

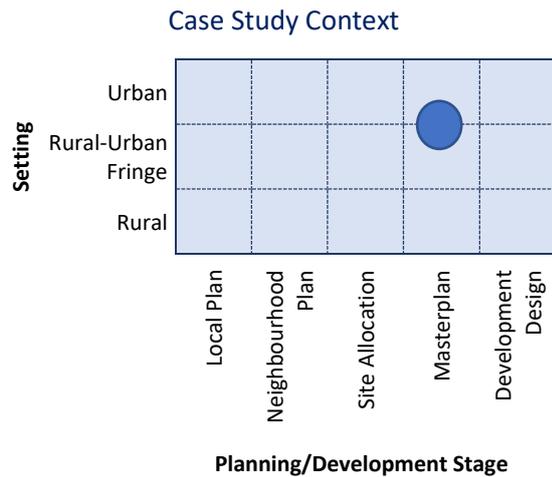


<p>Natural Capital Planning Tool (NCPT) Case Study Report</p> <p>Langley Sustainable Urban Extension (SUE)</p> <p>Birmingham</p>	<p>Case Study Partner Birmingham City Council</p> <p>Case Study Report Authors Oliver Hölzinger (CEEP) & Nick Grayson (Birmingham City Council)</p> <p>Case Study Report Published May 2018</p> <p>NCPT Assessment by  <small>Consultancy for Environmental Economics & Policy</small></p>
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Birmingham City Council tested the NCPT on a Masterplan for a new housing development for 5,000-6,000 new homes in the north-east of Birmingham. The aim was to assess the impact of the design against the ambition to achieve overall Natural Capital net-gain over a 25 year timeline. The NCPT assessments led to the revision of the initial Masterplan. This is very significant because undoubtedly this scheme design would have passed previous benchmark assessments for green infrastructure.

The mere process of assessing this scheme with the NCPT totally shifted both, the local planners and the applicants view of the GI potential for the site. An updated plan is pending and will be re-assessed. Based on the learning from this project the Council planners are looking to use the NCPT to assess future major development projects in Birmingham; as the NCPT process provides an additional interpretation of the evidence and therefore a fresh perspective.





Case study site and context

The NCPT was tested on a proposed housing development in Langley in the North-East of Birmingham, in the Sutton Coldfield constituency. To accommodate Birmingham’s growing population, 273 ha of Green Belt, dominated by agricultural land with very limited access, was released for the development to create a new city district including 5,000-6,000 new homes, all associated infrastructure, new centres, schools, cultural facilities; and at least 10 ha of new accessible urban greenspace; termed a Sustainable Urban Extension.

This proved to be a very contentious decision as part of the consultation of the City’s Development Plan. The Planning Inspectors were persuaded by the evidence; but it led to a delay of the adoption of the Development Plan- as through this, it was called in by the Secretary of State. Finally, it was accepted based on the decision to develop a Sustainable Urban Extension (SUE) that would not be ‘business as usual’ in terms of standard housing development but will deliver an *“exemplar of sustainable development... designed to the highest possible standards...”*

and achieve the highest standards of sustainability”¹ for the City.

Why using the NCPT?

Birmingham is a pioneer as it has undertaken a full ecosystem services assessment for the city’s greenspace; built into the city’s policy framework the Green Living Spaces Plan published in 2013.² This gave a city overview of current performance of the city’s urban green space.

This led to the City proposing the idea of utilising the same ecosystem methodology and applying it to a site assessment - which led to the development of the NCPT, through a broad and active partnership. The Council required a site-based assessment tool that would give a 25 year forecast of performance for any site post development; to calculate an overall net-gain for Natural Capital.

The Langley SUE was chosen as case study because of its sensitive and contentious nature; but as a true challenge as to whether or not former agricultural land could be developed and still return a net gain for Natural Capital. Using the NCPT will set the bar for subsequent development in the city.

How was the NCPT used?

The initial Langley SUE outline Masterplan was assessed with the NCPT in 2016. Afterwards subsequent updates of the Masterplan were also assessed to monitor progress towards Natural Capital net-gain. Assessments were undertaken both, by Birmingham City Council internally and by

¹ Birmingham Development Plan, https://www.birmingham.gov.uk/downloads/file/5433/adopted_birmingham_development_plan_2031, Policy GA5

² Birmingham Green Living Spaces Plan, https://www.birmingham.gov.uk/downloads/download/208/green_living_spaces_plan, Appendix 1

CEEP as a service. Further assessments are planned for 2018 on updated plans.

What were the NCPT findings and impact of the NCPT assessment?

The NCPT outcomes for the initial outline Masterplan in 2016 indicated significant losses to several ecosystem services including water quality regulation and global climate regulation (see table) – despite the ‘green look’ of the plan; but most significantly the loss of agricultural productivity - as expressed through harvested products.

Initial NCPT findings in 2016

Development Impact Score	
Average Per-Hectare	
Ecosystem Service	Adjusted Scores
1. Harvested Products	-5.4
2. Biodiversity	+0.1
3. Aesthetic Values	+0.6
4. Recreation	+0.2
5. Water Quality Regulation	-0.2
6. Flood Risk Regulation	-0.1
7. Air Quality Regulation	+0.0
8. Local Climate Regulation	+0.0
9. Global Climate Regulation	-1.7
10. Soil Contamination	+0.0
Development Impact Score	-6.5

These NCPT findings directly influenced the revision of the first Masterplan. Subsequently, Birmingham City Council also engaged a visiting Biophilic Cities Planning Masters Fellow from the University of Virginia in late 2016 to test different design options whilst keeping the housing target in place. It proved possible by adjusting the multi-functional nature of the landscape, the density of housing provision and adjusting accessibility, proximity and connectivity of the landscape to achieve the maximum housing number and return a marginal net gain for Natural Capital, after 25 years. A proof of concept.

Traditional, landscape planning and development has been driven by aesthetics and recreation, and some recognition of biodiversity. By applying the NCPT, the Council was able to demonstrate the net worth of multiple ecosystem services being delivered back by the same piece of land. This is what is meant by ‘working harder’; addressing more human needs through multifunctional green infrastructure being of greater net benefit.

Initial Masterplan in 2016



Source: Birmingham City Council

The negative views expressed by both local politicians and citizens have been somewhat mitigated by the application of the NCPT - to be able to demonstrate that the landscape left after 25 years has the potential to be delivering more ecosystem services than the original Green Belt - they had felt was sacrosanct.

Next steps and the future of the NCPT

It is planned to re-assess the new Masterplan with the NCPT later in 2018 to see if Natural Capital net-gain can be achieved; and at what level of housing and associated infrastructure.

Birmingham City Council is also planning to use the NCPT for future major developments in the city. This could be extended to smaller developments as well if additional funding becomes available.

The Council's feedback on the NCPT

Nick Grayson, Climate Change and Sustainability Manager at Birmingham City Council, says: "With the advent of the 25 Year Environment Plan, its commitment to net gain and the NPPF review (2018) - there is the real possibility of the NCPT providing that all important bridging device between national planning policy and the Government's environmental restoration ambitions - at the site scale."

Acknowledgements

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About the NCPT

The NCPT was released in March 2018. To access the tool, guidance, case studies and related services visit www.NCPTool.com or contact the tool developer Oliver Hölzinger directly: oliver.h.ceep@live.com.