Middle Ages, gunpowder in the year of the Spanish Armada, and alcohol throughout London's infamous gin craze. It stopped working during the Blitz, and was later saved from the threat of demolition by the River Lea Tidal Mill Trust (RLTMT), with the fabric of the building restored in the 1990's. House Mill is now acknowledged as the largest tidal mill in the world, and RLTMT has plans to further save it.

A restoration project is in place to return the heritage machinery to full working order. Once funding is secured the House Mill will once again serve London through the power of the tide. Not only will the mill grind grain once again, but the four heritage wheels and a new external turbine will together provide electricity and thus a use for this important heritage building. With interpretation throughout it will also function as a vibrant historical, cultural and educational attraction.

Built in 1776, the House Mill is the largest surviving tidal mill in the world

# CODY DOCK

off Cody Rd, E16 4TL

Opening hours: 7 days a week

Facilities: Café, Bar and Toilets

Getting there: Star Lane DLR station 10 mins walk

Contact information: For up to date opening times, event information and details on how to get involved see the website: [www.gasworksdock.org.uk](http://www.gasworksdock.org.uk), or visit: [www.facebook.com/CodyDock](https://www.facebook.com/CodyDock)

For booking enquiries and contact information, email: [info@gasworksdock.org.uk](mailto:info@gasworksdock.org.uk)

Cody Dock was originally built in 1871 to receive coal for the then Imperial Chemical Works, but in the twentieth century became unused and abandoned. It is now being brought back to life under the stewardship of the Gasworks Dock Partnership and is a gateway to the Lower Lea and a centre for community based creative industries.

Things to see and do include the original brick lined dock, which is being renovated, Thames Ironworks life boats, community boat service, gallery, art school, studios and exhibitions, moorings, and community gardens. The site adjoins The Line Sculpture trail, where a Damien Hurst sculpture is on display.

With over 3500 volunteers already engaged with the project and a constant stream of new opportunities for people to get involved, Cody Dock offer's an exciting chance for people to discover hidden treasures from the Lower Lea's past whilst helping to shape its future. Cody Dock is fast becoming a centre for exploring Bow Creek and the development of its rich ecology and industrial heritage, and is involved with a wide range of partners, including RHS, Kew Gardens, the Line Sculpture trail, the LLDC Leaway Park, and the restoration of the River Princess with Thames Water.

1933 tug boat 'Corlea', used to haul coal barges up the River Lea





## TRINITY BUOY WHARF

### 64 Orchard Place, E14 0JW

Opening hours:	The site is owned and managed by Urban Space Management. It is open to the public and free to visit Monday to Sunday, 9am-5pm, but please remember this is a working site. The lighthouse and Longplayer are open at weekends ( <a href="http://www.longplayer.org">www.longplayer.org</a> ).
Facilities:	Hot food is available at both Fat Boys' Diner and the Bow Creek Café. The site has public toilets.
Getting there:	10 minutes' walk from East India DLR station and close to Canning Town Underground. Parking is not available on site and limited generally.
Contact information:	Ph: 020 7515 7153   Email: <a href="mailto:info@trinitybuoywharf.com">info@trinitybuoywharf.com</a> , or visit: <a href="http://www.trinitybuoywharf.com">www.trinitybuoywharf.com</a> Twitter @artsTBW   Facebook @trinitybuoywharf   Instagram @trinitybuoywharf

Trinity Buoy Wharf is a centre for the arts and creative industries located where the River Lea joins the River Thames, a mile and a quarter from Canary Wharf. It was established by Trinity House as its Thames-side workshop in 1803, for the manufacture of buoys in particular, and a number of its Victorian buildings still survive. These include, the iconic Experimental lighthouse, built for the famous scientist Michael Faraday to test lighthouse lighting equipment and was latterly used to train lighthouse keepers.

In addition to its Victorian buildings the site now has a number of contemporary ones including several innovatively constructed from recycled shipping containers.

While mainly a working site, it is open to the general public and Faraday's workshop can be visited. The site also hosts cultural events and art exhibitions on a regular basis, and includes a sculpture park and a pier on the Thames. The lighthouse is home to "Longplayer" - a Jem Finer sound installation designed to run for 1,000 years. An original lightship - the "LV95" is moored here and other tenants include Thames Clippers.

The lighthouse, built 1864-6, where Michael Faraday carried out experiments in electricity

# ROYAL SMALL ARMS FACTORY

## Interpretation Centre, 12 Island Centre Way, EN3 6GS

**Opening hours:** 10am-2pm Monday to Friday. For access please visit our management office in Unit 12 and one of the estate management team will be happy to show you around. We are also happy to arrange opening outside of these hours and at weekends.

**Facilities:** The RSA Interpretation Centre is wheelchair accessible on the ground floor only. Due to the age of the building and its listed status we are currently unable to arrange wheelchair access to the top of the clock tower. Our staff are happy to assist in you viewing objects in the collection and can arrange object handling sessions if needed, subject to availability. We have wheelchair accessible toilets on site.

**Getting there:** Bus 121, 491: Alight at 'Canalside Walk' stop and cross the small pedestrian bridge over the ornamental canal arm.

National Rail, Enfield Lock Station: Trains run every half an hour between London Liverpool Street and Hertford East, once per hour between Stratford (London) and Bishop's Stortford.

By Car: There is free parking available in our car park at The RSA Island Centre, Island Centre Way, Enfield, EN3 6GS.

By Boat, Enfield Lock, Lee Navigation: There are casual moorings both to the north and south of the lock. We are located approximately five minutes walk from the lock itself.

**Contact information:** Ph: 1992 854 321 | Email: [Office@rsaiv.co.uk](mailto:Office@rsaiv.co.uk)

The RSA Interpretation Centre is located in the base of the clock-tower of the Factory's former Main Machine Shop, forming part of the modern RSA Island Centre. Opened in 2001, the small collection features deactivated examples of the firearms produced at the factory along with apprentice pieces and engineer's tools. Our clock tower holds a 230 year old Thwaites clock and still wound by hand every week! (viewable at our Open Days).

Famous for the production of the Lee-Enfield .303 Rifle, the Royal Small Arms Factory was a UK government-owned factory, producing British military small arms and swords from 1816 until it closed in 1988 and falling into dereliction soon after. In the nineties much of the factory site was redeveloped for housing, except the grade II listed Main Machine shop. In 2001 this building was converted into a retail and commercial centre for the new 'Enfield Island Village' with the help of European Union grant monies, the Heritage Lottery Fund and the then Government Office for London by four local businessmen. These four men today still operate the site as a social enterprise, distributing all profits from rents through our charity, the RSA Trust. Since 2001 nearly £5 million has been donated to good causes throughout the Lea Valley.

Surviving Grade 2 Listed  
Main Machine Shop, c.1856





## WALTHAMSTOW WETLANDS

2 Forest Road, N17 9NH

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Opening hours:	Restricted access from the Forest Road entrance is currently available through a permit system operated by Thames Water. There will be wider general access from several entry points when the Wetlands officially opens in 2017. Opening hours are dawn to dusk. For further details, check the website.
Facilities:	Few at present but when opened in 2017 the Engine House visitor centre will include cafe and toilets alongside exhibitions, events and educational facilities.
Getting there:	The Wetlands are 10 mins from Tottenham Hale Underground and rail station, and served by local buses along Forest Road.
Contact information:	Email: <a href="mailto:walthamstow@wildlondon.org.uk">walthamstow@wildlondon.org.uk</a> or visit: <a href="http://www.walthamstow-wetlands.org.uk">www.walthamstow-wetlands.org.uk</a>

The Wetlands are a cluster of Victorian and Edwardian reservoirs that are being recast as London's largest wetland nature reserve, opening in 2017. New wildlife habitat and increased public access will allow visitors to discover more of this unique urban oasis and its rich heritage.

As a wildlife habitat, particularly for birds, the wetlands are of international importance. They also host the largest fishery in the city. The Lea Valley reservoirs are an important part of the infrastructure which, for over two centuries, has provided drinking water to London. They contain a range of interesting period buildings and examples of engineering heritage. The former Engine House will host a vibrant range of exhibitions, installations and educational activities that explore the reservoirs' natural, social and industrial history. Nearby, the historic Coppermill viewing tower will be opened up to the public for the first time, offering great views across the Wetlands and the London skyline.

Lockwood Reservoir,  
completed by the East  
London Waterworks  
Company in 1903

# ABOUT THE LEA VALLEY HERITAGE ALLIANCE

This brochure highlights seven heritage projects that are open to the public. They all offer facilities to the visitor and are maintained by local community organisations. These projects have come together as the Lea Valley Heritage Alliance to promote and celebrate the valley's history and achievements. Membership of the Alliance is open to all organisations and individuals concerned with the heritage of the Lea Valley.

Contact us by email: [enquiries@leavalleyheritagealliance.org.uk](mailto:enquiries@leavalleyheritagealliance.org.uk).

The Lea Valley Heritage Alliance would like to thank the many organisations that have provided support in various ways. Special thanks go to:

London Legacy Development Corporation  
Lee Valley Regional Park Authority  
Greater London Authority  
London Borough of Waltham Forest  
The RSA Trust  
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