

Climate Adaptation

Fiona Sutton-Wilson

Director – APSE Training

Urban Green Spaces

- 
- An aerial photograph of a city, showing a mix of urban buildings and green spaces. The image is slightly blurred and has a dark, muted color palette, with the green of the trees being the most prominent color. The text is overlaid on the left side of the image.
- ☐ Impacts of climate change through the lens of urban green spaces
 - ☐ Building a business case and climate adaptation strategies.
 - ☐ Supporting the delivery of BNG projects.
 - ☐ The challenges for councils.

1

Advanced Soil Management

2

Biodiversity Net Gain for Local Authority Parks and Green Spaces

3

Making Space for Nature in our Burial Grounds and Churchyards

4

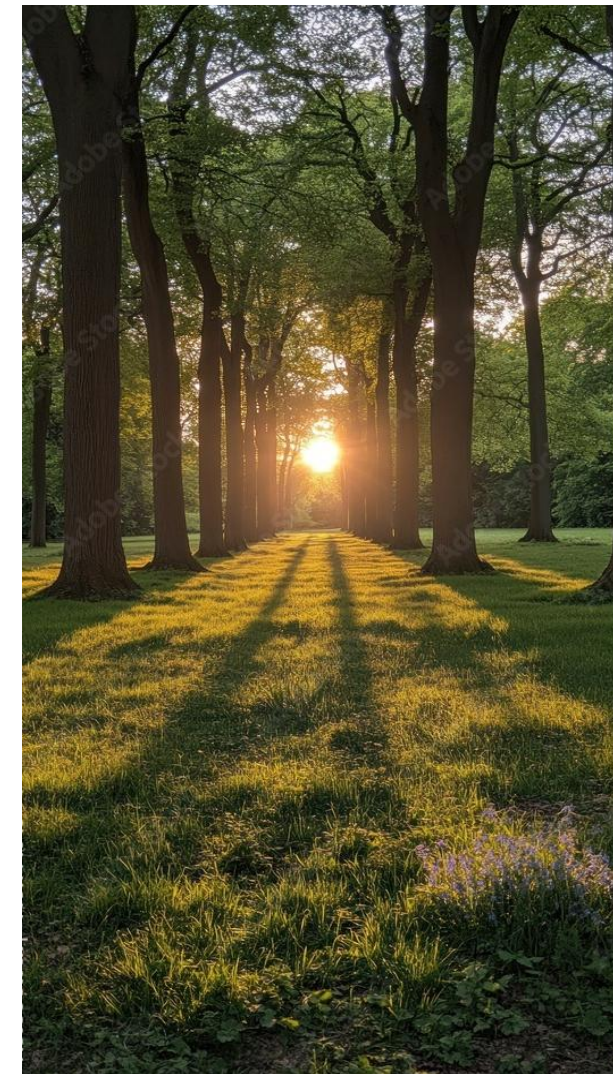
Plant Biosecurity for Local Authorities

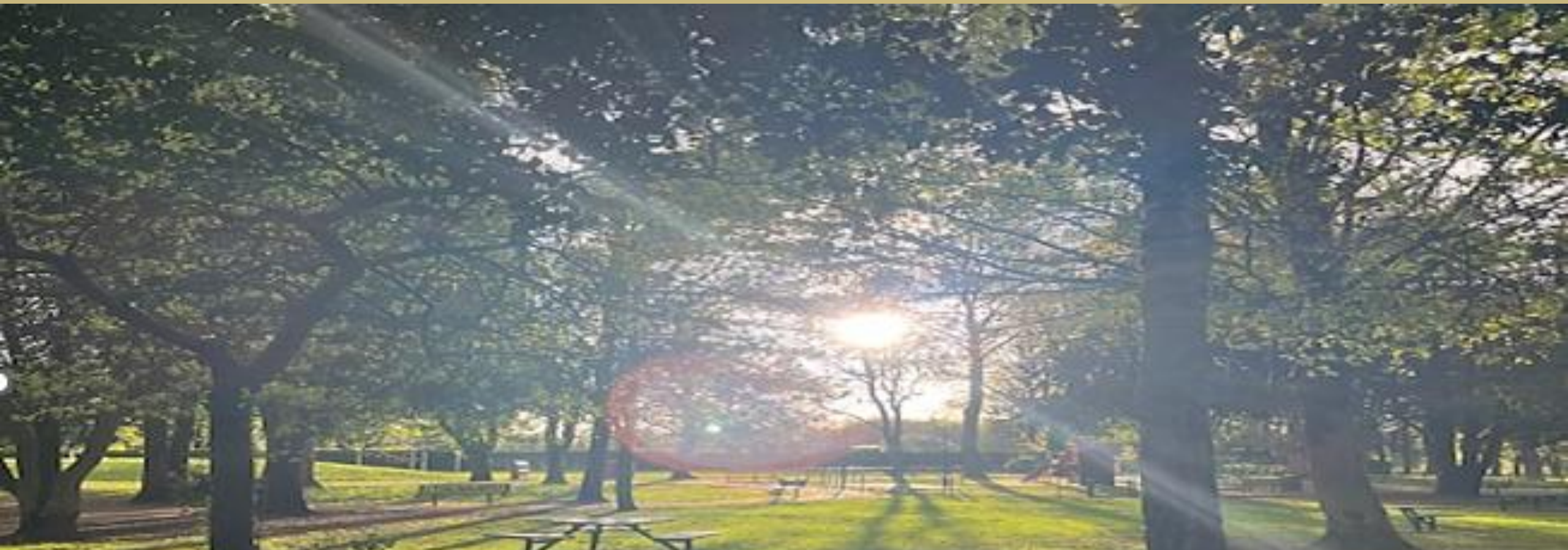
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Wildflower Meadows and Grassland Management

6

Urban Green Spaces





Impacts of climate change through the lens
of urban green spaces.

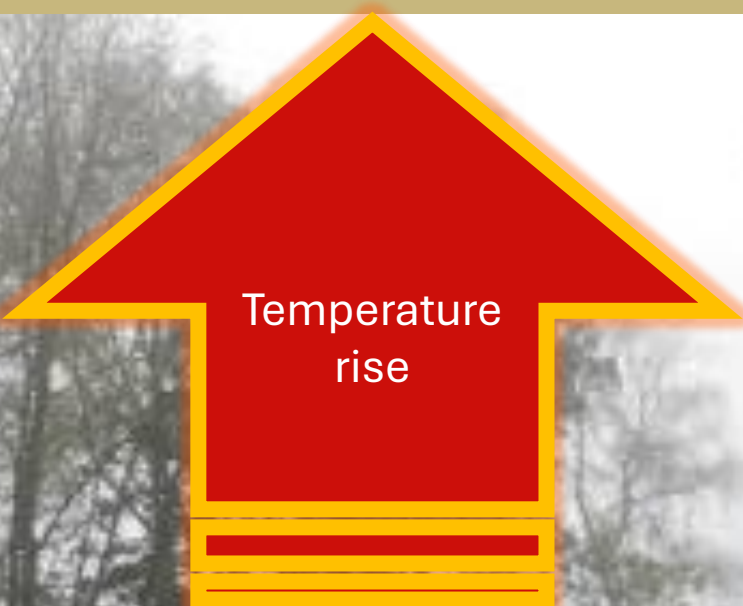
Industrial Revolution



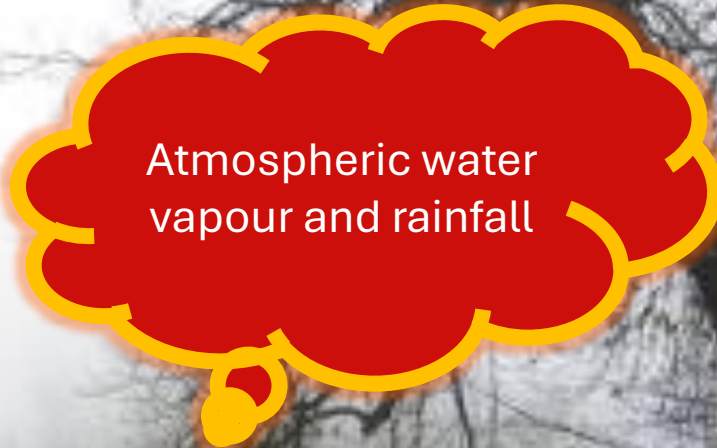
Before the industrial revolution
people relied on wood and
other natural resources

Increased globalisation has
accelerated the impact,
causing global temperatures to
rise.

Burning
fossil
fuels
released
CO²



Temperature
rise



Atmospheric water
vapour and rainfall



Storms



Droughts and
Wildfires



Warmer and rising sea levels

What does this mean for urban green spaces

Increased
temperatures

Altered rainfall
patterns

Extreme weather
events

Changes to
growing seasons

Pests and
diseases

Heat stress
Sun scorch



Plant health

Drier summers
+
Wetter winters



Drier soil
Flooding/ erosion
Lack of water for
plants

Displacement
activity

Legal and financial
implications

Increased pests and
diseases.

Earlier springs
Delayed autumns



Plant life cycles



Pollination
Seed production
Ecosystem
dynamics.

Warmer, wetter
conditions

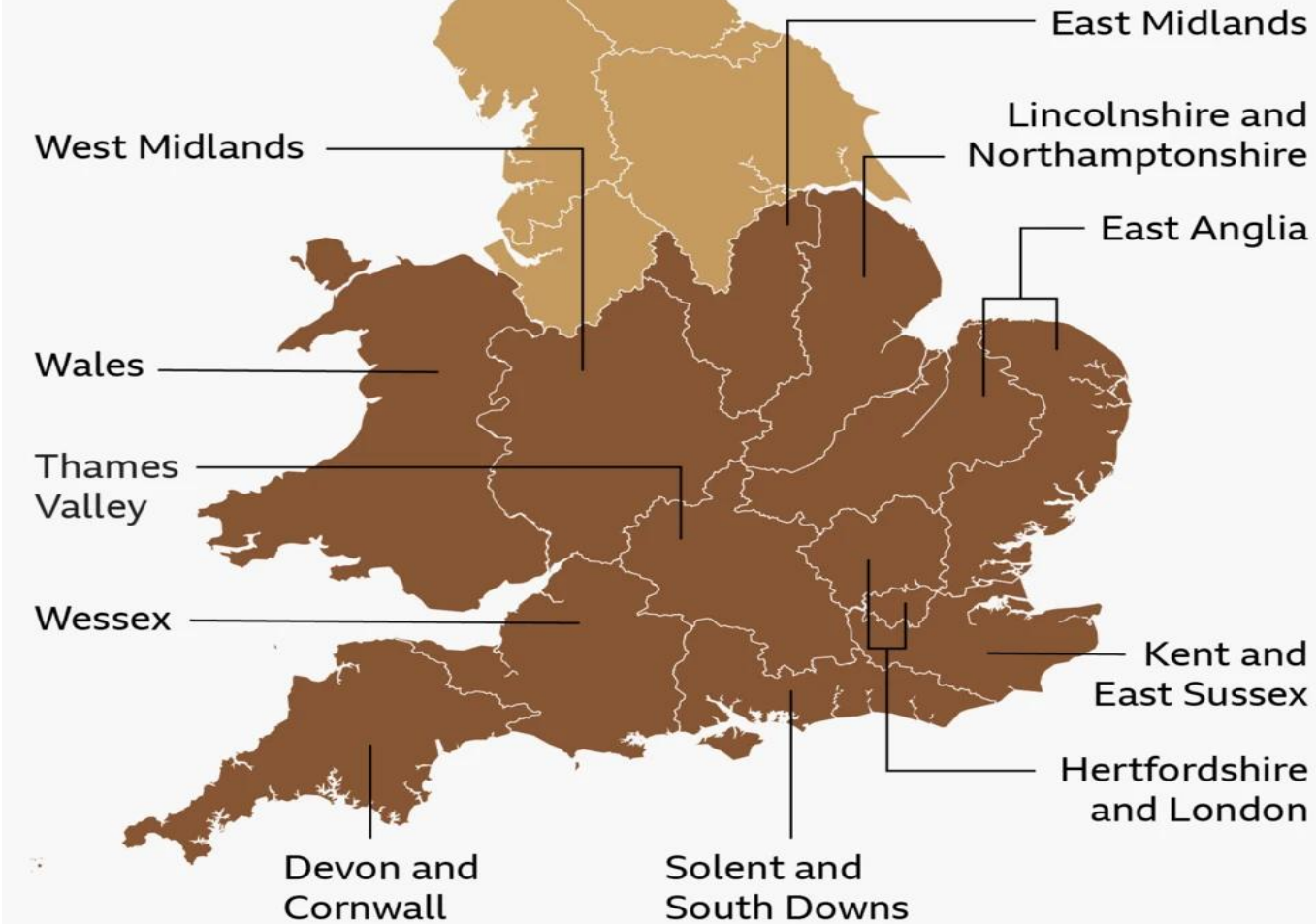


Bigger pests
Both P & D
spread to new
areas and affect
new plant species

Drought declarations in England and Wales

- Drought
- Prolonged dry weather
- Normal

2026



- **FIRST** summer with 35^{°C} in three calendar months (May, June and July)
- 40 days of temperatures above 30^{°C} (highest 38.1^{°C})
- Driest conditions in England and Wales since records began in 1836
- Drought declared in more than 2/3 England and Wales.
- 14% of England's rivers at normal levels.



Extreme weather
Habitat loss
Migration
Survival rates of
young
Extinction risk
Ecosystem
destabilisation



A photograph of a park with many trees. Sunlight is filtering through the leaves, creating a bright, hazy effect in the center of the image. The ground is covered in grass and fallen leaves.

Building a business case and climate adaptation strategies for urban green spaces.

TYPICAL BUSINESS CASE CONTENT

Strategic objectives, reflecting the vision

Expected benefits

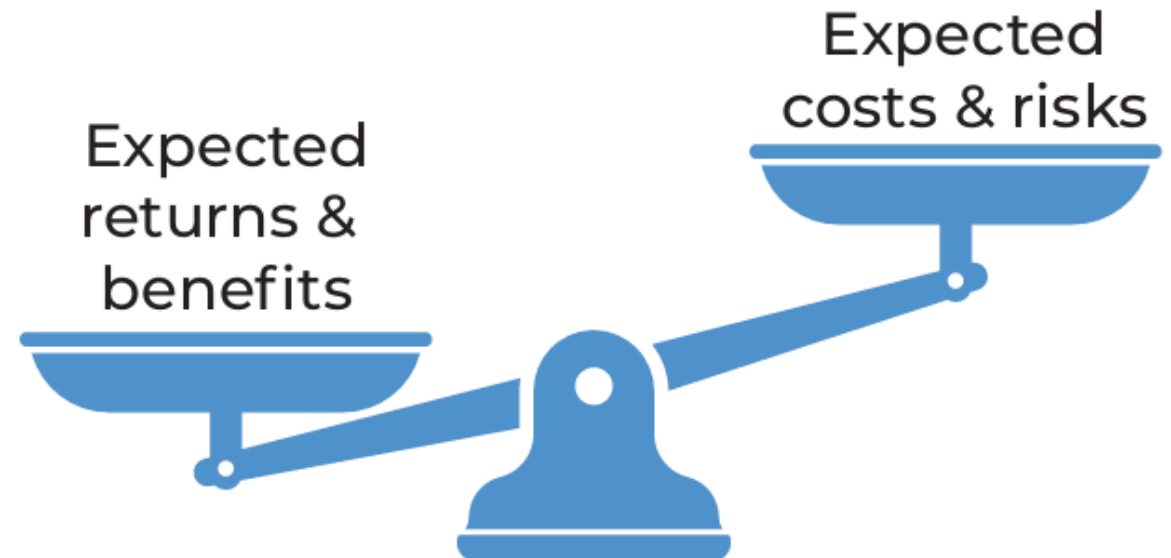
Overall risk profile – identify major risks

Estimated costs & overall timescale

Appraisal of investment

Financial information

Other options and costs



1

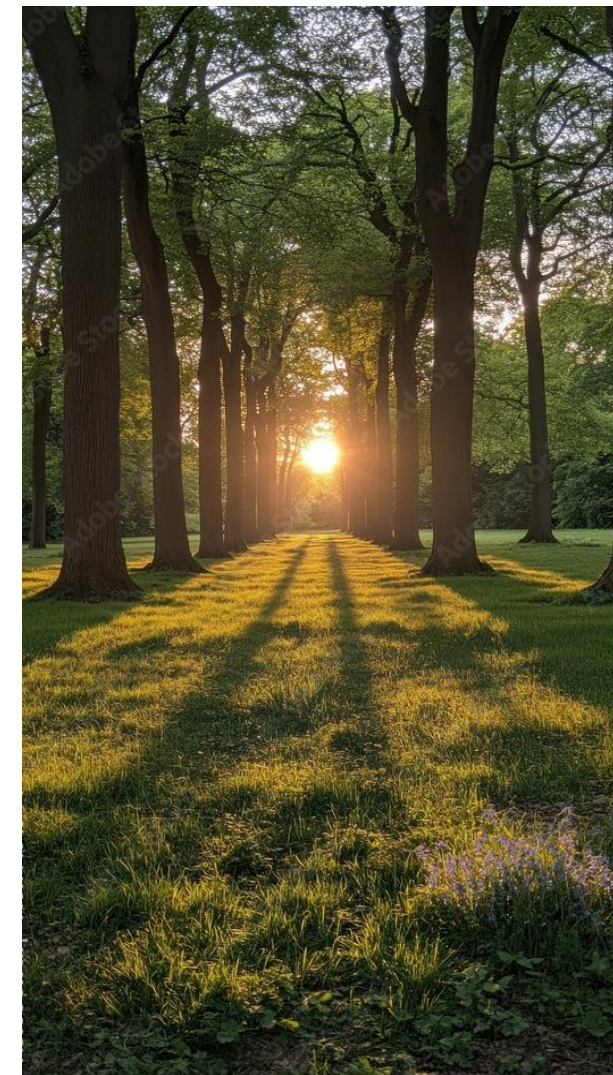
- UK highly urbanised
- 85% population in towns/cities

2

- Can natural assets help?
- Stabilise ecosystem services

3

- Reduce heat island effect
- Sequester carbon

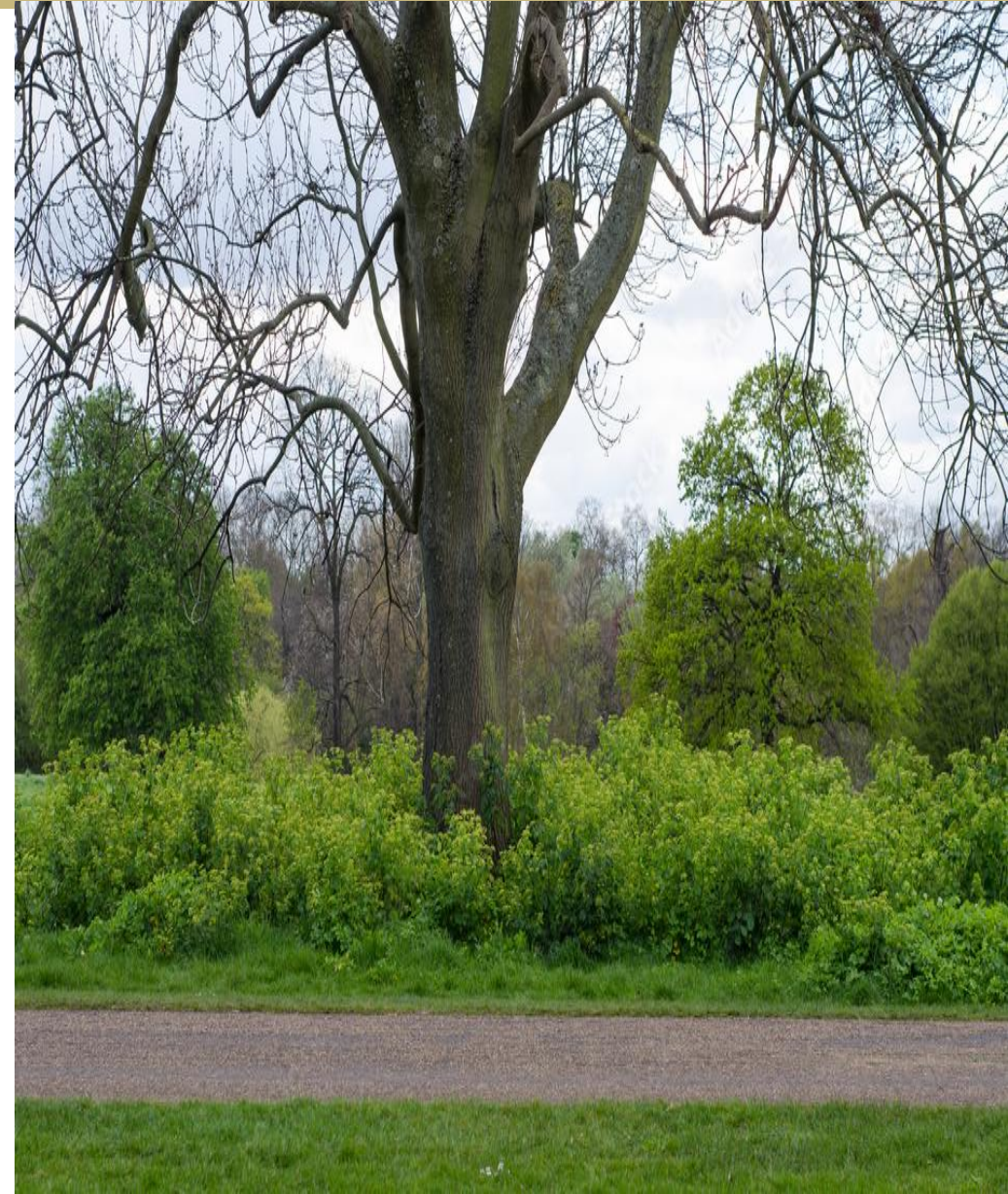


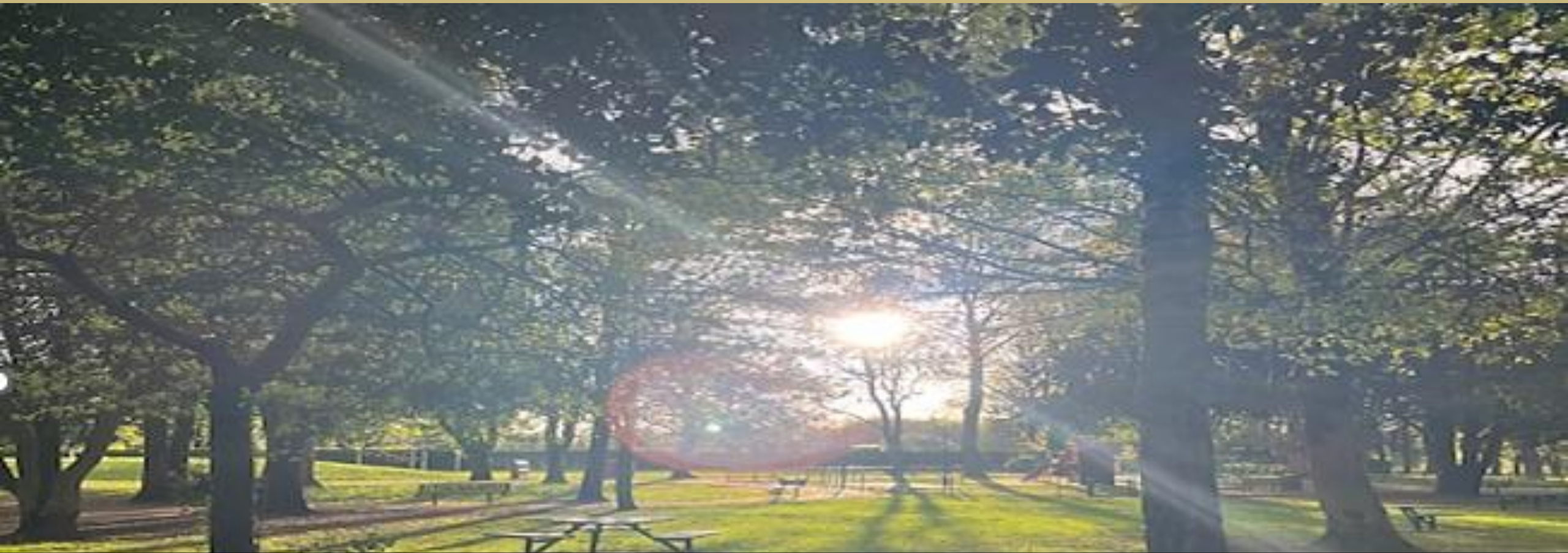
The role of urban parks and greenspaces in fighting climate change?

- ❑ Tree Planting schemes now nationally widespread.
- ❑ Sustainable Drainage (SuDS)
- ❑ Increase in grassland and wildflower schemes.
- ❑ Incorporating greater levels of greenspaces in new developments (Biodiversity Net Gain).
- ❑ Protection and conservation of biodiversity



- ❑ Selecting climate-resilient and native plant species
- ❑ Incorporating drought-tolerant landscaping
- ❑ Managing water sustainably with features like rain gardens and stormwater harvesting
- ❑ Increasing overall green infrastructure





Supporting the delivery of BNG projects in your area by taking practical action.

Prolonged dry weather and droughts are impacting UK biodiversity in a number of ways :

- Stressing freshwater ecosystems
- Concentrating water pollutants
- Drying out peat bogs and wetlands.
- Heightened wildfire risks
- Parched soils

Nature-based strategies
Urban resilience



New management strategies for climate resilience

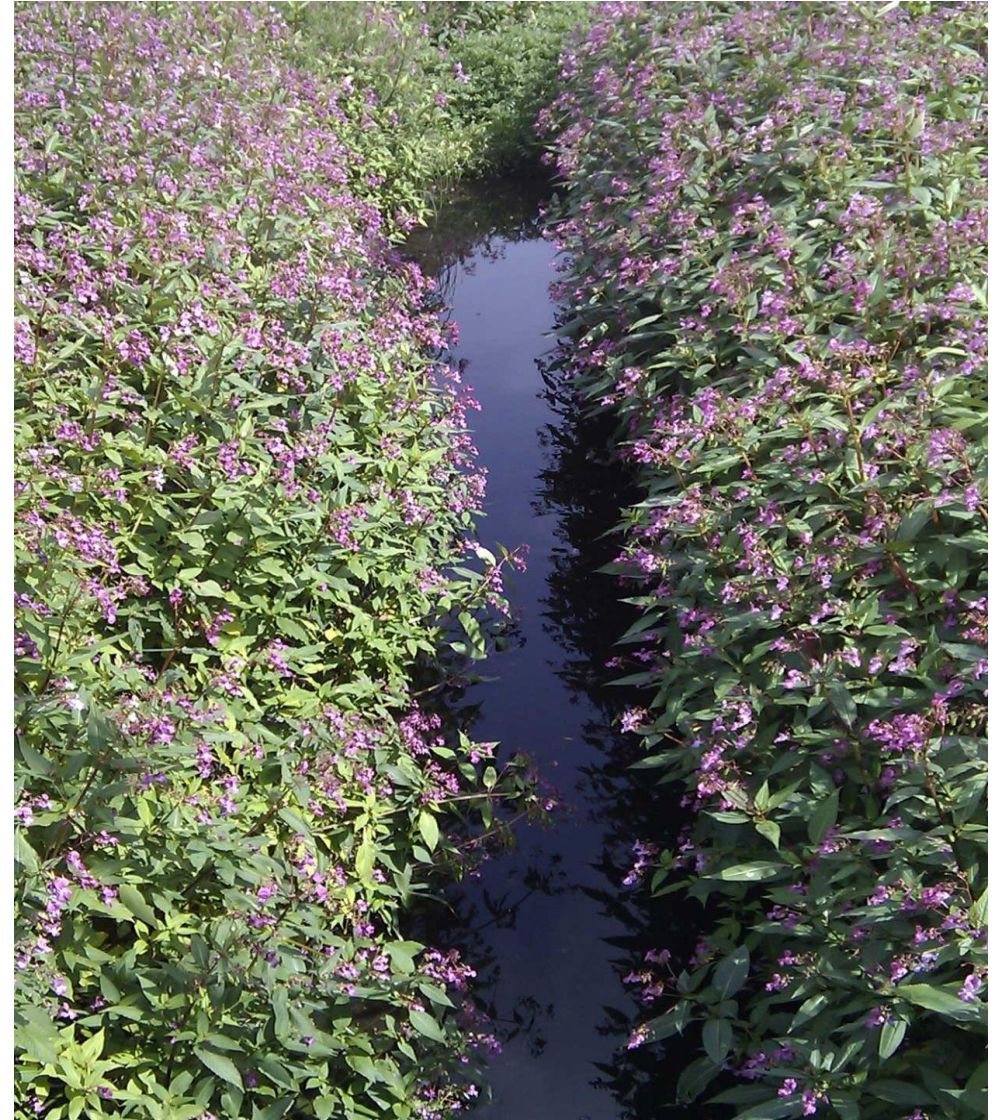
- ☐ A fundamental shift to "Nature-Based Solutions" (NBS):
- ☐ Reimagine landscapes with climate-resilient plantings
- ☐ "micro-forests"
- ☐ Embrace ecological diversity
- ☐ Implement comprehensive water management.
- ☐ Enhance cooling and shade.
- ☐ Use data-driven planning.



The Critical Need for Biosecurity

While introducing new plants offers significant benefits, it carries the inherent risk of introducing **non-native, invasive species (INNS), pests, and pathogens** to new environments. Climate change can exacerbate this risk by making new geographical areas more hospitable to these invasive organisms.

- ☐ **Native Species Lack Immunity**
- ☐ **Economic and Environmental Damage**
- ☐ **Ecosystem Disruption**
- ☐ **Trade Pathways**



Effective biosecurity measures are crucial, including;

- ☐ Responsible sourcing of planting stock,
- ☐ Stricter import controls,
- ☐ Ensuring provenance of stock
- ☐ Handling, storage and transportation of stock to and from sites
- ☐ Monitoring and surveillance systems,
- ☐ Public awareness campaigns to prevent accidental spread.

This holistic approach ensures that adaptation efforts do not inadvertently create new environmental and economic problems.

UK Plant Passport

A [Botanical Name]

B [Registration Number]

C [Traceability Code]

D [Country of Origin]

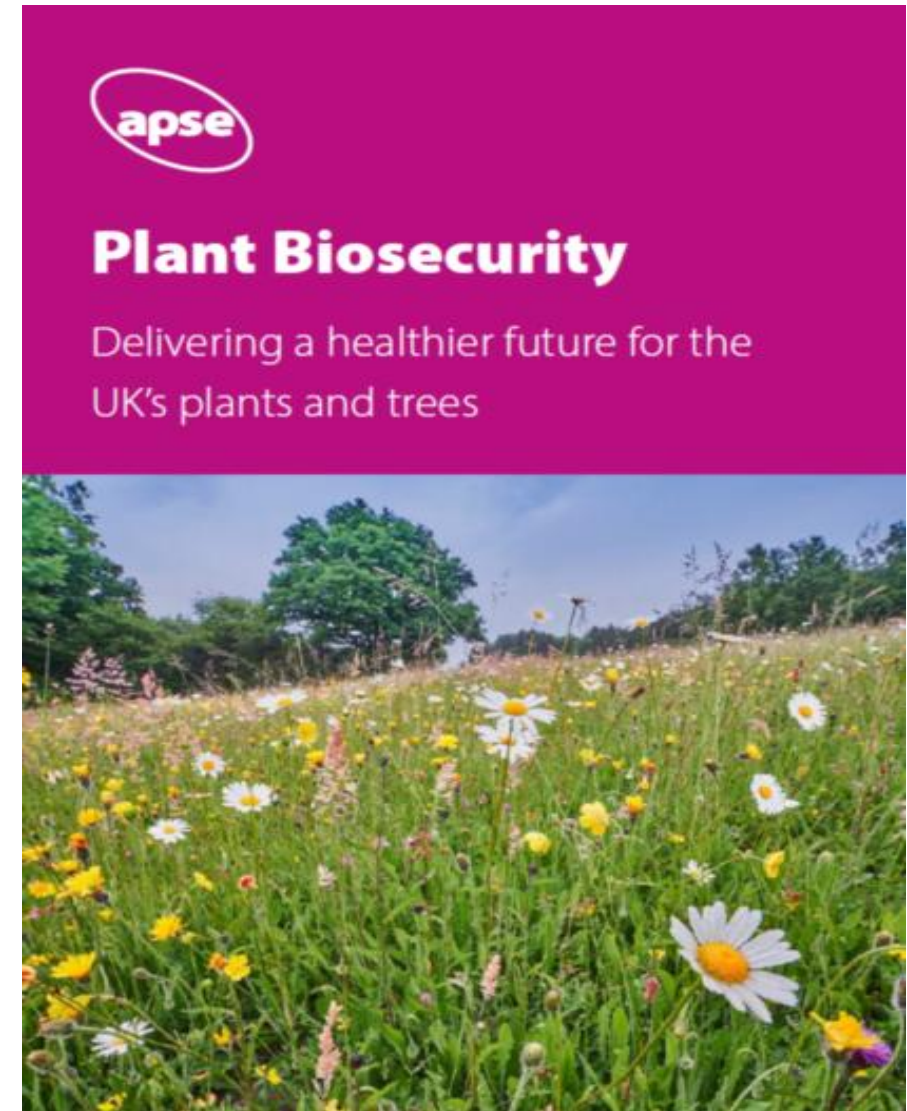
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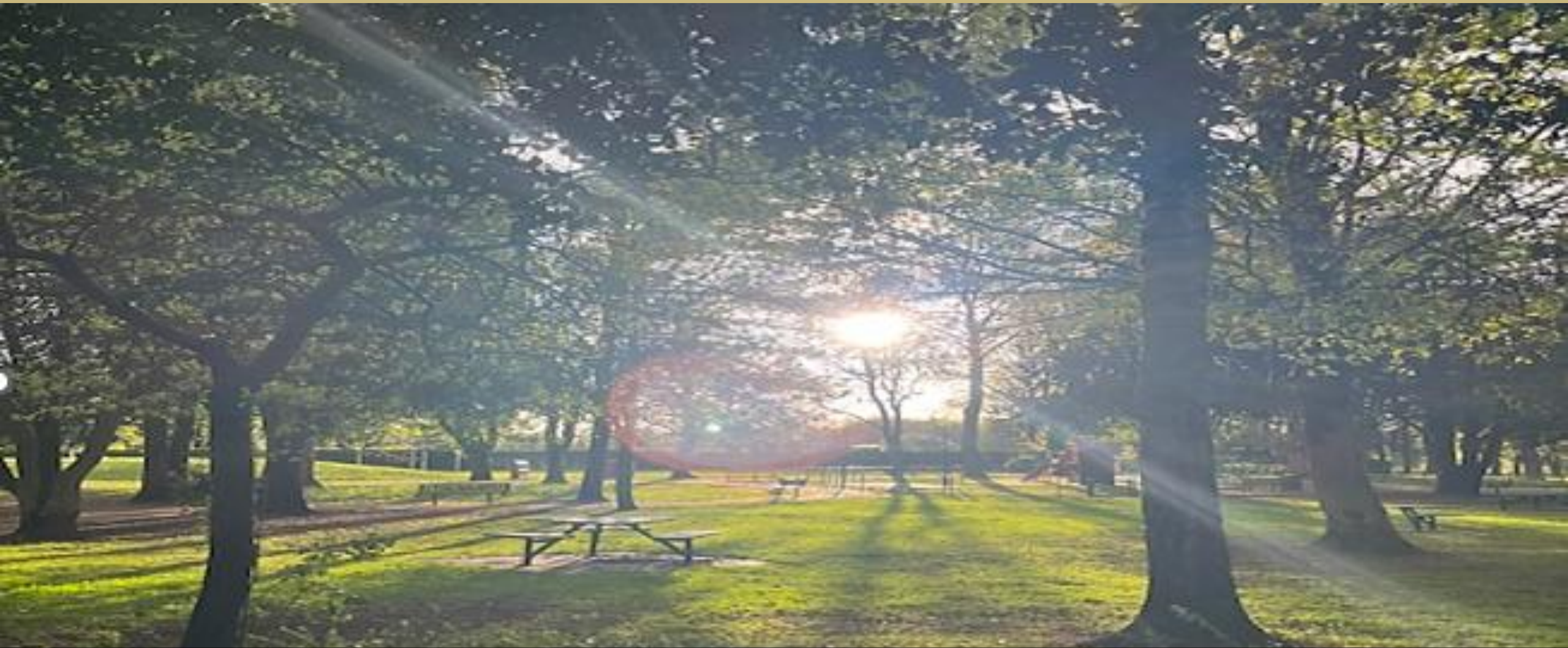
APSE Biosecurity Training Course

<https://www.apse.org.uk/index.cfm/apse/training/all-training-courses1/plant-biosecurity-for-local-authorities/>

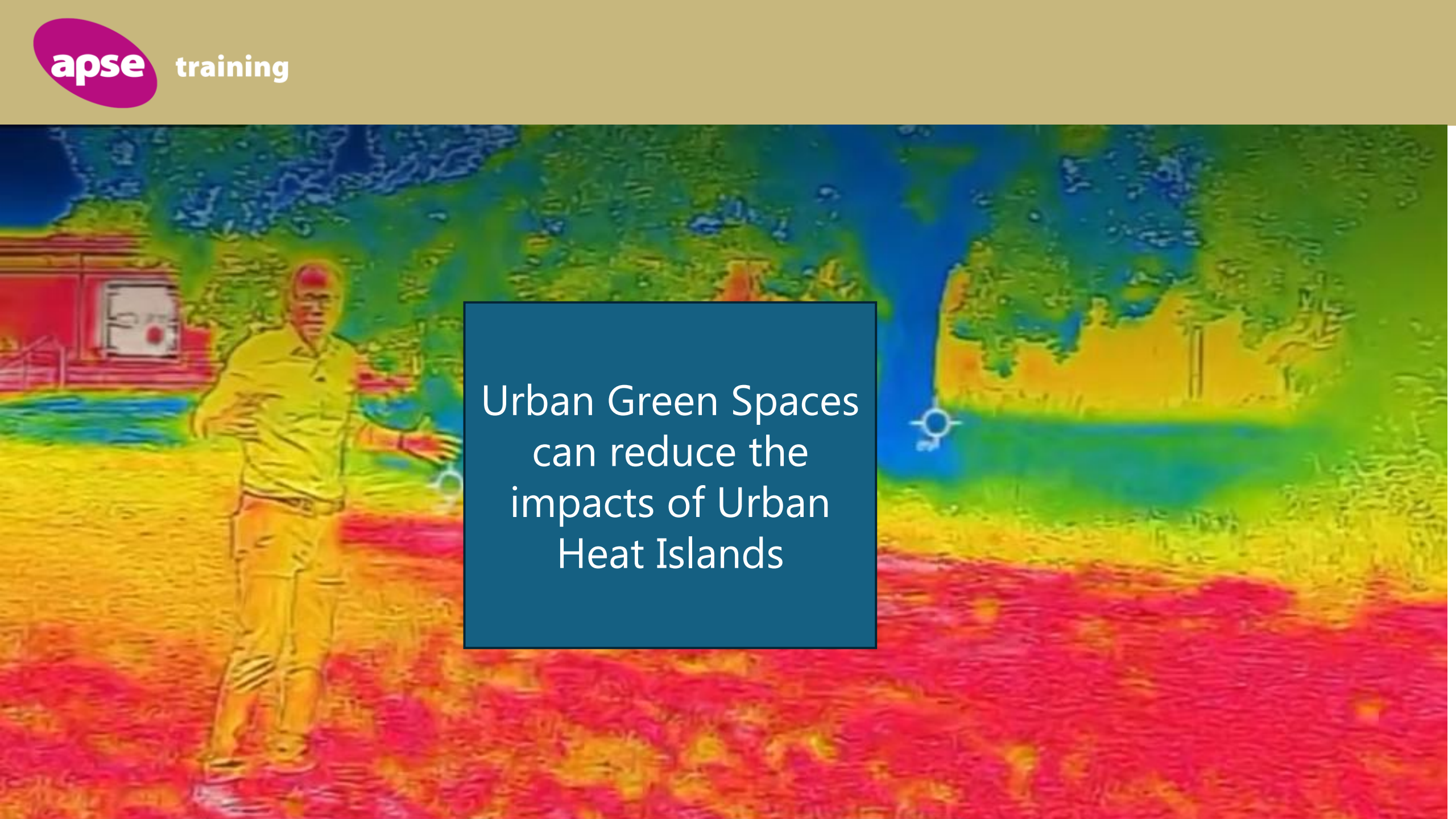
Based on
this
research

<https://www.apse.org.uk/index.cfm/apse/research/current-research-programme/plant-biosecurity-delivering-a-healthier-future-for-the-uks-plants-and-trees/>





The challenges for councils.

A thermal image showing a man standing in a grassy area. The man is wearing a light-colored shirt and dark trousers. The background shows a building with a window and some trees. The ground is covered in grass, and there are some small white circles on the ground, possibly indicating heat sources or sensors. The image is overlaid with a semi-transparent blue box containing text.

Urban Green Spaces
can reduce the
impacts of Urban
Heat Islands

Landscape Succession Plans in light of climate change

- ❑ Landscape succession plans are strategies for managing changes in a landscape over time, due to factors like climate change, aging plants, or the need for continuous interest.
- ❑ They involve planning for the future by determining how plants and the overall environment will shift and ensuring a healthy, resilient, and visually appealing space for years to come.

Benefits of Landscape succession planning for local authorities

Climate Change Mitigation: Trees and green spaces play a vital role in carbon sequestration and reducing the urban heat island effect.

Improved Air and Water Quality: Healthy landscapes filter pollutants and improve air and water quality.

Enhanced Public Well-being: Access to attractive and healthy green spaces contributes to the physical and mental well-being of the community.

Economic Benefits: Well-maintained landscapes can enhance property values and attract tourism

Caring for our trees and plants in the future

- ☐ Risk of damage
- ☐ Seasonality breakdown
- ☐ Waterlogged soils
- ☐ Right tree, right place
- ☐ Where have all the flowers gone?
- ☐ Change is required

Some of the trees and plants being considered:

Trees: Olive Tree (*Olea europaea*), Italian Cypress

Shrubs: Lavender, Bougainvillea, Oleander, Rosemary, Star Jasmine

Flowers: Salvia, Geraniums, Sea Holly, Euphorbia, Artemisia, Lamb's Ear Santolina, Verbena, Sedum,



Local authorities in the UK are developing a range of public awareness projects and initiatives to help residents address climate change in their own gardens. These projects typically form part of wider climate action and nature recovery plans.

☐ Guidance on Sustainable Gardening

☐ Promoting Climate-Resilient Planting

☐ "Pull up a paver" Schemes

☐ Community Gardening and Allotment Support

- ☐ Space can be limited in cities, which can make it very difficult to retrospectively incorporate substantial greening areas such as gardens and parks
 - ☐ There are a number of greening methods that can be employed in cities with minimal changes to existing infrastructure.
-
- ☐ Street Trees
 - ☐ Hedges
 - ☐ Green roofs and living walls
 - ☐ SuDS
 - ☐ Pocket parks and community gardens
 - ☐ Green mobility corridors.
 - ☐ Protect and enhance existing green spaces.



1. Explore and properly source new trees and plants that can thrive in warmer climates,
2. Look to reduce our use of water in preparation for more periods of drought
3. Consider alternative greenspace management approaches such as the naturalisation of spaces to reduce the impacts of climate change and increase opportunities for biodiversity
4. Move away from petrol driven machinery
5. Reduce our use of fertilisers and chemicals
6. Maintain the move towards peat-free products
7. Ensure our procurement policies are environmentally friendly.
8. Explain to all stakeholders why this is necessary and try to support such changes.





Climate Adaptation: Urban Green Spaces

Next date: Tues 24/11/26 | 10:00 - 16:00

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What are you going to do differently following the course?

Make sure your goals are SMART

Specific – what are you going to do?

Measurable – how will you know it's done?

Achievable – is it within the scope of your role?

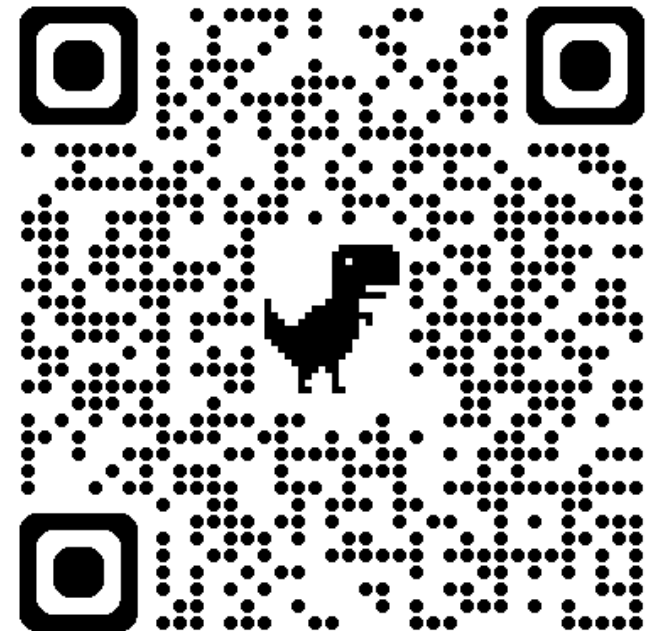
Relevant – will it help you to make best use of the training?

Time-bound – consider when or how long each goal will take.

You might be interested in...

Making Space for Nature in Burial grounds and Churchyards
Biodiversity Net Gain for Local Authority Parks and Green Spaces
Advanced Parks management: Sustainable Finance
Grassland and Wildflower Management
Plant Biosecurity for Local Authorities
Working with Volunteers and the Voluntary Sector
Managing Allotments in Local Authorities
Plus our suite of Carbon Literacy courses.

Grow your own with APSE Training!!



Contact us

The team is ready to help.

Please direct enquiries to: training@apse.org.uk | 0161 772 1810

3rd Floor Trafford House, Chester Road, Old Trafford, Manchester, M32 0RS

APSE Head of Training: **Fiona Sutton-Wilson**

Training Co-ordinator: **Helen Reed**

Business Support Assistant (Finance): **Daniel Lee**

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