

LI Climate Change Case Studies | Spring 2021

# Landscape for 2030

**How landscape practice can  
respond to the climate crisis**

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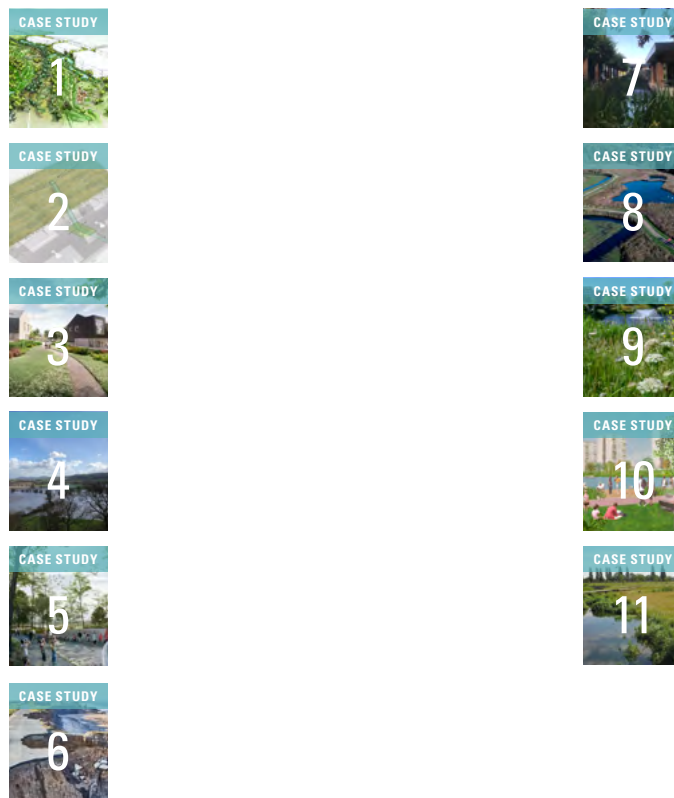


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Cover image: Cator Park



# Foreword



Globally, the terrible effects of climate change and biodiversity loss are becoming increasingly apparent. People across the world are demanding action, and slowly but surely, governments are responding.

In the UK, the government has pledged to become net zero by 2050, which fulfils the UK's obligations under the Paris Agreement. But tougher targets alone do not reduce emissions. New policies, ideas, and on-the-ground innovations are needed to deliver real change.

The landscape profession is uniquely placed to tackle these twin crises. Our members have long been committed to creating places that deliver for people and nature, and the sector is already working hard to provide place-based solutions to climate change – from site-specific innovations to landscape-scale transformation.

This document showcases the integrated approach that landscape architecture represents, and its fundamental importance in securing our sustainable future.

But as well as a demonstration of our expertise, this document must also be a challenge to our sector: to learn from best practice elsewhere; to foster new skills; to innovate; and to take the lead in tackling these emergencies. In line with our Royal Charter, LI members are committed to professionalism, and work to benefit the built and natural environment. Through this commitment, we must continually seek to do better and take lessons from the good practice of others.

This is why, in the year that the UK is hosting the 26th UN Conference of Parties (COP26) in Glasgow, we've updated and republished our 2008 report, Landscape architecture and the challenge of climate change, with eleven new case studies. This publication aims to provoke further discussion and action across our profession, demonstrate the leadership the sector is already showing, and push ourselves to do more.

**Jane Findlay**

President, Landscape Institute



# Purpose of this report

In June 2019, the Landscape Institute Board of Trustees declared a climate and biological diversity emergency. In its public statement, the LI committed to take real, tangible action, and promised to equip our members to tackle and adapt to these twin emergencies.

This publication is one of the commitments we made in our Climate and Biodiversity Action Plan. It is an update of our 2008 Climate Change position statement, and seeks to further establish the landscape profession as leaders in the fight against climate change and biodiversity loss, as well as provide more best practice examples for our sector to follow.

The new case studies in this paper demonstrate the measures needed to create climate resilient, low-carbon places at all scales, from public squares to eco-parks. Our aim is to show stakeholders and governments at all levels the critical, central role that the landscape profession has to play in the delivery of climate change policy.

In addition to the new case studies, we have updated the section 'Where landscape can make a difference' to better demonstrate the advancements innovations of the past 13 years; and we have added a specific response to the *UK Climate Change Risk Assessment*, first published in 2012.



## How we got here (2008-2021)

**We are in a climate and biodiversity crisis. The evidence of the multiple negative effects of climate change and biodiversity loss is clear, and humanity must take urgent, collective action to prevent global temperature rises and further ecosystem collapse.**

Governments have begun to address this challenge at the national and international level. The Climate Change Act (2008) made the UK the first country to establish a long-term, legally binding framework to cut emissions. In 2015, the UN Paris Agreement set the goal to limit global warming to below two degrees Celsius compared to pre-industrial levels. And in 2019, the UK Government committed to reach net zero emissions by 2050.

As those who work to connect people, place, and nature, landscape professionals are uniquely placed to galvanise and lead a built environment response to this crisis.

Since our 2019 emergency declaration, the LI has published its Climate and Biodiversity Action Plan. The Plan's four action areas include advocating for effective landscape policy, driving progress within our own organisation, raising skills and standards, and steering members to recognise their ethical and professional duty to do all they can to address climate change and biodiversity loss. The government's 2050 commitment is a minimum requirement; the LI has committed to reach net zero emissions by 2029, our centenary year.

In the 12 years following the 2008 Act and the LI's initial position statement, there has been some progress; but it's clear that we, governments, and society worldwide need to do much more.



David Attenborough speaks at the 2019 LI Awards, where he receives a Landscape Institute Medal. Debuting at this event, new Award categories highlight how landscape interventions can help tackle the climate and biodiversity emergency.

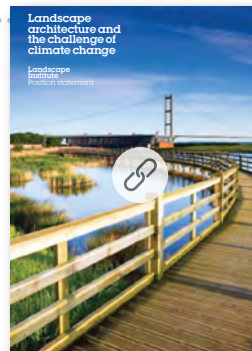
## Accelerating our response: A brief history of LI climate publications



2007

### Our first climate-themed Journal

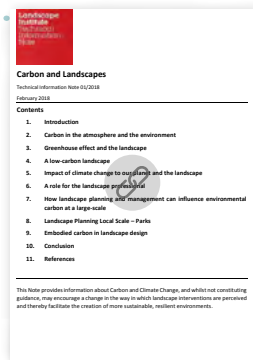
Before government takes serious action on climate change, the LI begins to explore the sector's response and obligations in a special themed Journal edition.



2008

### Climate Change Position Statement

After the Climate Change Act, the LI is quick to publish our climate change position statement, with ten case studies. This 2008 document will form the basis of the updated 2021 publication.



2018

### Carbon and Landscapes TIN

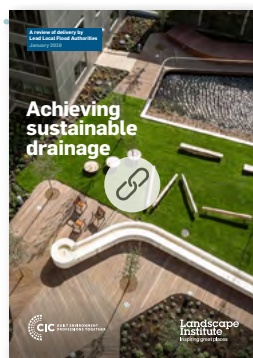
The LI also continues to embed climate considerations across our technical practice guidance and information. A 2018 Technical Information Note (TIN) addresses the topic of carbon in landscapes.



2013

### Green Infrastructure

The LI continues to embed climate considerations across our policy work. This 2013 publication explores why green infrastructure (GI) is crucial to our sustainable future, building on a previous position statement published in 2009.



2019

### Sustainable drainage research

The LI launches a paper in early 2019, recommending changes that would help promote wider usage of sustainable drainage systems (SuDS) – a key tool to increasing climate change resilience.



2019

### Emergency declaration

The LI Board declares a climate emergency, and begins work on its Action Plan. A second special edition of the Journal marks the occasion.



2020

### Climate and Biodiversity Action Plan

Following the LI Board's 2019 climate emergency declaration, the Institute publishes our Climate and Biodiversity Action Plan, setting out the actions we will take to tackle the twin crises.



2020

### Greener Recovery Paper

In Autumn 2020, the LI launches our Greener Recovery policy paper, urging the UK Government to seize a 'once-in-a-generation chance' to put nature at the heart of the UK's recovery from the COVID-19 pandemic.

## Headline climate change policy developments since 2008

2008

The UK passes the Climate Change Act. This sets out a framework for delivering an 80% reduction of 1990 greenhouse gas levels by 2050. Emissions reductions are broken down into five-year targets described as 'carbon budgets'.

2008

The UK establishes the independent UK Committee on Climate Change (CCC) to review the evidence base, set carbon budgets, and monitor progress.

2013

The first UK National Adaptation Programme is published, setting out how the country will manage climate risks over the coming five years. Scotland, Wales, and NI publish devolved equivalents.

2012

The UK reduces emissions by 25% from 1990 levels, meeting our first carbon budget. The first UK Climate Change Risk Assessment (CCRA1) is published.

2011

Following the 2010 Lawton Report, the *Natural Environment White Paper* is published, creating the Natural Capital Committee.

2015

At COP21 in Paris, the UK joins 196 nations to sign the 'Paris Agreement', a legally binding international treaty on climate change. It commits signatories to limit global warming to well below two degrees Celsius compared to pre-industrial levels.

2016

The Paris Agreement comes into force on 4 November. The UK votes to leave the EU.

2019

The UK Government declares a climate emergency, and commits to a net-zero emissions target by 2050, requiring a major acceleration in emissions reduction activity.

2018

The *25 Year Environment Plan* sets out what the UK government will do to improve the environment, across all areas, for the next generation.

2017

The UK meets its second carbon budget.

2020

The CCC reports that the UK is not on track to meet its fourth carbon budget by the end of 2027, meaning the UK will need to reduce emissions by at least 3% a year from now on.

2021

The COP26 UN climate conference is scheduled to take place in Glasgow. The Environment Bill is expected to pass.





# Where landscape can make a difference

## An integrated approach

Climate interventions typically fall into one of two strategic categories: mitigation and adaptation. This section outlines ways in which landscape professionals can make a difference across both.

While our sector can play a role in both mitigation and adaptation, however, landscape's real strength is its ability to take an integrated, holistic approach. Landscape professionals can offer an alternative way by not only of tackling specific climatic challenges head on, but also realising multiple secondary benefits at the same time, balancing outcomes for people and nature.

It is this integrated approach, and an understanding of the complex interactions between natural processes and human life – between natural, economic, and social capital – that will unlock the full potential of our places. The insufficient consideration we give to these complex interactions prevents us from adopting more dynamic, integrated solutions. **Landscape professionals can, for instance:**

- Create nature-based solutions that not only reduce carbon, but are also more resilient to climate risks
- Undertake natural capital assessments to quantify trade-offs in ecosystem services for different approaches
- Articulate the local impacts of climate change for people through landscape character or visual impact
- Deliver wider 'environmental net gain' through a holistic approach to design and management
- Do landscape-scale and landscape-led masterplanning, to consider sustainability issues as early as possible in the development process

Perhaps most importantly, landscape professionals can create a vision for an environmentally sound future.

## Mitigation

Climate change mitigation broadly refers to limiting the amount and pace of future climate change, by reducing overall greenhouse gas emissions and removing carbon dioxide from the atmosphere. **There are many ways, at a range of different scales, in which landscape professionals can play a central role in helping to mitigate climate change. For instance:**

### Making low-carbon places

#### 1) Reducing the embodied carbon of outdoor spaces

- Employing green and blue infrastructure rather than engineered solutions
- Specifying materials in the design stage to shift the construction to more sustainable, low-carbon materials and practices
- Using recycled, salvaged, or sustainably manufactured and procured materials
- Specifying plant species that are grown locally reducing air miles on plant inputs



**Reducing the embodied carbon of outdoor spaces**  
Cator Park used 30,000m<sup>3</sup> of demolition material in sculptural mounding reducing waste and inputs.



Landscape professionals can offer an alternative way not only of tackling specific climatic challenges head on, but of realising multiple secondary benefits at the same time.



## 2) Saving energy elsewhere

- Living roofs can insulate buildings, and large trees provide shade, reducing the need for air conditioning in the summer and raising ambient temperatures in the winter, reducing heating costs due to the slowing of wind speeds
- Integrating and maximising local food production in the landscape, thereby reducing 'food miles' as a result of transportation and promoting more localised self-sufficiency
- Integrating solar lighting and signage to reduce additional energy consumption.

## 3) Enabling non-vehicular transport

- Reducing CO<sub>2</sub> and particulate matter emissions by designing provision of non-vehicular travel routes, encouraging walking and cycling (also referred to as 'active transport')
- Designing for accessibility and inclusivity, ensuring ease of active transport for multiple demographics

## 4) Supporting renewable energy development

- Finding ways to enable renewable energy infrastructure within rural landscapes
- In-situ/small-scale energy sources: for example, ground source heat pumps in parks
- Providing strategic landscape and seascape planning - an essential part of renewable energy placement and viability

## Enabling carbon sequestration

### 5) Nature-based sequestration

- Planning, planting, and managing forests, woodlands and street trees
- Restoring and managing the UK's peatlands
- Managing soils and ground cover vegetation generally as carbon sinks – avoiding soil-sealing with hard surfaces wherever possible.



The design for Eddington, Cambridge provides for a network of bike and pedestrian paths, reducing the need to use cars.



**There are many ways, at a range of different scales, in which landscape professionals can play a central role in helping to adapt our places for climate change.**

## Adaptation

Climate change adaptation refers broadly to the measures needed to adapt our society to the climate changes that we won't be able to avoid, even with perfect mitigation. These include increases in temperature, more severe weather events, and associated risks to infrastructure, human health, and natural ecosystems. **There are many ways, at a range of different scales, in which landscape professionals can play a central role in helping to adapt our places for climate change. For instance:**

### Adapting to increased flooding and coastal erosion

#### 1) Using sustainable Urban drainage systems

- Managing flow rate and surface runoff close to the surface
- Mitigating against pollution risks with effective treatment stages and retention
- Creating wetlands or other habitats to increase biodiversity, reduce flow rates, and filter pollutants

#### 2) Seascape and marine spatial planning

- Producing Seascape Character Assessments, protecting and enhancing the UK's seascapes
- Providing classification of Marine Character Areas
- Supporting managed coastal retreat or realignment schemes

## Increasing urban heat resilience

### 3) Urban green infrastructure

- Planning, designing, establishing and managing street trees and urban forests, providing urban cooling and pollution shielding, and increasing biodiversity
- Designing urban public realm to include green infrastructure and reduce excessive heat
- Designing and managing parks that can alleviate microclimatic overheating
- Installing green roofs and green walls, improving the thermal performance of buildings and reducing the urban heat island effect

### Adapting to water scarcity

#### 4) Designing for water

- Improving water efficiency by harnessing appropriate harvesting and recycling of greywater
- Planting and managing appropriate, drought-tolerant plant species
- Accounting for increased water scarcity through landscape-scale catchment and water systems management

### Responding to emerging biosecurity threats

#### 5) Biosecurity

- Identifying pests and diseases
- Adopting responsible practices in the specification and sourcing of plant material
- Promoting biosecure site management and having the appropriate knowledge to assist in the detection and management of outbreaks

The case studies this document demonstrate in more detail how landscape professionals can contribute to these specific areas of climate risk mitigation and adaptation.



# Responding to the UK Climate Change risk assessment

The CCC's most recent **UK Climate Change Risk Assessment Report (2017)** outlined six priority risk areas for the United Kingdom. These are the areas of risk that the UK needs to urgently address.

In this report, the Committee recommended that the UK Government:

*"challeng[e] the relevant professional bodies such as the Landscape Institute [...] to increase their level of engagement with members regarding climate change, and to improve the training, guidance and professional accreditation they offer"*

Outlined in this section are some key adaptive solutions that landscape professionals can deliver across the six identified risks.

## Sustainable drainage systems (SuDS)

Sustainable drainage systems (SuDS) reduce the negative impacts of development on surface water drainage. SuDS can minimise the risk of flooding and pollution via rainwater attenuation and storage to 'slow the flow' of stormwater into the main rivers. Additional benefits include improvements to local environmental quality, the creation of habitats for biodiversity, and general quality-of-life improvements for local communities.

Landscape professionals have the skills to plan and design landscapes that integrate SuDS and reduce the risk of flooding while making best use of available land for a range of beneficial functions. SuDS features vary: from site-by-site solutions, to larger, integrated schemes comprising green roofs and green walls, raised planters to capture downpipe water, street tree pits, permeable paving, rain gardens, swales, and retention ponds.



Landscape professionals are striving to deliver more natural flood management and develop more integrated approaches in high-risk catchments...

## 1. Flooding and coastal change risks to communities, businesses and infrastructure.

The 2017 Evidence Report presents compelling evidence that by the middle of this century, climate change may lead to increased heavy rainfall and significantly increased risks from fluvial and surface flooding. Rising sea levels may further increase the risk of flooding and coastal erosion.

Landscape professionals are striving to deliver more natural flood management and develop more integrated approaches in high-risk catchments, especially where there are likely to be co-benefits, such as to carbon storage, water quality, and biodiversity. There are several design and planning interventions that landscape professionals can utilise to build resilience in places under threat from rising sea levels and flooding. For example:



The project in Kokkedal sought to restore natural water cycles, mimicking nature and managing rainwater close to where it falls. This also provides benefits for biodiversity, recreation and landscape character.



**Landscape professionals can provide solutions that tackle overheating in the built environment...**

## 2. Rising temperature risks to health, well-being, and productivity

The government has stated the need for urgent action to address overheating in homes and public buildings, and to reduce through urban design and planning the impacts of the 'urban heat island' effect. Landscape professionals can provide solutions that tackle overheating in the built environment, while generating multiple socio-economic benefits. For example:

### Green infrastructure (GI)

As an approach to design and planning, green infrastructure (GI) is vital to helping people and wildlife adapt to the rising temperatures and extreme weather events associated with climate change. Underpinning GI is the concept of ecosystem services, an approach that recognises the many benefits that natural ecosystems generate.

Taking a holistic approach, landscape practitioners play a key role in GI delivery. As showcased in this document's case studies, landscape professionals deploy GI effectively, creating places that deliver improved thermal performance, as well as protecting and enhancing nature and biodiversity.

Genuinely sustainable development depends on appropriate long-term management and maintenance of the site's assets. Landscape professionals address this from the start, and are experienced in preparing management plans.

Where GI interventions have been introduced on existing sites, a long-term management plan – accompanied by maintenance schedules – will help to ensure that these interventions continue to be effective into the future. Government has recognised the importance of GI and has developed guidance and increased provision for it within planning policy, landscape professionals can contribute effectively to this agenda.

## 3. Risks of water deficits in public water supply, and for agriculture, energy generation and industry, with impacts on freshwater ecology.

By the 2050s, many catchments across the UK will need to manage water deficits and competing demands for water. Landscape professionals play many roles in reducing the impact of drought. At the landscape scale, collaborating with stakeholders, they can prepare catchment management plans and design natural systems that help communities conserve and reuse water.

### Grey water use

Incorporating grey water collection and recycling systems into designs can assist in adapting to hotter drier summers when pressure on conventional supplies is likely to be greatest. Grey water can be used in toilet systems and for irrigation.



© Dirk Lindner

The redevelopment of East India Dock has been designed to reduce the impacts of urban heat and provide a sheltered microclimate.



The design for Lingang Eco Park plans for wastewater recycling and rainwater harvesting, providing water to the new wetland areas.

**Landscape professionals are trained to take an integrated approach to planning and design, and to meet natural capital targets while delivering resilient landscapes.**

### **Water-sensitive design**

When designing in areas at risk of drought or water deficits, landscape professionals can employ several design techniques to reduce water consumption, promote the capture and reuse of rainwater, and ensure sustainability – most notably by specifying drought-tolerant plant species.

### **Catchment management**

Many of the problems relating to water quality or water scarcity at a particular location are best considered at the whole catchment level. This is because problems at one location may require interventions to be made elsewhere along the river system. Landscape professionals have the skills to mediate between competing interests, delivering the best outcome for a diverse range of stakeholders within a particular catchment.



Designing with nature at [Sutcliffe Park](#) was key to increasing wildlife habitats and recreational value. Returning the river Quaggy to its original course enabled the restoration of natural capital at the local level.

## **4. Risks to natural capital, including soils, coastal, marine and freshwater ecosystems, and biodiversity**

There is clear evidence that nature – including natural capital assets such as forests, water, minerals, and soil – is already in decline.

Landscape professionals are trained to take an integrated approach to planning and design, and to meet natural capital targets while delivering resilient landscapes. This makes them ideally placed to provide the vision, the technical expertise, the creative drive, and the pragmatism necessary to deliver a new generation of integrated GI. The projects in this publication demonstrate the many ways in which landscape professionals are already leading on delivering for nature.

### **Designing with nature**

Loss of biodiversity is mainly caused by fragmentation, degradation, and loss of habitats. Landscape professionals ensure that developments are planned and designed with careful regard to both the ecology and the character of the landscape. They weave together the natural and built environment to ensure habitats are created and restored, and that they are “bigger, better, and better-connected”, in line with the Lawton Principles.

Landscape professionals are also driving the creation of new habitats, reversing the effects of fragmentation and environmental degradation. Applied in many of the projects in this document is a holistic approach to the natural and built environment that recognises the important, multifunctional role natural design plays for the economy, biodiversity, and communities, as well as for climate change adaptation. Well-connected GI provides wildlife corridors for species migration in the face of climate change, as well as wider benefits for recreation, community development, biodiversity, food provision, and place-shaping.

**An integrated management approach can evaluate the requirements of agriculture, rural communities, and the natural capital stocks...**

## 5. Risks from climate-related impacts on domestic and international food production and trade

Climate change will affect agricultural productivity and will test the resilience of the natural resources that underpin agriculture.

### Rural landscape management

The biggest contributor to the shaping of rural landscapes in the UK is agriculture. Landscape managers have the expertise to increase the multi-functionality of agricultural landscapes for food production, visual enhancement, and ecological conservation. An integrated management approach can evaluate the requirements of agriculture, rural communities, and the natural capital stocks – such as soils – on which the agricultural sector relies.

Employed correctly, landscape managers can promote collaboration between these often-competing stakeholders, better manage natural resources, and enhance landscape character.

### Urban food production

The landscape profession has been an early advocate of integrating local food production and community growing – allotments, school gardens, and community gardens, for example – into urban and suburban places. This can lead to reduced food miles, biodiversity gain, urban greening, health benefits, and opportunities for learning, social interaction and cohesion, if supported by adequate community-based infrastructure.

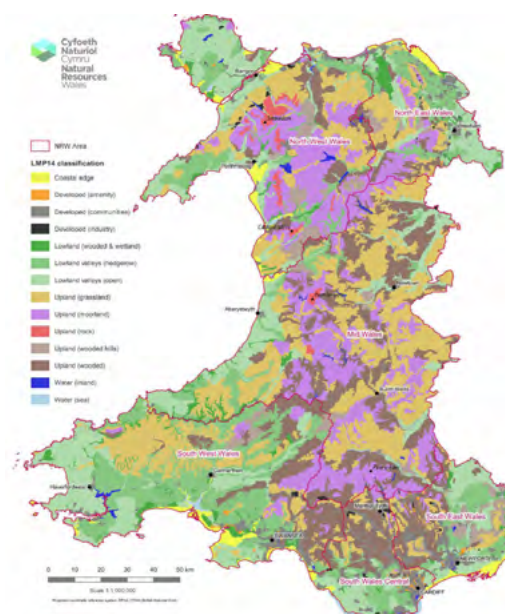
## 6. Risks from new and emerging pests and diseases, and invasive non-native species, affecting people, plants, and animals

New and emerging pests and diseases – including invasive non-native species – have the potential to severely effect people, plants, and animals. Climate change will increase these risks, and it will be necessary to develop approaches to monitor, detect, and manage outbreaks, and to develop resilience to disease.

With an understanding of earth sciences, landscape professionals are well-placed to learn and adapt their practice and mitigate these environmental and societal risks.

### Plant species selection

Landscape professionals are trained to understand what species to plant, where to plant them, and what conditions they need to thrive. This knowledge is invaluable in the face of changing climatic conditions.



In this landscape management and mapping report, NRW helps visualise what landscape change might look like with adaptation and mitigation interventions.



# Case studies

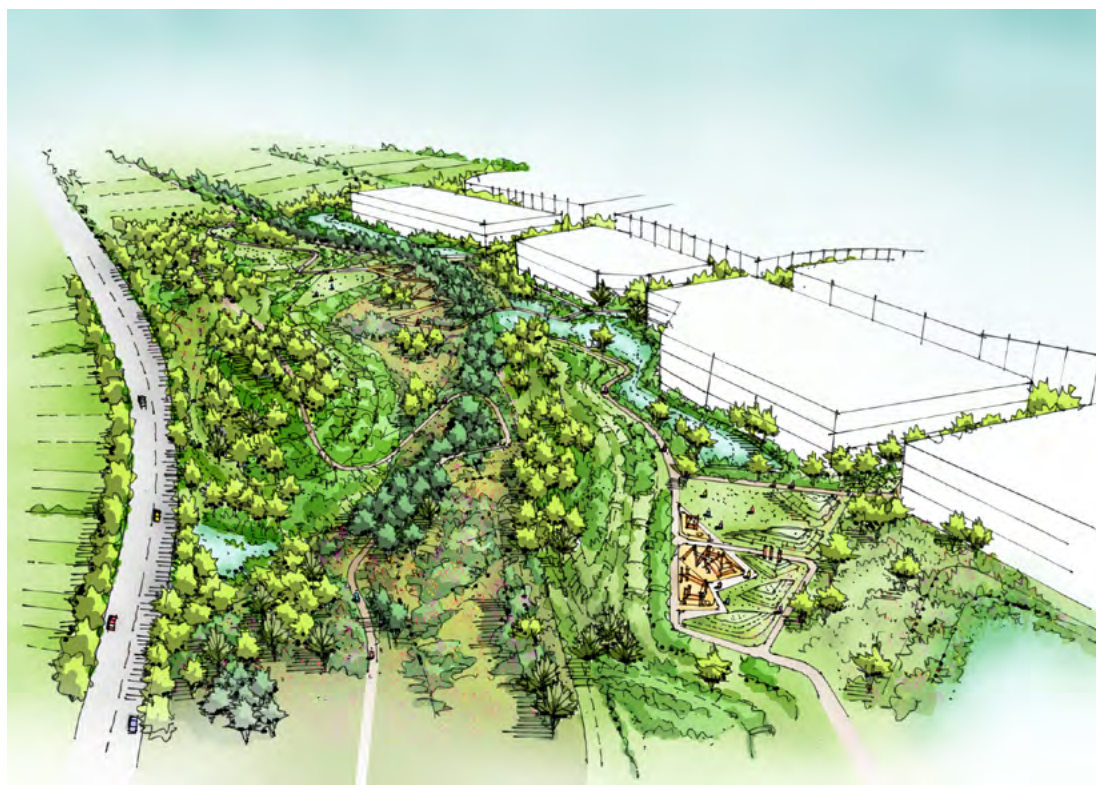
**The case studies presented in this document demonstrate the contribution that climate- and biodiversity-sensitive landscape practice can make to addressing these twin emergencies. Its aim is to inspire high-quality design and climate-resilient practice: within our own profession; within other professions, such as planning, ecology, and architecture; and by landowners, clients, public bodies, and wider stakeholders.**

This document presents examples of best practice in sustainable and biodiversity-focused landscape planning, design, and management across a wide range of contexts, including:

- large-scale urban developments focusing on sustainability, regeneration and adaptation;
- small, community-focused schemes and single building projects;
- a flagship wildlife sanctuary and eco-tourism design; and
- research and tools to explore future impacts of climate change on our landscapes



## Eddington Sustainable Community



### Gillespies

#### Overview

The Eddington Sustainable Community is a sustainable, long-lasting and ambitious new area of Cambridge, designed to ensure a high quality of life for its residents. Gillespies was commissioned to develop the landscape design for the phase 2 infrastructure, building on the principles established in the masterplan by Aecom and implemented phase 1 work.

#### Promoting active transport and reducing the need to travel

The design encourages active forms of transport, with walking, cycling, and public transport prioritised. This is achieved via a dedicated pedestrian and cycle 'Ridgway spine', a wider network of bike and pedestrian paths and 1.2km of the primary street containing integrated cycle lanes, wide verges, and traffic-

calming designs. Priority has also been given to cyclists at secondary road junctions to further encourage and prioritise cycle usage over cars.

The provision of 2.6ha of community allotments and a sports hub with 3G and grass pitches within the neighbourhood centre reduces both travel by car and the need to travel for sport and leisure.

#### Sustainable drainage and water management

The development features the largest grey water recycling system in the country, with water recycled through cleansing lagoons for non-potable use. The lagoons also help to reduce the risk of localised flooding by attenuating water and providing a vital amenity in the new ecological parklands.

Substantial ecological parklands along the western edge of the development deliver five 'green fingers' with integrated swales and shallow gravel-filled planted rain gardens to connect back into the development. The 'green fingers' will ultimately perform as multi-functional linear parks creating healthy, accessible green spaces rather than being primarily focussed on drainage.

### Biodiversity Gain

Gillespies worked closely with the client's ecologist to incorporate target habitats and wildlife features. In addition, a more habitat-based perennial planting style was proposed for the residential areas with mixes of hardy perennials in a gravel mulch to reduce water loss from the soil.

The use of large tree species has been incorporated where possible, particularly along the primary street, to increase overall canopy cover in the city. The design included as much species diversity as possible to guard against wholesale loss through pathogens and climate change.



### Minimisation of waste

A soil management strategy, developed with input from soil scientists Tim O'Hare Associates, has been a key component to reduce waste. This minimised off-site waste, re used existing resources, and designed plant typologies suitable for the existing soils.

#### Location

Eddington, Cambridge

#### Year Completed

Ongoing

#### Client

University of Cambridge

#### Project Team

Gillespies LLP – Landscape Architects  
Aecom – Master Planners and Engineering  
Stace – Project Management  
Gardiner & Theobald – QS  
Turner & Townsend – CDM Administrator and Principle Designer  
Faithful and Gould – BIM  
Hilson Moran – CEEQUAL and Utilities  
Robin Lee Architects – Architecture  
Tim O'Hare – Soil Specialist  
MD Ecology- Ecology Consultant David Bonnet Associates – Access Consultants

#### Awards

Cambridge Design and Construction Awards 2017:  
Best Engineering & Sustainability Project  
World Architecture Festival 2014: Masterplanning – Future Projects (Winner)  
AJ Architecture Awards 2017: Masterplan of the Year (Winner)  
RIBA East 2019 Awards: Masterplan (Winner)  
RIBA National Awards 2019: Masterplan (Winner)  
See more: <https://eddingtongcambridge.co.uk/about-us/awards>

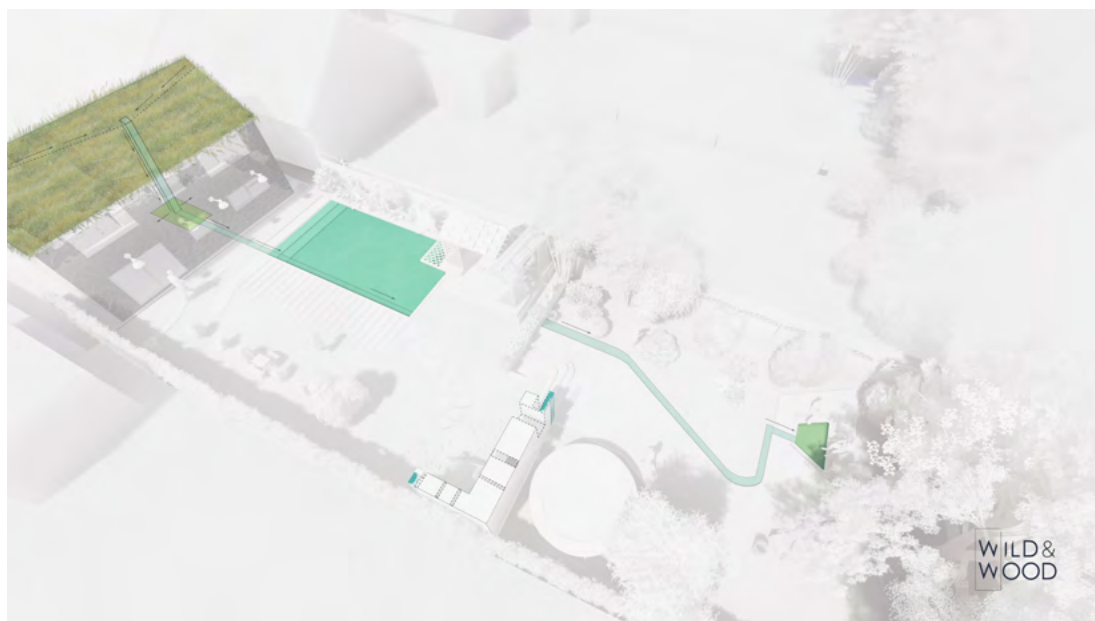
#### Related Links

[Eddington Cambridge Website](#)  
[LI Case Study Link](#)



# CASE STUDY 2

## Patina of Time



## Wildwood Studio

### Overview

This private garden and home design from Wildwood Studio demonstrates that climate mitigation starts at home and can be achieved on a small scale.

The project applied a holistic design approach, integrating landscape architecture and biophilic interior design, to both a 500m<sup>2</sup> backyard space and the interior of a two-storey house in Stockport. This resulted in a design that enabled a low-carbon greener lifestyle and addressed climate change effects through a 'green-blue' network in the property.

### Climate-inspired concept

The inception of the original design ideas came from the project's location in Manchester. The city has long been stigmatised as a rainy region, so the project sought to explore how rainwater can not only be harvested, but its 'kinetic energy' reciprocated in the user's everyday life.

The integrated landscape-biophilia approach provides a creative way to mitigate climate change on a residential scale. And the

reconnection of human with nature not only results in climate change mitigation, but also provides climate education and personal engagement.

### Sustainable design and specification

The glass channel running vertically across the two floors is designed to create 3D waterfall sound effects in the house, acting as a natural 'Rain Hourglass', and creates awareness of natural processes such as seasons and temporal changes in the environment. The channel receives the rainwater from the roof and transmits it to the indoor plant beds, before allowing it flow to the backyard garden for more irrigation and maintenance. To allow active water infiltration and achieve ground water recharge, the originally proposed granite garden walkway was replaced by sustainable Kellen paving.

Hardwood flooring from sustainable sources was proposed for the entire house. This will avoid the use of volatile organic compounds (VOCs) and environmentally harmful chemicals, and will also contribute to carbon sequestration.

## Designing with nature

A lightweight green roof system provides natural thermal insulation, ambient noise control, and biodiversity enhancement via wildflower sedum (attracting butterflies and bees). In addition, a custom designed 'fauna wall' is situated in the garden with a hollow honeycomb web to hold water and attract birds. Such nature-inspired designs not only result in ecological up-valuing, but also help us create more productive, healthier, and happier spaces

### Location

Greater Manchester, Stockport

### Year Completed

2021

### Client

Private Property

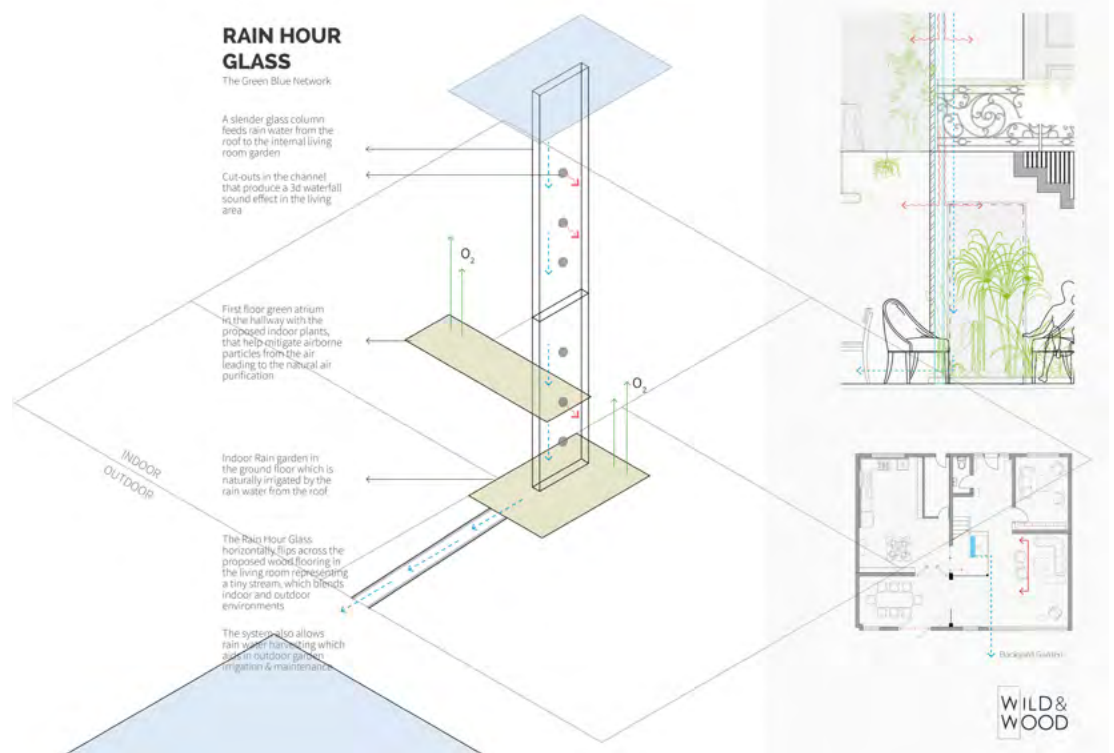
### Project Team

Wildwood Studio

### Related Links

[Wildwood Studio Case Study](#)

[LI Case Study](#)



## Fairbrook Grove



## Landscape Perspective

### Overview

Fairbrook Grove is a residential community of 14 Passivhaus family homes, designed around the principles of sustainability and set within a communal woodland.

The development just outside of Faversham, Kent demonstrates what can be achieved in a small site with a design team and client committed to climate and biodiversity goals. The scheme illustrates that there are not only ecological but significant long-term financial benefits to be had from creating a sustainable landscape. The judging panel of the Whathouse? 2020 awards who awarded the project a Gold in the best sustainable development category, concluded that the approach taken to the development was one that larger developers

should follow if we are to meet our collective desire to limit climate change.

### Landscape-led sustainable drainage

From the outset, the project was designed to be landscape led, and a key aspect of the masterplan was the integration of an exemplary sustainable drainage scheme. The surface water network utilises two swale systems to collect surface water run-off from the residences, and any surplus run-off from the permeable access roads runs into a shallow graded route through the site whereby it discharges to a pond at the base of the development.

The swales are lined with plants and trees and the meandering route, coupled with localised weirs and sections of dry swale, maximise



opportunities for discharge to ground and evapotranspiration. The vegetated swales also trap contaminants such as hydrocarbons, which will be broken down by exposure to sunlight and the atmosphere as they flow through the system. Shallow gradients in the swales slow the flow rate, leading to sediments dropping out of suspension.

For foul water, discreet package treatment systems are being utilised to treat the outflows in situ, thus discharging clean water to the surface water network. Treated water then either soaks into the ground or is managed by evapotranspiration.

### Climate mitigation

Residents can expect to see very low energy bills from the eco-conscious Passivhaus design, which includes high-performance triple glazing, airtightness, ventilation, and space heating.

The development was modelled and designed to raise the overall levels of the site marginally and to include mounds to achieve a zero-cut fill balance. Without these designs being accommodated the project would have resulted in almost 470 trips away from the site.

#### Location

Thanet Way, Faversham, Kent, South East England

#### Year Completed

To be completed Spring 2021

#### Client

Gold Property Developments Ltd

#### Project Team

Architects: Inside Out Architects

Landscape Architects: Landscape Perspective

Civil and structural engineers: Considine

Sustainability consultants: Fabric Building Physics Ltd

Ecologist: Martin Newcombe

#### Awards

The project received the Gold award for Best Sustainable Development at the WhatHouse? 2020 Awards.

#### Related Links

[Landscape Perspective Case Study](#)

[LI Case Study](#)



# CASE STUDY 4

## Communicating Landscape: Change from adaptation and mitigation in a changing climate



### Natural Resources Wales

#### Overview

Communicating Landscape is a resource to help visualise what future landscapes across Wales might look like with climate change mitigation and adaptation interventions in place. Its key aims are to support a greater use of landscape character as a tool for spatial planning, and to provide a context for integrated working. The project was commissioned by Natural Resources Wales.

#### Landscape-scale planning

The changing climate of Wales will have significant direct and indirect impacts on landscape character, quality, and local distinctiveness. Flooding and drought events, more frequent extreme weather, coastal erosion, and wildfires are all examples of how the landscape may change.

Adaptation and mitigation action are a clear priority of the Welsh Government, and locations for these changes must be identified. Afforestation, for example, will be a cornerstone of mitigation measures, but it is vital that we understand the impact upon the landscape character, qualities, and visual amenity. This information can help inform a landscape-scale approach that delivers enhanced outcomes for biodiversity and landscapes.

#### Adaptation and mitigation impacts

The report demonstrates how adaptation actions may change the character of the Welsh landscape. For example, uplands will change through improved water catchment and peatland management, the use of more resilient tree



species in forestry, and modified methods of farming to improve biodiversity, shelter, and diversification. In lowlands, the character of farming may change with more intensification of productive areas – with associated adaptation measures to provide biodiversity corridors, integrate structures, improve shelter, and accommodate flooding. Developed areas will need measures to increase green infrastructure corridors, flood storage, and sustainable transport.

Mitigation measures that need to be delivered, such as renewable energy generation through wind and solar power, are likely to result in marked landscape changes that will need careful siting and design in appropriate landscape types. The planned expansion of woodland to sequester carbon will lead to greater enclosure, expansion of wooded uplands and lowland hedged valleys, and potentially increase diversity of character and biodiversity, dependent on species and design.

## Report use

Decision makers can use the report to consider the implications of future climate change and the impacts of place-based adaptation and mitigation actions. It can help Natural Resources Wales communicate the characteristics and qualities they want to conserve, identify what actions may enhance landscape and ecological resilience and explain the landscape changes stakeholders may have to accept.

### Location

Wales

### Year Completed

2020

### Client

Jill Bullen, Natural Resources Wales

### Project Team

Simon White DipLA DipUD (Dist) MA CMLI and Harry Bell, White Consultants; Charlie Falzon, Charlie Falzon Associates

### Related Links

[Link to Report](#)

[LI Case Study Link](#)





## Lingang Bird Airport Sanctuary



### McGregor Coxall

#### Overview

The Lingang Bird Airport Sanctuary is an ambitious project delivering a flagship ecological wetland precinct and internationally significant bird sanctuary.

It is located along the key bird migration route known as the East Asian Australasian Flyway (EAAF) and is designed to attract and offer refuge for several endangered bird species and protect and enhance the local habitat. It consists of a 110-hectare wetland park and bird sanctuary and will provide a crucial re-fuelling and breeding stop on the EAAF for more than 50 million migrating birds per year.

#### Water-sensitive urban design

The Bird Airport Sanctuary utilises ground-breaking water design, helping to shape a progressive environmental vision for future projects in the greater Beijing region. The design consists of the following main components:

- Treated wastewater pumped into pond, reed and mudflats
- Recirculation of treated water via water pumps and channels throughout the site
- Incorporation of 'sponge city' concepts, such as having systems that reuse rainwater throughout park buildings

#### Biodiversity net gain

The landscape has been specifically designed to support the needs of more than fifty species of birds in three different water habitats, including an island lake with shallow rapids, reed zone, and mud flats. Ornithologist consultants Avifauna Research were engaged to embed into the overall design the complex interactions of site soils, feed sources, wetland vegetation, and water management.

## Creating a green belt for the city of Tianjin

The project delivers green infrastructure, including constructed wetlands, parkland, and urban forest. Recycled wastewater and harvested rainwater are moved through the wetlands using renewable energy and the site is surrounded by a 20-hectare fringing forest to protect the birds from intrusion by nearby urban developments.

## An educational experience for the community

The design emphasises eco-tourism and learning via special education programs, guided walks and workshops. Public facilities include wetland trails, a lake loop walk, cycle circuit, and forest walk, making up a 7km recreational nature trail network. This focus on climate education and community engagement enhances the quality of the public realm and ensures long term positive outcomes for the economy, the natural environment, and ultimately the health of the Tianjin city and its people.

### Location

Tianjin, China

### Year Completed

2017

### Client

TEDA Institute of Landscape Planning & Design

### Project Team

McGregor Coxall – Landscape Architecture  
Avifauna Research & Services Pty Ltd – Ornithologist  
& Environmental consultant  
Vlad Vernica – Artistic visualisations

### Awards

International Federation of Landscape Architects –  
IFLA Asia-Pac Landscape  
Architecture Award (Honourable Mention) – 2017  
Australian Institute of Landscape Architects – AILA  
National Award, International Projects – 2018

### Related Links

International Federation of Landscape Architects –  
IFLA Asia-Pac Landscape  
Architecture Award (Honourable Mention) – 2017  
Australian Institute of Landscape Architects – AILA  
National Award, International Projects – 2018  
[LI Case Study](#)





## Exploring Climate Change Risks for Coastal Designated Heritage Assets



### LUC for Historic England

#### Overview

This interactive map, developed by LUC for Historic England, is part of a research project exploring risk levels posed by climate change on designated coastal heritage assets.

Indices of coastal vulnerability and heritage sensitivity were developed through a review of currently available data and research. These were then developed into a mapping tool to look specifically at coastal erosion, coastal flooding and sea-level rise.

#### Identification for adaptation

The project built on previous research carried out by Historic England. LUC incorporated the latest environmental datasets and extended coverage across all assets in the NHLE (National Heritage List for England), which includes

Listed Buildings, Registered Parks and Gardens, Scheduled Monuments, and World Heritage Sites.

The work has allowed Historic England to identify coastal heritage 'priority places' – areas where designated heritage assets are most at risk from coastal processes. This has revealed that the South East and South West have the largest number of assets at risk. In terms of the proportion of assets affected, coastal flooding poses the greatest threat, with many assets being situated in flood zones.

The research looks at risk over the short- (0-20 years), medium- (20-50 years) and long- (50-100 years) term. This reflects the time horizons referenced in UK climate projections to ensure that the impacts of climate change are considered, and action can be prioritised.



## Developing data for the future

Execution of this research project presented a number of challenges in terms of data access, data structure, and scoring heritage sensitivity. The project highlighted that data on environmental risk factors such as coastal flooding and sea level rise under different climate scenarios is not readily available. In some cases, data exists, but it is not freely accessible to those wanting to assess risk to their portfolio of assets.

Often climate change impacts will not be a gradual process. Further research is needed to understand where the 'tipping points' lie for different assets. While this study has explored vulnerability of different assets, whether an asset experiences gradual or catastrophic loss relates to wider factors such as geology, location, and materials. These are subtleties that have not been exposed through this study and further work is needed to understand this.

## Towards adaptation options

Mapping and identifying 'priority places' will enable a move towards deciding on adaptation options. The shape, size and location of the site, the fluidity of its boundaries, and the relationship of its ecosystems to one another, are all key factors in determining adaptive capacity of a heritage site.

### Location

England

### Year Completed

2020

### Client

Historic England

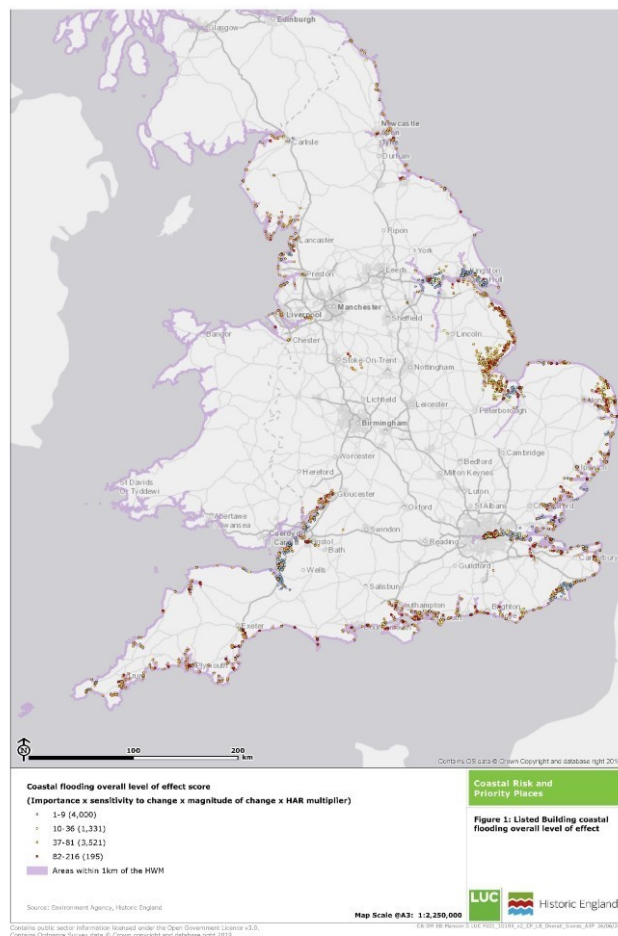
### Project Team

LUC

### Related Links

[Link to Report](#)

[LI Case Study](#)



## Republic East India Dock: New Water Gardens



### Remapp

#### Overview

The Republic at East India Dock project demonstrates an adaptive reuse approach to building a new development. This involved refurbishing, rather than demolishing, the existing 'Po-Mo' office blocks as high quality and low-cost workspace, and developing a revitalized area of public realm within a new creative district.

The landscape design was an integral part of this process and was integrated within the wider green infrastructure framework of the Tower Hamlets Green Grid Strategy. The project and design process focused on the existing concrete waterways and addressed the functionality of this predominantly hard landscape, with its related constraints of its podium structures, a lack of biodiversity, and associated microclimatic and wind tunnel issues.

#### Designing for people

The design of the space focused on the insertion of new sustainably engineered timber structures and decking within a newly planted waterway, creating a new public realm of multi-functional external 'rooms' within a water garden setting. This included preserving an existing avenue of lime trees. Alongside this the public realm has been pedestrianised, and the existing concrete waterway system transformed with lushly aquatic and marginal planting.

The installation was designed as part of a collaborative process, with Studio RHE architects designing the timber structures, and new planting structures designed by remapp landscape architects. This created varied and sheltered microclimate sequences and a series of open, but enclosed, spaces for local residents and users of new workspaces and cafes.

## Biodiversity gain and habitat creation

The planting included native and non-native species to enhance biodiversity, naturally filtrate and aerate the water body, provide wildlife habitat, and define seasons. New aquatic and marginal planting have been established through the installation of a low-tech and bespoke gabion structure. Rainwater and surface water run-off is recycled and drains into the waterway.

In addition, to link with an adjacent lake habitat, multiple other habitats have been introduced, including recessed bird and bat boxes on the water's edges, and low-level bug biomes. Low-level lighting in the water body also accommodates the already very evident dragonfly community.

## Evidence of impact and recommendations

The proposals were demonstrated to provide enhanced biodiversity and habitat via a project-specific BREEAM Land Use and Ecology Assessment. The report showed a significant increase in new habitats present on the site, and considerable biodiversity net gain in terms of species richness, leading to an 'Excellent' BREEAM rating. In terms of demonstrable effort towards carbon neutrality and climate change mitigation, the installation of green biodiverse roofs, new trees, and riparian planting have contributed multiple ecosystem services; including carbon sequestration, reducing the urban heat island effect, providing capacity for surface water run off, and improved air quality. Together, these contribute to a healthy and resilient environment that will mitigate local climate impacts.



### Location

East India Dock, London

### Year Completed

2019

### Client

Trilogy Property

### Project Team

Architect/ Lead Consultant: Studio RHE  
Landscape Architect: remapp  
Structural Engineer: Heyne Tillett Steel  
MEP Engineer: Watkins Payne  
Ecologist: The Ecology Consultancy  
Public Realm Consultant: Sarah Gaventa, Made Public  
Arboroculturalist: Marcus Foster Consultancy  
Planning Consultant: Savills  
Project Manager: Quartz  
Lead Contractor: Galliford Try  
Landscape Contractor: ESL

### Awards

New London Award – 2019 – Public Space - Shortlisted  
AJ Retrofit Awards – 2018 – Highly Commended  
NLA Awards Conservation and Retrofit – 2018 – Shortlisted  
Building Awards – Refurb of the Year – 2018 – Shortlisted  
Structural Timber Awards – Commercial – 2018 – Winner  
AJ Architecture – Rebirth Project – 2018 – Shortlisted

### Related Links

[www.republic.london](http://www.republic.london)  
[www.studiorhe.com](http://www.studiorhe.com)  
[www.remapp.co.uk](http://www.remapp.co.uk)  
[LI Case Study](#)



## Kokkedal Blue Green Garden City Adaptation Plan



### Ramboll

#### Overview

The Kokkedal climate adaptation plan, one of Denmark's largest, is centred on the town of Kokkedal north of Copenhagen. It was developed to advantageously use its local waterway to improve local residents' everyday life at an environmental, social and cultural level.

This ambitious and innovative proposal, sought to restore the original water cycle to bring flowing water back through the city, deliver an improved ecosystem, enhance liveability, strengthen social cohesion, and deliver greater commercial growth.

#### Sustainable drainage

The focus of the plan was on the usage of the area as a whole, as well as incorporating rainwater for sustainable city planning and improvement of urban quality. New recreational spaces, common areas and paths were combined to bring a new architectural

expression to the area, creating a stimulating environment to live, work, and play.

A large part of the climate adaptation plan in Kokkedal focuses on expanding an existing stream, restoring the original water cycle, and creating a delta formation to make the water flow through the city. As sub-consultants, Ramboll created the design basis for the project and made the hydraulic and technical detail plans, climate change adaptation measures and the local and recreational handling of rainwater.

#### Community engagement

This work provided the technical basis for a series of meetings with the local authority, utilities, and stakeholders such as housing associations, neighbourhood clubs, sports clubs, and conservation groups. Ramboll also contributed by advising on the sharing of costs between municipalities and utilities under the current rules for climate adaptation.

## Public realm

The project in Kokkedal is unique in the way it uses climate adaptation measures to drive urban renewal and boost social life, while at the same time safeguarding the area against extreme flooding events. Kokkedal has long suffered from social division, insecurity, low investment, and major flooding. Because of these challenges, this project sought to create outdoor areas that could provide the setting for a good social community and give the city a much-needed boost.

### Location

Kokkedal, Denmark

### Year Completed

2013

### Client

Fredensborg Kommune, Fredensborg Forsyning and Realdania

### Project Team

Ramboll, Technical, resilience, environmental and landscape of east valley  
Schönherr Lead and Landscape  
BIG Social concept

### Awards

Wasterwater Association (Danva), Climate Award 2017

### Related Links

[Ramboll Case Study](#)  
[LI Case Study](#)





## Cator Park, Kidbrooke



### HTA Design

#### Overview

Cator Park in Kidbrooke Village is an ambitious redesign of an 8ha park in London. It returns nature to the city and challenges the perception that urban brownfield development cannot contribute to the wider ecological and biodiversity network, while creating successful spaces for the community.

The new parkland will offer a legacy for the local community and the wider city that will bring people together and form a sense of identity. The proposals introduce a diverse habitat mosaic with destination sculptural playspace, while creating corridors for wildlife and humans through the site.

#### Creating a diverse habitat mosaic

The proposals transform the existing landscape; creating a mosaic of habitats and biophilic spaces including lakes, water-sensitive constructed wetlands, meadows, open amenity and wild spaces. 'Problem' wet areas have been transformed into water meadows with boardwalks where people can enjoy observing

the wetland bird populations, while creating protected spaces for wildlife. A high level of horticultural knowledge has been fundamental to delivering a predominantly native and biodiverse scheme, whilst ensuring the parkland remains attractive throughout the year.

Drawing upon the history of the Lower Kid Brooke – a lost river that once crossed the site, and from which the village takes its name – a new dry riverbed creates a palimpsest wending its way from the north to the south of the park. This swale forms the backbone of the landscape approach, connecting the existing waterbodies, acting as a path and play feature that invites the public to discover and interact with the natural environment.

#### Unique collaboration and community engagement

Cator Park has been a unique collaboration between HTA, Berkeley Homes and London Wildlife Trust, focusing on allowing nature to return to the site, enhancing biodiversity, and creating a legacy for the local community.



The London Wildlife Trust were instrumental in ensuring strong and continuous community engagement, delivering strategic, technical, commercial, and political consultations. Central to their engagement strategy was a series of events, including Weekly 'Wild about Kidbrooke' events and Wildlife workshops for local schools.

### Biodiversity net gain

Prior to redevelopment, the park was dominated by buildings, roads, amenity grassland and scattered trees. Now the same area boasts ponds, meadows and native hedging. The baseline habitats and new habitats post completion were assessed using the DEFRA's latest biodiversity net gain calculator, and showed a 161% net gain.

### Mitigating environmental impact

Mitigating the environmental impact was a key driver for the design and delivery of the park, from the early concept stages throughout the detailed design, as well as the sourcing of materials on site. The utilisation of 30,000m<sup>3</sup> of demolition material in sculptural mounding reduced waste and reduced inputs. A playspace created through recycled materials highlights how specifying the right materials can aid low-carbon designs.

#### Location

Kidbrooke, South London

#### Year Completed

2019

#### Client

Berkeley Homes (East Thames) Limited

#### Project Team

Landscape Design, Way-finding and Interpretation:  
HTA Design LLP

Soil Scientists: Tim O'Hare Associates

Engineers: RSK

Contractor: Elite Landscapes/Ginkgo Landscapes

Specialists Play Installer: Adventure Playground  
Engineers

#### Awards

London Mayor's Award for Sustainable &  
Environmental Planning in the Building London  
Planning 2020

Sir David Attenborough Award for Enhancing  
Biodiversity

#### Related Links

[HTA Design Case Study](#)

[LI Case Study](#)



## Thamesmead: Living in the Landscape



© LDA Design

### LDA Design

#### Overview

When the Greater London Council built Thamesmead on reclaimed marshes, its plan was for a modernist utopia: an innovative concrete design integrated with expansive green spaces, lakes, and canals. A 1970s promotional film described 'environmental conditions unmatched by anything that has existed before'. Early residents still recall what they describe as the best childhood ever, roaming free.

After decades of neglect, Thamesmead once again presents the most extraordinary opportunity in London. Peabody, the housing association, has become the town's largest landowner, intent on reversing decline with a £1bn investment strategy.

#### Recognition that landscape should lead

Peabody decided against commissioning another masterplan for the town. Instead, they took the bold step to use landscape and green

infrastructure to super-charge recovery and to shape placemaking. They invited LDA Design to create the Framework.

Peabody is using Living in the Landscape, the new Framework, to turn the town into a place of choices. The population of Thamesmead will more than double by 2050, and Peabody wants regeneration to be inclusive above all else: enabling the most vulnerable people to make the most of their lives. Well-evidenced health benefits provide a compelling case for investing in better landscape.

#### A town of climate activists

The sea level is rising in the Thames Estuary and Thamesmead will need new flood defences. The special opportunity here is for people to become climate activists through re-connecting with their transformed waterfront as well as the natural environment. At neighbourhood level, even managing rainfall in new and more playful ways is a route to engagement.

In the 1960s, connectivity meant building highways; now it means active travel and public transport. The streets of Thamesmead will become overpoweringly green, with a rich and diverse cultural offer from the parks to the Tumps.

The legacy of green infrastructure will be mobilised for a speedy transition to climate resilience and carbon-free living, with emerging technologies for energy and water.

### The only game in town

Thamesmead was originally designed as a flagship for the environment, and Peabody are using a practical 'Thamesmead Test' to guide new development. The Test encourages developers to aim for their own flagship best with somewhere that works for everyone, generates value and provides for the right sort of growth in the right place. The Test will also support communities in advocating to become London's greenest place to live.

#### Location

Thamesmead

#### Year Completed

2020

#### Client

The Peabody Trust

#### Project Team

LDA Design  
Green Infrastructure Ltd  
Robert Bray Associates  
SNC – Lavalin Atkins  
Land Management Services  
Project Orange  
Vivid Economics  
Continuum Sport and Leisure

#### Related Links

<https://www.lda-design.co.uk/kindling/news/launching-living-in-the-landscape/>  
[LI Case Study](#)



© ProjectOrange/LDA Design



# CASE STUDY 11

## Sutcliffe Park: Then and Now



It adds a lot for our local community to have this amazing wild space so close by. As a keen birdwatcher I go there a few times a week and it does attract quite a few species.

Mike Edwards

## Environment Agency

### Overview

The Quaggy River Flood Risk Management scheme was a project featured in our original 2008 climate position statement. This retrospective look at the impact of the project on people, place and nature is a great chance to showcase how landscape work can deliver long-lasting, powerful impacts.

The Quaggy river lay hidden underground in a concrete channel, unnoticed by the public and providing very little habitat for wildlife. Sutcliffe Park, the centrepiece of the scheme, was a featureless assortment of playing fields, built in the 1930s and designed to alleviate flooding. The green space was redeveloped and enhanced over 15 years; the project was completed in 2007.

### Biodiversity net gain and habitat creation

Following redevelopment, Sutcliffe Park has been transformed into a high-quality natural environment. By bringing the river out of its concrete channels and back into a natural meander, a fantastic habitat for aquatic flora and fauna has been developed. Instead of a flat and uniform stretch of monocultured grassland, there is now a rolling landscape with a range of natural habitats including a lake, ponds, wildflower meadows, reed beds, and a variety of native trees. Rare bird species have been spotted in the wetlands, and there are booming populations of insects, including Emperor dragonflies. Sutcliffe Park has been declared a local nature reserve and is one of Greenwich's Green Flag sites.

## Mitigating flooding

The previous system was designed to alleviate flooding, but failed to fulfil its goals. Throughout the 20th century the idea persisted that rivers and streams were to be tamed through concrete culverts and channelising. This, in fact, did the opposite: rushing massive amounts of water into Lewisham, causing a notable flood in 1968. By designing with nature, and restoring the river and natural flood plains, the site can now absorb and contain excess water much more effectively, with a capacity of 85,000 cubic metres. During flooding, the park is designed to fill up from the centre to prevent the creation of islands within it. If the storage area were to reach capacity, a spillway directs the overflow back into the old culvert.

## Delivering for people

Community involvement and ambition has always driven the redevelopment of the park. The Quaggy Waterways Action Group (QWAG) is a group of local residents fighting to restore the river and enhance the park. Sutcliffe Park was born out of collaborative working, and this spirit of local engagement has remained strong. The park has an active Friends of the Park group and has been a huge boost to local residents from all backgrounds. Wildlife learning and education activities are regular, as is an annual rubber duck race. In a survey of 80 visitors to the park, 89% said the work had improved the park, and a Middlesex University study found the average amount of time spent per person in Sutcliffe Park increased by 44% after the restoration of the river.



In June 2004 I could not have known how obsessed I'd become with this space – nor guessed that I'd see a kingfisher, dragonflies, marsh marigolds and nesting swans inhabiting Sutcliffe Park.

Julia Grollman





# How you can get involved...

**We have developed this publication as a part of our commitment to inspire best practice within our sector and equip the profession to provide solutions to the climate and biodiversity crises. Below are some of the ways you can get involved:**

**Declare a climate emergency:** #landscapearchitectsdeclare, a partner group, have created a commitment to real change that you or your practice can sign up to at [uk.landscapearchitectsdeclare.com](http://uk.landscapearchitectsdeclare.com).

**Send us more case studies:** We will be continuing to research and promote practical examples of how our members on the ground can make a difference. If you have a case study of good (or even bad) landscape practice – across design, planning, management or science – please share it with us.

**Join a member group:** Over the coming months and years, we will be establishing task-and-finish working groups and advisory panels to help us deliver several of the action areas contained within our Climate and Biodiversity Action Plan. Look out for further announcements and let us know if you'd like to take part.

**Partner with us:** Finally, whether you are a Landscape Institute member, another professional, an organisation, a policymaker, a decision-maker, or anybody else who can help us deliver the ambitions set out in this document, please get in touch.

All enquiries to: [climate@landscapeinstitute.org](mailto:climate@landscapeinstitute.org).

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## Acknowledgements

We are grateful for the generous support and feedback we have received from many people, including the following.

The Landscape Institute Policy and Commutations Committee

Thank you to everyone who contributed to our 2008 paper

Dr Alex Hilliam

The Climate Change and Biodiversity Expert Panel  
Design by Darkhorse Design [darkhorsesdesign.co.uk](http://darkhorsesdesign.co.uk)

We would also like to thank all those that submitted case studies for inclusion.

Thanks to all the staff at the Landscape Institute and the Board of Trustees, who have all contributed to this work.

This report was kindly sponsored by Peabody. Peabody is responsible for 66,000 homes in London and the South East and is currently undertaking the capital's largest development project in Thamesmead. Peabody's whole place philosophy In Thamesmead, alongside its Green Infrastructure Framework – 'Living in the Landscape', is delivering high-quality placemaking while enhancing people's health and wellbeing.

