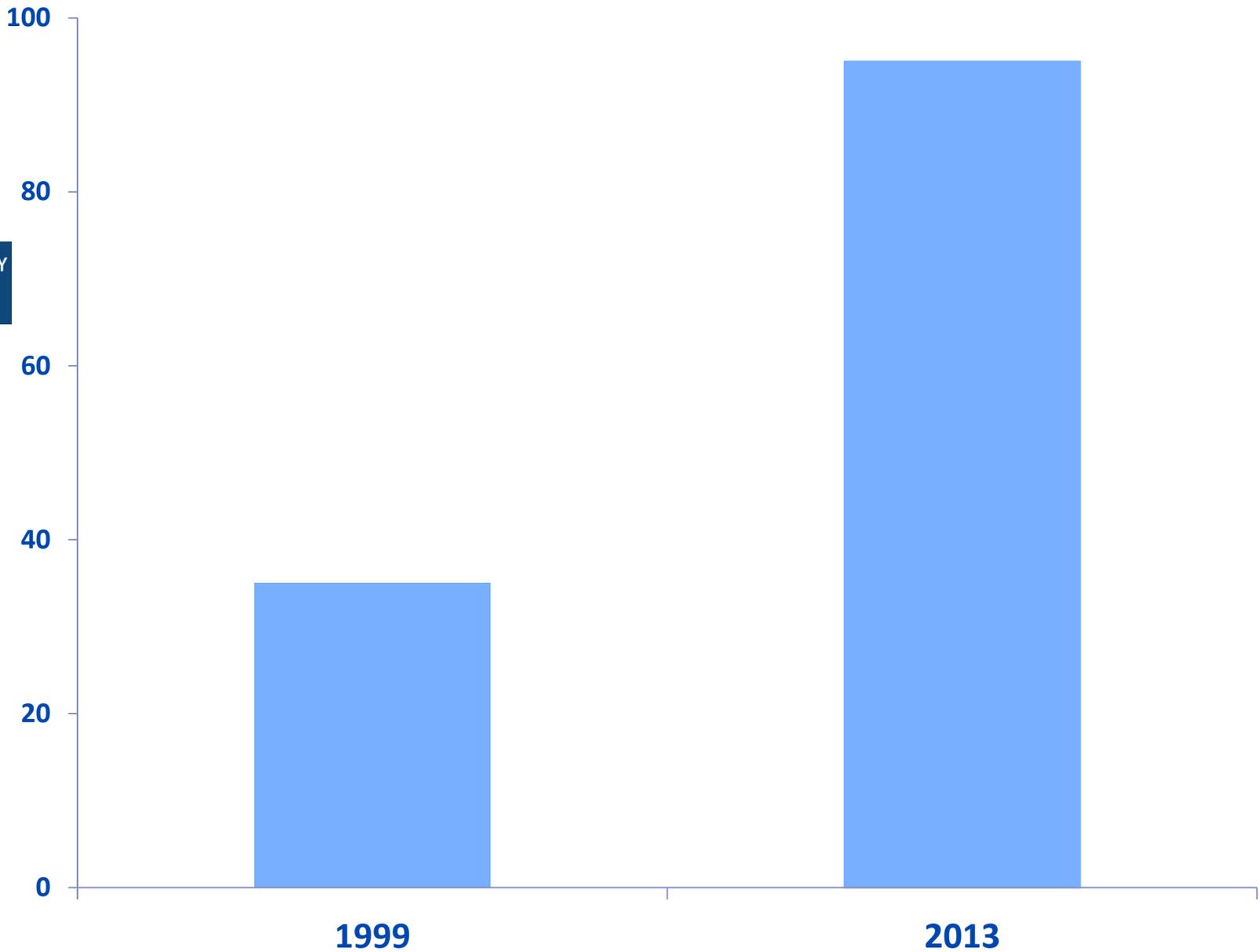


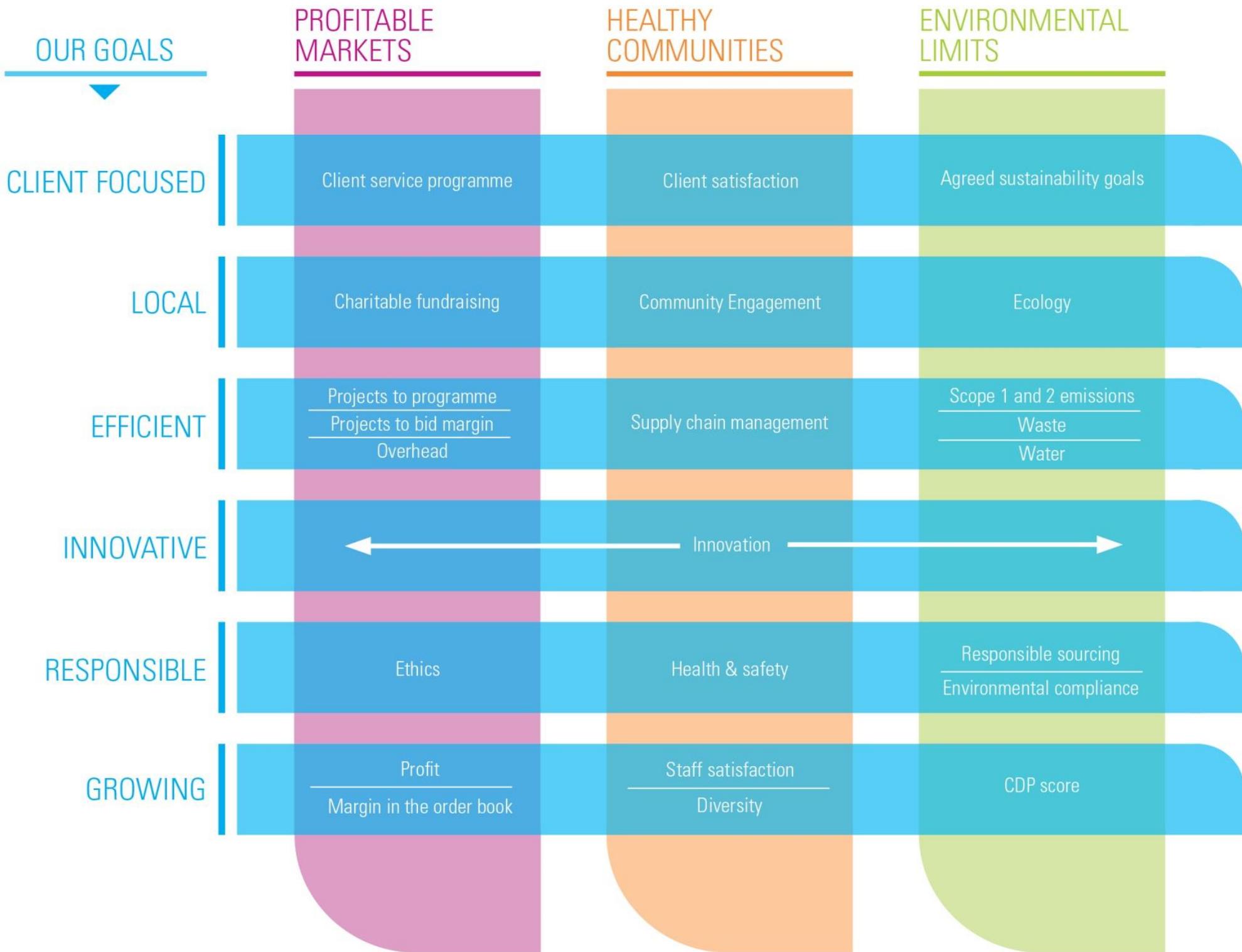
# Biodiversity Net Positive: lessons learnt from industry



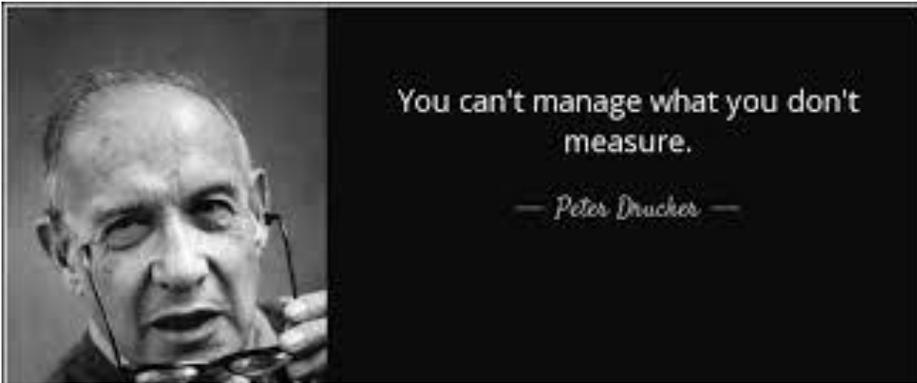
*Julia Baker*



**World's largest 250 companies**







**SUSTAINABILITY**  
a collective responsibility

**Balfour Beatty**

# OUR GOALS AND METRICS

**OUR BLUEPRINT FOR SUSTAINABLE BUSINESS**

CLIENT FOCUSED | LOCAL | EFFICIENT | INNOVATIVE | RESPONSIBLE | GROWING

# Other elements: one name & a number

Demolition Waste

### Demolition Waste Calculator

No of buildings(demolished):

Avg no.of floors(per building):

Avg surface of building (demolished):

Volume of generated waste:

Density of generated waste:

Address:

CalculatedResults



H<sub>2</sub>O CONSERVE

What is your water footprint?

Enter the H<sub>2</sub>O Calculator to find out!

**ENTER** >

H<sub>2</sub>O CALCULATOR

**Ecosystem services**

**Natural Capital**

**Green Infrastructure**

**Ecology**

**Flora**

**Protected species**

**Biodiversity**

# Biodiversity has lagged behind in the world of Corporate Sustainability

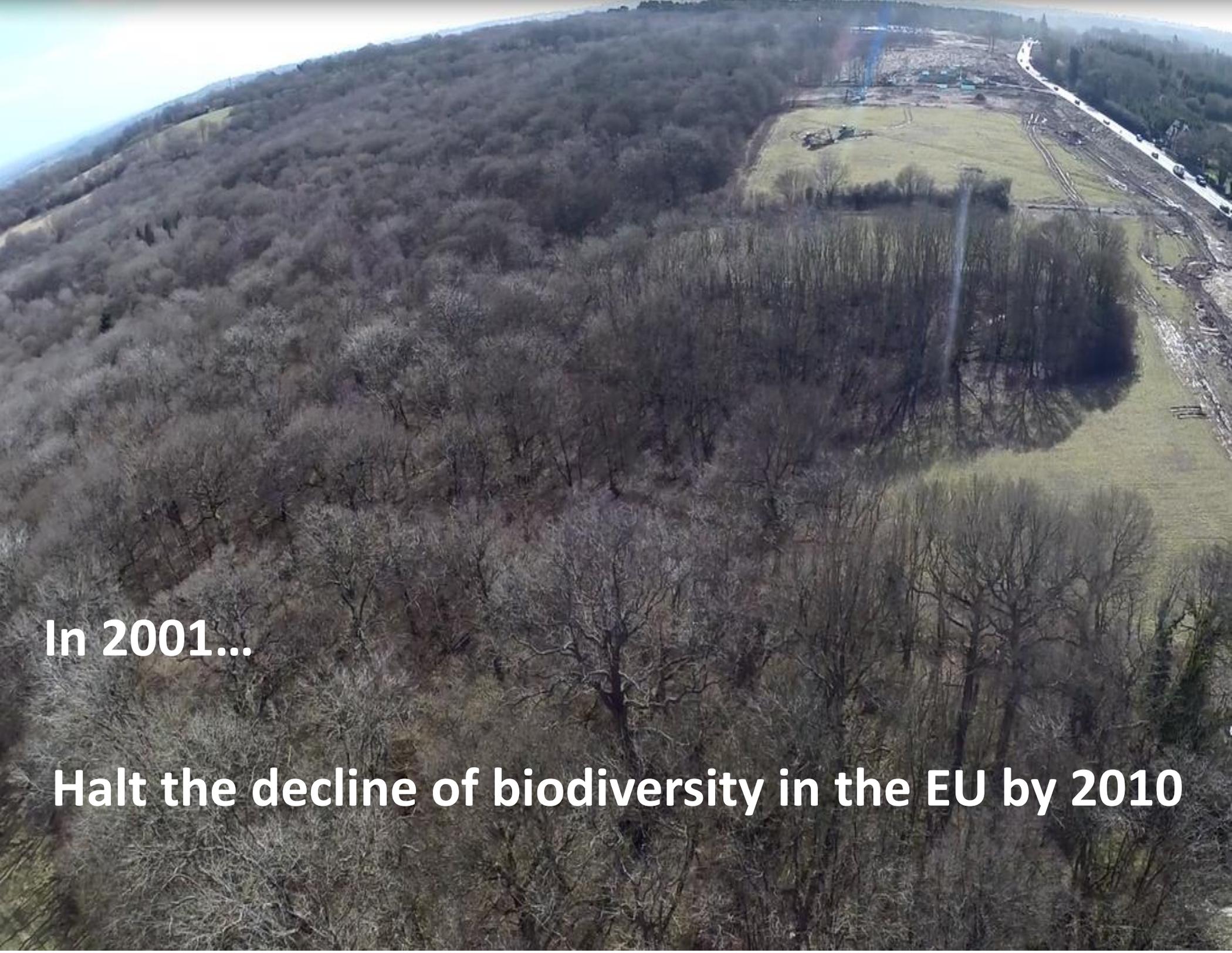
Lacking innovation

Meaningless targets “enhance”

Limited conservation benefit

But there’s a bigger problem...





**In 2001...**

**Halt the decline of biodiversity in the EU by 2010**

# After 2010... target not achieved



**New 2020 target**

# Mid-term review of the EU biodiversity strategy to 2020

## No significant progress towards the target

### 2020 Headline Target

**Halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.**

### Habitat loss still a major concern

In the period 2006-2012, the expansion of artificial surfaces has continued (e.g. urban sprawl, infrastructure) as compared to the period 2000-2006.



European  
Environment  
Agency



European  
Commission

Legally compliant development with  
biodiversity loss



# Biodiversity Offsetting Pilots

## Guidance for developers

March 2012

---



The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground

# Biodiversity offsetting pilots bear little fruit

14

23 February 2016 16:08 GMT

No to Biodiversity Offsetting!



## Biodiversity offsetting will unleash a new spirit of destruction on the land

A place of outstanding wildlife value may be destroyed if in return someone is paid to create a habitat elsewhere

## UK mulls biodiversity offsetting despite practice 'disappointing' in Australia

Pilot studies remain incomplete and evidence from other countries show similar experiments have failed

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## Biodiversity offsetting proposals 'a licence to trash nature'

Government criticised for plans that would allow developers to destroy wildlife and woodlands if they create new habitats elsewhere

# It's on the way...

15

## No Net Loss



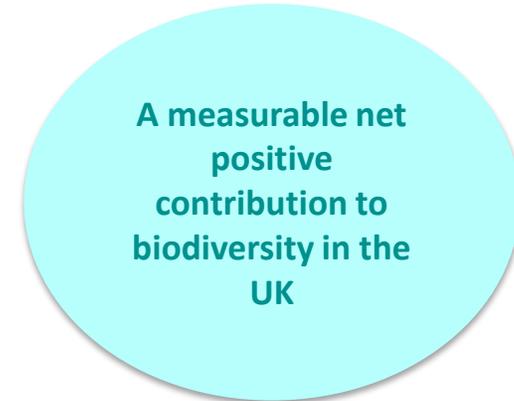
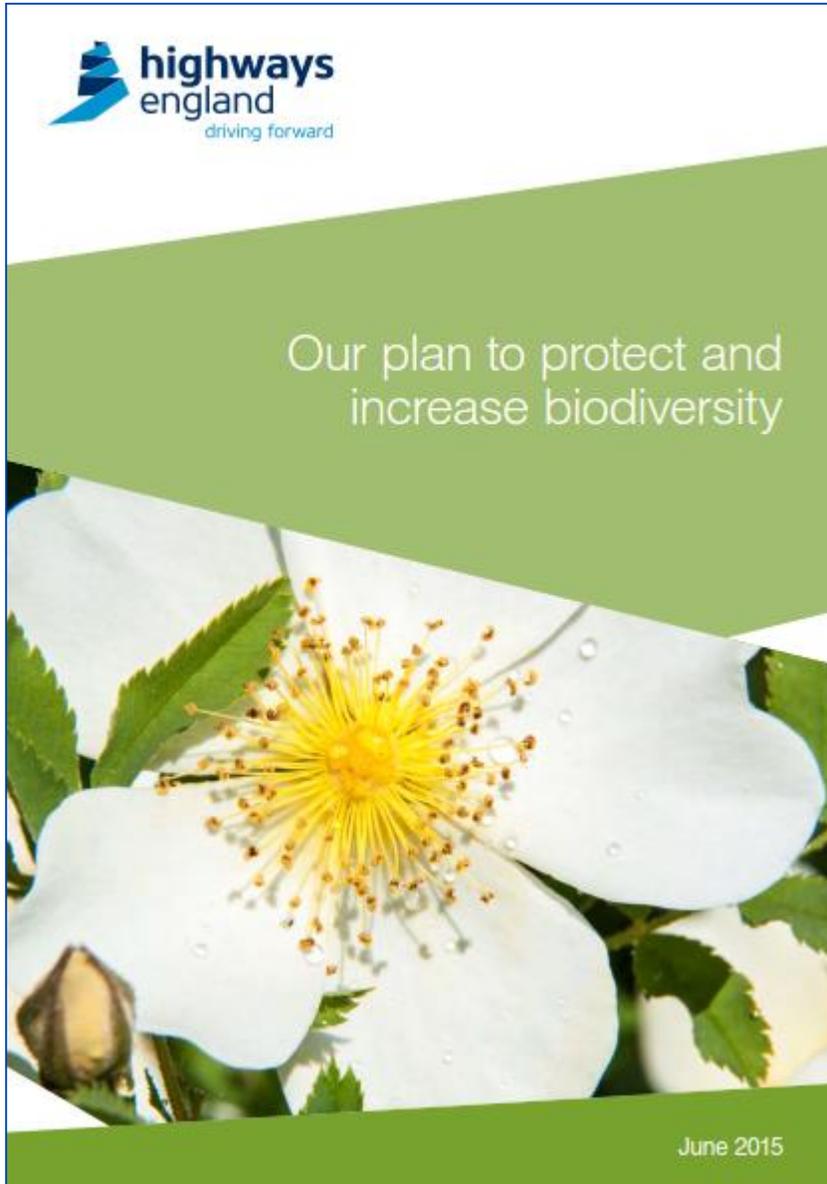
### No Net Loss in the context of the EU Biodiversity Strategy to 2020

Action 7 under target 2 of the EU Biodiversity Strategy to 2020 seeks to 'ensure no net loss of biodiversity and ecosystem services'.

### Next steps

The Commission will develop an impact assessment on the policy options for the No Net Loss initiative.

# Industry is marching ahead



# The biodiversity business challenge



# The biodiversity business challenge

- Understanding impacts & 'how much' to deliver net positive
- No industry guidance
- Criticism of the offset framework

# Lessons learnt from industry

- **Understanding impacts & 'how much' to deliver net positive**
- No industry guidance
- Criticism of the offset framework

How do we  
measure net  
positive?



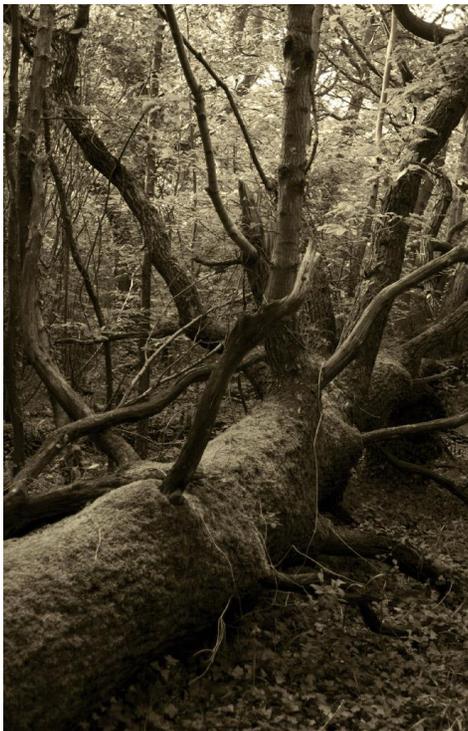
# First govt issued biodiversity metric for industry

Habitat Parcel	Distinctiveness	Condition	Hectares	Biodiversity Unit
Lowland Meadow	6	2	6	(6*2*6) 72 biodiversity units

We can now set targets of No Net Loss & Net Positive

# But it does not represent the diversity of life

22



**Biodiversity Unit**

**(6\*2\*6)**

**72 biodiversity  
units**

**(6\*2\*1)**

**12 biodiversity  
units**



© Caters News Agency

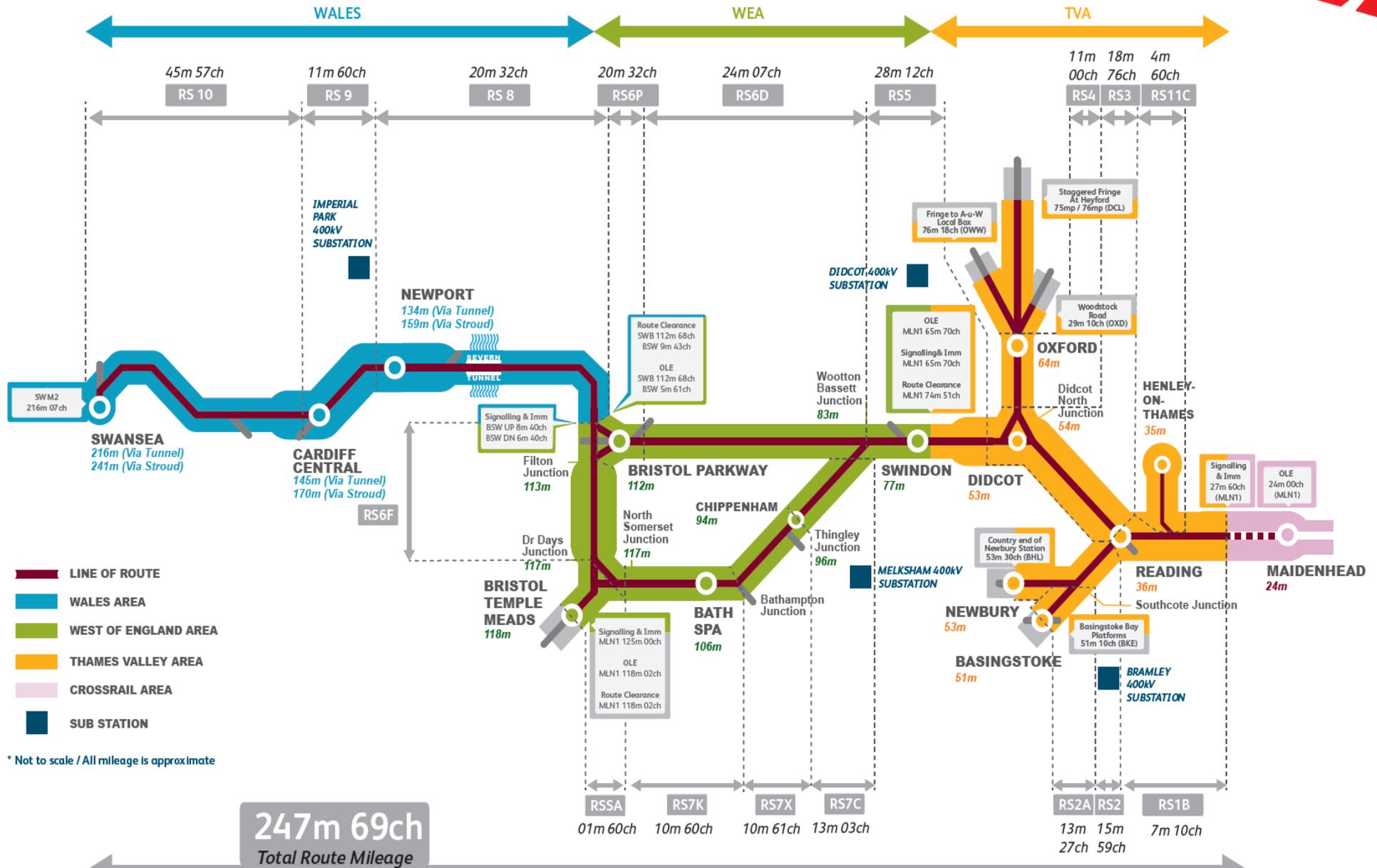


Numbers only tell us  
'how much'

Net Positive is based on  
biodiversity



# GWRM - ROUTE SCHEMATIC



- LINE OF ROUTE
- WALES AREA
- WEST OF ENGLAND AREA
- THAMES VALLEY AREA
- CROSSRAIL AREA
- SUB STATION

\* Not to scale / All mileage is approximate

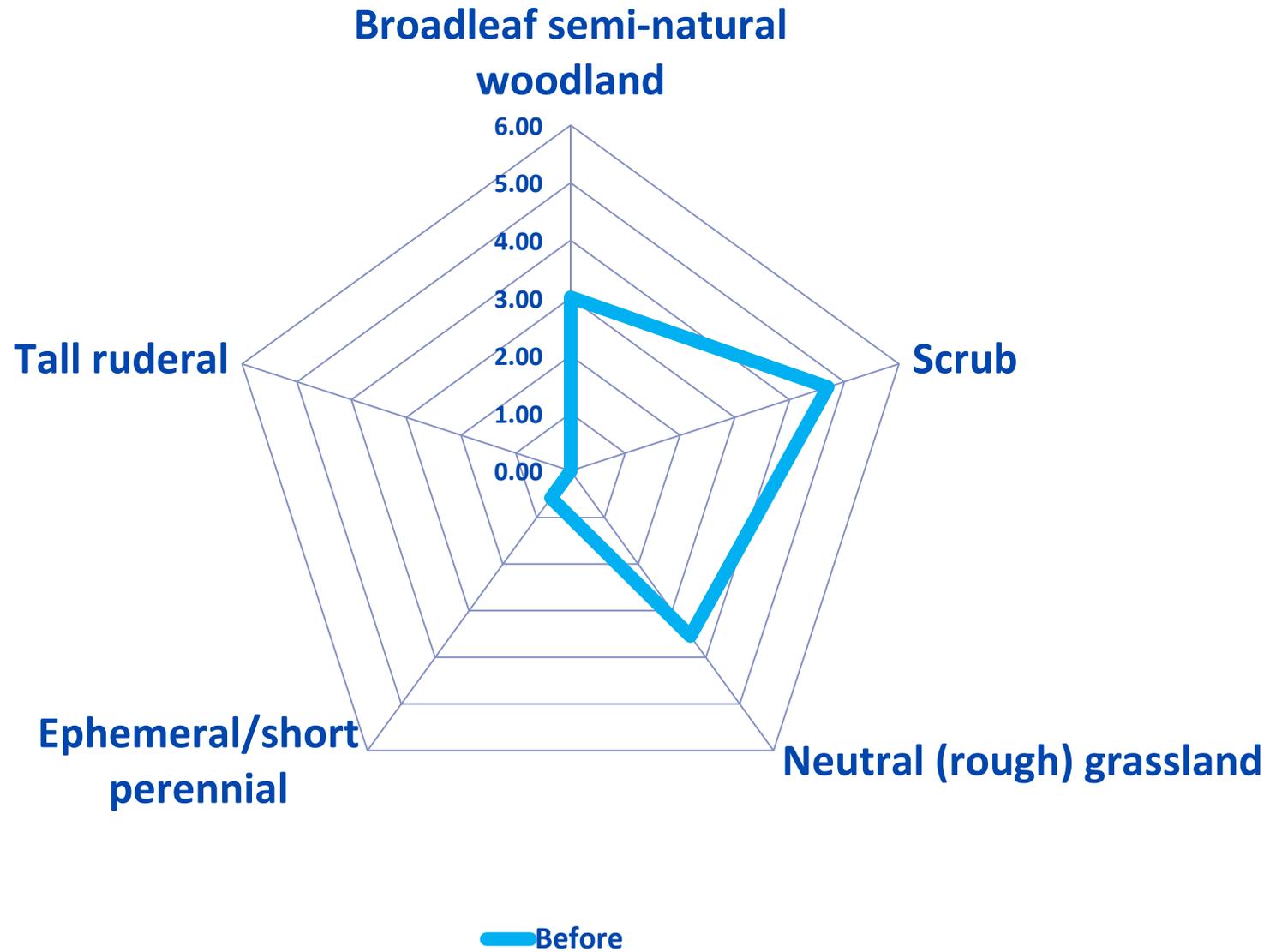
Total Equivalent Track Miles	Total Number of Bridges	Total Number of Tunnels	Total Number of Stations	Total Expenditure to 2018 circa.	Print Date: 23 October 2014 Version 13
609m 08ch	179	18	33	£4bn	

*Clearing 6.6m from nearest track - 609 miles*

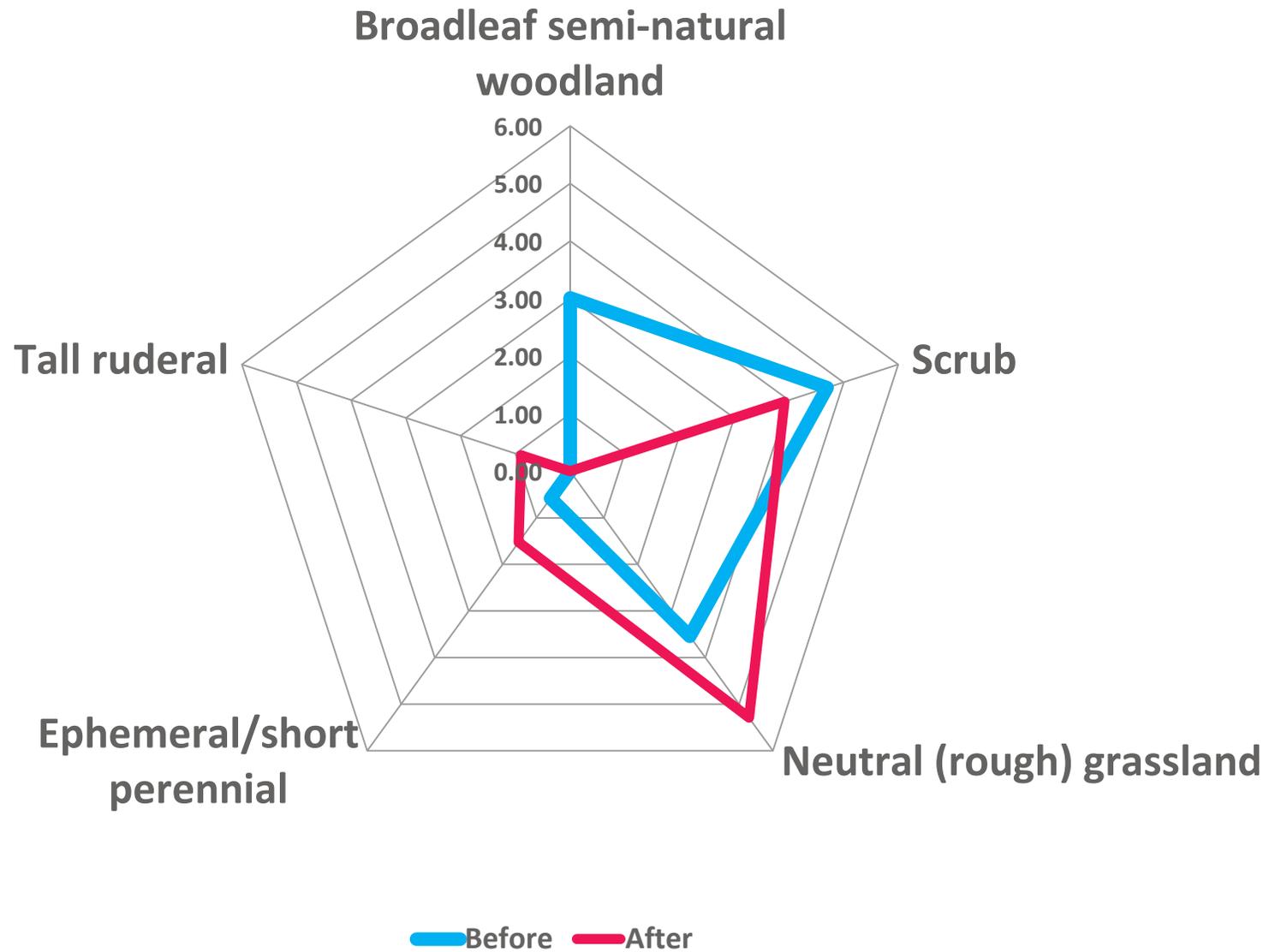




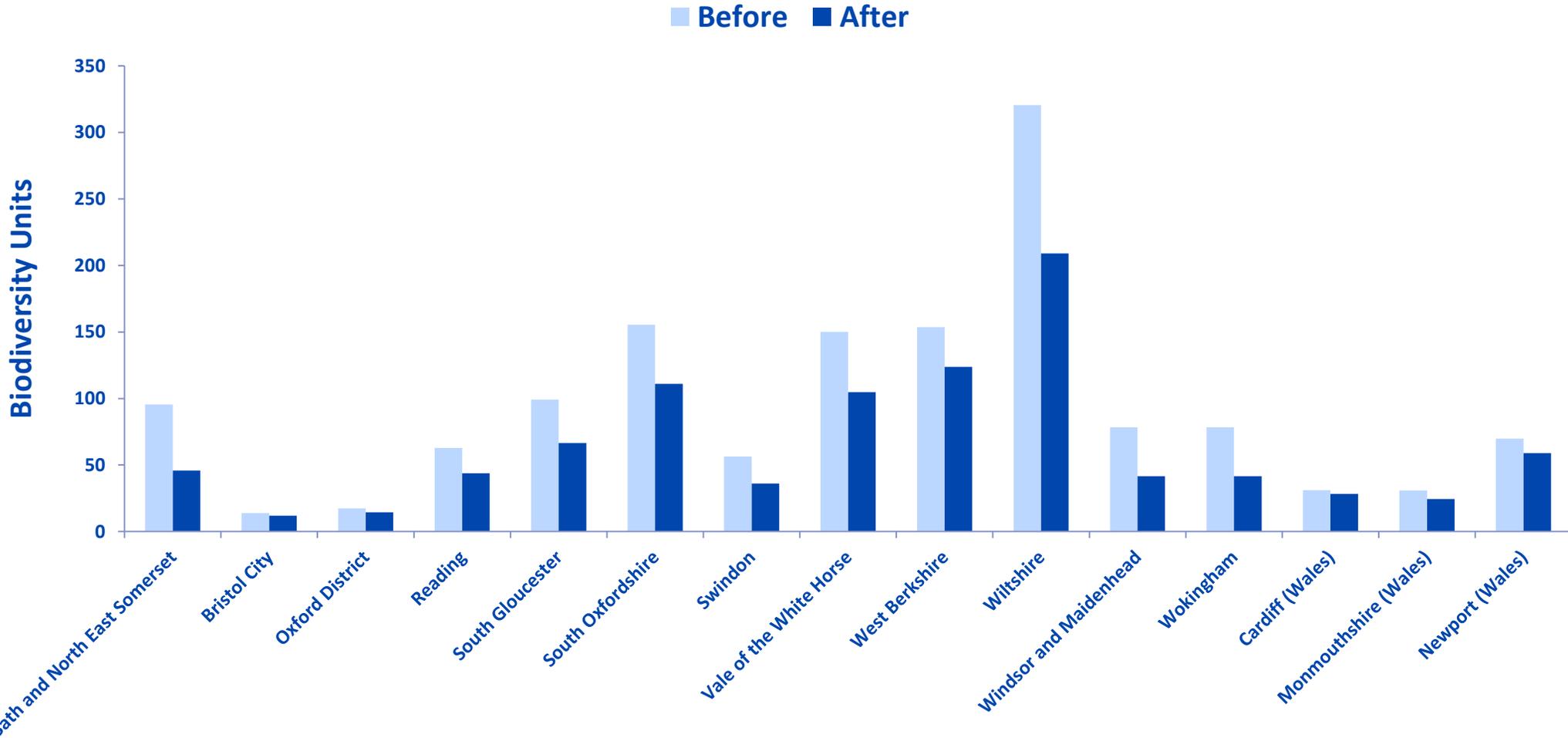
# Before



# After

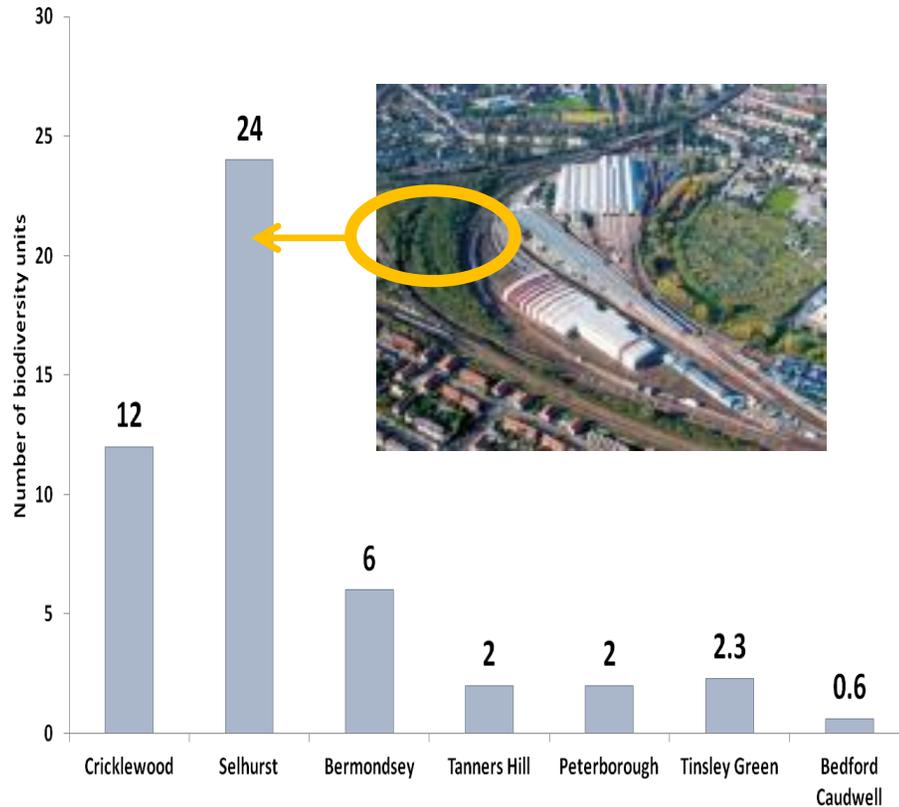


<b>GWEP</b>	<b>Before</b>	<b>After</b>	<b>Residual Loss</b>	<b>% Loss from Baseline</b>
<b>Total biodiversity units</b>	<b>1413</b>	<b>962</b>	<b>-451</b>	<b>-32%</b>



**Numbers help communicate to a business audience**

# Engagement & buy-in



**Measuring progress against target**

**Decision making tool**

**Need practical guidance**

**Use numbers appropriately**

**Recognise & be honest with its limitations**

**Work with stakeholders to find solutions**

**No tinkering rule!**

***IT'S THE BEST WE HAVE & ITS NOT BAD!***

# Opportunity – embedding biodiversity into business

**Network Rail**  
**Thameslink Programme Delivering Biodiversity Benefits**  
**Policy**

Biodiversity refers to all forms of life including wildlife and habitat. Biodiversity on railway land can be important for the local environment, particularly in urban locations where natural habitats are limited and fragmented. Our nature habitats along railway corridors can provide 'green corridors' that help wildlife move between their nesting and feeding sites, preserving and, where possible, enhancing railway biodiversity. It therefore represents an important management opportunity.

The Thameslink Programme (TLP) is at the heart of Network Rail's sustainable programme. Our sustainable development policy has established aims for sustainable development and we have committed to increasing our nature habitats and helping wildlife through mitigation and/or enhancement and offsetting. This requires TLP to address both the impact on biodiversity and the gains achieved from TLP activities.

TLP aims to go beyond protecting biodiversity. The policy established our approach to deliver biodiversity benefits. This policy is founded on nature conservation principles and our commitment to create an overall positive effect on the environment.

We seek to realise biodiversity benefits by achieving the following:

- Establish robust mechanisms for protecting biodiversity. We will implement robust mechanisms that are ISO14001 compliant to embed measures for protecting biodiversity within all aspects of our work. Specifically we will:
  - Establish and measure the biodiversity baseline of our sites as set out in the TLP Biodiversity Offsetting procedures.
  - Understand biodiversity impact assessments at the early stages of a project to embed protective measures such as the planning and understanding of site biodiversity and primary ecological function of a site.
  - Design protection measures to preserve or increase existing protection levels.
- We will increase and improve our protection of biodiversity by committing to the following:
  - First avoiding impacts on biodiversity where possible, for example by locating works away from sensitive habitats.
  - Second where impacts on biodiversity are incurred, mitigating to reduce the impacts where possible.
  - Third if permanent loss of biodiversity is unavoidable, compensating for this loss.

These actions adhere to the 'mitigation hierarchy' whereby we seek to minimise harm and maximise benefits to biodiversity from development.

Seek opportunities for on-site enhancement. We will identify and implement opportunities for enhancing biodiversity on our sites. Our on-site enhancement measures will include:

- Planting native species that enhance biodiversity of the local surroundings, particularly along the corridor in larger townships.
- Creating local wilder local native grass and wildflower sites to increase native species diversity and encourage invertebrates.
- Designing enhancements to contribute towards local biodiversity enhancement and conservation goals.
- Designing enhancements specifically to enhance the primary ecological function of sites.

Compensation. We will compensate for permanent loss to biodiversity that results from works when all actions have been taken (where possible) to avoid and reduce the loss. Compensation may be on or outside our site where it provides the greatest biodiversity benefits. Off-site compensation is biodiversity offsetting. The restrictions include:
 

- Deliver biodiversity benefits that can be planned because of managing railway land. These restrictions include type and location of habitats that can be planned because of health and safety requirements. We fully acknowledge the challenges when compensating for biodiversity loss through offsetting but we will seek to minimise these risks by adhering to our TLP Delivering Biodiversity Benefits Framework that sets out guiding principles on biodiversity offsetting.

Additional measures. We will undertake 'lessons learnt' reviews to evaluate our performance, share knowledge between project teams and implement continuous improvement in our delivery of biodiversity benefits. We will also train staff to increase their awareness of biodiversity and enhance their skills in protection and enhancement measures.

This policy and our TLP Delivering Biodiversity Benefits Framework will be cascaded through the TLP001 chain and communicated to all persons working on the Thameslink Programme.

*Jon Caversford*  
 Major Programme Director  
 January 2015



Code	Activity / Measure	Priority	Start Date	End Date	Responsible	Status
11	Biodiversity	High	2015	2016	Network Rail	Completed
12	Wildlife	Medium	2015	2016	Network Rail	In Progress
13	Planting	Medium	2015	2016	Network Rail	In Progress
14	Wildlife	Medium	2015	2016	Network Rail	In Progress
15	Wildlife	Medium	2015	2016	Network Rail	In Progress
16	Wildlife	Medium	2015	2016	Network Rail	In Progress
17	Wildlife	Medium	2015	2016	Network Rail	In Progress
18	Wildlife	Medium	2015	2016	Network Rail	In Progress
19	Wildlife	Medium	2015	2016	Network Rail	In Progress
20	Wildlife	Medium	2015	2016	Network Rail	In Progress
21	Wildlife	Medium	2015	2016	Network Rail	In Progress
22	Wildlife	Medium	2015	2016	Network Rail	In Progress
23	Wildlife	Medium	2015	2016	Network Rail	In Progress
24	Wildlife	Medium	2015	2016	Network Rail	In Progress
25	Wildlife	Medium	2015	2016	Network Rail	In Progress
26	Wildlife	Medium	2015	2016	Network Rail	In Progress
27	Wildlife	Medium	2015	2016	Network Rail	In Progress
28	Wildlife	Medium	2015	2016	Network Rail	In Progress
29	Wildlife	Medium	2015	2016	Network Rail	In Progress
30	Wildlife	Medium	2015	2016	Network Rail	In Progress

**Biodiversity Toolkit**

**Biodiversity Toolkit User Guide**

The Biodiversity Toolkit is for you

- Record actions where you will, maintain and enhance nature on the order for 'Mitigation Hierarchy'
- Track losses and gains of biodiversity from habitat clearance and planting
- Run and the habitat most affected by clearance
- Calculate biodiversity value generated by plants
- Produce reports on achieving the Loss or Net Positive

Key:

- Loss: Loss, net or decrease in value from the original baseline
- Gain: Gain, net or increase in value from the original baseline
- Offset: Offset, net or decrease in value from the original baseline

**High level process**

User Guide	Project Details	Site Info	Habitat Competition Info	On-site Biodiversity	Linear Habitats	Offset Data	Evidence Base	Summary	Notes
Read through the User Guide and familiarise yourself with the process. Refer back to the User Guide throughout.	Provide the details of your project.	Provide the details about each site of your project.	Use the table to identify the habitat losses or gains and the offset to assess net.	Calculate biodiversity value of your location before works and after works (removal or removal of habitats).	Calculate the amount of compensation needed to offset the loss of biodiversity from works.	Calculate biodiversity value of your offset and determine whether it is sufficient to offset the loss or Net Positive.	Provide information on the Mitigation Hierarchy, including mitigation measures, compensation reports etc.	Provide the summary of your project, including the compensation.	Record notes, including exceptions, make corrections, update etc.



# Construction is a changing world

## On-site Biodiversity Unit Tracker

On-site Biodiversity Unit Tracker															
Ref	Site	Phase 1 Habitat	Baseline				Area of Habitat (Hectares)	Site Biodiversity Baseline Units	Biodiversity Baseline Units / Hectare	Action  Hierarchy Level	Area of Retained Habitat (Hectares)	Unit Tracker			
			Distinctiveness		Condition							Baseline (Units)		Baseline	
			Band	Score	Rating	Score						Units Saved	Units Lost	Saved (%)	Lost (%)
<i>Project Total</i>						6	72	24		2	18	54	25%	75%	
1		Site Total				6	72	24		1.5	18	54	25%	75%	
		Woodland - Broadleaved: plantation (High)	High	6	Moderate	2	2	24	12	Avoidance	0.5	6	18	25%	75%
		Scrub - Scattered	Medium	4	Good	3	4	48	12	Mitigation	1	12	36	25%	75%



# Lessons learnt from industry

- Understanding impacts
- Understanding 'how much' to deliver net positive
- **No industry guidance**
- **Criticism of the offset framework**

# Why Biodiversity Offsetting?



# Robust & challenging principles

[www.defra.gov.uk](http://www.defra.gov.uk)

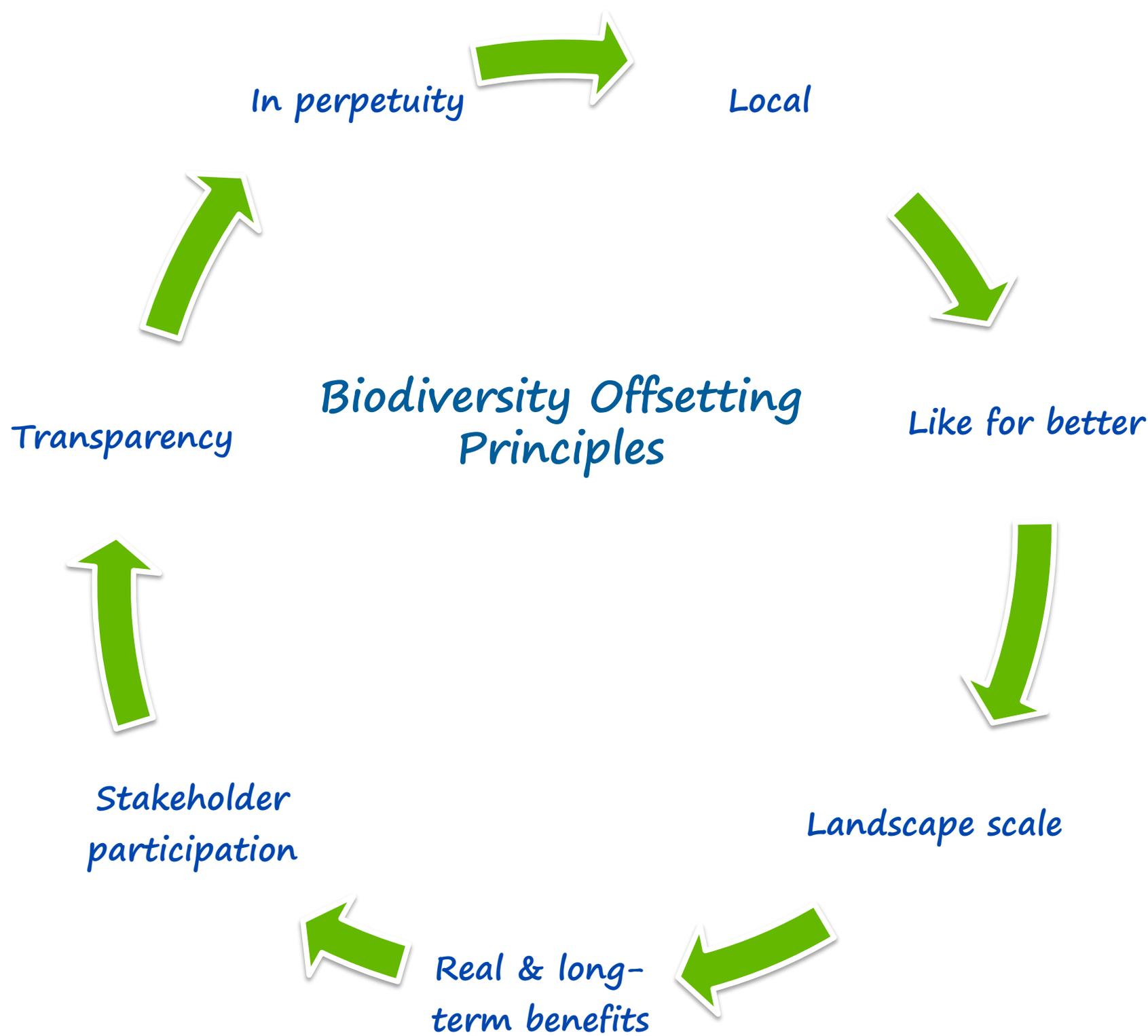
## Biodiversity offsetting

Guiding principles for biodiversity offsetting

July 2011

## Standard on Biodiversity Offsets





**Offset as local to the  
loss as possible**



What does 'local' mean?



# Opportunity & challenge – opening the door



Bath & North East Somerset Council



# What they told us

## Risks



## Opportunities



# Strategic partnerships and critical friends



*Opps*



*Develop collaborative partnerships*



the conservation community should more often applaud voluntary offset efforts, actively support attempts to achieve no net loss through best-practice offsets, and provide practical guidance and constructive criticism within a safe learning environment.



## Technical conditions for positive outcomes from biodiversity offsets

An input paper for the IUCN Technical Study Group on Biodiversity Offsets



the conservation community should more often applaud voluntary offset efforts, actively support attempts to achieve no net loss through best-practice offsets, and provide practical guidance and constructive criticism within a safe learning environment.



## Technical conditions for positive outcomes from biodiversity offsets

An input paper for the IUCN Technical Study Group on Biodiversity Offsets



## Lessons learnt from industry

**Measurement is the ultimate starting point**

**Embed biodiversity using business tools & training**

**Practical guidance!!**

**Work collaboratively**