



Background

The River Thames is London's best known natural feature. It twists and turns through the capital, changing from a freshwater river at Molesey into a saline estuary in the east. Between Hampton and Kew in the upper reaches of London's river, there are a remarkable number of connected open spaces – a unique landscape of historic, natural and cultural significance that has been celebrated for over three hundred years as 'The Arcadian Thames' – meaning a rural paradise where humans and nature coexist in harmony.

Since Neolithic times, this remarkable landscape has been shaped by human activity – modifications to the floodplain responding to the changing needs of local populations. Wildlife has been quick to adapt to these changes taking advantage of man's modifications to the natural environment whilst recreational activity has constantly evolved as new stretches of riverside have been opened up.

Many of these changes to the floodplain, particularly those taking place after WW II however, have seen a considerable reduction in the floodplain's capacity to accommodate water – the traditional water meadows and wetland habitats being replaced by new higher 'dry' environments or encroached on for housing - very little of the floodplain today is truly 'natural'. To a large extent this has not been a problem particularly since the construction of the Thames Barrier. Climate Change however, has altered the balance.

Climate Change & Flood Risk

As climate changes the risk from tidal surges, sea level rise, freshwater flooding and the inflow of water from urban drainage is set to intensify putting the floodplain at increasing risk from flooding. It is expected for example, that fluvial flows entering the tidal river at Teddington will increase by up to 40% by 2080.

At present, flooding throughout the Thames Landscape is managed by the Thames Barrier, however, the Environment Agency predict that this is unsustainable in the future. Unavoidable modifications will be needed in the way that the barrier is used in order to protect Central London from increased flood risk rather than the parks and gardens of Arcadia.



Implications of Increasing Flood Risk to the Arcadian Thames

Increasing flood risk and changes in the operation of the Thames Barrier will have a significant effect on the towpaths, parks and gardens along the floodplain between Hampton and Kew much of which is low lying and not protected by high flood walls. As such it is anticipated that over the coming years a much greater part of the floodplain will be inundated with water and that this flooding will happen with increasing frequency – particularly when a fluvial flood meets a high tide moving up river. At present much of the floodplain is simply

not ready for this increased inundation. Historic landscapes, wildlife sites and human use of riverside will be affected in the following ways:

- More space will be needed to store flood water reducing the area that can be used for recreation (which will be at a premium as the city heats up)
- Established habitats will begin to decline forcing species to migrate across regions searching out new habitats. To survive, wildlife will need large areas of linked natural open space to move about in that is appropriate to wet conditions.
- Increased flooding could stretch the emergency services and people living in riverside properties will need to prepare themselves for flood events.
- Established recreational movement patterns will be considerably altered by rising waters (particularly on the towpaths and riverside parks) putting the long-term viability of sustainable transport and visitor initiatives at risk.
- Housing will be affected and it is expected that flotsam and jetsam will increase.



Ham Towpath at low (top) and high spring tide (bottom) cutting off the towpath to visitors.



Making Space for Water & TE2100

To plan for climate change and increasing flood risk a radical new approach to managing the floodplain is being proposed by DEFRA called 'Making Space for Water' to create multi-use spaces for people, wildlife and occasionally water.

On the tidal Thames, the Environment Agency has begun a series of studies to understand what the flood risk is and how this could change over the next century. This study is called TE2100 – a suite of adaptable measures to keep flood risk below an acceptable level of risk ranging from rain water recycling, SUD, emergency planning, controlled inundation of riverside spaces, new tidal barrages and restoration of lost floodplains.



The traditional approach to protect London from the Thames has been to construct higher and higher flood defences usually in response to a flood event. It is widely accepted that this approach is unacceptable along the Arcadian Thames.



Restoration of the Lost Floodplain

The TLS 'Restoration of the Lost Floodplain' project provides a holistic and co-ordinated way forward to implement (on the ground) the TE2100 scheme and a raft of other initiatives that could be affected by rising flood risk (including: Making Space for Water' the Water Framework Directive, 'Living Landscapes', the Mayor for London's 'Smarter Travel Initiative', Legible London and borough aspirations).



The construction of the Hammertons boardwalk demonstrates how dry routes can be incorporated into the landscape connecting the network of walking and cycling routes



Potential Project Outcomes

It is proposed that the 'Restoration of the Lost Floodplain' will:

- Optimise the use of the floodplain for water to go during a flood event.
- Identify ways to restore and re-connect the natural rhythms of the river corridor to create a 'living landscape' - a mosaic of habitats (created at a landscape scale) allowing wildlife to flourish and move about in as climate changes.
- Create a network of sluices, controls and channels linked to a real time flood forecasting model to enable flooding to be carefully controlled across a large area reducing the risk and disruption to people.
- Put in place a network of sustainable footpaths, cycle routes, informal trails, signage and dry routes to allow visitors and locals to navigate through the landscape even in times of flood and drought.
- Restore the historic landscape framework of fields, avenues, creeks, ponds, woodland, grazed wet meadows and native hedges.
- Put in place a long term management plan to carry out the day-to-day maintenance of the riverside that will include an active volunteer programme
- Establish an education and outreach programme to connect people with their environment

At the core of the project is the principle that the floodplain is our most important asset in managing increased flood risk that results from climate change. Places for people to enjoy, for wildlife to flourish and, when needed, for water to go. By restoring our lost floodplain we can conserve the character of the countryside in the city that makes the Arcadian Thames so special for future generations to enjoy and use.

Project Scope – By Area

Syon Flood Meadows, Kew Gardens, Kew Haha, The Royal Mid Surrey Golf Course, River Crane, The Old Deer Park, Petersham Meadows, Ham Towpath & Radnor Gardens, Ham Lands, Marble Hill Park and the Warren Footpath, Home Park at Hampton Court Palace, Canbury Gardens Kingston, Thames Ditton, River Mole & Cigarette Island, Hurst Park, Riverside Settlements & town centres, Broom Road Recreation Ground.



Case Study – The Old Deer Park Richmond
 The Old Deer Park is an area of amenity grassland that floods during spring tides. Flood risk will increase with time. Whilst the space can be used for water floodplain having little wetland habitat and standing water is a barrier to recreational use. Restoration of the Lost Floodplain would re-create areas of wetland and reedbed, install a network of sluices and creeks to control the water and improve connections for human use during times of high water.

To continue to restore the Arcadian Thames to a level that it can be nominated for UNESCO World Heritage Status in recognition of its unique contribution to world culture – a visitor attraction in its own right. To link improvements on the ground to the 'visitor package' offered by the Arcadian Thames to boost economic activity

- A Connected Landscape for Everyone to Safely Use, Enjoy and Understand
- To put in place a series of measures to facilitate recreational, volunteer, education and outreach programme
- To Inform and implement on the ground the development control process, emergency planning and sustainable transport initiatives, TE2100, Water Framework Directive and Biodiversity Action Plans
- World Heritage Site Status & Tourism



To put in place a long-term management plan that maintains the countryside and historic character of the floodplain. To include the reintroduction of traditional riverside agricultural practices such as willow coppicing and grazing (the 'floating herd' of cattle) and the control of invasive species.

- A Sustainable Well Managed Landscape

To create a mosaic of linked habitats that can adapt flexibly to climate change, that are natural to the floodplain and are sustained by the rhythms of the river in order for a diverse population of wildlife to move about in and flourish

- To Restore The Natural Morphology of the Landscape
- To Achieve Floodplain Optimisation to Manage Flood Risk
- To restore the natural functions of the riparian landscape in order to maximise the floodplain's capacity to take water during flooding events
- To Create a Living Landscape



'To work in partnership to re-create, conserve, connect and enhance the natural character of the floodplain in response to climate change for people, wildlife and occasionally water';

Aims

Information Leaflet No. 16

A Message from Sir David Attenborough
 Patron of the Thames Landscape Strategy

Thames Landscape Strategy Leaflet No. 16



"The Thames Landscape Strategy is that very rare animal: an organisation with real popular appeal and an imaginative sense of what it is about landscapes that fires people's imagination. We need to take active steps now to ensure that we maintain a varied

wildlife habitat, support traditional river activities, and manage the landscape to complement the marvellous historic buildings, nature reserves and parks that line this stretch of the Thames. The ideas proposed by the Thames Landscape Strategy are truly groundbreaking and really moving forward. We should rejoice in having such an enthusiastic and committed organisation to guide this process and I look forward to continued success throughout the coming years".

During the 18th Century, Arcadia, an idyllic pastoral landscape was created along the Thames between Hampton and Kew. Magnificent royal and aristocratic palaces, gardens and parks were constructed and linked by a series of avenues, set within a framework of meadows and woodland.

Today this stretch of the Thames is recognised as one of the world's great urban landscapes, allowing Londoners to escape the hustle and bustle of modern day city life.



The Thames Landscape Strategy is one of three sub-regional partnerships for the Thames in the greater London area, whose focus is the remarkable river corridor between Hampton and Kew. Launched in 1994, the strategy is a 100-year blueprint for the Thames, whose vision is to conserve, enhance and promote for the future, one of the world's great urban landscapes. To achieve its aims, the strategy brings together a partnership of statutory and non-statutory organisations, local groups and individuals to inform strategic policy and to implement a broad range of projects and management proposals.

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Floodplain
Restoration of the Lost
THAMES LANDSCAPE STRATEGY
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 Hampton to Kew

Restoration of the Lost Floodplain
 Thames Landscape Strategy in Action

DISCOVER THE ARCADIAN THAMES



'Conserve, promote and enhance for the future, one of the world's great urban river landscapes between Hampton and Kew'

