

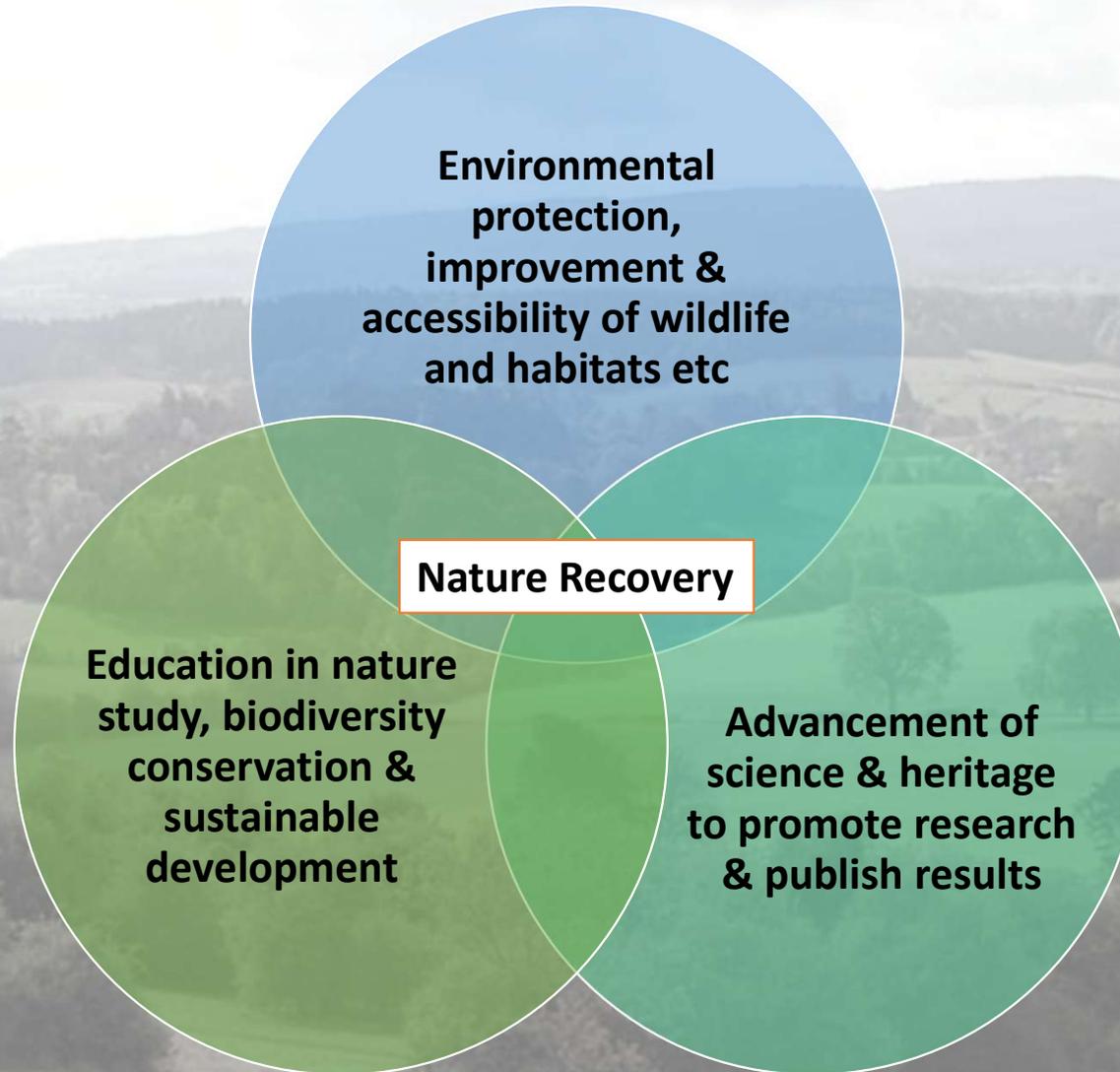
Surrey Wildlife Trust

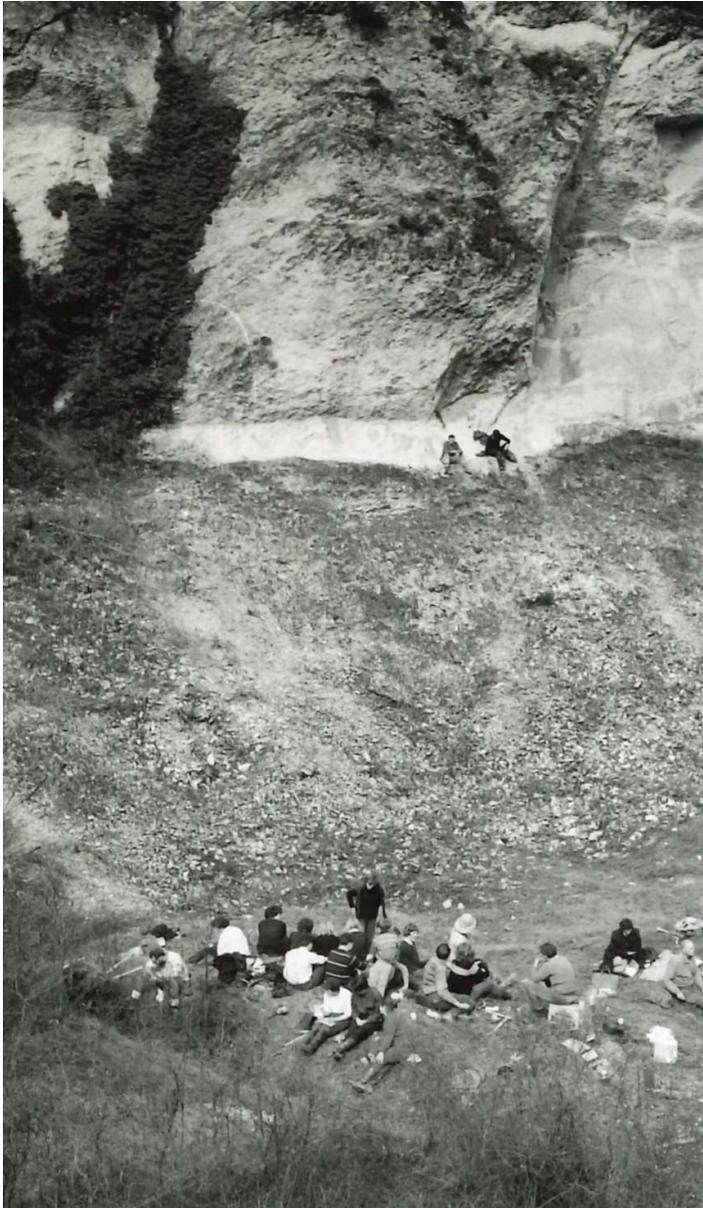
Tackling biodiversity loss and climate change through nature based solutions: how do we scale and accelerate

Sarah Jane Chimbwandira



SWT Operational Strategic Aims (derived from the Mems and Arts “For the benefit of the public”)





Infographic for Carbon Emissions in the County of Surrey, UK

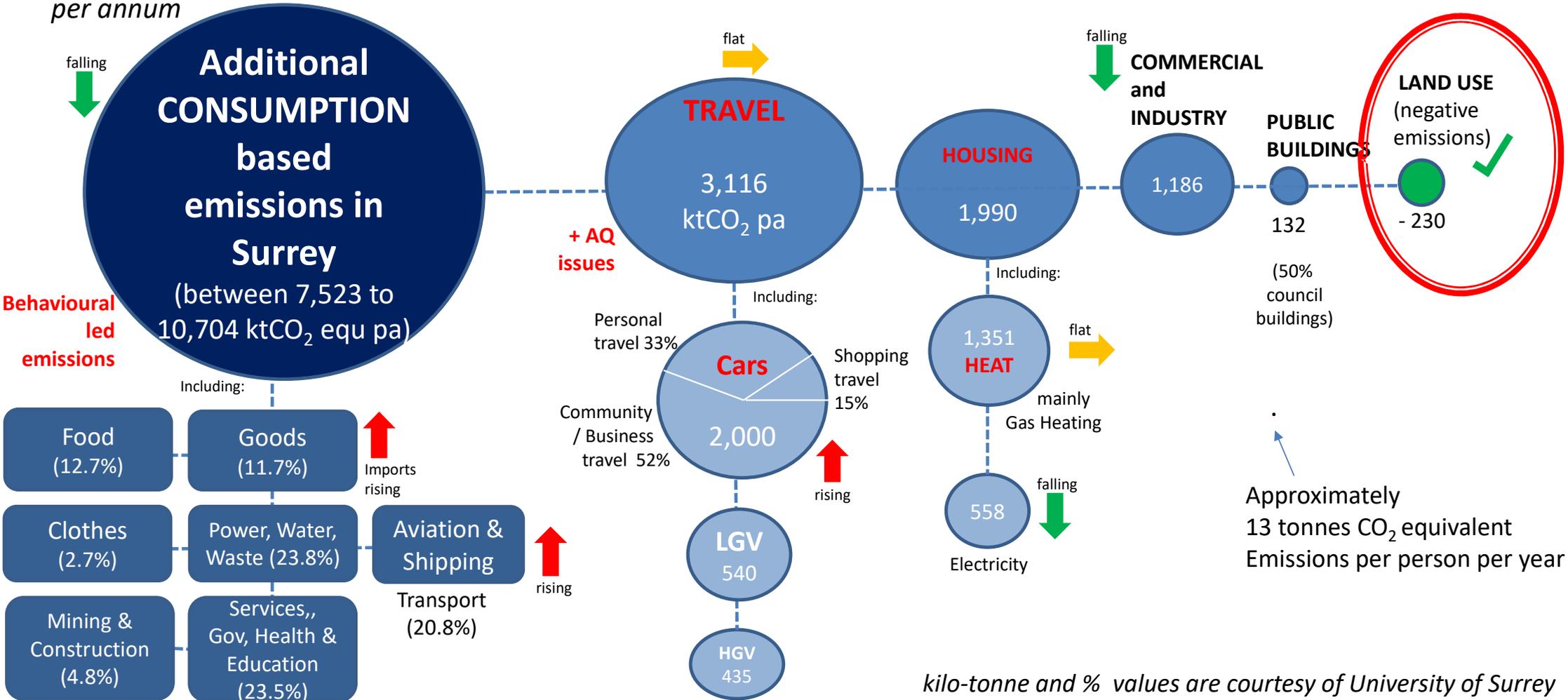
version-2
26th June 2020

Consumption Based Emissions

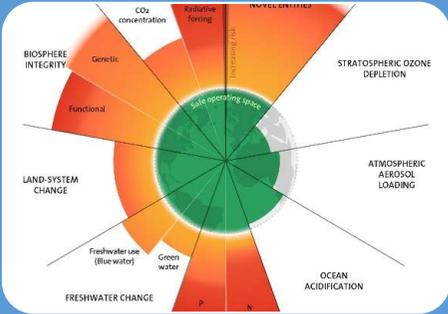
7,500-10,700 kt CO₂ equiv. emissions.
per annum

Direct Emissions in Surrey (values in thousand tonnes CO₂ pa)

6,194 kt CO₂ emissions per annum

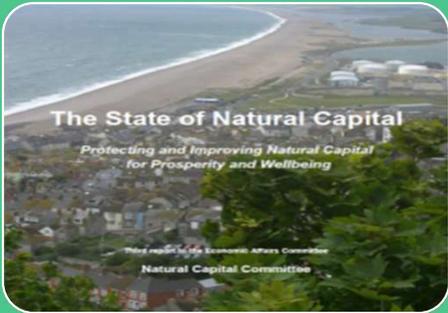


Global/International Drivers



- “We have crossed 6 out of 9 planetary boundaries” Stockholm Institute, 2023
- Natural Capital is elements of nature (soil, water, air, land) which directly or indirectly provide value or benefits to people. Currently these assets are being over-utilised and pressure from population and consumption is increasing. Both chronic and acute impacts result for the economy, business, health & quality of life and the environment

National Drivers



- UK National Ecosystem Assessments
- Natural Capital Committee
- “The [UK] decline in natural capital is likely to accelerate, unless there is some radical departure from the approaches of the past” Third Report of Natural Capital Committee, January 2015
- **“We agree with the Committee that if economic growth is to be sustained, natural capital has to be safeguarded”** Government’s Response, September 2015

Surrey Drivers: Surrey reflects global and national situation



- Planned population to increase from 1.17M in 2015 to 1.37M in 2037
- 2014 flood damage created a repair bill of £12.5M for Surrey County Council
- Surrey residents currently consume almost 3 planets worth of resources compared to 2.5 planets as the national UK average
- Only 23% of residents have access to 2ha greenspace within walking distance
- Significant assets eg Surrey’s 23% woodland cover worth £90M of economic and social benefits

Environmental risks are the greatest systemic risks to our global economy (WEF)
 Natural disasters caused by nature loss and climate change cost more than \$300 billion per year (IPBES)

Risks to individual businesses

Nature loss has material and immediate costs and impacts for businesses:

- operational risks;
- supply chain continuity, predictability and resilience;
- liability risks;
- and regulatory, reputational, market and financial risks.



FIGURE A

Global risks ranked by severity over the short and long term

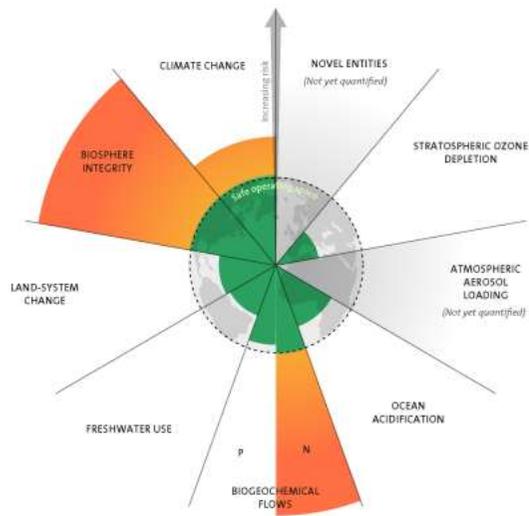
"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period"



Source
 World Economic Forum Global Risks Perception Survey 2022-2023.

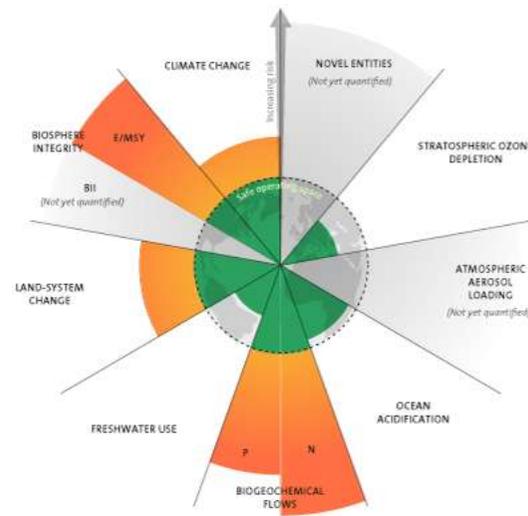


2009



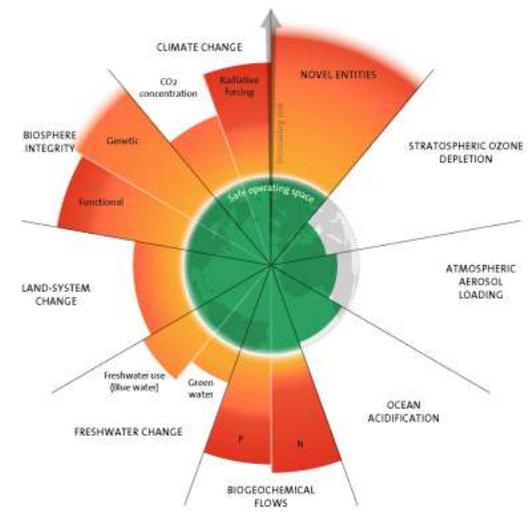
3 boundaries crossed

2015



4 boundaries crossed

2023



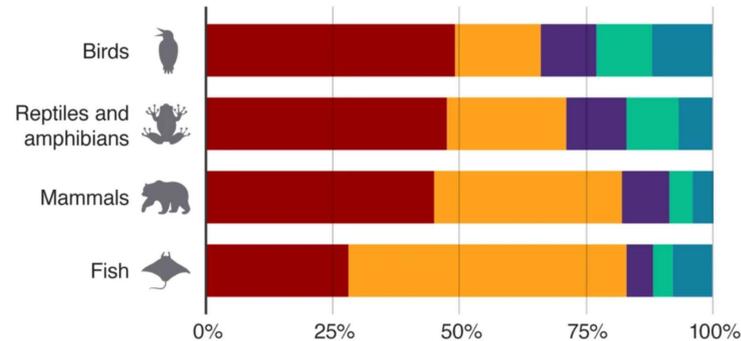
6 boundaries crossed



Habitat loss is a major threat to biodiversity

The Living Planet Report assesses key drivers of species decline

■ Habitat degradation
 ■ Exploitation
 ■ Invasive species and disease
■ Pollution
 ■ Climate change



Note: A sample of 3,789 populations evaluated by the Living Planet Index

Source: WWF, Living Planet Report 2018

BBC



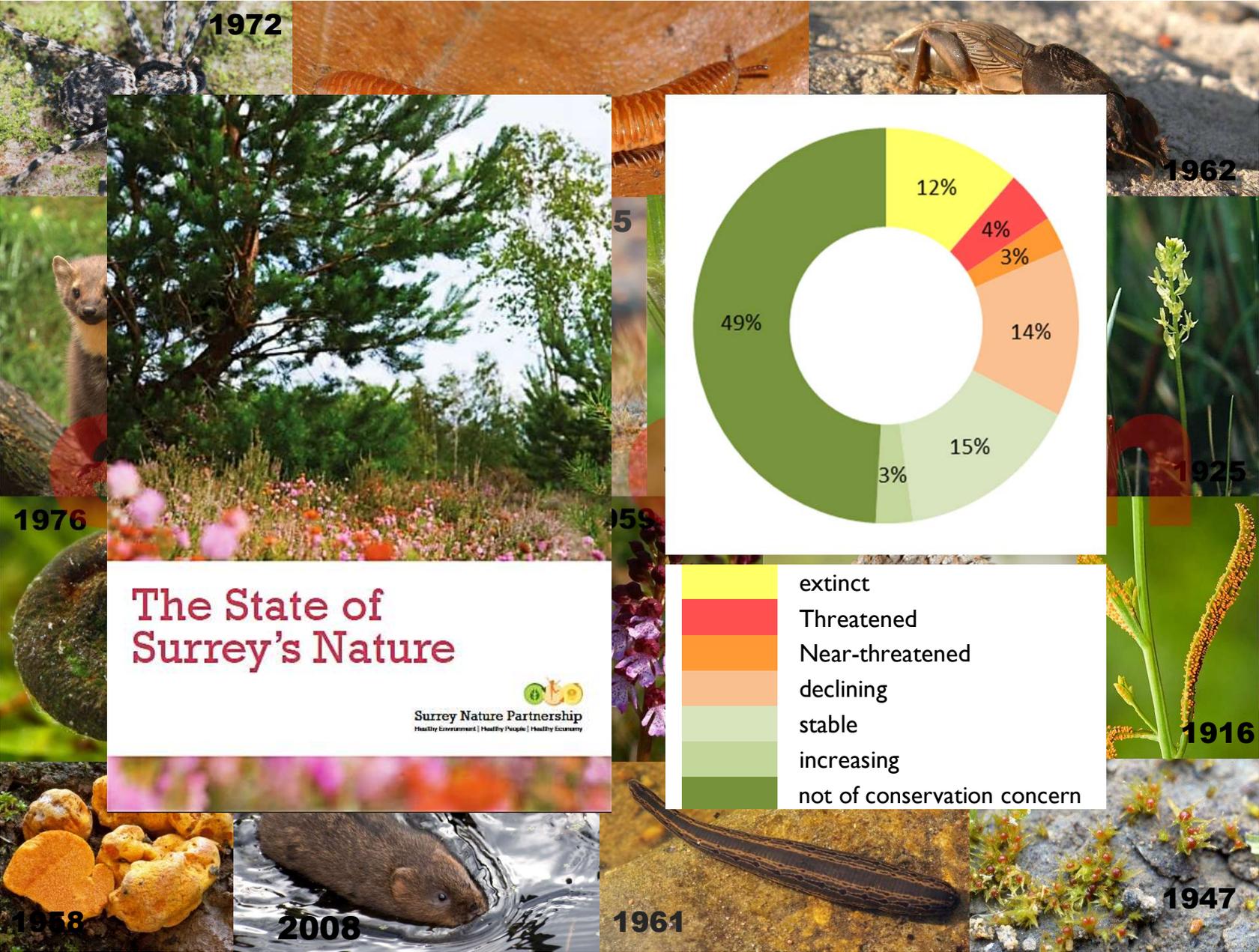
Biodiversity refers to the variety and variability of life on Earth. It includes:

- **Species diversity** – the different kinds of plants, animals, fungi, and microorganisms
- **Genetic diversity** – the variation of genes within species (like between individuals or populations)
- **Ecosystem diversity** – the variety of ecosystems, such as forests, wetlands, grasslands, and marine environments, and the ecological processes they support

Biodiversity underpins the health of the planet and supports everything from food security and climate resilience to cultural identity and economic development. When ecosystems are rich in biodiversity, they're generally more stable, productive, and adaptable to change.

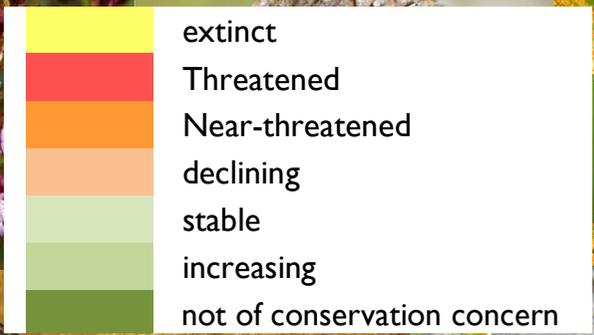
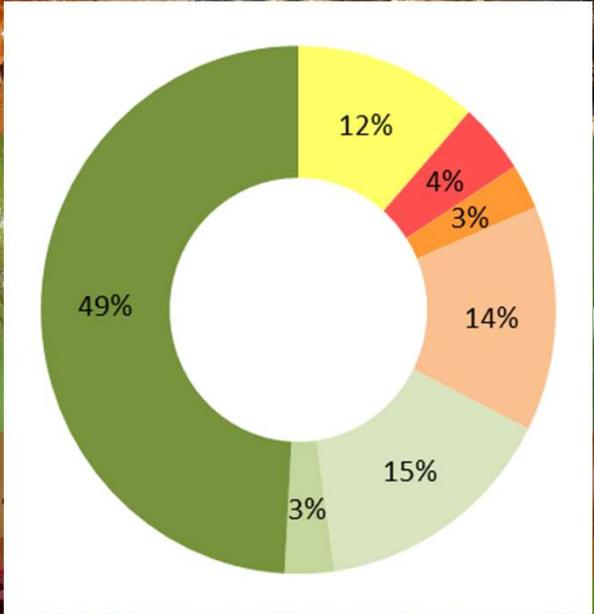
The State of Surrey's Nature





The State of Surrey's Nature

Surrey Nature Partnership
 Healthy Environment | Healthy People | Healthy Economy



Delivering Surrey's Nature Recovery Network

EMPOWERING PEOPLE

Encourage adults and children to connect with, value and take action for nature

People taking action for nature

WORKING TOGETHER

Ensure SWT managed land is biodiverse, bio-abundant and provides a strong foundation for a Nature Recovery Network. Work with others to deliver nature based solutions through collaboration, advice and support

30% of land protected, connected and managed for nature

INCREASE THE TOTAL AREA OF CONNECTED LAND SUPPORTING NATURE IN SURREY

30% OF LAND IN SURREY BY 2030



Heathland



Wetlands



Gardens



Rivers



Woodland



Chalk grassland

62 Reserves 5,000ha



LAND MANAGEMENT

SWT influence:
3% direct
5.5% indirect

Surrey Landscape Recovery Areas

Key

- Surrey Boundary
- SWT Sites

Landscape Area

- Cranleigh Smile
- Heathland Connections
- Holmesdale to Lingfield
- North Downs
- North West Surrey
- Rivers



How do we?

'scale & accelerate'
impact

Meet the strategic
challenges of:

- Restoring ecological integrity
- Financial resilience
- Over 70% of Surrey's land is privately owned – influence and collaboration are key
- Habitats like chalk grasslands, heathlands, floodplains and woodlands hold national importance.

Scale: 1:62,761

Our aim is to increase the total area of connected land supporting nature in Surrey

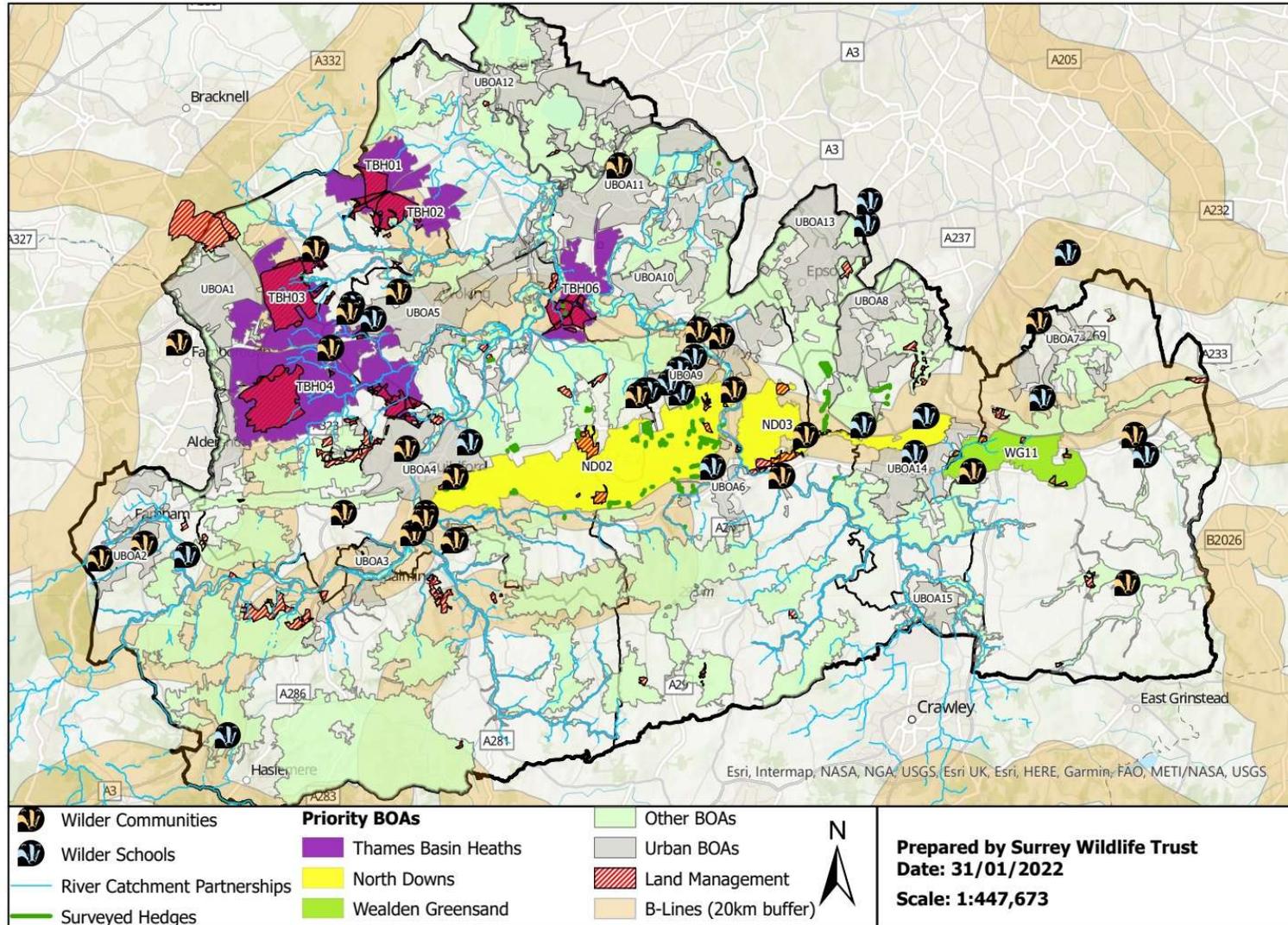


MANY OF THESE VITAL FEATURES AND LINKAGES FOR WILDLIFE DO EXIST TODAY IN A FEW WELL-MANAGED STRONGHOLDS OR IN SCATTERED COMMUNITIES. **BUT, CURRENTLY, THERE IS NOWHERE IN THE COUNTY WHERE ALL OF THESE ESSENTIAL COMPONENTS CO-EXIST.**

Our 50-year Vision is for all of Surrey to benefit from these features – for the whole county to be a 'Living Landscape', with a comprehensive network of connections for wildlife to move freely and for people to enjoy and benefit from nature.

- 1 PERMEABLE FARMLAND**
- traditionally managed hedgerows, ditches and field margins, riverbank buffer-strips, new field ponds and linking shelter-belts: all re-connecting the landscape and allowing wildlife to move.
- 2 MANAGED NATIVE WOODLANDS**
- reinstated coppice management cycles, driven by a local and sustainably-paced demand for wood fuel and hardwood timber products.
- 3 GOLF COURSE NATURE RESERVES**
- roughs and fairways managed to support wildlife, new features such as tree-lines and wetland hazards, self-sufficient irrigation and declining use of damaging fertilisers and pesticides.
- 4 CHURCHYARD WILDLIFE**
- ancient relict pastures mown so as to sustain wildflowers, havens for rare mosses and lichens on headstones, belfry bat roosts: a place where nature can also rest in peace.
- 5 NATURE RESERVES**
- exemplars of balanced and well-informed wildlife management, extended widely through advice and negotiation with adjacent landholders, such as farmers, timber-growers and departing aggregates companies.
- 6 WILDLIFE GARDENING**
- imagine every Surrey gardener helping the wildlife on their patch! Wildflower lawns, bird feeders, nest-boxes, composting and vegetable growing transforming Surrey's 12% of back-garden land.
- 7 TRANSPORT INFRASTRUCTURE AS WILDLIFE CORRIDORS**
- road verges, green bridges, rail-sides and canals, managed as natural highways letting wildlife migrate throughout the landscape.
- 8 RIVER CORRIDORS**
- restored to function more naturally within their floodplain, with enhanced water quality, water meadows, reinstated meanders and ox-bows, plus the removal of migratory barriers.
- 9 WILDLIFE-FRIENDLY BUILT ENVIRONMENT**
- with green roofs and walls, on-site surface drainage schemes and grey water recycling, as well as bespoke wildlife habitat enhancements for nesting birds and roosting bats.
- 10 COMMUNITY GREENSPACES & SCHOOL GROUNDS**
- with playing field margins and habitat corners supporting more tree-cover, strips of long grass and meadows, wildlife ponds and outdoor nature study areas.

SWT Countywide Impact



- Developing an evidence based approach
- Our decision making is underpinned by the best, most up to date evidence available at the time
- We have a ‘test & learn’ approach to our work across the organisation
- We are developing our monitoring and evaluation for the key areas of biodiversity, bioabundance and people engagement

Current Policy Context



Policy & Legislative Overview for delivering a Nature Recovery Network

Convention on Biological Diversity 1992

At the 1992 Earth Summit in Rio de Janeiro, world leaders agreed on a comprehensive strategy for "sustainable development" -- meeting our needs while ensuring that we leave a healthy and viable world for future generations.

[Kunming-Montreal Global Biodiversity Framework](#)

GBF, 2022

COP30, Brazil – nature based solutions focus, Nov 2025

EU Biodiversity Strategy

- https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

UK Biodiversity Strategy

- <https://www.gov.uk/government/publications/uk-national-biodiversity-strategy-and-action-plan> – **commits to all 23 recommendations of the GBF and builds on:**
- Biodiversity 2020
- National Planning Policy Framework
- Making Space for Nature – Lawton

UK Policy & Legislation

- Natural Environment & Rural Communities Act 2006 - Biodiversity Duty – next report due Jan 2026
- 25 Year Environment Plan 2018
- Agriculture Act 2020
- Environment Act 2021
 - Office for Environmental Protection
 - Local Nature Recovery Strategy
 - Biodiversity Net Gain Feb 2024
- Planning & Infrastructure Bill – in progress.
- Devolution & Community Empowerment Bill – in progress. Surrey is a fast track authority with LGR and Devolution underway

Surrey Devolution Timeline & Key Milestones

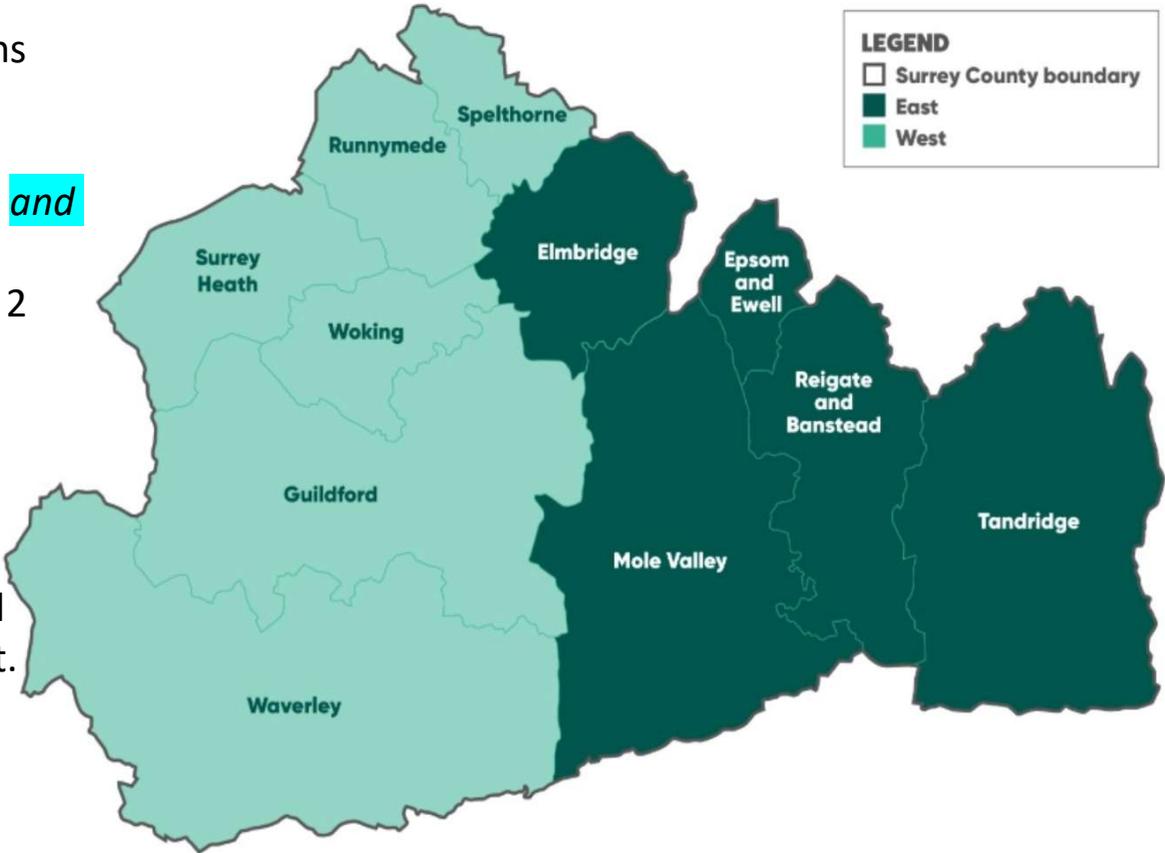
- January 2026 – Transition phase begins, with preparations for dissolving borough and district councils.
- April 2026 – Shadow authorities formed
- May 2026 – Local elections held for new unitary councils **and potential Surrey-wide mayoral authority.**
- April 2027 – all 12 authorities cease to exist, replaced by 2 unitaries

Implications for Governance & Land Use

- Streamlined decision-making: Unitary councils will consolidate planning, environmental, and infrastructure policies.
- Potential mayoral leadership: A Surrey-wide mayor could oversee strategic land use and natural capital investment.
- Funding shifts: New fiscal arrangements may impact conservation and sustainability initiatives.

Ecological & Land Use Risks

- Loss of connectivity: If planning decisions aren't aligned, wildlife corridors could be disrupted.
- Pressure from development: Increased housing and infrastructure projects may reduce available land for nature recovery.
- Climate adaptation gaps: Without integrated strategies, Surrey may miss opportunities to enhance flood resilience and carbon sequestration.



Our Impact





**VOLUNTEER
SUPPORT**

28,000

Volunteer hours provided in 2024

Outdoor & practical

Education/teaching

Admin & support

Research & monitoring

CONSERVATION GRAZING

35+ sites

Belted Galloway cattle

Crossbreed sheep

Red Deer





TARGETED PROJECTS



HEDGEROW HERITAGE

8000

people engaged with hedgerow conservation

12km

of hedgerows restored

960m

of new hedgerow laid





15,000
school children



46
Wilder Schools



49
Adult Learning
courses

**EDUCATION
& LEARNING**



WILDER COMMUNITIES

“Nature is struggling globally, but community action can significantly impact the local environment and improve biodiversity everywhere.”

200+

group members taking action for nature



**Ecological
surveys**

**Nature-based
Solutions**

**Planning
advice**

ADVISING OTHERS



EFFECTIVE CAMPAIGNING

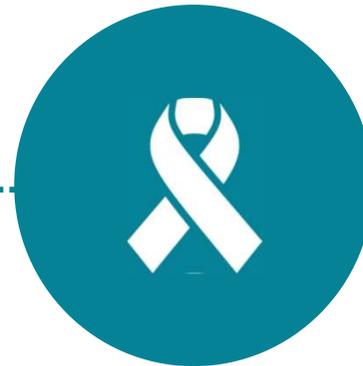
How are we funded



Membership



Donations



Grants, trusts &
foundations



Consultancy services



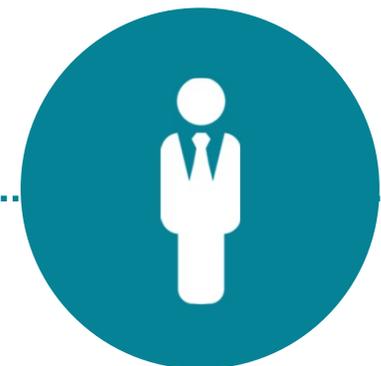
Community
fundraising



Legacies & Gifts



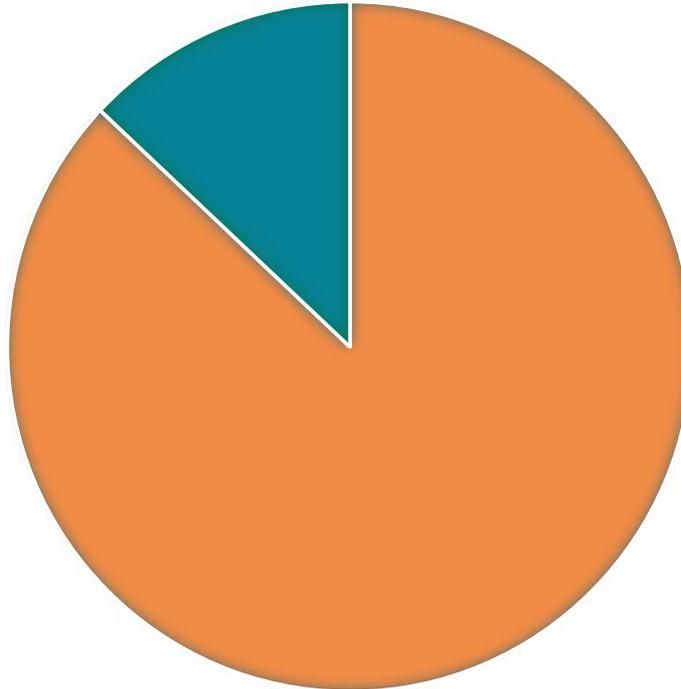
Adult learning courses



Corporate support

For every £1 received by Surrey Wildlife Trust...

- 87p is spent on protecting the future of nature
- 13p is then spent on raising the next £1

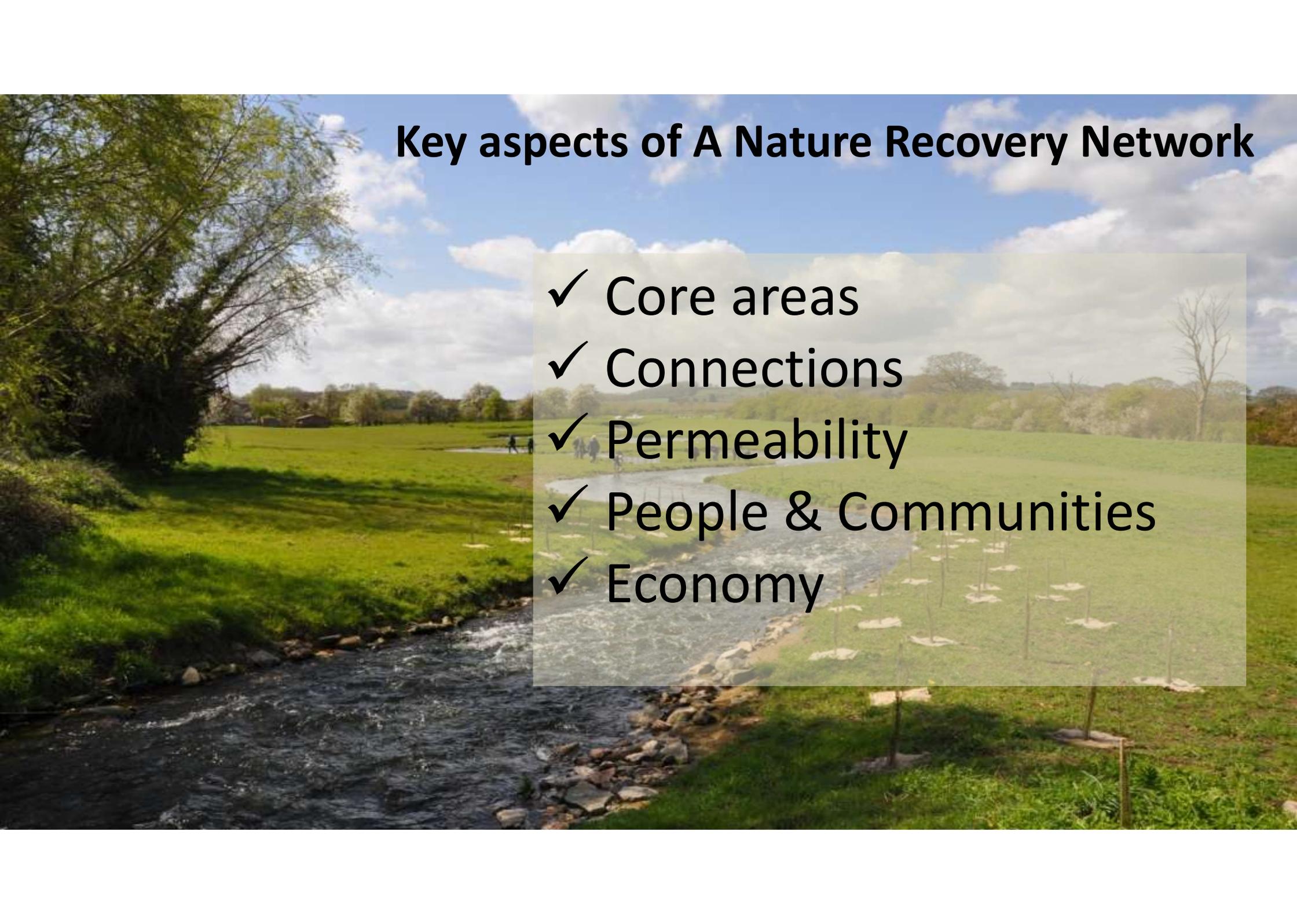


Surrey's Nature Recovery Network

“.....more, bigger, better and more joined up.” Lawton



Key aspects of A Nature Recovery Network

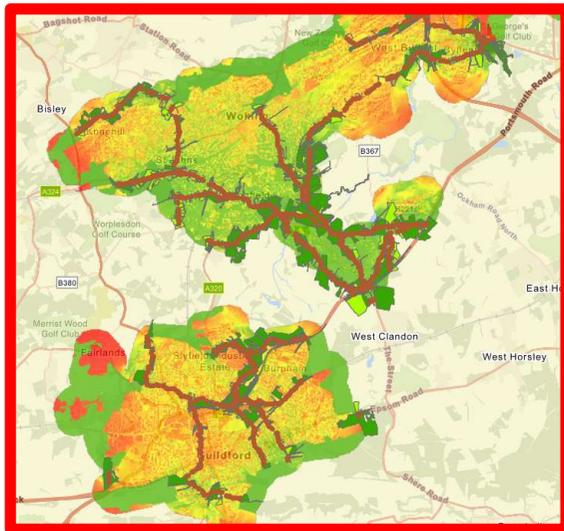


- ✓ Core areas
- ✓ Connections
- ✓ Permeability
- ✓ People & Communities
- ✓ Economy

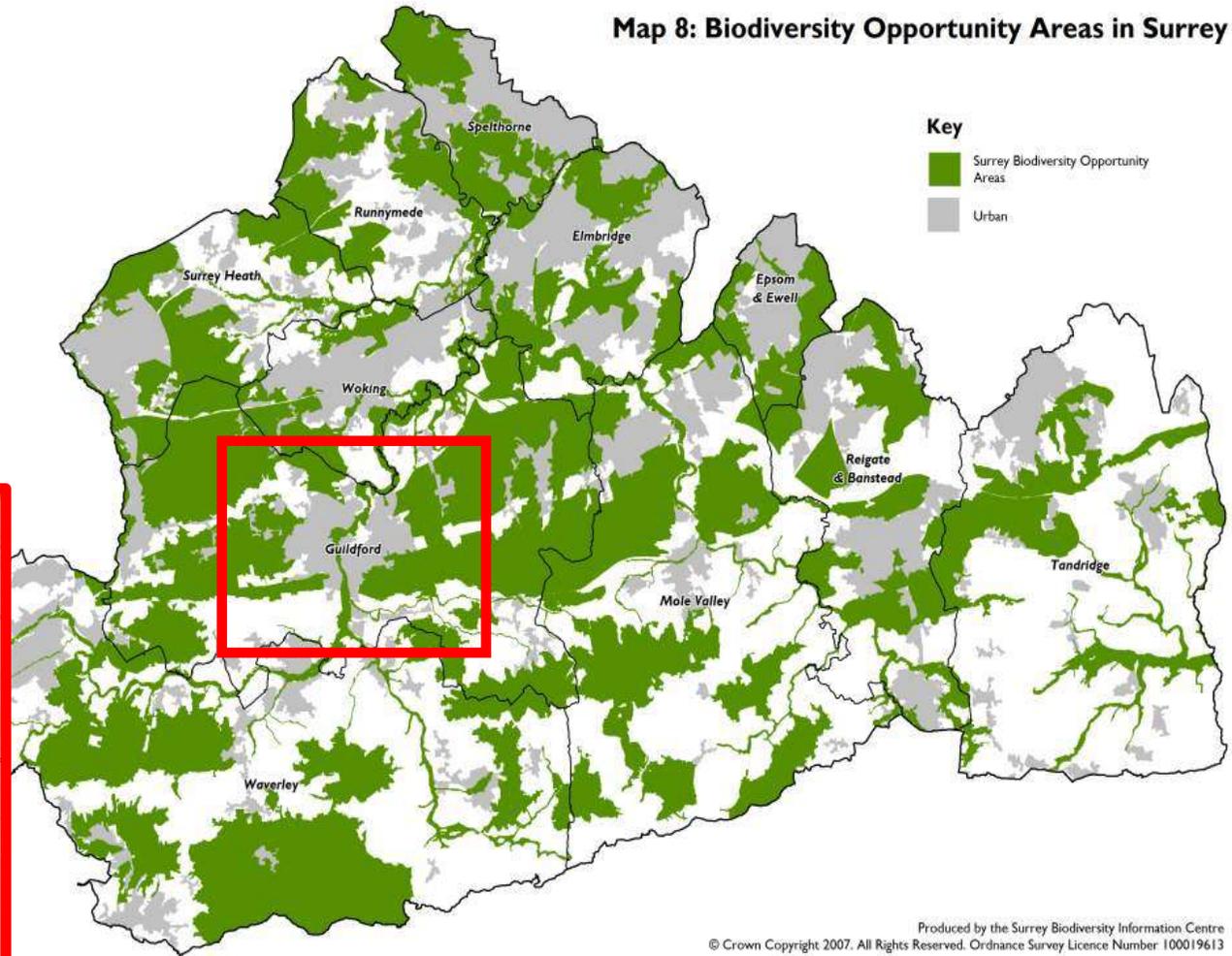
Surrey's Nature Recovery Network

Based on Lawton's Principles of
'more, bigger, better & more joined up'

- Covers 39% of Surrey
- Well established with Surrey LPAs
- **Urban Opportunities**



Map 8: Biodiversity Opportunity Areas in Surrey





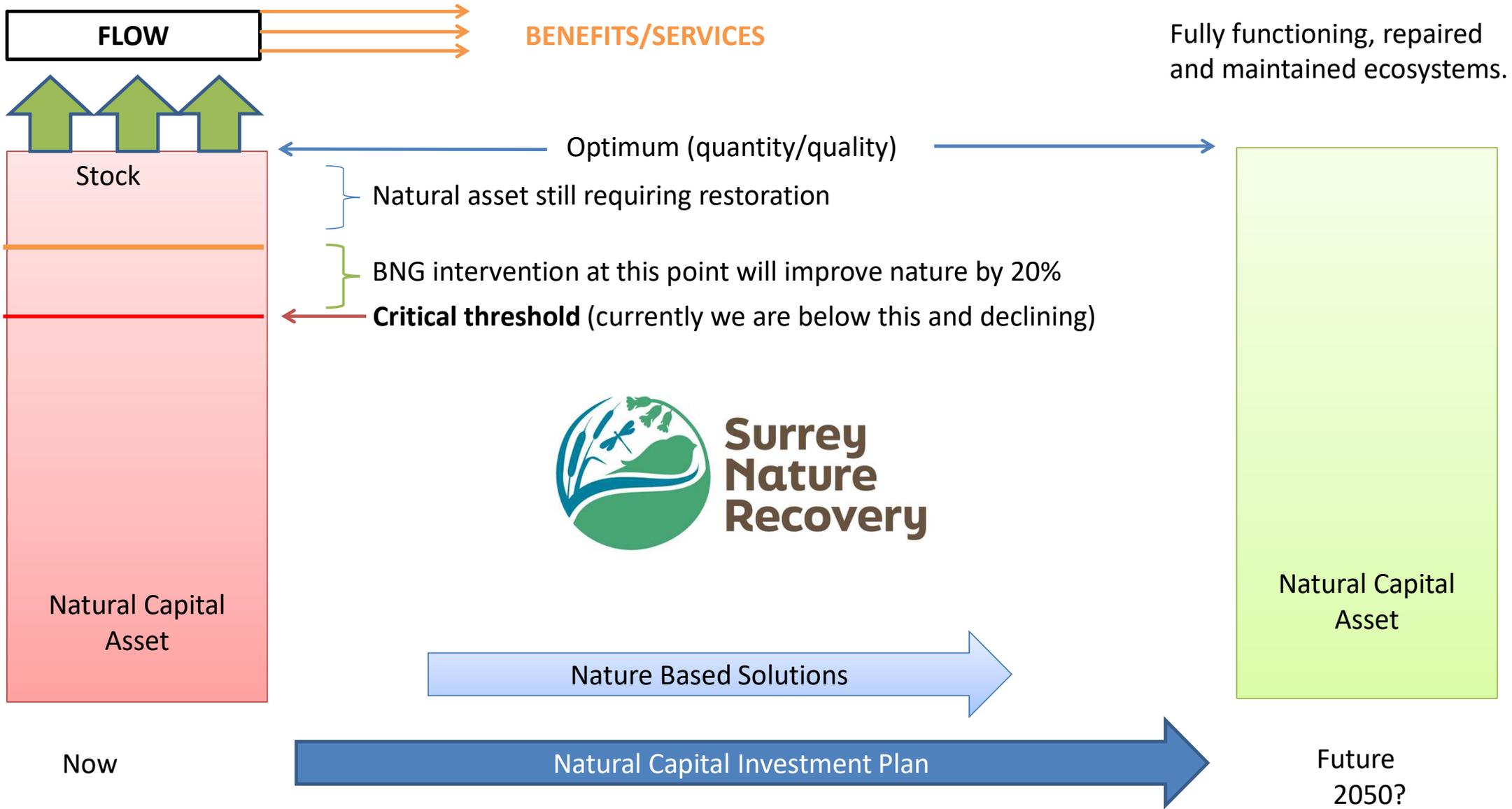
**Surrey
Nature
Recovery**

Local Nature Recovery Strategy

A Statement of Biodiversity Priorities
June 2025



<https://surreynaturepartnership.org/local-nature-recovery-strategy/>



Surrey's Natural Capital Approach



Sustainable management of natural capital assets; value, amount, use and Return On Investment



Nature based solutions to 4 crises: *Ecological, People, Climate & Economic*



Nature is not a cost—it's a **critical system underpinning our economy & society**

Provisioning Services



Regulating Services



Cultural Services



Nature Recovery Networks – nature based solutions

141k tonnes of carbon are stored at Chobham Common.
3698 tonnes of CO2 are sequestered annually
Annual value in 2019: £237k, By 2077: £1.3M

Approximately 322,000 visitors per year valued at
£934,000 annually



Supporting Services (Natural Capital)

Looking Forward...

how do we accelerate our progress and
achieve nature recovery and climate resilience?



IUCN Global Standard for **Nature-based Solutions (NbS)** – a framework for delivery



Nature based solutions:

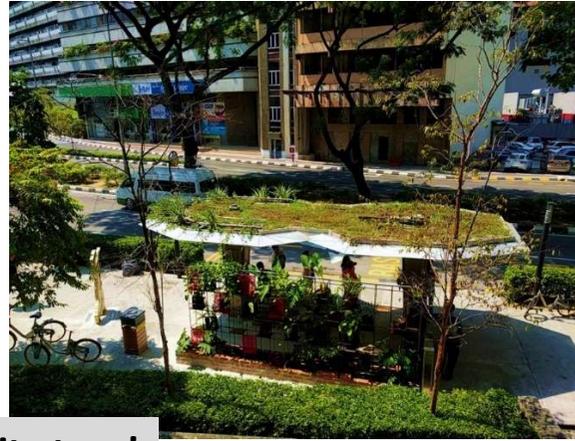
1. Effectively address Societal Challenges
2. Design is informed by Scale
- 3. Deliver Biodiversity Net Gain & ecosystem integrity**
4. Are economically viable
5. Are based on inclusive, transparent and empowering Governance
6. Equitably balance trade-offs between achieving their primary objective and delivering continued multiple benefits
7. Are managed adaptively, based on evidence
8. Are sustainable and mainstreamed

Nature-based solutions (NBS)

Nature-based solutions (NBS) refers to the [sustainable management](#) and use of nature for tackling socio-environmental challenges. The challenges include issues such as [climate change](#), [water security](#), [water pollution](#), [food security](#), [human health](#), and [disaster risk management](#).



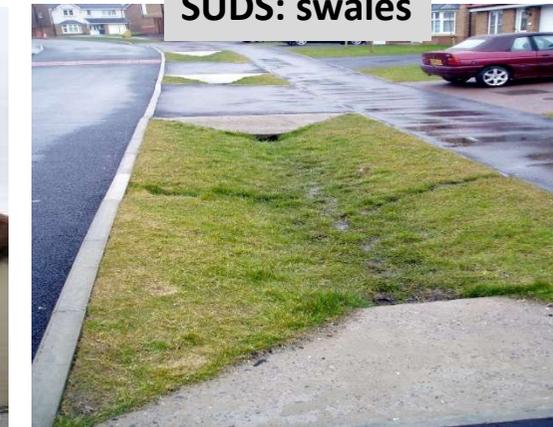
Pollinator 'pit-stops'



SUDS: rain gardens



Urban greening – 'smartscales'



SUDS: swales

.....these solutions are "inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build [resilience](#).

Make room for wildlife...



...and feel the benefits

Wildlife-friendly gardening is about making a haven for you, as well as for wildlife.

By gardening for wildlife, you'll be rewarded by a truly natural outdoor space, where you can enjoy the plants, animals and birds that make their home there.

The essentials of successful wildlife gardening are based on four things: trees, deadwood, water and variety of planting. Any of these features will encourage wildlife to your garden.

Handy hints for the wildlife gardener

- Resist the urge to tidy up in autumn! Seed heads left uncut will be enjoyed by birds. Plant stems and leaves are a great place for creepy crawlies to shelter. Perennials left standing will help overwintering insects such as ladybirds.
- Slugs are part of the garden's cycle of wildlife, eaten by frogs, toads and hedgehogs. If slugs or snails are a problem avoid using slug pellets based on metaldehyde or methiocarb as this will get into the food chain. Investigate alternative methods – for example pellets based on ferrous phosphate,
- or products that create barriers such as copper bands or gritty sand.
- Diluted household detergent is effective against greenfly and blackfly and is thought not to harm other insects.
- Save water. Install water butts under downpipes outside your house.
- Mulch your borders in spring to keep your soil moist in hot weather. Mulch them again in autumn to help absorb heavy winter rain and prevent flooding.



The UK's 23 million gardens occupy some 433,000 ha. If a carbon capture function was built in to just 1% of this area, they could remove 300,000 tonnes of CO₂ from the atmosphere each year.

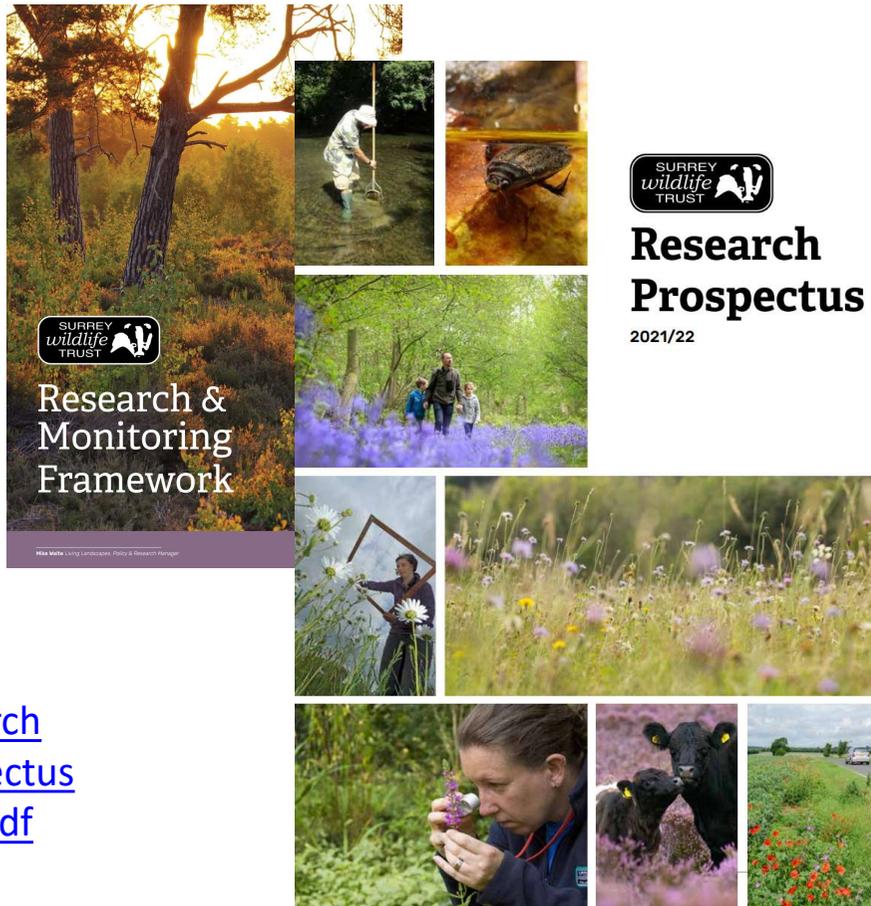
**Surrey has
20,000ha of
garden!!**

Research & Monitoring at SWT

<https://www.surreywildlifetrust.org/what-we-do/restoring-surreys-nature/research-and-monitoring>

naturally informed

Surrey Wildlife Trust
Research Strategy
2018 -2023



[Research Prospectus v.2.1.pdf](#)

- Relatively recent addition – dedicated R&M unit
- **Monitoring** – of success of mission (ie. ‘What We Do’ impact).
- **Research** – proactively used to assist in achievement of mission.
 - Historically *ad hoc*/unmonitored; ‘outdoor laboratory’; tertiary levels...
- 2019 *SWT Research & Monitoring Framework*.
 - For SWT Strategic Plan deliverables..
- 2021 *SWT Research Prospectus*.
 - Organised on x6 Themes; annually reviewed.

Monitoring

space₄nature



UNIVERSITY OF
SURREY



Surrey
Wildlife Trust



buglife



PAINSHILL





Nature + Business

Literacy Course

Contents

Standalone Taster Session – C suite

Module 1

Introduction to nature & biodiversity

Module 2

Connecting Business & Nature

Module 3

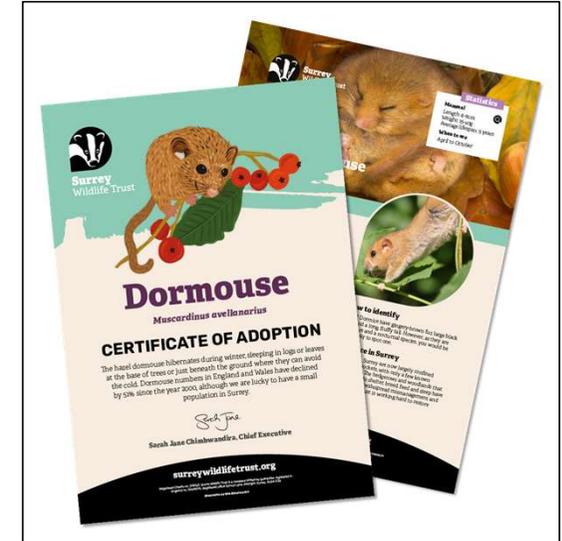
Showcasing leaders in nature strategy

Module 4

Move to Action

**How can you help
nature in Surrey**

MEMBERSHIP AND DONATIONS



**Leaving
a Gift for
Nature**

Your lasting legacy for wildlife



SAVE
Surrey's Nature

Help us raise one million
to halt wildlife's decline

Donate now

**Million
Pound
Appeal**

**Surrey
Wildlife Trust**

David J Smith





Wild About Gardens



How to start a wildlife garden from scratch



How to grow a wildlife-friendly vegetable garden



How to create a hedgehog hole



How to grow a wild patch or mini meadow



How to attract bumblebees to your garden



How to attract butterflies to your garden





Nature South East

- South East Local Nature Partnership (LNP) Cluster - formed of all LNPs in South East region – first convened in 2014
- In 2024 SENP forum evolved to Nature South East, building on existing partnership

- Focus on making the regional economic case for investment in nature
- Regional spatial coverage suitable to enable investment at scale
- Regional scale enables more successful engagement with both devolved local government and areas where a two tier system remains
- Credible, visible, and sizeable partnership able to influence Policy at regional and national level
- Consistent and joined up communications, both for increasing public understanding and providing investment opportunities
- Efficient pooling of resource and key skills from partner organisations
- Ensures the South East can both compete and collaborate with other regional nature partnerships as necessary

Surrey Nature Partnership
Sussex Nature Partnership
Kent LNP
Hants and Isle of Wight LNP
Essex LNP
Oxfordshire LNP
Berkshire LNP
Bucks and MK LNP



An aerial photograph of a rural landscape. The foreground shows a dense forest of green trees. In the middle ground, there is a valley with a mix of green fields and brown, harvested fields. The background features a flat horizon line under a sky filled with large, white and grey clouds. The text "Thank you for listening" is centered in the upper half of the image.

Thank you for listening