




Defra LNP Case Study

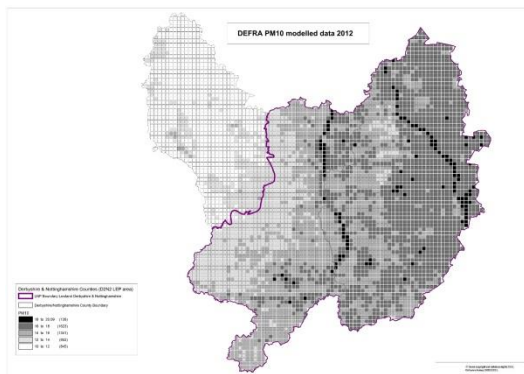
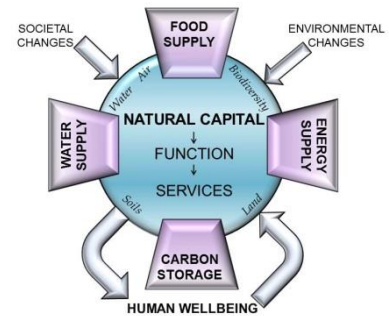
1) Natural Capital Baseline Assessment 2015

In 2015 the Lowland Derbyshire & Nottinghamshire LNP undertook a baseline assessment of all measurable components of Natural Capital within its area, in order to provide an evidence-base of the state of the environment across its region.

It was based on the approach taken by the UK Natural Capital Committee in subdividing the inland environment into eight major 'Asset' types (Freshwater, Atmosphere, Land, Soils, Sub-soils, Minerals, Species and Ecological Communities). Each type of Asset contains numerous individual 'Components'.

Its purpose was:

-  to enable the LNP to understand the environmental assets, challenges and opportunities within its region;
-  to provide a baseline to monitor and reveal changes in the quantity or quality of natural capital;
-  to act as an evidence-base to inform and support the LNP in development of its Strategy.



Air quality map showing particulate pollution modelling.

The work took 3 months to complete and was coordinated by staff from Derbyshire County Council, Toyota Manufacturing and the two LBAP Partnerships covering Lowland Derbyshire and Nottinghamshire. A master list was created of every potential and measurable component of Natural Capital, then each was assessed as to suitability and data availability. Information was also requested from a wide range of partner organisations and agencies and this resulted in the selection of a series of Natural Capital components

that could be readily measured or mapped and were capable of being re-measured and updated within reasonable timescales. Unfortunately, many major species datasets were ruled out as some surveys are unlikely to be repeated for a considerable time (e.g. county Floras).

The process helped the LNP understand and appreciate the types of data available, as well as any shortcomings. It also flagged up some desirable components for which no data were currently available, but which might be in the future (e.g. Dark Skies/Tranquility). Other measurable components (such as bedrock geology), which provide a superb understanding of what resources exist within a region, do not need to be monitored for change within such a short timeframe.

The task of data collation, cleaning and processing was more complex and time-consuming than initially expected. This was partly due to the fact that some datasets were held separately across two

counties, and this posed challenges for merging together into GIS. Other components, such as air quality, proved challenging to obtain in the first place, even in a simple map form.

The 2015 Baseline Assessment identified 72 components of Natural Capital which provide a good overview and understanding at that point in time of the state of the environment in the Lowland Derbyshire & Nottinghamshire LNP region. Of these, 42 components could be mapped spatially, be quantified, or otherwise have their quality described. However, within that subset, some 25 components were only available in a simple map format and could not be manipulated or measured using GIS tools.

Representatives from organisations such as the Environment Agency, Forestry Commission, British Geological Survey and County Councils who had supplied key datasets were asked to give presentations to the Lowland Derbyshire and Nottinghamshire LNP Board in March 2015. This provided an opportunity to hear about some of the key issues surrounding those assets from the experts themselves. Meanwhile, work continued to fully collate the datasets and to create an archive. This was completed in December 2015 and was supplied to the LNP’s ‘Natural Capital Working Group’ who now plan to make the assessment publically available once data licensing issues are fully resolved.

Table 4: Freshwater - Component quantity

Component	Measure	Unit of measure	Quantity in LNP
Surface water – Quality	WFD Overall Classification: Good, Moderate, Poor, Bad	Percentage or Km of rivers classified as Good	Good = 15% Moderate= 48% Poor= 36% Bad=1%
Surface water – Quantity	CAMS Resource Availability: Water Available for Licensing, Restricted Water Available for Licensing, Water Not Available for Licensing	Percentage of the area or rivers assessed as “Water Available”	See maps for different Winter/Summer scenarios
Groundwater – Quality	WFD Overall Classification: Good, Poor	Percentage of area of aquifers classified as Good	See maps
Groundwater - Quantity	CAMS Resource Availability (same as surfacewaters)	Same as surfacewater	Same as surfacewater
Total			

Example data table for one suite of Natural Capital components

The Natural Capital Assessment was a significant undertaking and has already proved invaluable. Not only is it now a baseline marker to the environment of the LNP area, but it has also allowed a number of issues and opportunities to come to the fore. Some simply resulted in minor improvements to individual datasets or identified gaps in our knowledge that we can address. Others, however, were important enough to be fed straight into a series of LNP strategy development workshops which were natural capital-themed. The Lowland Derbyshire and Nottinghamshire LNP is now keen to encourage local strategic planners to identify and enhance a broader range of natural capital components within their Local Plans. There was, initially, some raised expectation that the LNP might be willing to prepare and supply all these datasets to individual local authorities. Given their number and the very limited resources available to the LNP, however, this may be something it can only aspire to at the present time.