

increasing the supply of local nature reserves

John Box reports the findings of a recent survey of how the area of statutory local nature reserve per 1,000 residents has changed in 25 urban local authorities in England since 1993

Indicators of environmental quality and targets for enhancing and protecting biodiversity which include both wildlife and people can be powerful levers for change. A good example is the target for a minimum provision of 1 hectare of statutory local nature reserve (LNR) in towns and cities for every 1,000 residents.^{1,2}

Originally set out by John Box and Carolyn Harrison in an article in 1993 as one part of a set of targets for the provision of accessible open spaces in urban areas,³ this simple and appealing measure was formalised by English Nature in 1996 as one of the accessible natural greenspace standards (ANGSt) in towns and cities,^{1,4,5} and has since been taken up by Natural England, English Nature's successor. English Nature established the *Wildspace!* grants programme for LNRs in 2001, financed largely by a National Lottery award from the New Opportunities Fund (now

the Big Lottery) under its Green Spaces and Sustainable Communities programme. By the time the programme ended in October 2006, almost £7 million of *Wildspace!* grants had been spent to encourage more and better LNRs to be established by projects working for people, places and nature.⁶

The original 1993 article³ set out data from a sample of 25 urban local authorities in England whose provision of LNRs in 1993 ranged from 1 hectare of LNR for 889 residents (Canterbury) to 1 hectare of LNR for 170,500 residents (Camden). This baseline dataset has been updated with data on the number and area of LNRs in each of the 25 urban local authorities as of December 2006 (see Table 1). Inconsistencies in such LNR data depending on the source⁷ – the local authority or Natural England – would be resolved if there was a legal duty for Natural England to maintain a register of statutory LNRs and if a local authority had a legal duty to notify Natural England when an LNR was declared.

There are significant improvements in the supply of LNRs, with some local authorities achieving order-of-magnitude or even greater increases in the provision of LNRs over a period of little more than a decade (Barnet, Derby, Gloucester, Leicester, and Newcastle upon Tyne). Of these, Leicester City Council must be congratulated for increasing its LNR provision by a factor of 67, from 1 hectare for 135,300 residents in 1993 to 1 hectare for 2,014 residents in 2006. The provision of LNRs in Leeds merits a note because it has remained static since 1993 at 1 hectare for just over 1,100 residents. However, the total area of over 600 hectares of LNR in Leeds in 1993 was far ahead of almost every other local authority in England at that time and still remains exceptional.



Above

Blue Pool in Telford Town Park LNR

Table 1
Provision of local nature reserves in selected English urban local authority areas, 1993 and 2006

Local authority	1993			2006			Comments
	Population ^a	Total area of LNRs, hectares (number of LNRs) ^b	Population per hectare of LNR	Population ^c	Total area of LNRs, hectares (number of LNRs) ^d	Population per hectare of LNR	
Fewer than 1,000 residents per hectare of LNR (in 2006)							
Gloucester	91,800	4.3 (2)	21,349	109,885	169.5 (7)	648	Large improvement & achieved target
Canterbury	127,100	143 (3)	889	135,278	177.7 (10)	761	Improving & achieved target
Wakefield	306,300	313 (7)	979	315,172	401.5 (10)	785	Improving & achieved target
Norwich	120,700	52.5 (5)	2,299	121,550	136.2 (8)	892	Improving & achieved target
Stoke-on-Trent	244,800	82 (1)	2,985	240,636	246.4 (9)	977	Improving & achieved target
1,000-4,999 residents per hectare of LNR (in 2006)							
Dudley	300,400	181.7 (4)	1,653	305,155	274.6 (7)	1,111	Improving & target in sight
Leeds	674,400	605.4 (5)	1,114	715,402	613.0 (8)	1,167	Static, but huge total area of LNR in 1993 – target in sight
Sandwell	282,000	30.3 (2)	9,307	282,904	205.8 (9)	1,375	Large improvement
Coventry	292,500	48 (3)	6,094	300,848	216.7 (14)	1,388	Improving
Derby	214,000	9.3 (1)	23,011	221,708	143.2 (7)	1,548	Large improvement
Portsmouth	174,700	119 (1)	1,468	186,701	119.0 (1)	1,569	Getting worse
Plymouth	238,800	105 (5)	2,274	240,720	146.1 (7)	1,648	Improving
Peterborough	148,800	51.4 (2)	2,895	156,061	81.2 (5)	1,922	Improving
Barnet	283,000	4.9 (1)	57,755	314,564	158.5 (6)	1,985	Large improvement
Leicester	270,600	2 (1)	135,300	279,921	139.0 (7)	2,014	Large improvement
Newc'le u'n Tyne	263,000	8 (1)	32,875	259,936	113.0 (6)	2,300	Large improvement
Liverpool	448,300	21 (1)	21,348	439,473	134.1 (3)	3,277	Large improvement
Hereford	49,800	6.1 (2)	8,164	50,149	14.4 (3)	3,483	Improving
5,000-9,999 residents per hectare of LNR (in 2006)							
Haringey	187,300	36.2 (3)	5,174	216,507	32.6 (3)	6,641	Getting worse
Southwark	196,500	29.9 (1)	6,572	244,866	32.4 (4)	7,558	Getting worse
Birmingham	934,900	39.5 (4)	23,668	977,807	102.6 (7)	9,530	Large improvement
10,000-49,999 residents per hectare of LNR (in 2006)							
Southampton	194,400	14 (1)	13,886	217,445	14.0 (1)	15,532	Getting worse
Oxford	109,000	2.2 (2)	49,545	134,248	6.4 (3)	20,976	Improving
Islington	155,200	2.5 (1)	62,080	175,797	5.3 (3)	33,169	Improving
50,000 or more residents per hectare of LNR (in 2006)							
Camden	170,500	1 (1)	170,500	198,020	1.85 (4)	107,038	Improving

a Population data are preliminary 1991 Census figures (*Whitaker's Almanac*, 1993)

b LNR areas and numbers for April 1993 (English Nature data)

c Population data are 2001 Census figures

d LNR areas and numbers for December 2006 (local authority data)

For some local authorities, the population has increased but the area of LNRs has remained essentially unchanged, and the provision of LNR per thousand residents has therefore actually decreased (Haringey, Portsmouth, Southampton, and Southwark).

It makes sense for the LNRs in the area of a local authority to be set in a clear strategic framework. They are best seen as nodes in multi-functional green networks. This approach places them in a landscape context, values them as part of the environmental

resources of the county or district, and draws attention to their excellence as sites of nature conservation value.⁸ Reference to specific LNRs or potential LNRs in the relevant parts of the emerging local development frameworks will demonstrate a positive land use for these sites. This has important practical benefits by signalling to everyone that there is no potential for other land uses on these sites. Such a positive land use allocation helps to move away from the idea, particularly in urban areas, that nature conservation only occurs on land which has no other use or which no-one wants.

The challenge is for local authorities to turn areas like mown amenity grassland into more interesting and stimulating natural greenspace and to work with developers to incorporate accessible natural greenspace into new developments

Everyday contact with nature, which can be provided by green networks for wildlife – and for people – is important for well-being and quality of life.⁹ The provision of green networks and greenspaces by local authorities, particularly in urban and urban fringe areas, should make more use of the toolkit provided by the accessible natural greenspace standards (ANGSt) model,^{4,5} which includes the target of one hectare of statutory LNR for every 1,000 residents. Some may perhaps argue that there is no room for more LNRs or natural places in crowded urban areas. But why not create them? The challenge is for local authorities to turn areas like mown amenity grassland into more interesting and stimulating natural greenspace and to work with developers to incorporate accessible natural greenspace into new developments.

Biodiversity indicators and targets may appear rather theoretical until turned into realistic and specific local indicators and targets. The power of such indicators and targets to influence behaviour should not be underestimated. They are ideal for the initial stages of planning large-scale development at a regional or sub-regional scale which incorporates green networks and green infrastructure,² such as the 'Green Grid' network for East London and Thames Gateway.¹⁰

• **John Box** has been involved with LNRs for over 20 years. Although he works for Atkins in its Telford office, the views in this article are his own, and both the data and interpretation of the data are not derived from any project in which Atkins is involved. He can be contacted at john.box@btopenworld.com

Notes

- 1 *Local Nature Reserves: Places for People and Wildlife*. English Nature (now Natural England), 2004
- 2 *Biodiversity by Design – A Guide for Sustainable Communities*. Town and Country Planning Association, 2004
- 3 J.D. Box and C. Harrison: 'Natural spaces in urban places'. *Town & Country Planning*, 1993, Vol. 62, Sept., pp.231-235
- 4 *A Space for Nature*. English Nature (now Natural England), 1996
- 5 J. Handley *et al.*: *Accessible Natural Green Space Standards in Towns and Cities: A Review and Toolkit for their Implementation*. English Nature Research Report 526. English Nature (now Natural England), 2003
- 6 *Wildspace! – Waking You up to Wildlife*. English Nature (now Natural England), 2005
- 7 Data on the number and area of each LNR as at 31 December 2006 were obtained directly from each of the 25 local authorities. LNRs are a statutory designation (under section 21 of the National Parks and Access to the Countryside Act 1949). However, there is no complete list of LNRs in England as there is no legal requirement for a register of LNRs (unlike the requirement for registers of international conservation designations, SSSIs (sites of special scientific interest), listed buildings and scheduled ancient monuments). The comprehensive Multi Agency Geographic Information for the Countryside (MAGIC) web-based interactive map – at www.magic.gov.uk – and the Natural England Nature on the Map website – www.natureonthemap.org.uk – derive their data from the digital boundary dataset of LNRs maintained by Natural England. Natural England also provides access through its website to an LNR search engine – www.english-nature.org.uk/special/lnr/lnr_search.asp – and to a spreadsheet of LNRs which is currently the most complete and up-to-date record of LNRs in England. Neither database is quite complete because local authorities are not legally obliged to notify LNR declarations to Natural England, which is therefore forever striving to catch up. In addition, the recorded area of each LNR can vary between the local authority data and Natural England data, because not all local authorities use digital mapping and LNR boundaries may not be digitised against the large-scale and accurate Ordnance Survey MasterMap used by Natural England
- 8 G. Barker: *A Framework for the Future: Green Networks with Multiple Uses in and around Towns and Cities*. English Nature Research Report 256. English Nature (now Natural England), 1997
- 9 C.L.E. Rohde and A.D. Kendle: *Human Well-being, Natural Landscapes and Wildlife in Urban Areas: A Review*. English Nature Science 22. English Nature (now Natural England), 1997
- 10 W: www.thames-gateway.org.uk/projects-content.asp?id=160