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# The Natural Capital Planning Tool (NCPT)

by

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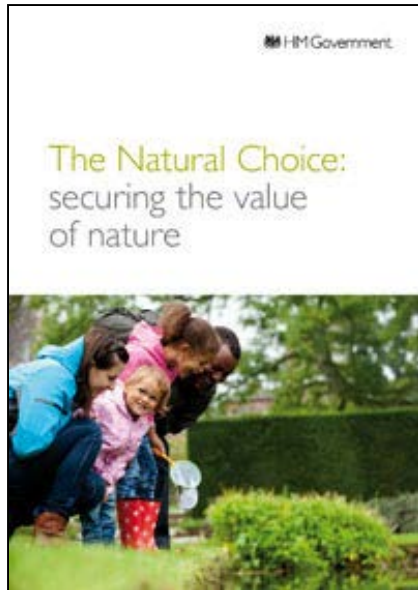
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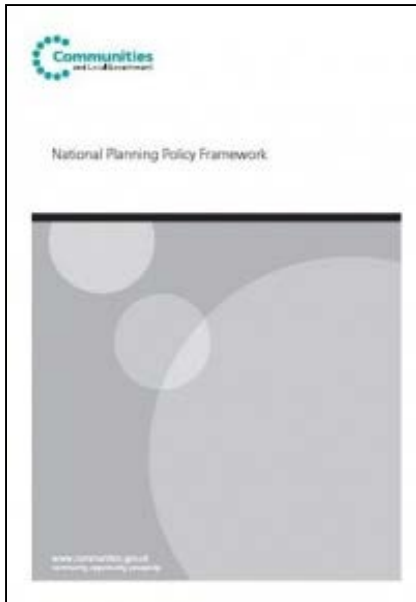
# Why do we need a NCPT?



## The Natural Choice: securing the value of nature (Natural Environment White Paper) HM Government, 2010

*“The Government expects the planning system to deliver the homes, business, infrastructure and thriving local places that the country needs, while protecting and enhancing the natural and historic environment. Planning has a key role in securing a sustainable future. **However, the current system [...] is failing to achieve the kind of integrated and informed decision-making that is needed to support sustainable land use.**”*

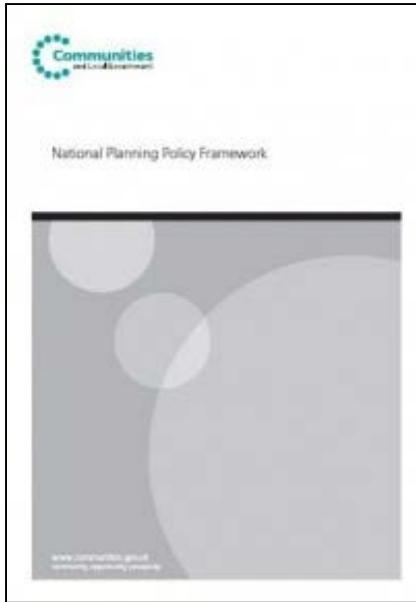
# Why do we need a NCPT?



## **National Planning Policy Framework (NPPF)** Department for Communities and Local Government (DLCG), 2012

*“The planning system should contribute to and enhance the natural and local environment by [...] recognising the wider benefits of ecosystem services.”*

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## But how?



# Purpose of the NCPT

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- **The purpose of the NCPT is to better assess and manage the long-term impacts of proposed developments and plans on the delivery of ecosystem services.**
- The tool is designed to give planners and developers a simple and straight forward excel tool to hand which does not necessarily require ecosystem services expertise.

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- The tool is designed to give planners and developers a simple and straight forward excel tool to hand which does not necessarily require ecosystem services expertise.
- **Aim is to move away from a tick-box exercise to integrated and informed decision-making with the main aim to ensure that new developments and plans have an overall net positive impact on the provision of ecosystem services.**
- We believe that this will be a requirement when implementing the 25 year Natural Capital Plan.

# The Journey so far...

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- In 2016 we secured NERC Green Infrastructure Innovation Funding to further improve, test and implement the NCPT.
- **Expected NCPT Release: March 2018**

# Project Partnership

## Actual Project Phase

### Core Project Team



UNIVERSITY OF  
BIRMINGHAM



### Funder



### Case Study Partners



GREATER  
**LONDON**  
AUTHORITY



**SKANSKA**



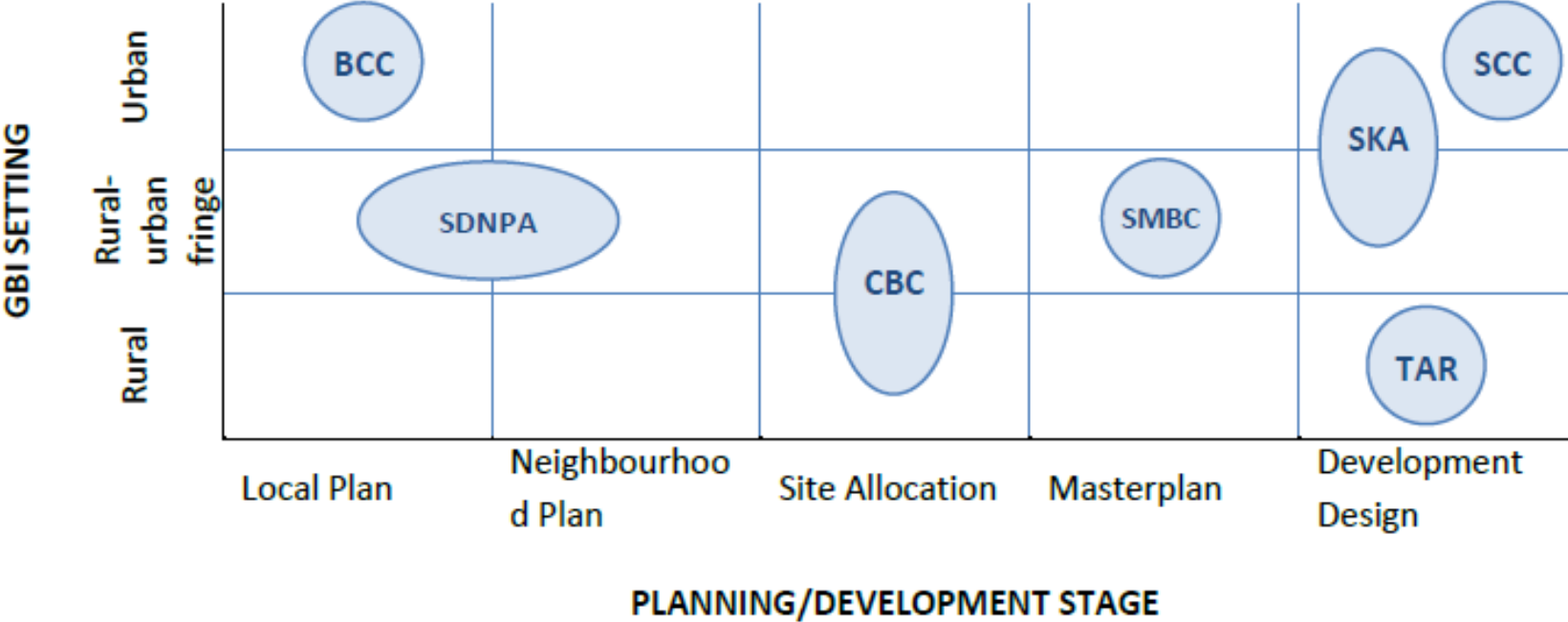
### Project Partners



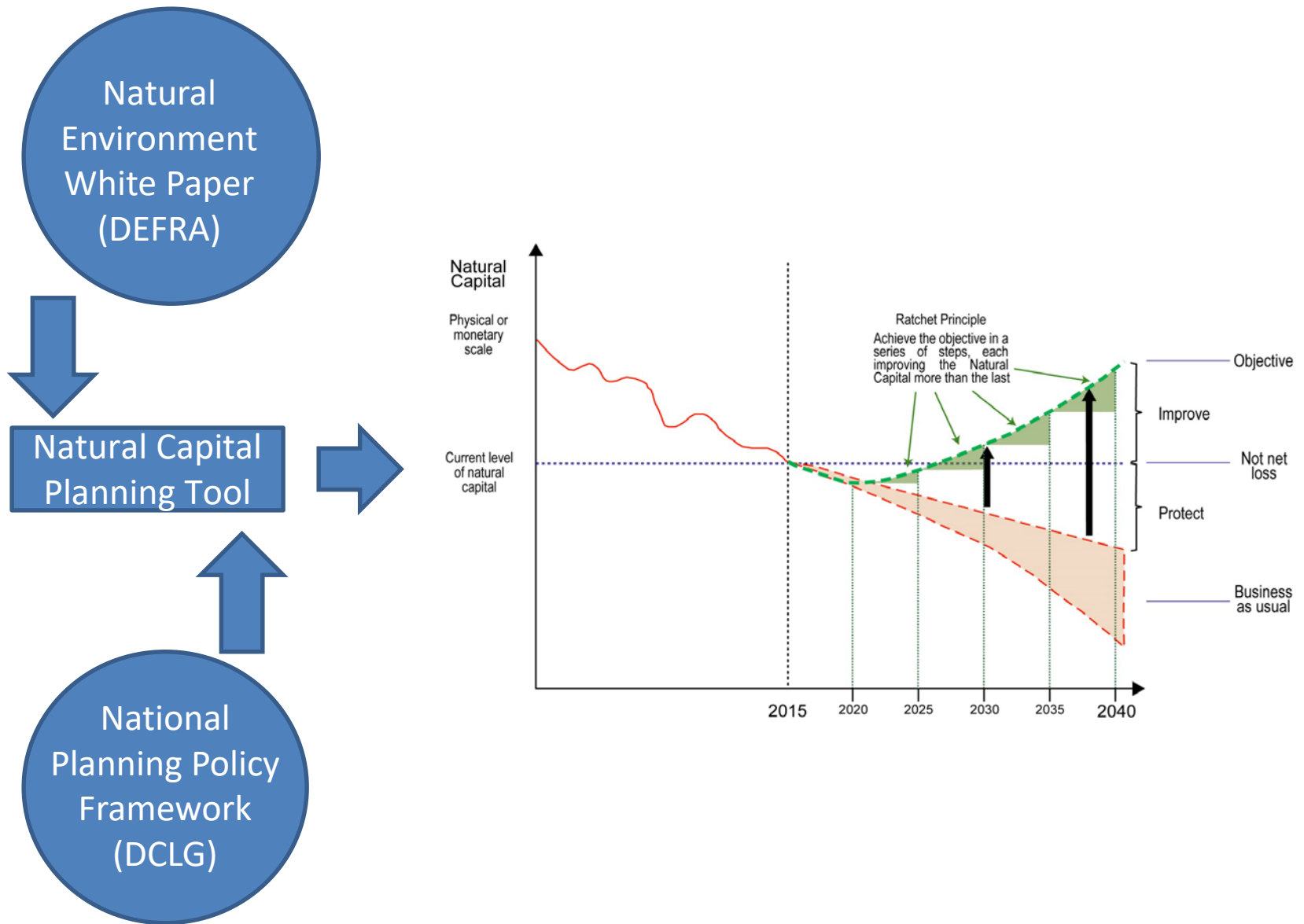
Business Council for  
Sustainable Development  
United Kingdom



# Case Studies



# Linking NEWP and NPPF



# Assessment Scope

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The NCPT can be applied at different scales and allows assessing the impact of new developments and plans on 10 ecosystem services:

- Harvested products
- Biodiversity
- Aesthetic values & sense of place
- Recreation
- Water quality regulation
- Flood risk regulation
- Air quality regulation
- Local climate regulation (climate change adaptation)
- Global climate regulation (climate change mitigation)
- Soil contamination

# NCPT Design

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- A Multi-Criteria Decision-Analysis framework has been chosen as basis for the NCPT (no monetary valuation)

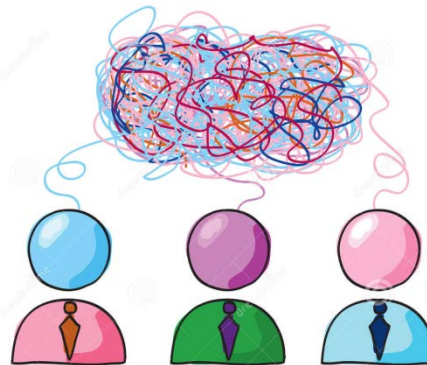
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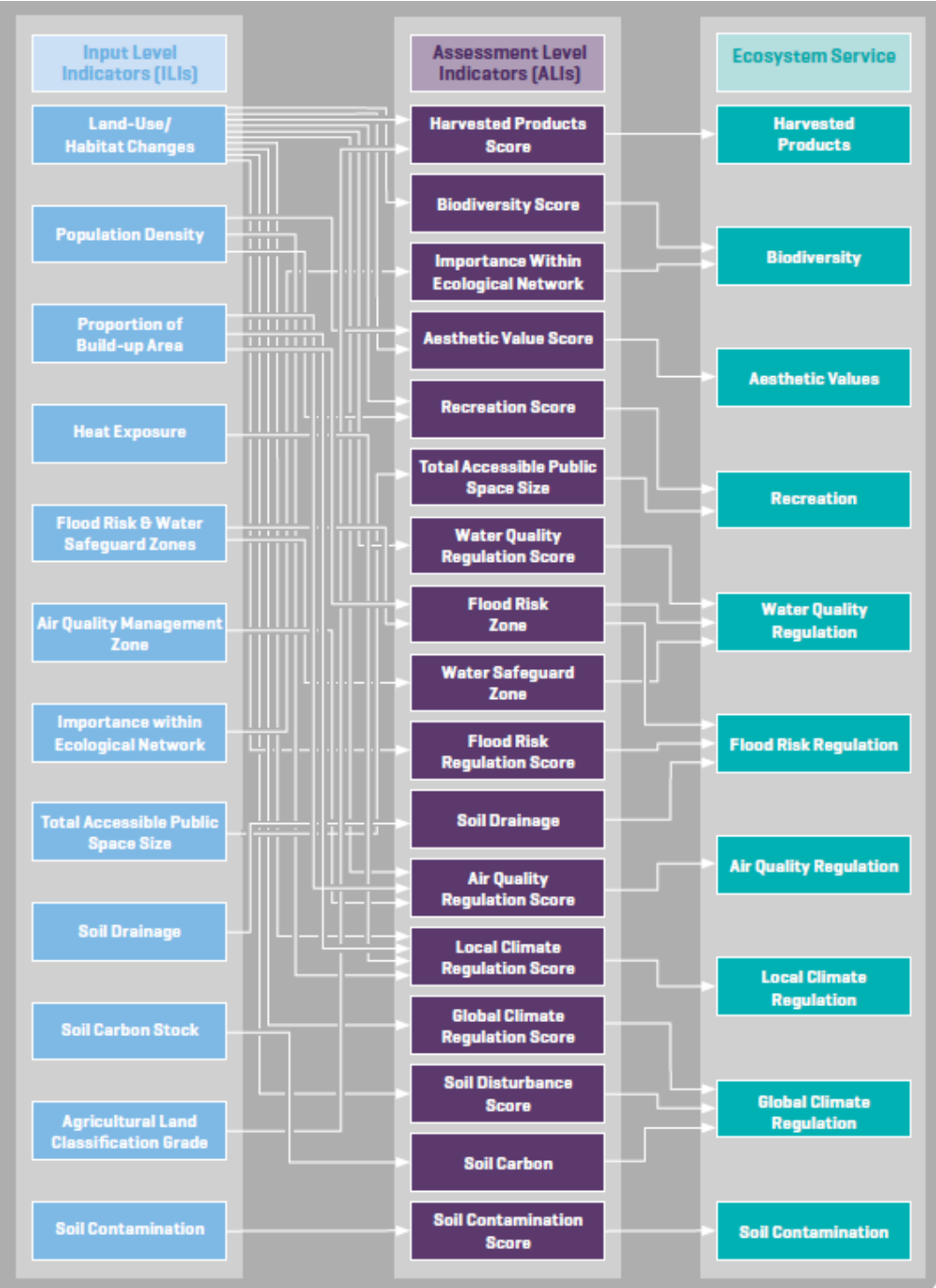
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- For each assessed ecosystem service an expert task group was established with the main aim to 'translate' the indicators into impact scores (50+ members altogether)







# NCPT Design

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- A set of relevant (and readily available) indicators was identified by stakeholder groups
- For each assessed ecosystem service an expert task group was established with the main aim to 'translate' the indicators into impact scores (45 members altogether)
- Habitat maturity has been explicitly considered (a mature woodland patch receives e.g. a higher biodiversity score than a newly created young one)

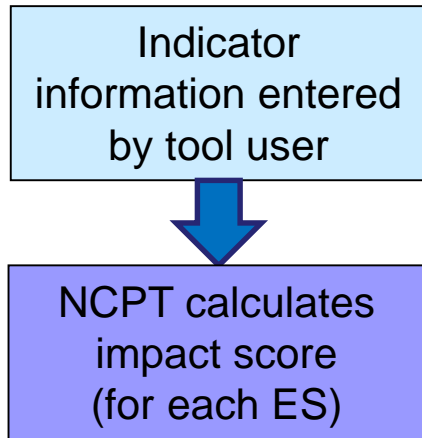


# Tool Functionality

Indicator information entered by tool user

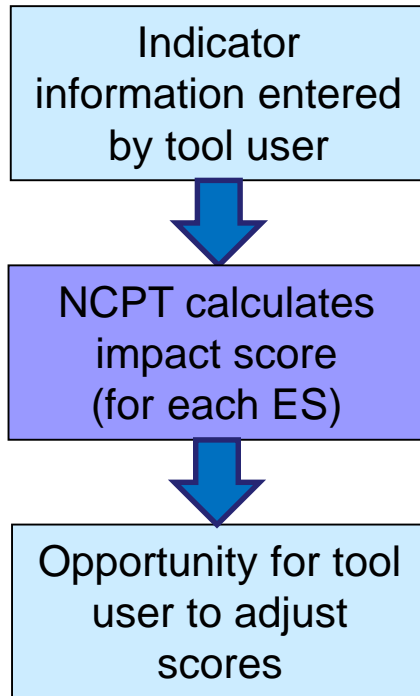
Area reference	Pre-development land-use/habitat type	Post-development land-use/habitat type	Area	Unit	Average width in m	Area in ha
WJC01	B.6 Poor semi-improved grassland	J.3.6.d Buildings - Other	500.00	m <sup>2</sup> (area)		0.05
WJC02	B.6 Poor semi-improved grassland	J.3.6.b Buildings - area covered with brown roof	500.00	m <sup>2</sup> (area)		0.05
WJC03	B.6 Poor semi-improved grassland	J.3.e Gardens	1000.00	m <sup>2</sup> (area)		0.10
WJC04	B.6 Poor semi-improved grassland	J.3.a Streets	100.00	m (linear)	7.00	0.07
WJC05	J.a Open mosaic habitats on previously developed land	A.1.1.1.c Other broad leaved woodland - semi-natural	1.00	ha (area)		1.00
WJC06	J.a Open mosaic habitats on previously developed land	A.3 Parkland/scattered trees	1.00	ha (area)		1.00
WJC07	J.a Open mosaic habitats on previously developed land	J.1.2 Amenity grassland	2.00	ha (area)		2.00
WJC08	J.a Open mosaic habitats on previously developed land	G.1.d Ponds (UK BAP Priority Habitat)	0.50	ha (area)		0.50
WJC09	Please select	Please select	Enter	ha (area)		0.00
WJC10	Please select	Please select	Enter	ha (area)		0.00
Total area of land-use changes:						4.77

# Tool Functionality



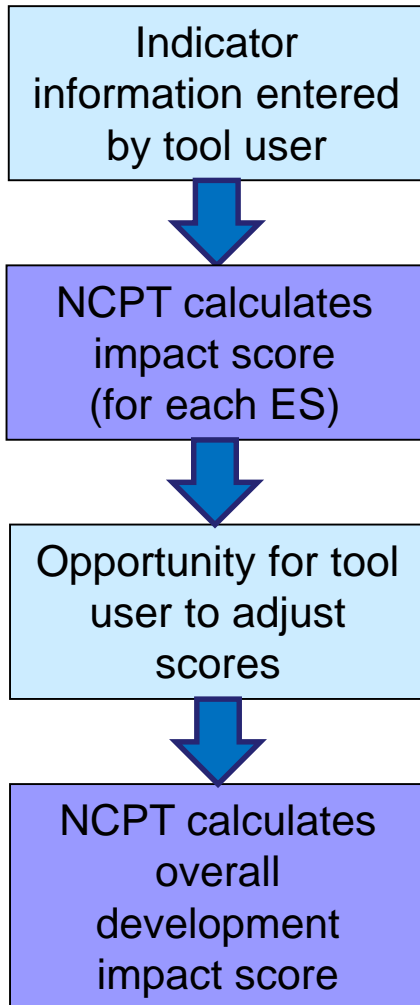
Ecosystem Services Impact Score: (by the 'Ecosystem Services Weight')	<b>+4.0</b>	+6.0
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# Tool Functionality



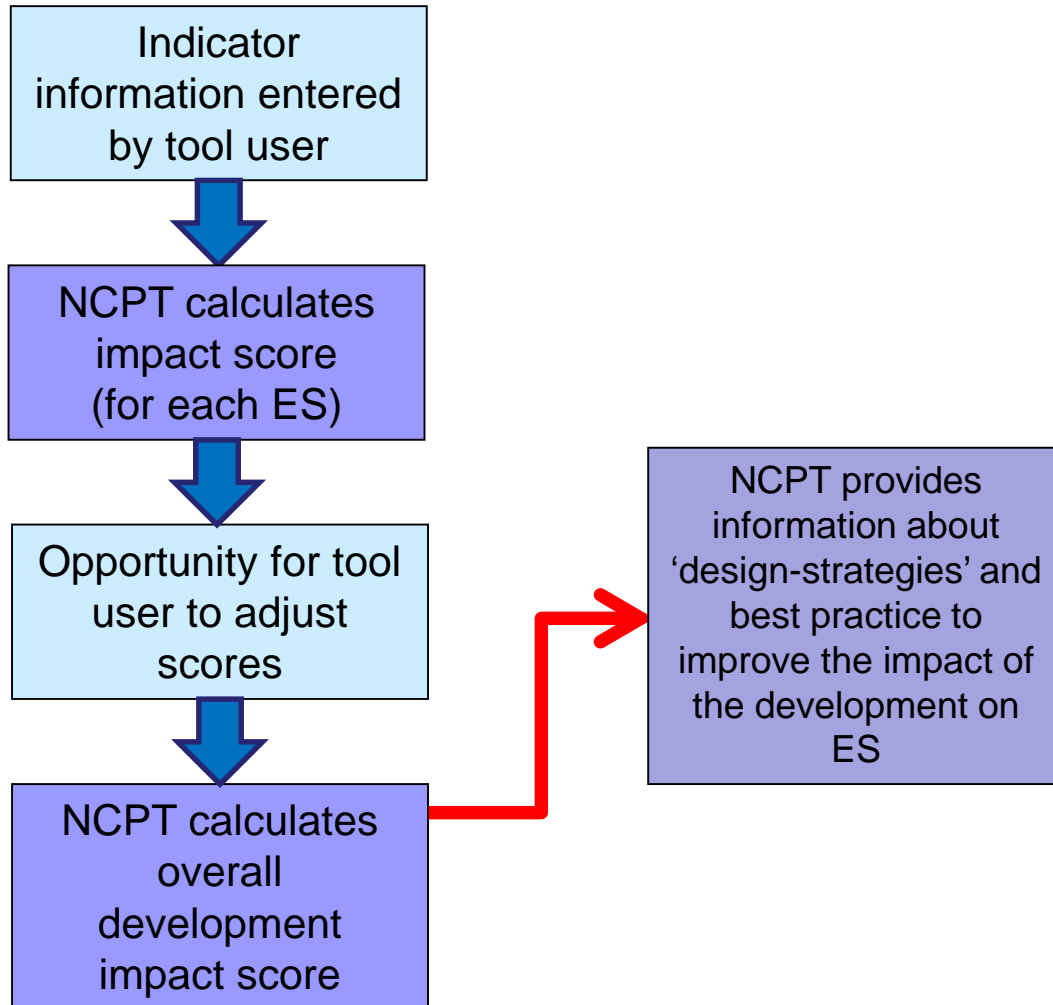
	Biodiversity score of land-use/habitat				Importance within ecological network		Impact Value		Justification for score adjustment (if applicable)
	Average	Min	Max	Applied	Importance	Multiplier	Adjusted	Unadj.	
5	2	1	3	2	LOW	1.0	-0.0		
5	1	0	1	1	LOW	1.0	0.0		
5	2	1	3	2	LOW	1.0	0.0		
5	2	1	2	2	LOW	1.0	0.0		
0	2	1	3	2	LOW	1.0	-0.1		
0	2	1	2	2	LOW	1.0	0.0		
7	2	1	3	2	LOW	1.0	0.0		
7	1	0	1	1	LOW	1.0	-0.1		
0	3	2	3	2	MEDIUM	2.0	0.0	-1.7	Habitat is of poor quality/management
0	2	1	2	2	MEDIUM	2.0	0.0	-1.7	See above
0	3	2	3	2	MEDIUM	2.0	-5.2	-8.6	See above
0	2	1	2	2	MEDIUM	2.0	0.0	0.0	See above
0	3	2	3	2	MEDIUM	2.0	+0.9	0.0	See above
0	1	1	1	1	LOW	1.0			
0	3	2	3	2	MEDIUM	2.0			
0	3	2	3	3	MEDIUM	2.0			
<b>Total Biodiversity Impact Value:</b>							<b>-4.4</b>	<b>-12.2</b>	
<i>Sum of all Impact Values above</i>									
<b>Per-hectare Biodiversity Impact Value:</b>							<b>-0.9</b>	<b>-2.6</b>	
<i>ded by the total area where land-use changes are proposed</i>									

# Tool Functionality

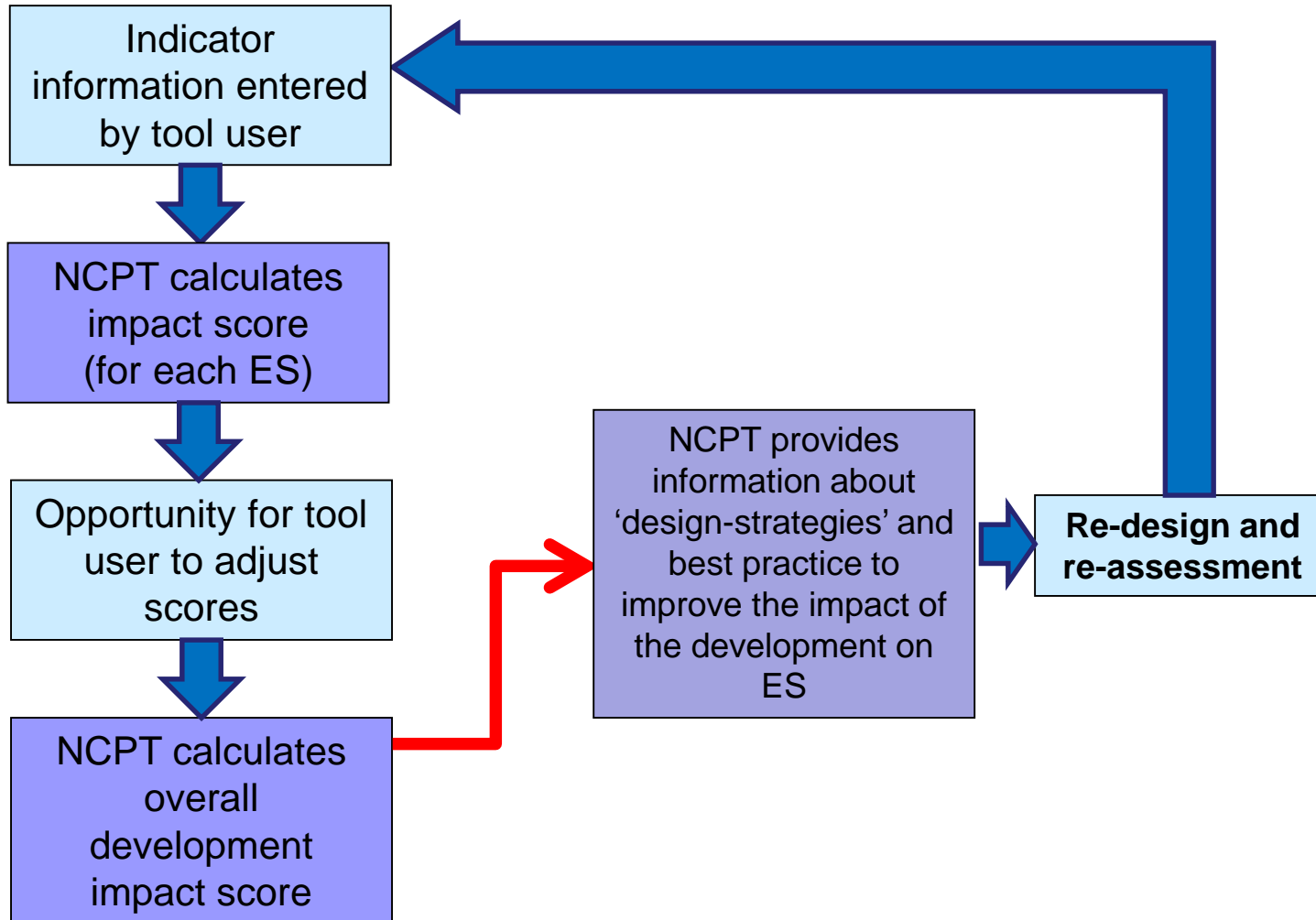


Development Impact Score		
Average Per-Hectare		
Ecosystem Service	Adjusted Scores	Unadj. Scores
1. Harvested Products	+1.6	-2.2
2. Biodiversity	-0.9	-2.6
3. Aesthetic Values	+2.4	+2.4
4. Recreation	+3.9	+3.9
5. Water Quality Regulation	-1.1	-1.1
6. Flood Risk Regulation	+1.2	+1.2
7. Air Quality Regulation	-1.4	-1.4
8. Local Climate Regulation	+1.8	+1.8
9. Global Climate Regulation	-0.2	-0.2
10. Soil Contamination	+0.0	+0.0
<b>Development Impact Score</b>	<b>+0.7</b>	<b>+0.2</b>

# Tool Functionality



# Tool Functionality





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# Many thanks for your attention!

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